Pulse champions and smart seed innovations boost farmers’ incomes and resilience

Cowpea and groundnut are considered ‘golden grains’ for many women farmers in West Africa, as they make decent money processing these pulse grains into oil or popular snacks, while the leaves are good fodder for their animals. Yet legume cultivation has been limited because of farmers’ poor access to good seeds and market opportunities. Small seed packs and farmer-centered seed innovation platforms have sparked a sustainable agricultural transformation in Africa and India.

“It all started with a small seed pack of a new improved cowpea variety the extension agent gave me for testing,” explains Ms Hadja Salame, a smallholder farmer from Dawakin Tofa, in Kano State, Nigeria.

Cowpea is a popular legume crop cultivated by smallholder farmers across West Africa. However, local varieties are often hit by insect attacks and diseases, and yields are pretty low. “I used to get a maximum of two bags (200 kg) of cowpea each year, which is barely enough to feed my family. With the new variety, I get five bags (500 kg), I produce more flour and the grain taste is superior too. It is good for my business,” adds Salame.

In the last few years, Salame has been processing cowpea in many local dishes like *accra*, *moi-moi* (steamed pudding) and *danwake* (dumpling) to support her family. Her signature dish, a mix of pasta and cowpea is a success for her street food clients. Discovering a new high-yielding cowpea variety has clearly transformed Salame’s life.

Local, participatory seed systems transform legume farming

Over the last twelve years, a pioneering legume research-for-development initiative called Tropical Legumes (TL) has produced more than 300 improved varieties of important legume crops (chickpea, groundnut, beans, cowpea, pigeonpea and soybean) across Africa and South Asia. These climate-resilient, disease- and pest-proof improved legumes (such as rosette disease resistant groundnut varieties Naliendele and Nachi recently released in Tanzania) outperform the local varieties farmers are used to growing, some as old as 40 years.

However, the impact of legume research has often been limited because most farmers could not access these improved seeds as legumes have been overlooked for years by the private seed sector. To reach out to farmers like Salame, the TL program’s work on building local sustainable seed systems with farmer groups has been a gamechanger.

TL uses farmer participatory breeding and varietal selection to design and test new legume varieties. This has enabled the research to integrate important farmer and market needs, like the importance of oil content of groundnut varieties for women’s groups in Nigeria or fast-cooking common bean for women in Eastern Africa. The most dynamic farmer groups were trained in quality legume seed production and connected to market opportunities. Women seed farmer groups like Asawaba Farms in Ghana are empowered as they Read more...