REHABILITATION OF AGRICULTURAL LANDS THOUGH APPLICATION OF BIOLOGICAL PONDS FOR DOMESTIC WASTEWATER TREATMENT IN PARAKAR COMMUNITY OF ARMAVIR REGION

Country: Republic of Armenia
Client: Parakar’s “Barekargum” directorate
Duration: March – June 2010

Brief description of project and services provided

Within the framework of the project sewerage system of Parakar community was studied, the place of the household wastewater treatment plant and the process technology was selected and the detailed design was developed. In particular:

- selection of wastewater collector route and implementation of hydraulic and technological calculations, development of detailed design, development of design of screen, deep-well pumping station, selection of deep-well pumps, design of automatic control system of their operation,
- development of design for air blowing and air distribution system, selection of air blowers, design of automatic control system of their operation,
- selection of biological treatment technology process, as a result of which treatment technology in artificially aerated engineering lagoons was proposed,
- technological calculations and development of working drawings for wastewater treatment structures – aerated biological lagoons,
- environmental and social studies and assessment, including positive and negative impacts of the project on water and land resources, food safety and human health,
- EIA and development of environmental management plan, which includes the following 3 phases.
  ✓ mitigation measures,
  ✓ monitoring and evaluation,
  ✓ plan review based on monitoring and evaluation results.

The developed detailed design was subjected to technical and environmental expert examination.

Project objective:

Improvement of sanitary condition, reduction of underground water pollution, rehabilitation of degraded agricultural lands, providing sustainable use of agricultural lands, food security for the population, providing irrigation of new lands.