

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 8-97% range, saved over 1.9 billion liters of water, reallocated over 1.8 million liters of water, and increased water storage capacity by 105,000 liters.**



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

Featured Innovator

AYBAR ENGINEERING

Aybar Engineering sells a Broad Bed and Furrow Maker (BBM) which is used at sowing to drain excess water away from waterlogged soils, which are highly productive when drained. These soils comprise about 13 million hectares, yet only 25% are cropped due to waterlogging. The BBM not only increases productivity, but also allows farmers with ponds to store excess water for use during droughts or to increase the number of growing seasons in a year. Thus far, the BBM has been sold to over 246,000 farmers, increasing their wheat yields tremendously – from 0.5 tons to 3.8 tons per hectare.

During the SWFF site visit, a farmer of 15 years in Wolonkomi, Ethiopia, who paid 8.00 USD for the Aybar BBM had increased his yields from 0.6 t to 3 tons per hectare, increasing his income by 220 USD in every wheat season, while reducing the time needed to sow wheat from 8 to 2 days. He noted that he regularly lent his BBM to 4 other farmers every wheat season, as the extension agents had run out of the implement. Having built a pond to hold 15,000 liters of excess water from his land, he used the pond to irrigate an additional chickpea crop after his wheat crop was harvested.



Featured Innovators



AQYSTA

aQysta's Barsha pump is a low-cost pump powered by water flowing in a stream. This pump allows small-scale farmers to irrigate without having to use fuel or electricity. In communities throughout Nepal where elevation change makes pumping expensive or impossible, 286 households and 1464 users are now able to irrigate their crops. In 2017 the Nepali government will be subsidizing 200 additional pumps, ensuring that small-scale farmers can continue to benefit from increased water availability at a low-cost.

In communities such as Rakam, Nepal, farmers who previously only grew corn during the wet season are now planting vegetables for the first time in 400 years and selling 50% of the resulting harvest for income.



METAMETA

MetaMeta, partnered with SaltFarmTexel, has introduced salt-tolerant potatoes to Pakistani farmers, whose crops are lost with increasing regularity by floods and sea water intrusion. Their salt-tolerant potato crop has been grown by 331 smallholder farm households and 2112 users overall, saving over 75 million liters of water that would have otherwise been used to prepare the salt-affected soils and irrigate conventional potatoes.

Farmers have grown 145 tons of potatoes and achieved higher-than-conventional yields, ranging from 13-37 tons per hectare. Farmers in Punjab and Sindh sold 106 tons of potatoes at an estimated value of 13,000 USD, keeping the remainder as seed to grow next year's crop.

HELPING INNOVATORS TO IMPROVE THEIR WATER/RESILIENCY IMPACT

As an accelerator, SWFF provides tailored technical assistance to individual innovators. SWFF 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

PARTNER WITH US

Securing Water for Food

represents a multi-governmental partnership aimed at tackling one of the world's greatest challenges – water and food security. To reach our goal, we seek connections and strategic relationships that help our innovators test, implement, and scale water-for-food solutions.

Interested in partnership opportunities? Contact securingwaterforfood@gmail.com.

