Context

- Vitamin A rich orange-fleshed sweetpotato (OFSP) is water efficient, matures rapidly and is harvested during the hunger months for household consumption and as animal fodder.
- Shortages of quality vines before the rainy season limit the contribution of OFSP to nutrition security.
- Simple gender-responsive conservation and multiplication of planting material (Triple S), and irrigation technologies are cost-effective ways of enhancing climate resilience of sweetpotato seed systems.

Approach

After successful tests of the 2 technologies in 4 African countries, the International Potato Center (CIP) set out to scale their adoption:

- **Triple S:** At harvest, healthy roots were selected and stored in dry sand. Two months before the rainy season, sprouted roots were planted in seed beds to produce vines for early planting, leading to early harvest and food availability.
- **Low-cost irrigation technologies** were used to irrigate the vines during the dry season.
- **Training** was given to partners in southern Ethiopia and Ghana on the benefits of the technologies and how to use them.
- The trainees in turn trained other farmers in **Triple S.** In Ethiopia, for example, each trainee trained at least 50 households who shared their knowledge with others at local farmer training centers.

Outcomes

1. **Triple S** has been disseminated in 9 African countries with gender-responsive training materials.
   - 980 trainers (34% women) and nearly 65,000 farmers (55% women) in Ethiopia and Ghana received training, and are training other farmers.

2. Using **Triple S**, farmers earn 14% more than using conventional methods.

3. In Ethiopia, **40-50 seed roots** can provide sufficient vines to produce 5 tons of OFSP, enough to meet a family’s annual vitamin A requirement.

4. Women valued **Triple S** for assuring an early supply of vines for planting, food and higher incomes by selling roots before the main harvest.

5. In Ethiopia, small-scale seed producers using low-cost pumps with integrated water harvesting:
   - Earned on average USD 8,300/ha, an increase of 121%
   - Were also able to stagger the production and supply of OFSP roots, increasing the value of sales throughout the season.

Future steps

- **Large scale dissemination** of **Triple S** and low-cost irrigation technologies in major sweetpotato production areas of Ethiopia and other African countries.
- **Incorporation** of the technologies into the course content of agricultural colleges in Ethiopia and Ghana.
- **Institutionalization** of the technologies to ensure government extension systems support their wide-scale dissemination to farming communities.

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