

CASE STUDY

VUNA – FROM PEE TO PETUNIAS

Problem – Challenge

What if you live in an arid, low-income country that does not offer great prospective to flourish? And what if an expert in water research is thinking about these problems? And what if a well off couple is willing to share their wealth with the poorest on this planet? If all these things would come together, great things could happen. And – good news – it did! A group around Kai M. Udert at Eawag received a generous grant from the Bill and Melinda Gates Foundation to develop an innovative decentralized sanitation method that not only purifies used water reducing consequently water pollution and recovers nutrients but also produces a fertilizer which can be – and actually is – sold giving an economically attractive business opportunity. This was the point where the project VUNA began in 2010.

Solution

The basic idea was borne out of the emerging urine-diversion toilets aka NoMix toilets where urine and solid faeces are collected separately, which, if used without flushing, saves water and costs for a sewer system. The solids can be directly composted or dehydrated. But what to do with the urine? Urine contains as “waste” a lot of phosphorous and nitrogen – as fertilizers do. But instead of extracting nitrogen from air und phosphorus from rocks in an expensive, high energy consuming process, it can just be recovered from urine. After five years of research and development in Switzerland and Durban, South Africa, VUNA (meaning “harvest” in Zulu language) presented AURIN Naturelle, a high quality recycled Nitrogen fertiliser solution for ornamental plants, lawn, or flowers. Buy it at <http://www.kompotoi.ch/verkauf> and see your flowers flourish! (Text: wii; Fotos: © Eawag)

