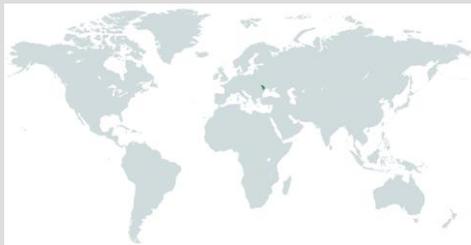


## How Does SuSanA Generate Impact?

### Case Story 4: Mainstreaming UDDTs as a sanitation solution in Moldova

#### At a Glance



**Country:** Republic of Moldova

**Topic:** Mainstreaming UDDTs as a sanitation solution in Moldova

**Actors:** SDC, ADC, WECF, Skat, UNECE, Wisdom, Ecotox, Ormax

**Impact Argument:** SuSanA played a key role in fostering the discourse on UDDTs/Ecosan, making the new technology more acceptable due to good examples from other countries and also provided inspiration for the drafting of the national technical standards for the construction and operation of Ecosan Toilets in the Republic of Moldova.

#### Introduction

In the Republic of Moldova, rural areas often lack formalised (public) service providers, which are predominantly active in urban areas and in larger rural communities. Also, there is a lack of knowledge and experience of alternatives to sewerage systems. This is particularly problematic as sewerage is rarely a feasible solution in the Republic of Moldova, particularly not for rural settlements. Consequently, poorly constructed pit latrines and septic tanks with soak pits are widespread in rural areas.



Sanitation and wastewater solutions for rural areas: Ecosan toilet and constructed wetland. © WECF

Sanitation in rural schools is a particular challenge in Moldova: most schools in rural areas do not have facilities that satisfy basic WASH standards. Schools usually only have cesspit toilets located away from the school building and they are frequently in bad condition. Stalls and partitions for privacy are lacking, many do not have electricity or heating in winter, few have hand-washing facilities and poor maintenance and cleanliness is a problem.

To provide a sustainable and feasible alternative to poorly constructed pit latrines and septic tanks with soak pits, WECF, together with local NGOs, has implemented ecological sanitation systems (urine diverting dry toilets (UDDT) or, more simply, so-called Ecosan toilets), the success of which has also informed national policy-making.

Building on the initial work of WECF and local NGOs in Moldova, the Swiss and Austrian Development Cooperation – jointly with Moldovan authorities – funded the ApaSan project, implemented by Skat Consulting Ltd., which promotes options and approaches for improving sanitation in schools. A major achievement of ApaSan is the successful mainstreaming of UDDT school toilets as a valid and widely accepted alternative to school sanitation in Moldova.

Claudia Wendland, sanitation specialist at WECF and Florian Klingel, water and sanitation expert at Skat and director of the ApaSan project, talked to us about their work in the Republic of Moldova and how it has been impacted by SuSanA as both WECF and Skat are SuSanA partners.

#### Interview

**SuSanA: Claudia and Florian, can you tell us more about your organisations' work in Eastern Europe?**

**Claudia:** WECF is an international network with more than 150 environmental and women NGO partners. With WECF we have been working in Eastern Europe for more than ten years. Starting with drinking water quality problems in shallow wells, we quickly realized that unsafe sanitation conditions are a main source of pollution of the groundwater. In combination with awareness raising campaigns we started to develop the UDDT for the region, e.g. producing local toilet seats, and demonstrated the first UDDT in schools outdoor and indoor in Romania, Armenia and Ukraine. Our NGO partners in Moldova were interested in it and visited the Ukrainian example. The following three years of intensive awareness, sensitization and capacity building incl. constructing individual demonstration toilets and school toilets together with local NGOs (Wisdom, Ecotox, Ormax) led to a supportive attitude toward the innovative technology among the rural population and schools. Especially women and girls have appreciated the use of the toilet and have benefitted from its implementation because it is more hygienic and comfortable especially in cold winters. You can find more information on urine diverting dry toilets here: <https://www.youtube.com/watch?v=s5dBPlay7FA>



Claudia Wendland, Women in Europe for a Common Future (WECF)

**Florian:** Skat Consulting Ltd. is a Swiss resource centre and consultancy working in development and humanitarian aid. We work all over the world for many clients, but a large share of our work is for the Swiss Development Cooperation

(SDC). We currently have a strong focus in Eastern Europe with ongoing projects in Moldova, Ukraine and Kosovo.

We have been implementing the Water and Sanitation Project (ApaSan) in Moldova since 2008. This project is funded by the Swiss Agency for Development and Cooperation, and co-financed by the Austrian Development Cooperation (ADC). The project's goals are to influence policy and strengthen institutions and to support infrastructure development with the aim to enable Moldovan institutions to better respond to the rural population's needs for water supply and sanitation services.

