

ETHIOPIA

Increasing yields and market integration

Rebuilding Livelihoods of (Agro) Pastoral Communities in Afar Region through Diversifying and Integrating Drought Resistant Food and Feed Crops



The once bare terrain of the project site at Chifra, now boasts of farms. Photo: T Amede, ICRISAT

ICRISAT in partnership with GIZ-Ethiopia, Woldia University and the Afar regional state started testing various rainwater management strategies. One of the interventions was using **water spreading weirs (WSWs)** to spread flood water out of the concentrated spillways into the degraded plains. The weirs reduced the velocity of the flood water and distributed it to the wider plains, thereby enhancing soil water infiltration. The captured water was then used for producing food and feed crops.

Following these investments, ICRISAT was tasked to convert this desert-like land into a productive area using dryland technologies. In partnership with local universities and research institutes, it developed **WSW-specific cropping system approaches** that identify, prioritize and integrate best agricultural practices that efficiently use flood water and improve the degraded land in Chifra.

<http://www.icrisat.org/case-of-the-afar-region-in-ethiopia-the-lone-green-patch-on-a-denuded-stretch/>

Scaling niche-specific Input delivery systems in the Ethiopian highlands (INiches)



A farmer in the Ethiopian highlands. Photo: Simret Yasabu

This project, which is in its 2nd year, has been working with GIZ and other partners to develop **location specific, farming system based fertilizer recommendation for the Ethiopian highlands**. A template to inventorize the available data on crop response to fertilizer applications in Ethiopia was developed. An attempt was made to collect data on various crops and soil types and use experimental data collected over several sites and seasons in Ethiopia to determine how crop response to both macronutrients and micronutrients was affected by management and inherent soil fertility.

<http://oar.icrisat.org/10363/1/Flyer%20on%20wheat%20based%20farming%20systems%20in%20Ethiopia.pdf>

Scaling-up Pulse Innovations for Food and Nutrition Security in Southern Ethiopia

This scaling-up project, jointly led by University of Saskatchewan, Canada and Hawassa University, Ethiopia, has been ongoing in the southern regions to **scale up best-bet technologies of chickpea and haricot bean with 70,000 farmers**. ICRISAT was sub-contracted to develop and test various scaling-up channels and technology diffusion pathways.

Outcomes of the project

- In most intervention districts, introducing chickpea as a double crop offered additional benefit to many farmers and helped them mitigate risk in case the preceding crop failed. According to a survey conducted by ICRISAT on chickpea production, **participating farmers in Sodo and Wolayita earn an average extra income of US\$ 127** (3,500 Birr) per annum. Farmers' adoption of chickpea made possible the utilization of slack labor and free land, paving the way for sustainable intensification. For severely land-constrained farmers, which is usually the case in southern Ethiopia, this has created access to land which otherwise would have been left idle after being utilized by cereals. In addition to the income effect, farmers also strongly appreciated the food and nutritional benefits of growing chickpea.

- Haricot bean and chickpea productivity has significantly increased in the intervention districts, compared to the control districts. **Farmers improved their chickpea yield from 1,000 to 3,200 kg/ha.** Thus, farmers' response to the varieties in project and surrounding districts is admirably high. There is excess demand for seed to the extent that market-oriented farmers took the initiative to allocate land and buy improved seed. Now most farmers recognize the pivotal role of seed and packages of practices in agricultural development. During our field visits and focus group discussions, farmers revealed their interest and shared their success with other farmers.
- In terms of coverage, there is outstanding progress towards reaching the project's milestones. In the agricultural component of the project alone, more than **51,000 farmers (about 30% women) have been directly reached.**
- The project has made **successful efforts to ensure a sustainable community-based seed production and delivery system.** The seed producing clusters are undertaking seed business for making profit. The profit motive could motivate those farmers to sustainably engage in seed production and participate in the delivery system. The price gap between pulse seed and grain is motivating farmers to focus on seed production. The project has also created market linkage and access to extension for seed producing farmers.
- The project paves the way towards **Integrated Seed Sector Development (ISSD):** Such an initiative links informal and formal seed systems; creates enabling environment for public and private sector involvement; and improves partnership among seed sector players e.g., farmers, seed enterprise.
- According to farmers' responses, the capacity development and awareness creation efforts helped farmers improve their Attitude, Knowledge and Practices (A-K-P). **The Agelgil radio program, broadcast by Farm Radio International in collaboration with Fana radio, had wide coverage** coupled with considerable impact on farmers' understanding of the agronomy and consumption of pulse crops.