

DM2009 Project Summary

Project Number: 5075 Booth Number: 94

Clay-Pot Microirrigation System for Food Security in a Dry Highland Village

COUNTRY: Ethiopia

ORGANIZATION: The Institute of Arctic and Alpine Research (INSTAAR), University of Colorado-Boulder

FUNDING REQUEST: \$199,730

OBJECTIVE: To protect rural communities from food insecurity and famine related to climate change. The project will enable subsistence farmers to increase the diversity and quantity of their household food production. They will produce marketable produce such as spices and fruits, as well as vegetables for their families. About 200 subsistence farmers who will participate in the project will increase their income by 30 percent.

RATIONALE: Climate change will worsen the problem of food security in many developing countries. Adaptation to climate change includes infrastructure improvements, introduction of efficient and inexpensive technologies, and the delivery of weather analysis. Water harvesting combined with conservation through subsurface irrigation using clay pots is an effective, affordable, and environmentally sustainable way to help local farmers combat climate-induced food insecurity.

INNOVATION: Subsurface clay-pot irrigation overcomes water and steep-terrain limitations that otherwise preclude irrigating crops in many dry highlands. Subsurface irrigation is also more efficient than other forms of irrigation. For example, compared to conventional surface methods, it saves 70 percent of the water required to grow tomatoes, cabbages, and onions. Its efficiency, inexpensiveness, local availability, usefulness in diverse terrains, and acceptance among local farmers make the process an innovation. The easy availability of clay pots in the local market will help readily spread the innovation to neighboring villages.

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