**SuSanA: Florian, can you elaborate on the current state of the ApaSan project in the Republic of Moldova and how it came about?**

**Florian:** Sure. As Claudia described earlier, several NGOs have introduced UDDT toilets to Moldova as an alternative solution for schools. Acceptance has been excellent right from the beginning and demand for more such toilets has been shown from everywhere, which in 2007 convinced the Swiss Development Cooperation to integrate Ecosan into their on-going support to improve school sanitation in Moldova.

Since then we have continuously improved the solution and supported schools all over Moldova by constructing new toilets and training users and staff. We are now close to concluding our engagement which can be regarded a

**“Connecting like-minded actors with similar aims is probably the most important benefit of SuSanA.”**

**- Florian Klingel, Skat**

success as health and education authorities in Moldova have fully

embraced the solution. The last activity will be a joint dissemination campaign, including training of sanitary inspectors (who inspect and advise schools on sanitation) in all district health centres as well as the Education Ministry distributing jointly-developed guidelines and information materials to all schools in Moldova.

**SuSanA: Why the focus on UDDTs?**

**Claudia:** As there is no reliable piped water in the rural areas of the region, UDDTs are a feasible, affordable and hygienic option to solve the sanitation issue. The main advantage of UDDTs, in contrast to conventional pit latrines, is the conversion of faeces into a safe, dry and odourless material. This leads to an odour and insect free toilet which is appreciated by users.

The design of the toilet makes it easily adaptable and can be constructed adjacent to or inside the house. According to the wishes or habits of the users, UDDTs can be designed as a sitting or a squatting toilet. The design can be adapted to the needs of handicapped people as well.

Ground and surface water pollution is minimised through the safe containment of faeces and urine which also allows the toilets to be constructed in locations where pit-based systems are not appropriate. Human faecal matter and urine are considered a valuable resource which can be used for food production or gardening.

**Florian:** Even if there is a piped water supply, for example in villages supported by our project, there is usually no sewer system. Schools wanting to build flush toilets also need to

construct and maintain their own wastewater treatment system. The UDDT toilets provide similar comfort to flush toilets, while the waste products (source separated urine and dried faeces) are much easier and cheaper to manage than wastewater. This makes it an attractive option when a school wants to upgrade its toilets.

I think that the main success factor was that we always aimed at high and modern standards: the toilets are attached to the main school building, so students and teachers can use them without having to go outside in the cold; they are built with tiles, heating, lighting, ventilation and hand washing facilities, and have separate areas for girls and boys, each with several closed stalls for privacy. In Moldova, such UDDT school toilets are now considered to be a modern “European” sanitation solution and are well accepted by users and authorities alike.



Florian Klingel,  
Skat Consulting Ltd.

**SuSanA: You collaborated with local NGOs. What other partners have been involved? Who, for example, funded the project?**

**Claudia:** We always work with local NGOs who can reach the local people and have their trust. The introduction of a new toilet technology requires a lot of awareness raising, communication, behaviour change and time. There are many barriers to overcome. First, demonstration toilets need to be successful. The next step is replicating and upscaling the technology. There are different challenges associated with each step.

Also, the process has to be bottom-up in order to achieve acceptance by users and local multipliers. The capacity has to be built among the local NGOs which can act as local multipliers. Consequently, all materials have to be translated into Romanian and Russian which are the two most common languages in Moldova.

**Florian:** Our main partners have always been the authorities at various levels. When supporting the construction of school toilets, we work with district and local authorities and the school administration. Strongly involving pupils, teachers, parents and care-taking staff is of course always part of a project. We also work with authorities at the national level. Initially it was a lot of hard work to convince authorities to accept UDDTs as a valid solution and provide permits. Now, jointly with these authorities, we are developing guidelines and will roll out the approach to all schools in Moldova.

Throughout the years, we have always been in close contact with the NGOs described by Claudia and cooperated in different ways. In some years, we contracted NGOs to conduct trainings, while recently we implemented some school projects with NGO funding. We also contributed to WECF's work with the establishment of a Code of Practice on UDDTs. Claudia can tell you more about this.

As for funding, the credit goes to the Swiss and Austrian Development Cooperation, the only donors who have been supporting Moldova's rural areas for better water supply and sanitation for quite some time. All of our work and much of WECF's and the local NGOs' work on UDDTs was funded by them.

**SuSanA: Claudia, as Florian already mentioned, your successful fieldwork in Moldova has also resulted in the publication of two Codes of Practice in Construction – one for UDDTs and one for Constructed Wetlands. Can you elaborate on their production?**

**Claudia:** The replication of the UDDT especially in schools was not always easy because for each construction a number of documents was needed to obtain the permit. Long discussions with the local health authorities were common as e.g. the existing norm required that a dry toilet be built at least 10 or 20 m from the house. Of course, the reason was that the authorities could not believe that a dry toilet could be hygienic, odour free and not spreading disease vectors.

