

## REGIONAL PRIORITY GOAL 1

Reducing gastrointestinal disorders with safer water and adequate sanitation.



Above: 2 photos from Armenia



Left: Bulgaria

Bottom: Romania



## ECOLOGICAL SANITATION IN RURAL ARMENIA

Elena Manvelyan from the Armenian Women for Health and Healthy Environment (AWHHE) describes their project.

**With 14000 children dying of water borne diseases in the Eastern European, Caucasus and Central Asia (EECCA) region, addressing the problem of lack of hygiene and safe sanitation is crucial. Prevention of pollution and disease caused by human excreta and improvement of children's health is a challenge in communities where no sewage exists. Dry urine diverting toilets seem to provide the best alternative for these region, they are safer and cleaner than pit latrines, and are less expensive to maintain than septic tank systems.**

To address the common problem of inadequate school sanitation in rural areas and the absence of an adequate sewage system, the village Hayanist has been chosen for an "ecosan" project. This village in the Masis district of Ararat province has 2440 inhabitants and over 900 households. 90% of them are refugees.

The status of people's health in Hayanist appears to be affected by the inadequate sanitation conditions and the insufficient quality of drinking water. The health centre staff reported regular outbreaks of diarrhoea in summer, occasional outbreaks of Hepatitis A and regular intestinal parasites infections among children.

The improvement of the inadequate sanitation for the school children in Hayanist had a very high priority for the whole community.

The school is situated in the central part of Hayanist and has 350 pupils, 23 teachers and 3 administration personnel. Pupils had to use outdoor pit-latrines. These are located in a corner of a school yard, close to a drainage channel, and the sewage nearly directly enters the drain. These latrines are in a very poor condition, they smell and are dirty.

### Goals

- Establishment of a sustainable, affordable and safe school sanitation system
- Introduction of ecological sanitation and wastewater management
- Reducing contamination of drainage and groundwater
- Raising public awareness on hygienic and health risks

### Activities

- Community mobilization through establishment of Women and Village Committees
- Involvement of children in raising awareness campaign through innovative artistic approaches (ecogames, exhibitions, creation of a book)
- Raising awareness campaign (lectures, seminars, meetings etc.)
- Parasitological investigation of schoolchildren's stool and treatment of infected children
- Designing ecotoilet of school and construction (7 urine diverting toilets, 3 waterless urinals and 6 hand washing basins)

### Results

All the 350 students and 26 staff members obtained a clean, safe and warm sanitation building, instead of 3 badly smelling pits at the end of the school yard. In addition, the children have learned about the importance of hygiene and hand washing with soap.

The population became aware of the advantages of urine diverting toilets regarding water and health protection.

A very crucial factor is the real understanding of the facility and its effects by the stakeholders. This was addressed in workshops, which were held before the installation of the toilets, and by the easy to understand posters for the children.

The new toilet system was accepted very well by the teachers and the pupils. The interest of the parents and citizens in ecological sanitation became very high and in a follow-up projects more ecosan toilets will be installed for households and other schools.

The establishment of ecological sanitation is especially valuable in regions with no central water supply, with no adequate sewage systems and no sanitation except pit latrines.

**This pilot-project can serve as an example not only for other Armenian villages, but for many EECCA countries, which are facing similar sanitary, environmental and health problems. All the technical and financial data are available for use by other organisations and will shortly be published as a case study by the German Development Organisation. ♦**

Contact: [www.awhhe.am](http://www.awhhe.am)

## CLEAN SCHOOL TOILETS

“Clean school toilets are not a luxury but a human right” states Diana Iskreva from the “Earth Forever Foundation” in Bulgaria.

**This pilot project at the Bilingual High School “Romain Rolland”, Stara Zagora, Bulgaria, and two other secondary schools in the same city proved to be affordable and easy to implement in any Bulgarian school with the joint efforts of school administration and students and parents.**

The project addressed a burning issue in Bulgarian schools: ill-maintained dilapidated school toilets. No doubt, this situation is dangerous to the children’s health and unarguably a dent on human dignity.

