Getting youth back to agriculture as service providers

Although two thirds of the Tanzanian workforce depend on agriculture for their livelihoods, the majority of farms are still reliant on unproductive manual farming methods. With an increase in the number of young people migrating in search of better opportunities and to escape farming by hand, a future with farming as a livelihood is becoming unlikely.

Mechanisation of small farms can create a large number of employment opportunities while increasing agricultural productivity and incomes on small farms.

In 2019, Alliance for Bioversity International & International Centre for Tropical Agriculture through the Pan Africa Bean Research Alliance (PABRA), in collaboration with Soybean Innovation Lab, Missouri State University trained 23 local artisans to fabricate Multi-Crop Threshers (MCT) in Tanzania.

Post successful completion one entrepreneur, Imara Tech, a youth-owned company based in Arusha, upgraded their single crop thresher prototype to a multi-crop version with capability of threshing up to eight staple grains including beans. MCT saves time and maintains grain quality (free from breakage and impurities compared to the hand threshing method or tractor), is portable and can be carried on a motorcycle, from farm to farm offering services during harvest season.

CHALLENGES AND RESULTS

Every year, Tanzanian smallholder farmers invest around 1.35 billion hours and US$ 28/ton to manually thresh their crops. What would it mean to those farmers if they can save 1.2 billion hours from this farming activity, while spending only US$ 15/ton?

In two years’ time, hard to reach farmers are now accessible to these threshers through youth owners who carry MCTs on motorbikes to provide threshing services during harvest season from farm to farm, while earning incomes up to US$ 3.93/hr or US$ 13.1/ton through threshing services. About 43% of thresher operators are youth below 35 years.

Women and children who were often involved in long hours threshing bean using sticks now have freed time for other economically productive activities and the children can attend school uninterrupted.

PARTNERSHIPS DELIVER INNOVATIONS

Pan Africa Bean Research Alliance (PABRA)
Alliance of Biodiversity International and International Center for Tropical Agriculture (CIAT)
Soybean Innovation Lab of the Missouri State University
Grains Legumes and Dry Land Cereals (GLDC)
Tropical legume III project, improving bean productivity and marketing in Africa

Tanzania is a country with 44M people under the age of 35. Mechanisations of small farms will not only improve the livelihoods smallholder farmers, but also creates thousands of jobs for rural youth who can deliver such mechanised services. PABRA has catalyzed youth-led enterprises in manufacturing and marketing MCTs and threshing services.

Launched in 2019, Imara Tech’s primary zone of operation was Arusha, Tanzania. The company has expanded its geographic scope of impact and spread across Tanzania with 20 agents (7 women) in Kilimanjaro and Manyara, Kagera and to other countries such as Burundi, Ethiopia, Zimbabwe, Zambia and Uganda.

In the two years since fabricating the Multi Crop Thresher (MCT), Imara Tech has manufactured and sold 430 MCTs in 17 Tanzanian districts, 10 threshers in Uganda and one in Burundi making a profit of US$ 297,964 (Tsh. 688,000,000). During the training, only, one artisan came from Imara Tech but currently the company is working with 10 artisans who are permanent employees and 40 more (2 women) who are out-sourced in other workshops in case they received an order of huge number of MTCs from buyers.

BROADER RELEVANCE

This innovation contributes to SDG 2 “End hunger, achieve food security and improved nutrition and promote sustainable agriculture”, SDG 1 “To end poverty in all its forms, everywhere”, SDG 5 “Achieve gender equality and empower all women and girls” and SDG 8 “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”.

As a Stage 4 and a Maturity level 3 innovation, these businesses have been taken up by users and are contributing to poverty reduction, livelihoods & jobs, gender equality, youth & social inclusion. Policy and/or practice changes influenced by these innovative business models have led to adoption or impacts at scale or beyond the direct CGIAR sphere of influence. Among others, this is evidenced by adoption and use of the multi-crop thresher that has significantly contributed towards closing the gender gap exhibited in farm activities, particularly in bean production.