

Overview of Water Impact

Since 2014, SWFF has sourced innovations that decrease agricultural water consumption, reallocate water to the food value chain, increase water storage capacity, or address the problems of salt-water intrusion and soil salinity. This broad focus has been maintained across four open calls for innovation. In addition, SWFF innovators are helping farmers to create more stable livelihoods by cultivating drought-resistant crops and salt-tolerant crops in previously infertile areas, and reallocating water to the food value chain from a variety of sources. Farmers across the program have experienced yield increases in the 5%-186% range, reduced water consumption by 18.6 billion liters compared to traditional practices, reallocated 1.78 billion liters of water, and increased water storage capacity by 16.9 million liters.



40 INNOVATIONS: ● 22 WATER EFFICIENCY/PRODUCTIVITY ● 7 WATER REALLOCATION ● 4 SALINE CROPS
● 3 WATER STORAGE ● 2 DESALINATION ● 2 OTHER



Featured Innovator

ICU – PERU

Much of SWFF's water consumption reductions can be attributed to Rd. 3 Innovator ICU – Peru who offers Peruvian smallholder farmers an innovative technology that widely disseminates climate and irrigation information at an accessible cost. ICU – Peru has reached 28,600 end users, helped grow more than 532,000 tons of produce on nearly 25,000 hectares of land, and reduced water consumption by more than 15.9 billion liters with yield increases ranging from two to 52 percent. In their last year of the SWFF program, 2018, ICU – Peru achieved more than \$165,000 in technology sales representing 25 new equipment contracts with Peruvian producers.

During the SWFF site visit, it was found all 71 farmers that were interviewed felt at least one benefit from the innovation with 90% of interviewees citing receiving multiple benefits. Farmers noted time savings, significant reductions in water usage as well as more efficient fertilizer and pesticide use as some of the most noted benefits from using the climate information station. Seventy-six percent of respondents reported an increased crop yield averaging 10%-25% and 80% for sugarcane cultivation. Through market segmentation of users, ICU – Peru helped farmers think more about water efficiency and the need for technology to save water.

Featured Innovators

SKYFOX LTD

Over 75% of SWFF's volume of water reallocated to the food value chain can be attributed to Rd. 4 Innovator Skyfox Ltd, which offers smallholder farms an additional source of income from fish sales through aquaculture as well as an estimated 24% increase in crop yield from the nutrient rich water from their established and/or rehabilitated communal fish ponds. Skyfox Ltd has reallocated 1.3 billion liters of water to the food value chain, helped 13,207 rural households generate \$2.7 million in product sales on 1,150 hectares of farmland in Ghana, Guinea, Burkina Faso, and Sierra Leone.

Skyfox Ltd has increased the average annual income per farmer from \$150USD to \$238USD. After paying the lease fee, capital fee, and interest, customers are still able to make a net profit of \$8,080USD per pond where one pond is leased to 25 people and produces 20 tons of fish and produce per year.



CONSERVATION SOUTH AFRICA - MEAT NATURALLY (CSA - MNP)

CSA - MNP has reallocated over 394 million liters of water to the food value chain, helped 4,006 rural households, and generated more than \$1.8 million in livestock sales on more than 615,000 hectares of rangeland. In the final year of its SWFF award, 2018, CSA - MNP increased the average income per farmer from \$555 to \$3,000 through auction sales. This reflects market conditions and livestock improvements realized as a result of increased market access for hundreds of livestock owners, including first time sellers who were excluded from commercial sales.

CSA - MNP uses ecological science, a government job creation program, and market interest in sustainable meat to implement communal grazing systems that result in improved water and food availability.



HELPING INNOVATORS TO IMPROVE THEIR WATER/RESILIENCY IMPACT

As an accelerator, SWFF Technical Assistance Facility provides tailored technical assistance to individual innovators and has specifically supported innovators to improve their water/resiliency impacts in the following ways:

- Assisting all innovators with monitoring and evaluation support, thus improving data collection and collaboratively assessing how to secure more water for food
- Technical/engineering design services provided to three innovators to lower production costs or scale up and automate production facilities
- Market research to help an innovator design their product to integrate more easily into existing irrigation infrastructure