



An evaluation strategy for Ethiopia's Agricultural Transformation Agency

KEY MESSAGES

- ▶ An evaluation strategy for an agency mandated to transform the agricultural sector requires a comprehensive plan including the development of a theory of change to inform which indicators and mechanisms would lead to the desired impacts.
- ▶ Availability of quality data, through comprehensive primary data collection and data use systems, are the basis for evidence-based decision-making.
- ▶ Management information systems (MIS) can support in the processing and visualization of relevant data, but what lies behind these systems – namely, data quality, analysis, and purpose – is as important.

In 2020, the Ethiopian Agricultural Transformation Agency (ATA) (renamed in 2022 as Agricultural Transformation Institute [ATI]), tasked the Food and Agriculture Organization of the United Nations (FAO) to elaborate a proposal for a new evaluation strategy. This request, built on previous recommendations, derived from FAO's ten-year corporate evaluation of ATA (FAO, 2020) which highlighted the need for better recording project data and project costs and expanding opportunities for impact evaluation and research on key aspects of Ethiopian agriculture.

The goal of FAO's support to ATA was enabling ATA's evaluation capacity to rigorously examine and resolve questions of strategic importance to its program design, execution and scaleup over the next ten years. Specifically, FAO developed together with ATA an evaluation strategy and plan; produced guidelines for impact evaluations of agricultural interventions; and identified knowledge gaps in Ethiopia's agricultural sector, providing suggestions on how to address them in the context of ATA's impact evaluations. As part of these activities, FAO also expanded and improved the methodological approach utilized in ATA's corporate evaluation to undertake microeconomic analysis of ATA's impacts on household livelihood diversification and food security (Cordonnier, Covarrubias and de la O Campos, 2022).

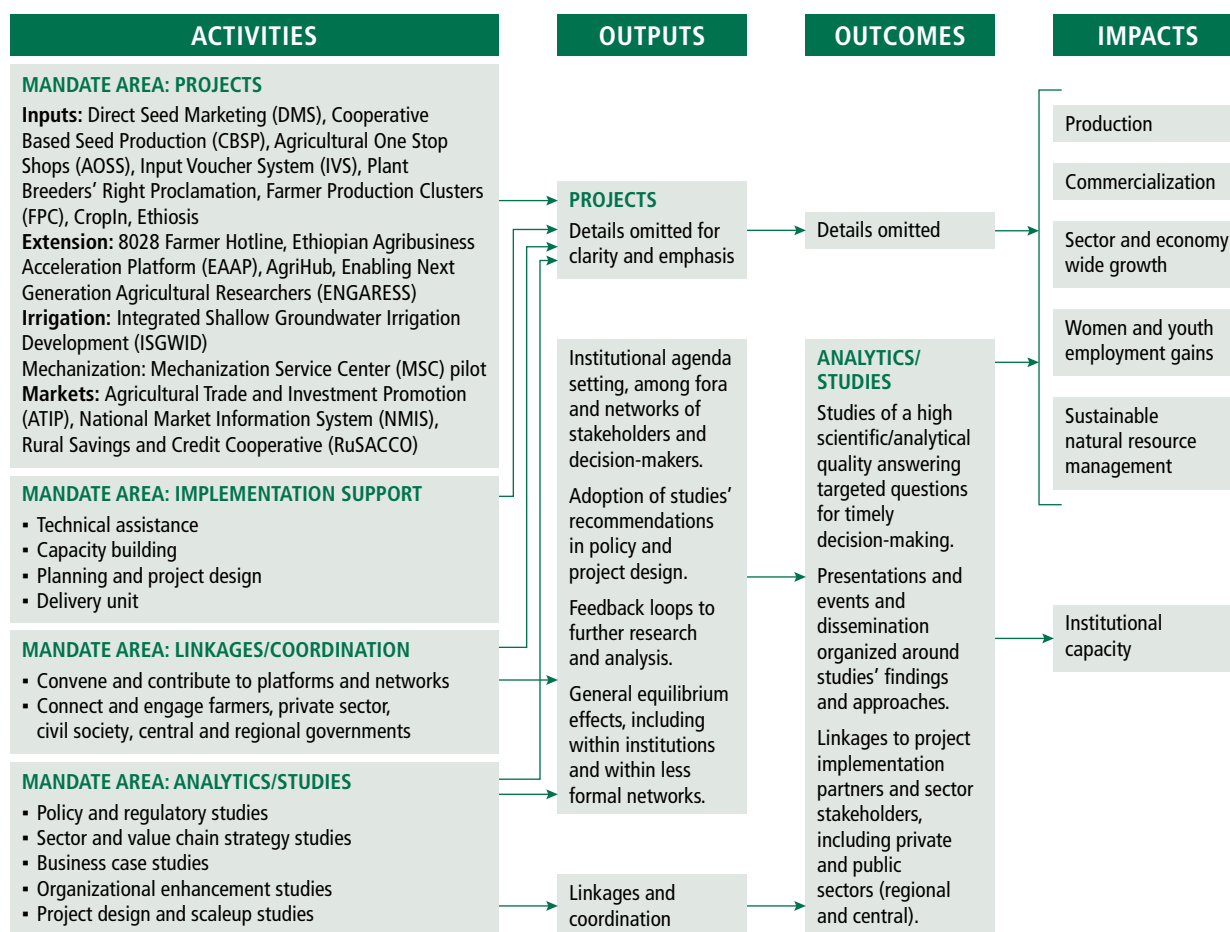
This document summarizes key findings and recommendations of the different aspects considered in the development of ATA's evaluation strategy and plan, which can be useful for other similar agencies.

