

Effective partnerships in the market system's approach to adapt and adopt Postharvest Management (PHM) solutions in Sub-Saharan Africa (SSA)

Over 20 % loss of all grain after harvest (FAO, 2013) contributes to poverty and food insecurity of many farming households in SSA. Despite the availability of many tested Post-Harvest Management (PHM) solutions promoted over the years, no broad adoption has so far happened. Thematic leaders on PHM showed that this scenario is mainly caused by limited awareness on PHM, single actor led interventions with limited private sector involvement, lack of coordination and coherence among stakeholders, and insufficient linkage the PHM problem to the existing policies. The projects "Postharvest Management in Sub-Saharan Africa" and "Grain Postharvest Loss Prevention" in Tanzania deployed the multi-sectoral and multi-actor led "*market systems approach*" to reverse the scenario. The projects implemented by Helvetas Swiss Intercooperation, in partnership with Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN), African Forum for Agricultural Advisory Services (AFAAS) and the Centre for Agricultural Extension and Rural Development (AGRIDEA) have reversed these worrying trends in Benin, Mozambique and Tanzania.

The projects achieved this by fostering the performance of the PHM market system, through facilitating exchange and collaboration between market players in the system. Through undertaking consultative processes among public and private market players, formal partnership agreements were signed on the modes of operation and the complimentary roles of the different actors within the PHM business promotion. Further, the project identified and trained local artisans and master trainers in different villages in the production of the metal silos, and quality control respectively. The agro-dealers contracted the trained local artisans to produce metal silos, which they sold or leased to farmers through their client networks.

To raise the interest of market players to invest in PHM, the project has created awareness on business opportunities in PHM, and assisted entrepreneurs to discover and establish a business cases. This was aided by undertaking farm validations, and cost-benefit and socio acceptability analyses of the different PHM solutions among the farm families, and subsequently informing the market players of the compelling results. Additionally, different financing modalities including saving groups, warrantage and cooperation with local banks were validated and promoted. The project elaborated dissemination materials and tools including posters, leaflets, factsheets and manuals on good PHM practices. These are increasingly being adapted and used by the RAS providers from farmer cooperatives, government agencies and the agro-dealers to further create demand for the PHM solutions. A cascaded training model, elaborated, adopted and used by the project offered a basis for training of trainers of RAS providers to equip them with the necessary knowledge to train farmers on PHM and provide them with the dissemination materials.

In broadly disseminating and raising awareness on the good PHM solutions, the project fostered innovative communication channels through extension services and media, including didactic videos, interactive radio programmes and online platforms. Additionally, weeks of action were held in which activities that combine live radio and television broadcasts, mobile fares, PHM video shows, live discussions, theatre performances and distribution of videos on PHM options. Similarly, local working groups (WG) were established, in which stakeholders gathered to share experiences and propose strategies to better intervening in PHM. These activities created an enabling environment

for the acceptance of the PHM technologies and practices. AFAAS disseminated information and knowledge on within national, regional (SSA) and global audiences to attain scale and sustainability.

Key results: a vibrant input supply and distribution networks for metal silos and hermetic bags were established in Tanzania, Benin and Mozambique; through training and deploying over 73 active local artisans, local production of metal silos was established and over 2,700 metal silos were sold to the farmers. In addition, according to an own survey, over 52,745 farming households directly adopted at least one improved PHM option. There was a 33% reduction in the number of food insecure households in the lean season, and households reported an additional income of over USD 90 per household from saved grain that was sold at higher prices. This approach has attracted interest from policy makers culminating in national strategies and by-laws on PHM being currently developed. There is a wide-scale interest and uptake of PHM solutions by other countries helped by the examples.

In conclusion; provided the market system is well supported by validated information and advisory services, existence of financial services, and provision of entrepreneurial skills to the agripreneurs, considerable gains can be made from PHM. The role of the agro-dealers should be to sell the PHM technologies while RAS facilitates the development of the market system. Experience collected shows that farmers are willing to pay for PHM technologies when a reasonable economic benefit is demonstrated. In contrast to momentarily subsidized inputs, this approach builds market links, jobs and knowledge pools while ensuring sustainability.