The high demand for UDDTs consequently required the National Centre for Public Health to take action and to make it easier to get the permit and to replicate the new technology.

Under the pan-European Protocol on Water and Health, a strategy was developed, leading to changes to the norms. The United Nations Economic Commission for Europe (UNECE) then assigned WECF to work on the norms. With the support of the Ministries of Health, Environment and

*“The exchange among peers, especially face to face, that SuSanA offers, is very useful and inspiring.”*

*- Claudia Wendland, WECF*

Construction and key national experts, the norms were developed and approved

in 2016.

The Code of Practice on construction and operation of UDDTs in Moldova is a model example of how a bottom-up approach gains high-level attention and becomes a replicated model.

**SuSanA: What do you expect the impact of these Codes of Practice to be?**

**Claudia:** The Code of Practice (CoP) has been produced in English, Romanian and Russian. It relates to the existing structure of Moldovan construction norms. As these were inherited from Soviet times as is the case in most of the post-Soviet countries, the CoP can easily be used in other countries as well. The CoP is also a good model of how to construct UDDTs in moderate climates with cold winters and can be used in other countries with similar climates.

**SuSanA: What effect did/does your work have on national policy-making in general?**

**Florian:** The CoP on UDDTs was a very important element of mainstreaming UDDTs as a valid sanitation solution. It helped solve one of the main obstacles that we faced in the earlier years of our project: the rejection of the solution by Moldovan authorities and engineers, simply because it was not known and not part of the existing norms.

On a more general level, the work done by the NGOs and our project was a strong factor in making decentralised and on-site solutions to sanitation more known in Moldova, to both authorities and sanitation professionals.

There is still a long way to go though; common thinking on sanitation in Moldova is still dominated by “sewerage or nothing”. However, our experience with school sanitation shows that change is possible.

**SuSanA: Claudia, among others, you are leading SuSanA’s working group 7 “Community, rural and school (with gender and social impacts).” How does your work impact the work of WG7 and vice versa?**

**Claudia:** WG7 has always been a group with many members from grass root organisations, i.e. relatively small NGOs who are doing amazing work on the ground. WG7 provides a great space to showcase the good work of these small NGOs and their stories. That is why we collected WASH in schools (WinS) stories from SuSanA members in 2014. We targeted especially WG7 members to contribute their success stories, to highlight them and share them in the SuSanA publication. The small grass root organisations often lack capacity to share their best practices; sometimes they do not even have a website. Here, SuSanA can be of help by making these NGOs’ know how more visible and introducing it to a broader audience.

Moreover, the collected WASH in schools stories inspire other NGOs and motivate them in their day-to-day work toward sustainable WASH. Because of the great demand from these small grass root organisations, we even published a second edition of WinS stories in 2015, this time with a focus on O&M.

**SuSanA: Claudia and Florian, you have been active SuSanA members for years. How have you profited from the engagement with SuSanA, particularly with regard to your work in the Republic of Moldova?**

**Claudia:** Being a member of SuSanA has supported me a lot in the work with UDDTs. As I said, the process of introducing UDDTs is a long one with lots of barriers before reaching upscaling.

When facing barriers and scepticism it is very reassuring to know of similar work and evidence from other countries through SuSanA, showing that the technology is feasible.

Since the early days of SuSanA, many discussions about the design, implementation as well as the advantages and disadvantages of UDDTs have taken place on the SuSanA Forum. SuSanA members from all around the world have shared their knowledge and experiences on this topic.

On the one hand, the exchange among peers, especially face to face, is very useful and inspiring. On the other hand, the SuSanA library is a helpful resource to see what has worked in other cultural settings when developing one’s own materials and establishing norms.

Finally, we also use SuSanA as a platform for sharing the outputs of our work: various publications and reports such as the CoP are available in the SuSanA library.

**Florian:** Most importantly, I got to know Claudia, WECF and some of the Moldovan NGOs through SuSanA. Connecting like-minded actors with similar aims is probably the most important benefit of SuSanA.

As Claudia said, the SuSanA library is always the first stop when researching for resources on sanitation. And the SuSanA forum is a great platform to ask questions, discuss problems or share one’s own experiences. I have used the forum at various times to discuss specific problems in our project in Moldova and also shared our lessons learned.

**Thank you very much for your time and providing us with valuable insights on your work.**

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### SuSanA Impact Case Story

*Mainstreaming UDDTs as a sanitation solution in Moldova*

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