



*This project  
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## **Water Resources Management of Agro-Ecosystems in the South Caucasus** (ref. SFP-982227)

Starting in April 2007, scientists from Armenia, Azerbaijan, Georgia and the United States have cooperated in a study of the management of water resources available for agriculture in the area bounded by the three South Caucasus states. The overall goal is to enhance the security of the transboundary region by enhancing the long-term sustainability of the agricultural systems through improvement of the current irrigation systems. The project includes the demonstration of state-of-the-art irrigation techniques and the development of more accurate methods for estimating water use. At the start of the project, a 6.5 ha demonstration plot with a 4.5 ha drip irrigation scheme and 1.5 ha traditional flood irrigation scheme was established in Marneuli, Georgia. During the summer of 2007, several agricultural crops, including tomatoes, bell peppers, eggplants, mini-corn, beets and onions, were grown using both the improved and traditional irrigation systems. The drip irrigation scheme resulted in yields that are 4 to 5 times higher than the yields obtained with traditional irrigation. Water savings of up to 4 to 5 times have also been achieved. In the coming months, field experiments will be conducted and automated weather stations will be installed in Georgia, Armenia, and Azerbaijan. There has been much interest shown by local producers in purchasing drip irrigation systems and improved crop varieties. The researchers also expect the establishment of a South Caucasus Scientific Research, Information and Extension Centre for end-users in Georgia, Armenia, and Azerbaijan.

This project is included in the portfolio of the [Environment and Security \(ENVSEC\) Initiative](#), under which activities of six international organizations are coordinated.

### **Project Co-Directors:**

Prof. Gerrit Hoogenboom, University of Georgia, Griffin, GA, USA (NPD)

Prof. Konstantine Bziava, Georgian State Agricultural Univ., Tbilisi, Georgia (PPD)

Dr. Gurgen Yeghiazaryan, Water Resource Use & Manag. Center, Yerevan, Armenia

Dr. Rafiq Verdiyev, Assoc. on Intl. Hydrological Programme, Baku, Azerbaijan

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**Duration:** 3 years; expected completion by 20 April 2010



Prof. Tamaz Odilavadze (right) introduces the main lines of the drip irrigation system to local female farmers and other stakeholders (photo << owned by Project Co-Directors).