

## Small, micro irrigation: way out for unreliable rain-fed agriculture

A majority of rural Ethiopian households depends on rain-fed agriculture, characterized by uncertainty due to erratic rainfall, and high variability of onset and cessation of the rainy season. The challenge is most severe for households under the Productive Safety Net Program (PSNP) whose livelihood depends on subsistence farming. Livelihoods for Resilience works with PSNP households increase productivity while diversifying livelihoods options.

To reduce dependence on rain-fed agriculture, the project works with [iDE](#) to promote low-cost and affordable irrigation technologies such as the rope and washer pump. Such technologies allow households to engage in micro irrigation activities so that they can diversify production, decrease risk, and generate income throughout the year. iDE uses market-based approaches for the manufacture, sales and service of the pumps and promotes the technologies and practices through practical demonstrations at Farmer Training Centers, through model farmers, and directly to VESAs.<sup>1</sup> The recruit Community Marketing Agents (CMAs)<sup>2</sup> locally to act as sales agents and service providers.



One of the 20 successful test wells installed by the project. © iDE 2019

Despite a relatively high investment cost for well drilling and pump purchase at the beginning, a micro-irrigation scheme has tremendous long-term benefits for owners. A household needs to invest about 6,000 birr to drill a well and purchase the technology. In return, the family can harvest nutritious fruits and vegetables up to three times a year, increasing income and improving diets.

iDE first mapped hydrology in all 27 project woredas to identify high potential sites for irrigation from ground or surface water. This mapping was used to identify areas for test well drilling and indicated the types of pumps that introduce in each location.

The project has prepared a strategy for promoting the irrigation technology including plans for manufacturing, distribution, demand-creation, sales and service to serve the high potential areas. The project has trained 28 youth entrepreneurs on manual well drilling techniques on topics such as well drilling, well trouble shooting, and pump installation, providing a new source of income for an otherwise underemployed group. The youth will cascade the training to target households with project follow up. The trained drillers will be grouped into enterprises with a legal entity and license so that they can continue to support over PSNP households in the coming years.



<sup>1</sup> VESA is a group with members from 15-25 households, brought together by the project to facilitate various intervention. The members of a VESA are self-selected groups of neighbors and peers and include both men and women. In some cases CMAs are members of the VESA.

<sup>2</sup> The CMAs could be members of a VESA with good sales and marketing skills.