

From Pee to P: The Role of Civil Society in Promoting Nutrient Recycling

INTRODUCTION

The role of the civil society is vital in many areas of human development, none the less in innovating and promoting phosphorus (P) recycle. New technologies and new business opportunities are essential, but for them to flourish, facilitators for societal development are also needed. Rather than fixating on one solution, a variety of solutions are required, that need to be developed together with the communities, not detached from them.

The majority of nutrients – 80% of nitrogen (N) and 50% of P – in wastewater come from urine. Through wastewater treatment processes P is transformed to a form that is not bioavailable to plants and often ends up into water systems causing eutrophication. This could be avoided by setting up an infrastructure to support the collection of urine from urine-diverting toilets and either transportation to a treatment facility or on-site treatment to produce safe and bioavailable fertilizer.

The Global Dry Toilet Association of Finland is a representative of the civil sector and implements different activities aimed at informing and changing people's attitudes towards using urine as fertilizer.

OBJECTIVES AND ACTIVITIES:

One of the key objectives of GDTF has been **to raise the societal status of ecological sanitation**. This objective has been pursued through e.g. two recent projects. Dry Toilet – From idea to reality! project (2011–2014) promoted the use of dry toilets and nutrient recovery from toilet waste in rural Finland. In the Keko-project (2014), GDTF brought mobile dry toilets to mass events for people to use while distributing information about the benefits of urine as fertilizer.

Another key objective has been **to facilitate interaction and networking amongst experts**. GDTF organised a series of workshops in 2013–2014, which aimed to advance the agricultural use of urine. The workshops brought together experts from different sectors of the society, including legislators and policy makers, researchers and businesses. Perhaps the most influential activity of GDTF is the Dry Toilet Conference, the scientific conference organised every three years since 2003. It acts as a platform for different experts, decision makers and civil society to come together and discuss and share their findings and find new ways to promote ecological sanitation and nutrient recycling.

OUTCOMES AND WAY FORWARD

Dry Toilet – From Idea to reality! -project brought a clear change in attitudes in its target group, which were the inhabitants, decision makers and officials of one rural region. The project gave a substantial boost to the status of urine as a fertilizer and especially contributed towards attitudes slowly starting to change.

The feedback of the Keko-toilets in mass events was positive, which manifested in rapidly increased demand for dry toilet solutions by event organisers. The users of the toilets, visitors in the events, gave very good reviews, e.g. heralding the toilets "as best ever".



The 2012 International Dry Toilet Conference saw 160 participants from 38 different countries. There were 74 oral presentations from experts all around the world and 20 poster presentations. The conference worked as an excellent podium for bringing different actors together to share their findings and experiences about DT-technologies and nutrient recycling.

Facilitating networking amongst Finnish organizations has led to concrete joint projects. One such example is the joint initiatives between an urban farming association and a research institution to experiment the use of urine as a fertilizer in urban farming. An important indication of a gradual change in attitudes is the funding that GDTF has received for trial-project on using urine as fertilizer to be carried out in 2015–2016. One of the objects of the project is the validation of urine-based fertilizer. The project will be carried out in co-operation with Tampere University of Applied Sciences and Finnish Environment Institute.

ABOUT GDTF

The Global Dry Toilet Association of Finland (GDTF) has worked with dry toilet technologies both in developing and developed countries for over ten years. The association has also promoted the use of urine as fertilizer in its many development projects in Africa.

DRY TOILET CONFERENCE 2015

The next conference will be organized in Tampere Finland on 19th–22nd of August 2015. The aim of the conference is to discuss concrete ideas and **solutions** through sessions and workshops, covering topics from ecological sanitation and nutrient cycling to dry toilet technologies and use of excreta as a fertilizer. The main theme for the conference is solutions, it is time to move from challenges to solutions. You are warmly welcome!

More info: www.drytoilet.org/dt2015