



BULGARIA

Developing a Model for Sustainable Water and Waste Management for Rural Areas in Bulgaria

Project Summary and Scope

The Earth Forever Foundation has implemented the project in two villages in the municipality of Stara Zagora. All stakeholders (representatives of the government and the local government, experts, young people, villagers, NGOs etc.) participated in a forum to discuss practical issues in relation to the rural water supply, sanitation and solid waste management. The Bulgarian local authorities have developed principles of multi-stakeholder (democratic) informed strategic planning, to be endorsed by the appropriate national authorities as operational guidelines and to serve as a tool to:

- make and implement choices for the sustainable management of water and waste streams in rural areas; and
- provide environmental protection.

The project aims to provide a forum for the sharing of experiences and concerns and for seeking solutions to pressing problems — such as the protection of drinking water sources, the provision of safe domestic sewage facilities, and the safe treatment of wastewater — to be tested in pilot projects in selected villages.

Best Practices

- Urine-diverting, low-flush toilets to completely remove from the water cycle nutrients, bacteria, viruses and eggs from excreta.
- Household-based planted soil filters and/or constructed wetlands for safe human waste and wastewater treatment respectively.
- The use of safe, natural fertilisers (including phosphorous) and soil conditioners.
- The safe re-use of resources (nutrients and water) for agriculture.
- Improvements in living conditions (families receive comfortable, clean, warm indoor or adjacent toilets).

INVESTMENT

The MATRA programme of the Government of the Netherlands **USD 534,204**

The project was implemented with partners from the Netherlands and Belgium, with the lead role taken by Women in Europe for a Common Future (WECF). The Earth Forever Foundation was responsible only for the implementation of part of the project in Stara Zagora municipality, Bulgaria.

PROJECT DURATION

2005–2007

NUTRIENT CHALLENGES

- Increased content of nitrates and nitrites in groundwater
- The eutrophication of fresh water

EARLY NUTRIENT BMP “WINS”

- The full exclusion from the water cycle of nutrients from human waste and wastewater



Other Key Successes

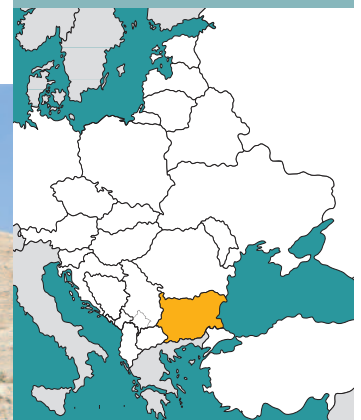
- Pilot facilities (private and public) in four rural communities have demonstrated that the potential is very high to address the 99 percent of rural households in Bulgaria that need to make serious investments to comply with the Water Act concerning human waste and wastewater management. The technological potential of the low-flush urine-diverting toilets will help address this issue, meet the requirements of the EU Urban Waste Water Treatment Directive for settlements smaller than 10,000 p.e., and support the implementation of the Water Framework Directive.

Key BMP Indicators

- Awareness raising in the project communities on health issues connected with untreated human excreta and wastewater, especially among women and young people.
- The introduction of pilot new technologies and the building of local capacity to duplicate the pilot projects — for example, urine-diverting toilets, planted soil filters and small-scale constructed wetlands.
- Building demand and developing a market niche for nature-based technologies for excreta management and wastewater treatment in project communities.
- The dissemination of information and knowledge building on composting and the safe re-use of nutrients and water in project communities.

Further Information

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About the Living Water Exchange

The Living Water Exchange, a GEF/UNDP project promoting nutrient reduction best practices in Central and Eastern Europe, will share information and accelerate the replication of the most appropriate nutrient reduction practices developed from GEF and other investments in the region.

For more information, please visit <http://nutrient-bestpractices.iwlearn.org/> or email Chuck Chaitovitz chuck@gef.org