

Fighting malnutrition countrywide in Guatemala

Biofortified crops – crops conventionally bred to contain higher levels of essential nutrients, such as vitamin A, zinc, and iron - have enormous potential in reducing Guatemala's high incidence of malnutrition, the fourth in the world. Semilla Nueva is joining forces with the World Food Programme (WFP) and a coalition of local and international actors to scale biofortified corn and beans in the country, helping rural Guatemalan farmers find a path to better nutrition, lasting food security, and prosperity. The programme specifically aims to establish biofortified seed ventures and pilot industrial sale of biofortified grains by smallholder farmer associations to institutional buyers, to ultimately prevent chronic malnutrition.

DURATION: 2016-2018

CHALLENGE: Access to Basic Services

COUNTRY: Guatemala

PARTNER: Semilla Nueva



CONTEXT

Guatemala has the highest rate of malnutrition in the western hemisphere, and fourth highest in the world. Lack of a diverse diet and daily reliance on corn tortillas, a nutritionally poor staple, have contributed to this public health crisis: over half of children under age five in Guatemala are expected to experience stunted growth (low height for age).

Biofortified bean, rice, maize and wheat, staple foods in the Guatemalan diet, provide higher amounts of vitamin A, zinc, and iron that are essential to good health. They also produce higher yields in an environmentally friendly way. Since farmers know how to grow these traditional crops and women know how to prepare them, biofortification offers an effective and culturally appropriate solution to malnutrition. Biofortified crops can provide 30% to 80% of a woman or a child's daily needs of vitamin A, zinc and iron. Evidence is emerging on nutrition and health impact.

ACTION

Building on our previous collaboration with Semilla Nueva, and working closely with the World Food Programme (WFP), this initiative aims to overcome the biggest bottlenecks to scaling biofortified crops in Guatemala utilizing three strategies:

- The commercial availability of competitively yielding biofortified corn and beans seeds;
- The use of social marketing strategies instead of education campaigns to create consumer interest;
- The identification of new opportunities for scaling biofortified crops through bringing together seed production ventures, farmer associations, institutional buyers and other organizations.

The programme plans to strengthen the overall production chain of biofortified corn and beans with a particular focus on seeds sales. More specifically Semilla Nueva is going to:

- Provide training, inputs, starter seed and oversight to 60 farmers in 2017 and at least 80 in 2018 for the production of biofortified corn and bean seeds to ensure maximum quality standards and allow for government certification;
- Engage with smallholder farmers associations to ensure that biofortified seeds are widely available and efficiently promoted to farmers in order to consistently increase production and consumption;
- Coordinate with WFP the purchase and sale of industrial quantities of biofortified grains for government social programmes;
- Design a detailed 5-year business plan to identify market opportunities and existing extension services, and to optimise profitability and seed accessibility.

EXPECTED RESULTS

- Two seed ventures sell competitively yielding biofortified seeds and provide a source of income for smallholder farmers associations.
- 7,534 metric tons (Mt) of industrial quality biofortified corn and 930 Mt of industrial quality biofortified beans are produced by smallholder farmers by 2018.
- 588 Mt of industrial quality biofortified corn and 189 Mt of industrial quality biofortified beans are sold in 2017 and 2018 by three smallholder farmer associations to at least one commercial, governmental or institutional buyer.
- A strategic plan is designed to sustainably support and expand biofortification on a national basis.
- The consumption of biofortified corn and beans by farmers is considerably increased nearly 90,000 people regularly eat biofortified corn and over 40,000 eat biofortified beans, improving their nutritional status.

LONG-TERM STRATEGY

Combining the resources and expertise of both Semilla Nueva and WFP, this programme will pilot the commercial production and sale of biofortified seeds and grain in Guatemala. The strategic national plan should contribute to clarify the needs for a quick and sustainable adoption and scale up of biofortification in the country.