The centrality of a theory of change for the Ethiopian Agricultural Transformation Agency

The goal of ATA's Evaluation Strategy was helping ATA identify and prioritize its highest-return investments. To reach this overall objective, the Strategy established plans for a comprehensive monitoring and evaluation system that included impact assessment and evaluation portfolios at ATA, and the upgrading of a streamlined monitoring and reporting system. This system considered actions ranging from data collection, data processing and analysis, and to a dashboard tool for decision-making.

The basis for such monitoring and evaluation system is a comprehensive, organization-wide theory of change (ToC) which would establish ATA's main goals in transforming Ethiopia's agriculture and lay out the mechanisms through which the agency envisaged to achieve such goals. Figure 1 showcases an example of such ToC, based on ATA's goals.

FIGURE 1 A THEORY OF CHANGE FOR THE ETHIOPIAN AGRICULTURAL TRANSFORMATION AGENCY



Source: FAO. 2022. *Evaluation strategy for the Ethiopian Agricultural Transformation Agency*. Unpublished.

Similar agencies seeking to assess their impact on the agricultural sector can adopt a single, comprehensive ToC, covering all activities that it implements, as well as the outputs, outcomes, and impacts that they aim to achieve. The ToC helps establish which indicators – based on desired outcomes – as well as research areas are of relevance to the agency's evaluation strategy and guide the design of a multi-year evaluation workplan covering all areas of its ToC.

Sourcing data for enabling comprehensive and accurate evaluations

High quality, comprehensive data – and when possible, representative of the population of interest – is the basis for implementing the evaluation strategy. Selecting the data of interest by ATA should first trace the pathways of its ToC and its key indicators. First, there needs to be an assessment of the data required for developing each indicator, assessing the scope and level of those indicators. Second, there needs to be an assessment of the availability of data and whether primary data collection is required and can be conducted.

ATA already has in place regular data collection systems at project level that could be leveraged for the purpose of assessing the agency's impacts. In addition to their primary data collection processes, ATA can take advantage of other secondary data sources including those collected by the Ethiopian Statistical Service (ESS). Project data informing on the effectiveness of project implementation, including georeferencing of key outputs of projects, and their cost, are also valuable sources of information. Finally, ATA also has access to several spatial data sources which can enhance the methods in which the agency assesses impact. Table 1 summarizes the multiple sources of data that ATA could use for assessing project implementation and project or programme impacts.

The process of data sourcing, and of primary data collection, requires that data repositories be organized in such a way that can be readily used for analysis and linked to each other. These can be organized both geographically and thematically, or in one way or the other. In terms of project data, ATA could systematically organize and tag all interventions and project activities by budget, timeframe, location, number and type of beneficiaries and theme. This disaggregated, relational database would allow the agency to develop pivot tables, cost analyses, heterogeneity, or thematic analysis of its impact.

TABLE 1 EXAMPLES OF DATA SOURCES THAT CAN BE USED TO MEASURE A THEORY OF CHANGE FOR THE ETHIOPIAN AGRICULTURAL TRANSFORMATION AGENCY

Types of data	Activities/outputs	Outcomes/impacts
Survey data		
Household/farm surveys (national)	×	×
Ad hoc (project) surveys	×	×
Project implementation		
Georeferenced project activities and structures	×	
Expenditure data	×	×
External institutional data		
Farmer registries	×	×
Official statistics	×	×
Non-traditional data sources		
Spatial data	×	×
Mobile phone data	×	×
Qualitative data		
Key informant interviews	×	×
Focus group discussions	×	×

Source: FAO. 2022. *Evaluation strategy for the Ethiopian Agricultural Transformation Agency*. Unpublished.

The existing comprehensive household survey in the areas of the Agricultural Commercialization Clusters (ACC) project, could serve as the basis for building panel data to monitor and assess progress of ACC and other initiatives within the realm of ACC. In addition, ATA collects data under the Farmer Production Cluster (FPC) which could be used as a complementary source in ATA's overall evaluation. Finally, ATA's Farmers' Hotline provides an opportunity to further collect data from farmers and assess impact of innovative designs in extension and early-warning provision.

