

Title: Achievement of Sustainable Groundwater Exploitation through the Introduction of Water-Efficient Usage Techniques in Fish Farms

L. Tadevosyan, N. Mirzoyan, A. Yeritsyan, N. Avetisyan

International Center for Agribusiness Research and Education, Yerevan, Armenia

Abstract- Due to high quality, the artesian groundwater is the main source of water supply for the fisheries in Ararat Valley, Armenia. From 1.6 billion m^3 abstracted groundwater in 2016, half was used by fish farms. Yet, the inefficient water use, typical for low-intensity aquaculture systems in Ararat Valley, has become a key environmental issue in Armenia. In addition to excessive pure groundwater exploitation, which along with other sectors of groundwater use in this area resulted in the reduction of artesian zone by approximately 67% during last 20 years, the negative environmental impact of these productions is magnified by the discharge of large volumes of wastewater into receiving water bodies. In turn, unsustainable use of artesian groundwater in Ararat Valley along with increasingly strict policy measures on water use had a devastating impact on small and/or medium scale aquaculture: over the last two years approximately 100 fish farms have permanently seized their operations. The current project aims at the introduction of efficient and environmentally friendly fish farming practices (e.g., Recirculating Aquaculture Systems) in Ararat Valley fisheries in order to support current levels of fish production and simultaneously reduce the negative environmental pressure of aquaculture facilities in Armenia. Economic and environmental analysis of current small and medium scale operational systems and subsequently developed environmentally–friendly and economically sustainable system configurations will be presented.

Keywords – aquaculture, groundwater, recirculation, sustainability, efficiency.

Biography

L. Tadevosyan a Master's degree in Economics from Armenian National Agrarian University and received a graduate certificate in Agribusiness from Texas A&M University for successful completion of Master of Agribusiness (MAB) program of ICARE/ATC. She has more than 8 years of working experience in business advisory and consulting sector. Currently she is working as a project coordinator of Sustainable Fisheries for Enhanced Water Resources in Armenia (USAID Partnerships for Enhanced Engagement in Research) project at the ICARE foundation.

Presenting author details
Full name: Lusine Tadevosyan
Contact number:+37455 04 05 41,
E-mail address: lusine_tadevosyan@yahoo.com, lusinet@icare.am
Twitter account: N/A
Linked In account: https://www.linkedin.com/in/lusine-tadevosyan-cmce-76b20456/
Session name/ number: Session 1
Category: Oral Presentation