

# W4EE success stories: Water for productive use

## KEY SUCCESSSES

- + Increased productivity and vegetation cover through innovative farming systems and use of low-cost, simple technologies
- + Establishment of 98 water points linked to agriculture and livestock
- + Training of 4 commercial nursery out-growers & 6 technicians including government officials on nursery creation. Nursery out-growers received business plan development support and mentoring.
- + Distribution of +19,750 seedlings to 2,825 households and 13 forest interest groups
- + Field exposure visit to Uganda to learn about soil water conservation and wetland management and to Ethiopia for animal husbandry
- + Improved access to water for livestock through sub-surface and earth dams (hafir and charco dams)

## Learning by doing: Role models and demonstrations effect change

Where others have failed, W4EE seems to have succeeded in ensuring that pastoralists and fruit/vegetable farmers can sustain the momentum gained over the course of the project. The reason is simple. While beneficiaries do receive inputs such as water treadle pumps and seeds, more important are the skills they learn through mentoring and demonstrations to continue working without support.

In the area of vegetable production, W4EE contracted private sector agro-tech specialists from South Sudan, Premium Agro Consult Ltd., to work side-by-side getting their hands dirty in the field with selected 'model farmers' over several months. Training covers everything from land preparation, nursery creation, planting, and crop management to marketing strategies, value addition, and business development. The aim is create role models for others to follow.

To increase land acreage for food production, ox ploughs were also introduced for demonstration. Farmers had their oxen trained and themselves became trainers. Plan International, for example, contracted W4EE model farmer Andrea Loteng in Kapoeta to train their beneficiaries on ox traction. He has achieved year-round cultivation due to the motorised pump he received for irrigation and skills he learned through the hands-on mentoring programme. Six farmers have received motorised pumps and plans are underway to pilot two drip irrigation systems.

14,985

Number of people accessing new water points for agriculture and livestock

940

Number of households cultivating and marketing horticultural products

148

Number of farmers trained

"I see big changes! I can pay my children's school fees. I'm planning for the future and thinking how I can expand. I know from what I have already gotten, what I am going to earn, and how I can reinvest to grow. I am really confident I have the skills now to keep this going and to show others how to do this."

**Erwa Joseph, Torit model farmer mentored by agro-technicians**



Farm demos bring together different stakeholders - other farmers, the local community, government, business partners - who can take from the knowledge shared and expand on it. Pictured here: Erwa Joseph's demo day. Following the demo, there has been a remarkable drop in prices from 200SSP to 150SSP per kilo making it affordable for customers while allowing the farmer to remain profitable. Fewer tomatoes are being imported from Uganda. Erwa's farm has created permanent jobs for three youths and casual labour on demand. His work also contributes to the success of water and farm services centres as he has been purchasing plant nutrients and pesticides.

### "How do they get such healthy looking cattle?"

Due to the arid climate that limits agricultural production, livestock trade is a main source of income in Kapoeta. But much of the cattle being traded is undernourished, bringing poor sales for owners. In a first phase of training to turn this situation around, a group of pastoralists were taken to rural Ethiopia with a similar environment to see how fellow livestock handlers fatten animals using fodder crops transplanted to their homes. Following a feasibility study, a livestock feeding/fattening centre, which includes a nursery for fodder crops, was established in Kapoeta North as a pilot – the first of its kind. A committee of 25 community members manages the facility, which they helped to construct. The group also received training on animal husbandry and raising and managing a seedling nursery for fodder production. Seeing how successful their counterparts have been at fattening livestock in Ethiopia, Kapoeta pastoralists are now initiating this in their own environment.



*A simple but effective solution to improving livestock traders' livelihoods was the installation of a water facility and safe-holding ground for the animal market in Kapoeta. Previously, traders were hesitant to bring livestock to market due to the lack of water, but with the establishment of this facility, trading will increase benefitting both the livestock owners and the local municipality, which will see increased revenues from taxes.*

People think the South Sudanese have no capacity until you do a project like this and then you see we do have ability and skills ... Many donors emphasise workshops and handouts but learning by example is critical. People want to see that it works. Go to the grassroots and build on what they are already doing. We also need to emphasise a business mentality, whereby people do for themselves, rather than aid which results in dependency.

**Alier B. Ngong Oka, Undersecretary, National Ministry of Water Resources & Irrigation**



In order to provide communities with adequate water for agriculture and livestock, W4EE has constructed sustainable water infrastructure to facilitate harvesting of surface run-off water. In Kapoeta State, a haffir, or earth dam, has been constructed along with three charco dams, two small water distribution systems, and one sub-surface dam. Lessons learned from water harvesting facilities in Kapoeta include (1) haffirs are high investments and can be complicated for communities to maintain as they have a large open surface and the evaporation rate is high. (2) Charco dams are smaller and better suited to watershed areas where they can be dug in a cascading manner. They are also more affordable and easier to maintain although they too have a high evaporation rate. (3) Sub-surface dams in sand rivers are good as there is limited evaporation and the water is filtered through the sand into the shallow wells on the river bank. They are easy to maintain and get recharged if it rains in the mountains as the water flows into the dam. Pictured here is one of two shallow wells in Loyitan that serve 2,500 people and provides water for livestock in the dry season. W4EE also provided 81 treadle and 6 motorised pumps to extract water for vegetable production in the dry season.



*On the left: dam (7600M<sup>3</sup>) wall and connecting pipes. On the right: pipe that connects to the well above.*