### Goals

The project aimed to raise the awareness of school children about their human right to safe and healthy school toilets and hand washing facilities through civil education, campaigning and hands-on experience.

It aimed to show a model for improved sanitation achieved with the efforts of all stakeholders.

### Activities

- Training of students, teachers-parents committees on civil rights and sanitation and health rights of children
- Public awareness campaign involving youth leaders, representatives of civil society, local government and media

- Raising awareness, lobbying and mobilizing support
- Action for change campaign by introducing hygienic practices in school toilets.

### Results

- 1900 students and 280 school staff and their families got information about children’s rights to safe water and adequate sanitation, and the health risks for the children associated with poor school sanitation and restrained visit of toilet while in school.
- 1900 students and 280 school staff members got access to hand washing facilities with soap and warm water, and toilet paper in school toilets.
- 1200 students and 200 school staff members got renovated school toilets.
- Teachers and parents’ committees got directly involved.
- Brochures, posters, website-based info widely distributed at local, regional and national level. ♦

Contact: [www.earthforever.org](http://www.earthforever.org)

## SAFE DRINKING WATER

Angela Boiangiu from the “Women for a Clean Future” about ecological sanitation and safe drinking water in village Garla Mare, Romania.

**Contributing to the development of rural areas by empowering villagers to develop an adequate sanitation system, groundwater protection and address themselves environmental problems, thereby protecting children’s health.**

In Romania, 10 million people lack adequate sanitation, and 7 million lack access to safe drinking water.

To address these problems, two water and sanitation projects have been executed in the village of Garla Mare, located in a region known for its high nitrate concentration in the well water, causing many cases of blue baby disease. The well water is also extremely high polluted with faecal bacteria and exceeds allowed pesticide concentrations. The school toilets were unhygienic. Children had no access to hand-washing facilities or drinking water. Most villagers were unaware about the health risk of inadequate sanitation and polluted drinking water. The content of their pit latrines infiltrates mostly in soil and groundwater.

Most villagers are subsistence farmers and poor.

### Goals

- Establishment of a sustainable, affordable and safe sanitation system for school and households
- Provide safe drinking water for villagers and especially for vulnerable groups
- Introduction of approaches of ecological sanitation
- Reducing contamination of groundwater with excrements
- Raising public awareness on hygienic and health risks
- Mobilization of villagers to address environmental and health problems
- Reducing poverty

### Activities

- Installation of a toilet facility with double vault dry urine diverting (ecosan) toilets and waterless urinals for a school, town hall and for five households

- Installation of hand washing basins
- Providing safe drinking water by installing water filters in the schools and dispensary
- Cleaning of several communal wells
- Extensive water testing in participation with villagers, and publication of the results
- Application and testing the effect of urine as fertilizer for cultivation of maize
- Community mobilization through establishment of Women and Village Committees, so that local environmental problems can be addressed directly by the ones who suffer from them
- Awareness raising campaign (lectures, leaflets, posters, seminars, meetings etc.). Involvement of children: eco-classes with innovative artistic approaches (eco-games, exhibitions, cleaning actions, parading)

### Results

- Children’s health is better protected because they have access to appropriate and safe sanitation, and clean drinking water.
- Citizens are better aware about health risks and how to avoid contamination.
- Since the start of the project no cases of blue baby diseases occurred in Garla Mare.
- The new toilet system was accepted very well by the citizens and users.
- The interest of citizens in ecological sanitation became very high.
- It was showed that human urine is an excellent fertilizer.
- Villagers have become very active in environmental campaigns. Two international seminars for regional teachers have been organized by the NGO “Femei pentru un Viitor Curat” (Women for a clean future) in Garla Mare.
- The local population started with waste separation and collection

**This ecological sanitation project is already replicated in Bulgaria, Ukraine, Armenia, Kyrgyzstan, Afghanistan, Uzbekistan and other countries will follow. ♦**

Contact: [www.wecf.eu](http://www.wecf.eu)