



Thesis or Internship in the Caucasus in the frame of Sustainable Sanitation

Developing and piloting a simple on-site filter system for greywater treatment for households and farms up to 50 PE

WECF is a network of environmental organizations in 30 countries throughout Eastern Europe, Caucasus and Central Asia. One of our major focuses in integrated rural development projects is to contribute to access to safe water and sanitation for all. We promote Sustainable Sanitation such as the Ecosan toilets as a sustainable sanitation solution combined with simple soil filter based wastewater treatment systems for rural areas in the region. WECF has a local office in Georgia. More info on www.wecf.eu

RCDA is a Georgian NGO promoting sustainable development in rural communities, safe drinking water and sustainable sanitation. RCDA is based close to Tblissi. More info on www.rcda.ge/

Background:

In the frame of a UNEP project "Reducing the Pollution of the Black Sea", a number of community based activities with potential of spreading throughout the region are planned on the border of the Black Sea. The local NGO RCDA runs a resource center in the rural area Khobi where the activities will be implemented.

In former projects, the treatment of greywater (from kitchen, hand washing and solar heated showers) in soil filters as low tech and affordable technology has already been applied and demonstrated in parts of Georgia. however their performance has not been systematically assessed.

Scope of the work:

The aim of the work is to design and demonstrate efficient greywater filters constructed with local staff and material at low-cost so that local people can replicate them with the support of the resource center.

Student's tasks:

- ✓ to review the related literature on suitable greywater filter designs with soil filter or other locally available material.
- ✓ to assess the existing pilot greywater filters under different conditions (especially fluctuating use and heavy rainfalls) and to adjust their design if necessary.
- ✓ to design a local greywater filter at low cost
- ✓ to demonstrate two greywater filters in the village
- ✓ to draft a short manual for the local staff

The student should have a background in wastewater treatment. He or she will travel in Georgia for at least 3 weeks, will be supported by WECF and RCDA.

It can be a joint work by two students as well.

All costs for the flight, local accommodation and local transport in Georgia are covered by WECF and RCDA but a fee cannot be paid.

Language skills: Student must be fluent in English.

Russian or Georgian would be useful but not a must.

Work should start in autumn 2014.

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