



Tropentag, September 10-12, 2025, hybrid conference

“Reconcile land system changes
with planetary health”

Remote sensing and artificial intelligence application in agriculture

OUSMANE BADIANE

AKADEMIYA2063, Rwanda

Abstract

Digitalisation in general offers immense opportunities for African countries to overcome obstacles to advancing agrifood system transformation on multiple fronts. Whether it is about obstacles related to physical infrastructure, institutional setup, access to knowledge and technology, value chain integration, mitigation and adaptation to a changing climate, fighting against exclusion and vulnerability, or improving nutrition, etc.

While a lot is already happening on the ground in the areas of AgTech and FinTech, applications of remote sensing and artificial intelligence make it possible to take innovation to a whole new level through real-time data, increased granularity and frequency, and application to large geographical areas and various social, economic, and technological settings. The presentation will discuss emerging innovations and their application in the specific context of African countries.