



COMMUNITY HARVEST DAY

Improved post-harvesting skills increase families' food security



“Nowadays, I am harvesting 7 bags of maize per acre due to the application of good agronomic practices and proper post-harvest handling practices. Through the Community Harvest Day activity, I have started storing my crops using PICS bags. The knowledge that I have received has helped me and my family to reduce my crop loss by 80%.”

Zawadi Matongo, Farmer Group Member

Overview

Throughout Tanzania, farmers experience challenges with agricultural production, including the significant loss of yields post-harvest due to limited knowledge and skills on proper post-harvest handling and storage practices. Tanzania’s National Agriculture Policy and Agriculture Marketing Policy both acknowledge post-harvest loss as a critical problem in achieving food security. In Tanzania, studies have revealed that post-harvest losses account for 15% to 40% of crop loss, depending on crop type. For example, Abbas et al (2017) did a survey in the Dodoma and Manyara Regions of Tanzania, which found that 15% of loss happens in the field, 13% to 20% of loss happens during processing, and 15% to 25% of loss occurs during storage. With all these losses, farmers are negatively impacted by the decreased surplus available to sell in markets. The aforementioned Abbas survey results suggest that the farmers’ poor knowledge and skills on post-harvest management are largely responsible for these food losses.

Farmers in the Butiama District are of no exception when facing these challenges. To address these challenges, PCI has been working with the Butiama District Council since 2018 to implement a new approach on proper post-harvest handling and storage practices that is simple, adaptable and practical for smallholder farmers to adopt. Through PCI’s Chakula Chetu (translates to “our food”) program, PCI partnered with the Government of Tanzania (GoT) Agriculture Extension Officers to train 784 farmers from 34 program-supported farmer groups on proper post-harvest handling and storage techniques. These

techniques include the utilization of Purdue Improved Crop Storage (PICS) bags that prevent infestation during storage; ensuring harvests are properly dried in a clean environment before packaging; harvesting on time; sorting of harvest to remove any stones or other debris; and ensuring good storage at home. This post-harvest training approach is taught and implemented at the community level during Community Harvest Day (CHD) events.

“The Community Harvest Day approach is an innovative idea, which we would love to replicate in our other operation areas.”

Venance Ndunga, Farmer Group Member

Zawadi Matongo, a farmer group member from the Twimenye Farmer Group in the Busegwe Ward, stated that “previously, I only obtained 4 bags of maize per acre due to poor post-harvest handling techniques”. To increase her yields, Zawadi, together with other group members, was trained on awareness of the aflatoxin problem in cereals, utilization of PICS bag, how to get quality grain on farms, and how to maintain the quality of these grains at the first collection point. Prior to this approach, she had never heard of these techniques, and wasn't sure how to increase her outputs.

PCI's innovative CHD events bring together farmer group members, like Zawadi, to share best practices and showcase their successful

results from the adoption of improved post-harvest handling and storage practices. CHD events are implemented at the start of each harvest period for cereal crops (i.e. maize, sorghum, cassava), at a selected farmer group demonstration plot or individual plot, and invite a variety of stakeholders, including GoT Agriculture Extension Officers, Trade Officers, District Community Development Officers, business individuals, private companies, village leaders, and NGO agriculture experts.

This diverse team works with farmers to harvest, grade, weigh, and package yields, while giving technical support information to all participants. In addition to on-site technical assistance and peer-to-peer learning among the farmer group members, farmers use these CHD events to identify challenges they face and barriers to increasing yields and reducing post-harvest loss. Through this dynamic setting, they can more easily identify creative solutions to rectify problems they may face in the coming season.

Venance Ndunga, a Sales Manager from Chakula Chetu's local private sector partner at SEED.CO, who attended a CHD event mentioned, “We are happy as a seed company to be involved in such an interactive approach with different key stakeholders in the farming business. The Community Harvest Day approach is an innovative idea, which we would love to replicate in our other operation areas.”

Since PCI initiated the CHD approach, the Chakula Chetu program has

noted significant improvement in recorded harvests. Comparing harvests between the harvest seasons in March 2019 and March 2020, PCI found that farmer group members' yields almost doubled from 128 metric tons in 2019 to 218 metric tons in 2020. Additionally, PCI found the number of farmers who adapted and applied good practices in storage techniques and skills increased from 354 trained farmers in 2019 to 507 farmers in 2020. The proper post-harvest handling and storage practices adopted by the 507 farmers included the following: 3 farmers stored food in metal silos, 103 farmers used PICS bags, and 401 farmers stored their harvest in synthetic bags.

As this approach has transformed the lives of many program beneficiaries, CHDs are celebrated and welcomed events in the Butiama District. Zawadi is a great example of the drastic improvement in her own post-harvest handling skills and how it's helped her family reduce crop loss and increase her family's food security.

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