Enhancing impact evaluations of agricultural interventions

As part of supporting internal capacity of the agency to conduct rigorous impact evaluation, FAO developed a technical guide to support capacity development efforts at ATA. The aims to add value to other available resources by focusing on the specific challenges posed by agricultural interventions. The guide highlights novel techniques in impact evaluation that are helping address some of the common challenges in quasi-experimental settings, including the use of remote sensing data and geospatial impact evaluation. The guide provides basic information to inform projects in their selection of impact evaluation methods.

It is important to note that the implementation of rigorous impact evaluations is vital in producing evidence-based policy related to ATA's projects. However, impact evaluations may not be relevant or feasible in all cases. These could be implemented in function of ATA's strategic priorities, current demand for rigorous evidence to pilot new innovations, for project scaleup, or on knowledge gaps identified as research priorities in the Ethiopian agricultural sector. In other cases, other evaluation approaches may be more appropriate.

ATA's evaluation portfolio could comprise different types of evaluations, and at three levels: at project level using rigorous impact evaluation methods; at thematic level, e.g. based on cross-cutting issues such as gender equality or environmental concerns; and at corporate level, where all evidence generated is brought together, and for which systematic data collection by ATA could be also leveraged.

The best time to begin planning an impact evaluation is at the project formulation stage. Once project preparation starts, collecting baseline data before the implementation of intervention(s) can serve not only for the purpose of impact evaluation, but also, to further inform project design. More detail provided by baseline data can drastically improve the mechanisms that would eventually produce the desired impacts, and thus, its effectiveness.

Leveraging the Ethiopian Agricultural Transformation Agency's evaluation strategy to boost research-based evidence

As part of FAO's support to ATA, the project reviewed existing micro-level research topics relevant to its mandate, pointing to current research trends and gaps. These included topics in line with ATA's results framework: agricultural extension, mechanization, modern inputs, and commercialization. Within these topics, cross cutting issues were also assessed, including poverty reduction, youth, gender equality, environmental sustainability, and nutrition. The review also assessed ATA's current operational and normative response when addressing these issues, pointing to remaining information gaps relevant to ATA. This is in view of supporting ATA to develop new innovations and schemes, and along that, evaluating both their impact and cost-effectiveness.

One of the main findings of FAO's assessment is the need for the different units at ATA, notably its analytics team and its monitoring and evaluation team, to work more closely, leveraging ATA's evaluation priorities for data collection, research, and analysis. Another important recommendation is that ATA could adopt an open data policy, particularly of recurrent surveys such as the ACC and FPC surveys, enabling more collaboration across different national and international research institutions and universities. These could maximize the use of these data investments while benefiting ATA's knowledge generation capacity.

Towards a comprehensive management information system

Management information system (MIS) can be thought of as an integrated digital platform whose purposes include storage of data for retrieval and access; processing and provision of data for evaluation analysis; and the visualization and communication of results to inform decision-making. These systems relay vital information and statistics related to both progress on outputs and to organization-wide activities. Different users, with different level of access and input and output capacities, should be considered, from field staff to central office executives.

ATA can devote further resources to streamlining its current Information Management Platform (IMP) and other monitoring systems, improving the workflow of reporting against its single ToC. This also requires further investments in human resources capacity into the production, improvement, and management of its data systems, including in consultation and collaboration with analytics and monitoring and evaluation units.

As part of these efforts, ATA could implement in the IMP system more concise data quality control procedures from its data collection, within the scope of budget and capacity constraints. An alternative to data quality internal investment would be to leverage on partnerships and agreements with external research institutions and universities. This would require, however, setting up a tight ATA-controlled data supply chain which would help ensure and set the standard for data quality among peer institutions in a coalition of agencies aiming for statistical precision – and robust data for evidence-based program design.

Consolidation of ATA's data architecture is also advisable, as fewer dashboards are better, so long as they are well organized to present project-level activity information, as well as the capacity to aggregate to showcase organization-wide impact measurements.

Finally, ATA could consolidate its evaluation system into an explicit management decision tool – with the different evaluation plans considered at the time of project design decisions and impact evaluation results integrated into project scale-up decisions.

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Sustainable markets, agribusiness and rural transformations (SMART)
Agrifood Economics Division – Economic and Social Development
SMART@fao.org

Food and Agriculture Organization of the United Nations
Rome, Italy

This brief has been prepared by Ana Paula de la O Campos, Matthew Fisher-Post, Katia Covarrubias, Victor Cordonnier, Thomas Assefa and Yeshwas Admasu Bogale (FAO Agrifood Economics Division, ESA).

The findings of this note are adapted from different documents and publications produced under project UTF/ETH/109, implemented by the FAO sustainable markets, agribusiness and rural transformations (SMART) team in support to the Ethiopian Agricultural Transformation Agency (now Institute [ATI]).



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