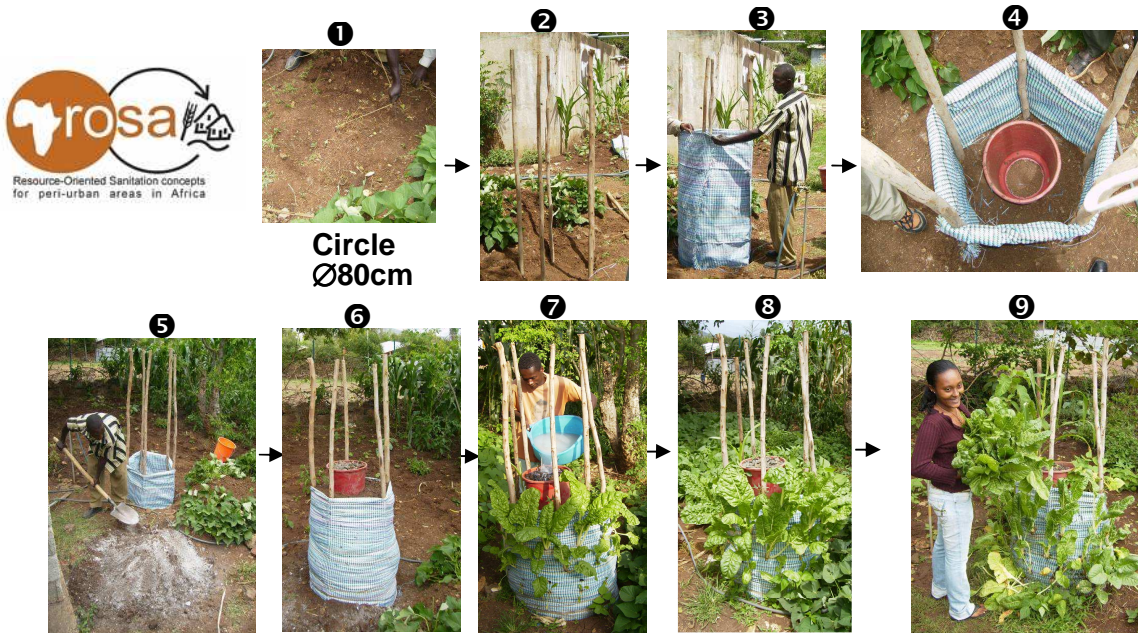


# GREYWATER TOWER, The Arba Minch town ROSA project experience

Greywater tower is circular bag which has got soil, ash and compost mixture in it and a gravel column at the center. It is used to treat and reuse greywater, water that has been used for bathing, washing clothes and utensils. Vegetables are planted in holes cut in the sides of the bag itself and each day the available greywater from a household is poured directly on the gravel column.



Circle  
Ø80cm

- Material required**
- ★ Bucket with no bottom
  - ★ Five poles 2m in height
  - ★ 1.2mX2.5m shade cloth
  - ★ 0.05 m<sup>3</sup> soil
  - ★ 0.2m<sup>3</sup> compost
  - ★ 0.14 m<sup>3</sup> ash
  - ★ 0.085 m<sup>3</sup> gravel



34<sup>th</sup> WEDC International Conference, Addis Ababa, Ethiopia, 2009  
Water, Sanitation and Hygiene: Sustainable Development and Multisectoral Approaches

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# **GREYWATER TOWER, The Arba Minch town ROSA project experience**

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**34th WEDC International Conference, Addis Ababa, Ethiopia, 2009**

**WATER, SANITATION AND HYGIENE:  
SUSTAINABLE DEVELOPMENT AND MULTISECTORAL APPROACHES**

## **Greywater tower, The Arba Minch town ROSA project experience**

*Wudneh Ayele Shewa, Ethiopia*

**POSTER (Abstract)**

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*The baseline study carried out in Arba Minch town, with a population of about 79000, by ROSA project (Resource-Oriented Sanitation concepts for peri-urban areas in Africa) in the year 2007 revealed that 73% of the households in the town spill their grey water in the compound, 13% spill it outside their compound, 8% spill it in a pit filled with gravel and only 6% use greywater for gardening. The baseline study indicates that 94% of the greywater is recognized as a waste and is not reused. One of the objectives of ROSA project is to devise decentralized solutions for greywater treatment and reuse. Therefore, a greywater tower was proposed as one of the methods that can be adopted to treat and safely reuse greywater for Arba Minch town and eight such units were constructed. Two of the units were constructed from ROSA project resources and the rest by the households. The total cost of the greywater tower is about 100 Ethiopian Birr which is equivalent to 10USD. The construction of the unit doesn't require a skilled labour. Awareness about the unit has been raised in the community of Arba Minch and promising demand has been created. In this poster an attempt is made to show the material used, the steps followed to construct the unit and the benefits that can be obtained by having such unit in a household.*

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# **GREYWATER TOWER, The Arba Minch town ROSA project experience**

## **Explanation about the pictures**

The nine pictures show the steps followed to construct a greywater tower and the advantages of having a grey tower in a compound. It has been tried to make the pictures as self explanatory as possible.

### **Picture 1**

- Mark out a circle which has a diameter of 80cm

### **Picture 2**

- Dig out the bottom layer of the tower and plant the side poles firmly into the bottom

### **Picture 3**

- Wrap the shade cloth around the poles

### **Picture 4**

- Roll the sides of the shade cloth cylinder down out of the way before filling and place the bucket on the ground in the middle of the tower

### **Picture 5**

- Pack the gravel in the bucket and backfill around the bucket with the soil mixture (3 parts soil, 2 parts compost and 1 part ash)

### **Picture 6**

- The greywater tower should look like this

### **Picture 7**

- The available grey water should be poured into the bag directly on the gravel pack

### **Picture 8**

- Leafy plants/vegetables are planted in holes cut in the sides of the bag

### **Picture 9**

- This picture shows a householder holding spinach which is harvested from the greywater tower.

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