

# Sustainable Water, Wastewater and Nutrient Management in Georgian Rural Communities



## Sustainable Sanitation <sup>6</sup> (SDG 4, 6, 10, 12)

The **Ecosan Toilet** (Urine Diverting Dry Toilet) can be implemented in or adjacent to the **house**, does not smell due to the separate collection and management of urine and faeces.

The Ecosan Toilet provides improved hygiene and **comfort**.

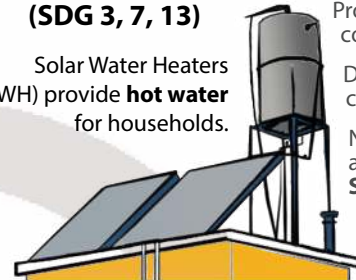


The Ecosan Toilet does not need water but **wood ash or saw dust** for "flushing".

The human excreta are safely managed.

## Sustainable Energy <sup>1</sup> (SDG 3, 7, 13)

Solar Water Heaters (SWH) provide **hot water** for households.



Provides increased comfort and saves time.

Does not contribute to climate change.

No running costs or electricity are needed to run the **Solar Water Heater**.

## Safe Use of Human Excreta <sup>5</sup> (SDG 1, 6, 8, 12)

Human excreta is safely **managed** and does not pollute the groundwater and the environment.

Faecal **compost** is safely used as soil conditioner and organic fertiliser.

Human urine is safely used in gardening and agriculture as a nitrogen rich **liquid fertiliser**.



## Safe Use of Animal Manure <sup>4</sup> (SDG 1, 6, 8, 12, 13)

The manure platform ensures the **safe containment** of animal excreta.

The manure can be applied as **organic fertiliser** in gardening and agriculture.

The animal excreta are safely managed and do not pollute the **groundwater** and the environment.



## Gender equality <sup>7</sup> (SDG 4, 5, 6, 8, 10, 11)

Women and men have equal say in decision making through **participatory approach**.

The women save **time** and can do income generation activities.

Girls and boys, women and men have **equal** access to safe water and sanitation.

The women enjoy the increased **comfort** of the technologies.



## Water and Sanitation Safety Planning <sup>2</sup> (SDG 3, 4, 6, 10, 11, 17)



The Water and Sanitation Safety Planning (**WSSP**) is a risk based approach developed by WHO to protect public health and the environment.

The WSSP increases people's **awareness** about water, sanitation, health and environment.

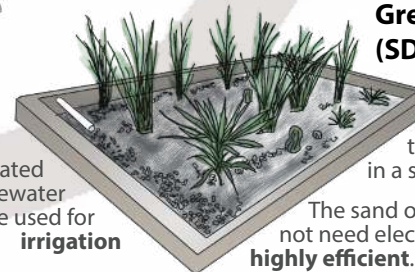
The population starts to take **actions** to improve their living conditions.



## Greywater Management <sup>3</sup> (SDG 6, 11, 12, 13)

The greywater (wastewater from households without toilet wastewater) is **treated** in a sand or gravel filter.

The sand or gravel filter does not need electricity and is **highly efficient**.



This project contributed to the



### More information:

Footnote 1: [Construction of solar collectors for warm water](#). 2nd revised edition. WECF publication (2013)

Footnote 2: [Developing a Water & Sanitation Safety Plan in a Rural Community](#). WECF publication (2014)

Footnote 3: [Greywater Treatment in Sand and Gravel Filters: Low Tech Solution for Sustainable Wastewater Management](#). WECF publication (2015)

Footnote 4: [Let's talk about keeping livestock](#). [http://rcda.ge/userfiles/files/postcard\\_live-stock\\_1-01.jpg](http://rcda.ge/userfiles/files/postcard_live-stock_1-01.jpg)

Footnote 5: [WHO guidelines for the Safe Use of Wastewater, Excreta and Greywater](#), Volume 4 (2006).

Footnote 6: [Urine Diverting Dry Toilets - Principles, Operation and Construction](#). 2nd revised edition. WECF publication (2015)

Footnote 7: [Why gender equality will make or break the Sustainable Development Goals](#), Sascha Gabizon, World Economic Forum (2015).