



Grey Water Collection

Summary

Grey water collection is a method of harvesting waste and run off water from the kitchen and other sources into a small earthen, plastic or cement pond. The collected water is used to irrigate vegetables in home and kitchen gardens especially during the dry season when water sources dry up. It is a low cost, effective and useful intervention that can be easily adopted in drought prone and water-scarce areas to cultivate vegetables for family nutrition, income and livelihood of small-scale farmers. SAHAS has been promoting this technology in its working areas, and most of the farmers receiving support are satisfied with the intervention. It has the potential to be scaled up in wider geographic area in Nepal.



Climate change challenges addressed

With the change in climate, water sources are drying up creating scarcity of water. Rainfall in winter is very low or none at all; therefore, it is increasing the dry period. Less and unpredictable rainfall and prolonged drought period are the effects of climate change. There is a dry period for more than 3-4 months with little or almost no rain in winter. Due to the lack of water, land remains barren or there is less water for cultivation, which shatters crop yield thus directly affecting the food security of small-scale farmers. In such a condition, grey water collection can be a natural choice of small-holders since there is no other way out.



Case study

There is lack of irrigation water along with drinking water in hilly areas of Okhaldhunga and people have to carry water from far away. Farmers from Beteni village were oriented on grey water management through construction of a pond. Following the training, a total of 33 households from a farmers' group have adopted this technology. They are now reusing wastewater from household activities, especially from the kitchen, even during the dry season to grow vegetables which is contributing to vegetable self-sufficiency and nutrition in the families.

Even few women have started generating additional income from surplus vegetables while all save money otherwise spent in buying vegetables from the markets. Hence, the technology is contributing to family income and food security to some extent.



Contribution to Climate Change Adaptation	Co-benefits	Target groups	Supporting conditions
<ul style="list-style-type: none"> Helps to adapt in water scarce condition, especially for growing vegetables, during dry season 	<ul style="list-style-type: none"> Availability of fresh vegetables all year round Varieties of vegetables to replenish malnutrition Can fetch good income as well 	<ul style="list-style-type: none"> Poor and Small-scale farmers 	<ul style="list-style-type: none"> Access to sufficient grey water or rain water for growing vegetables in home gardens Farmers willing to contribute by providing labor and local materials such as stone and sand
Measures	Inputs	Time frame	Costs
<ul style="list-style-type: none"> Digging a pit with dimension of 1m width, 1m length and 0.6 m depth Setting up a concrete base for the pond and at the sides of the pond to prevent seepage of waste water Adjacent to the pond, a dish washing slab is also made and a pipe is connected to the pond 	<ul style="list-style-type: none"> Skilled and Unskilled Labor Technical assistance Sand, Cement, stones, etc. 	<ul style="list-style-type: none"> Maximum 5 days for construction 	<ul style="list-style-type: none"> Cost can vary depending on geographical location. In general, constructing a cement pond costs around NPR. 9,400



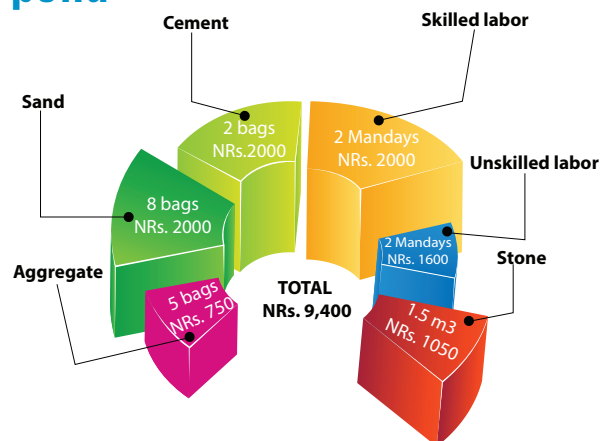
Gender considerations

Women can mostly benefit considering the drudgery in managing water for consumption and irrigation. There is no need to travel for bringing irrigation water as before and spare time can be used in other productive works. They can also get readily available vegetables of their choice grown in the kitchen gardens they manage. They can also make saving of money retained otherwise to be spent in buying vegetables.

Conflict sensitivity

Not documented.

Cost calculation of a cement pond



Constraints of / for the methodology

Wastewater collection pond can be sometimes a breeding place for mosquitoes.

Uncovered ponds can possess risks of drowning of small children and animals.

Contact and further resources:

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