

SUPPORTING GHANA'S AGRICULTURAL MECHANIZATION PROGRAM TO BETTER MEET THE NEEDS OF SMALLHOLDER FARMERS

PIM OUTCOME NOTE

OCTOBER 2020

With support from PIM and USAID, researchers from IFPRI and CIMMYT together with Ghana government officials conducted a qualitative assessment of the Ghana Agricultural Mechanization Service Enterprise Centers (AMSECs) program. The recommendations from the study were used to improve the program's inclusiveness and efficiency.

With relatively large farm sizes and the labor force increasingly exiting from agriculture, Ghana is one of a few African countries where agricultural mechanization has recently undergone rapid development. Except for places in the forest zone where stumps are still an issue in fields, tractors have been widely adopted for plowing and maize shelling. Medium- and large-scale farmers who own tractors typically provide mechanization services to other farmers.

In 2007, to increase smallholders' access to machinery, the Government of Ghana established Agricultural Mechanization Service Enterprise Centers (AMSECs). These centers receive public subsidies to offer tractor hire services to small-scale farmers across the country.

In 2017-2018, with support from PIM and USAID, researchers from IFPRI and CIMMYT together with government officials from Ghana's Ministry of Food and Agriculture conducted a [qualitative assessment](#) of the AMSEC program. They found that smallholder farmers benefited from the AMSECs but faced constraints in accessing timely services, and that some of these constraints could be alleviated by adapting the services provided by the AMSECs. The assessment recommended that diverse sizes of machinery, including smaller tractors, should be promoted, and that centers should provide a more diverse set of tractor attachments (such as planters, boom sprayers, harvesters, shellers and threshers) to expand utilization rates by smallholder farmers. Another recommendation from the assessment was for AMSECs to include training and support for machine operation, maintenance, and repairs. Finally, a reform of mechanization subsidies was proposed to allow centers buying a small number of machines to become eligible and to extend subsidies to a wider array of machines.

Findings and recommendations from this study were shared with government officials in June 2018 at a round-table discussion held at IFPRI, which included cross-learning about mechanization practices in other African and Asian countries. In 2019, the recommendations were used by the government to improve the program's inclusiveness and efficiency.

Partners: International Food Policy Research Institute (IFPRI), International Maize and Wheat Improvement Center (CIMMYT), Ministry of Food and Agriculture of Ghana, USAID

Years: 2016-2019

Research Area: [Economywide Factors Affecting Agricultural Growth and Rural Transformation](#)

Geographic Focus: Ghana

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In addition to the study report, previous PIM outputs (see [here](#), [here](#), and [here](#)) also indirectly contributed to this outcome by raising awareness among Ghanaian government officials of IFPRI/CGIAR research related to agricultural mechanization and of mechanization programs in other countries.

Also see:

Diao, X., Agandin, J., Fang, P., Justice, S. E., Kufolalor, D. S., Takeshima, H. 2018. [Agricultural mechanization in Ghana: Insights from a recent field study](#). IFPRI Discussion Paper 1729. Washington, DC: International Food Policy Research Institute (IFPRI).

[Agricultural mechanization in Africa: Lessons learned from South-South knowledge exchange](#) (PIM Webinar, October 4, 2018)

[What's driving the growth of agricultural mechanization in Africa](#) (IFPRI Blog, December 20, 2017)

About PIM

Policies, Institutions, and Markets (PIM) is one of CGIAR's Global Integrating Programs, focused on addressing the policy, institutional, and market constraints to sustainable and equitable economic development and rural transformation. Such roadblocks include regulations restricting adoption of technologies by smallholder farmers, inefficient allocation of public resources, market failures or missing markets, weak property rights, restrictive gender norms and practices, and exposure of smallholders to shocks and risks. PIM aims to address these constraints through four main channels: global agenda setting, national policy support, program and market innovations, and capacity development.

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