

AGRA Impact Series

Shift from Paper to Mobile Technology Transforms Burkina Faso's Agricultural Data Collection Process



November 2020

The deployment of digital technologies to allow government administrators in Burkina Faso pivot away from a historically paper-based data collection process has brought a boost of efficiency to Burkina Faso's Directorate of Sectoral Statistics.

Supported by the Alliance for a Green Revolution in Africa (AGRA), a mobile-based questionnaire was developed and trialed to 10 percent of the 2020 Permanent Agricultural Survey (Enquête Permanente Agricole - EPA) respondents.

The EPA is an annual survey, whose findings help define the department's investment plans by identifying the prospects for agricultural production, determining the household food situation and estimating the effects of interventions on the living standards of agricultural households.

In the digital trial, AGRA supplied 800 tablets, together with several hundred smartphones, for a future-defining survey that cut down the data processing time by almost 50 days and reduced the expenses involved.

"Mobile data collection made quality data available in the least amount of time, while bringing about great cost savings," said Yassia Kindo, the Director General of Sectorial Studies

and Statistics (DGESS) of the Department in charge of Agriculture.

The important EPA survey has traditionally been conducted by distributing thousands of paper questionnaires to more than 880 villages across the country's 352 municipalities. In that system, it takes almost two months for the data to be made available for analysis, with hefty costs incurred where the completed questionnaires must be physically stored for future reference.

"The questionnaires are filled in often with errors, re-routed to the central level (Ouagadougou), where data entry teams work on them for a number of weeks, before they are then cleared for analysis over several more weeks," said Bazié Yves Gérard, the Director of Sectorial Statistics.

"The ordeal continues after the publication of the results because it is necessary to archive and keep the paper versions of the completed questionnaires," he added.

In comparison, electronic data collection has the benefit of shorter surveys, a reduction in material waste, and a lighter workload for enumerators, who do not have to manage bulky and destructible paper reams.

“The paper-based system comes with recurrent costs that increase the budget beyond questions of data quality, the need for prior automatic control and without taking into account the timing of the availability of this data in the context of high expectations,” said Kindo.

As a result of the efficiency brought about by digital data collection in the EPA process, this year the DGESS was ready to host the forecast committee for the food and nutritional situation ahead of schedule. This committee validates the prospects for agricultural output by assessing the current and projected food situation, the results of interventions and the support needs for the vulnerable.

Additionally, and following the success of the digital trial, the DGESS is now working with AGRA and the Regional Center for Mapping of Resources for Development (RCMRD) to set up a data warehouse to support future surveys and other data management tasks.

“We want to take advantage of the digital transformation to lead an effective strategic management of the structural transformation of the agricultural sector,” said AGRA’s country representative Jules Some, while quoting the resolutions of the 2019 Green Revolution Forum

in Africa (AGRF19) in Accra, Ghana.

At AGRF19, proper data management was cited among the key drivers of transformative change in Africa’s agricultural industry. This is following findings that agricultural investment planning and response relies heavily on the availability of comprehensive and accurate data.

