Among the smallholder farmers of developing economies, agricultural productivity and production are constrained by a limited access to productivity enhancing agri-innovations such as improved seed varieties. The development and strengthening of farmer-managed institutions/platforms provide alternative mechanisms to increase access to new agri-innovations, while addressing inclusivity and diversity among rural farming communities.

The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) has used this basic principle to leverage farmer-led technology and knowledge delivery systems to deliver agri-innovations such as the Community Seed Banks (CSBs) to small holder farmers. CSBs involve a seed delivery approach that enhances access to improved crop varieties by collectively managing production, storage and access following the traditional retail-banking principles of access to loan and repaying it with interest (twice the loan amount). This approach has been piloted in Malawi and scaled-out to Mozambique, Tanzania, and Zambia.

The availability of quality seeds of improved varieties has boosted farm productivity in the groundnut growing districts in Malawi, from 500 kg/ha to 1200 kg/ha, besides leading to rapid dissemination and adoption of improved varieties within the community.

Crops with limited propriety management systems for crops such as groundnut, sorghum, and millets are usually underinvested by the private sector, thereby making the mainstream access to such improved technologies far from the reach for many rural farming households. Today, in Malawi, the informal seed systems have accounted for up to 60% of seed accessed for under-invested crops. Collectively, 48,000 households were reached in Malawi within three years of implementation of CDBs that has continued to grow. This has contributed significantly to increased crop area under CGIAR bred improved groundnut to over 70% in Malawi. In Zambia, CSBs have been used since 2012 to promote improved varieties of pigeonpea and groundnut in its Eastern Province, the country's food basket. In Mozambique, a similar approach has been implemented since 2012 in food basket provinces of Tete, Zambézia, Monica and Nampula that has made Mozambique a leader in pigeonpea and groundnut production and international trade. In Tanzania, similar efforts have been made, especially in Southern and Central zones, thereby making it a leader in pigeonpea and groundnut production in East and Southern Africa. Hence, the development and strengthening of farmer-managed institutions/platforms are very effective and efficient technology dissemination mechanisms.

Overall, CSBs are informal, inclusive in design and function that are widely adaptable for smallholder agriculture across agroecological niches. These ensure seed availability at the right time at right prices, easy access and support rapid dissemination of improved varieties within the community.

**CHALLENGES AND RESULTS**

- Crops with limited proprietary management systems for crops such as groundnut, sorghum, and millets are usually underinvested by the private sector, thereby making the mainstream access to such improved technologies far from the reach for many rural farming households.
- CSBs involve a seed delivery approach that enhances access to improved crop varieties by collectively managing production, storage and access following the traditional retail-banking principles of access to loan and repaying it with interest (twice the loan amount).
- Since the past three years of launching and piloting this project in Malawi, 40,000 farmers have been reached through 200 CSBs. This expansion has contributed significantly to increase the crop area under CGIAR-bred improved groundnut seed to over 70% in Malawi.

**PARTNERSHIPS DELIVER INNOVATIONS**

- International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
- National Smallholder Farmers’ Association of Malawi (NASFAM), Ekwendeni Mission Hospital-Malawi,
- Tanzania Agricultural Research Organisation (TARI)
- Zambia Agricultural Research Institute (ZARI),
- Instituto de Investigación Agraria de Mozambique (IIAM),
- United States Agency for International Development (USAID),
- McKnight Foundation and Irish Aid (Malawi Seed Industry Development Project, Africa RISING)
- CGIAR Research Program on Grain Legumes and Dryland Cereals (CRP-GLDC)

**INNOVATION LAUNCH & COMMERCIALIZATION**

- Since the past three years of launching and piloting this project in Malawi, 40,000 farmers have been reached through 200 CSBs. This expansion has contributed significantly to increase the crop area under CGIAR-bred improved groundnut seed to over 70% in Malawi.

**BROADER RELEVANCE**

This innovation contributes to SDG 1 “To end poverty in all its forms, everywhere” SDG 2 “End hunger, achieve food security and improved nutrition and promote sustainable agriculture", SDG 3 “to ensure good health and well-being “. This seed management technique has been taken up by users, and is at Maturity Level 3, i.e., policy and/or practice changes influenced by these new methods have led to adoption or impacts at scale or beyond the direct CGIAR sphere of influence. This is evidenced by smallholder farmers being able to generate extra income from sale of seed and surplus produce, besides empowering them as seed growers who can be contracted by private seed companies or individual growers.

http://gldc.cgiar.org