

A great innovative idea begins from a poor man's dream
(Sometime a very simple idea can bring a huge change)

Two hole method Household waste water saving plant

An easy way save household soap free used water for plantation by zero cost

Invented by: Mohammad Shahadat Hossain

Country: Portugal (July 2024)



Save household soap free used water for plantation by zero cost

Dear Sir

I am requesting you please read my idea. If you think it is a good one then please consider this idea to apply and send this project to different organizations and authorities to disseminate this idea. I will be very happy when I will see people are using my idea to get benefit and help the environment by less consuming ground water. If I will get any recognition on this innovative idea that would be a bonus for me.

Yours sincerely

Mohammad Shahadat Hossain

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Quote during making this project

If you are eager and desperate to move forward then who will pull you back.

Some people are not privileged to born in a rich family. They don't have the opportunities and facilities like rich children but they have one thing that is same as like all rich children. That is time. Their day and you day is consisting same 24 hours. If you use it wisely then you may become greater than many great people. In this 21st century you can't say, I can't study because I don't have money to pay the tuition fees. There are lots of scholarship, stipend and grand around us. There quantity is very little according to the total population. That's why you need to use your time wisely and work hard and harder to reach that level to grab that opportunity. You don't have candle to light up in your house but you have street light outside of your house to study. If you are eager and desperate to move forward then who will pull you back.

-Mohammad Shahadat Hossain

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Behind story of this innovation

Two hole method

Household waste water saving plant

An easy way save household soap free used water

For plantation & outdoor cleaning purpose by zero cost

Mohammad Shahadat Hossain is a Bangladeshi citizen who has migrated to Portugal for a better future. He is living in the capital city Lisbon with his two kids. His monthly salary is one thousand euro, that's not enough to pay the house rent and buy food for his family. To save money he has been rented an underground place to live. This place has no window that they never see daylight inside the room. You can't say it is a residence house rather than you can say it is a storage room. Kids are growing up. Day by day it is getting difficult to accommodate in that place. In 2024 he applied for a city corporation government house Concurso nº 22. Several thousand people applied for only 57 houses. In the priority list most people select nice, modern flat in number one. There Mohammad Shahadat Hossain selected a house in his first priority list that is a ground floor house with a small land. This house has comparatively less facility and comfortable than modern flat. Motive behind to choose this house is that he wanted to be number one applicant for that house and he was interested to get a piece of land with the house. Then he will grow vegetables and fruits there. He doesn't mind to work few hours in the evening in his front yard garden in order to save some money.

This is the house with a piece of land in front that he applied for:



This photo is taken from city corporation website while applying.



This photo is taken from the Google map street view while applying.

He is blessed enough to get that house in his first competition where other people are waiting year after year to get a nice modern house. Now he is very happy that he pays less rent for the government house and he is growing vegetables and fruits in his own garden. These vegetables are more than enough for his family. He is happy to share these fresh vegetables with his neighbors and friends. Every month he is paying estimated water bill. After few months the water supply authority checks the meter reading and sends him the adjusted total bill. He is surprised to see it. It is beyond his imagination and how he will pay this total bill. Then he requests to divide into some installments. Now he realizes this municipality drinkable water is too expensive to cultivate vegetables. He stops plantation. One day he is very upset in his garden to see his adorable plants are dying. Automatically tears come out from his eyes and drop down on a dying plant. His eyes become closed. He is imagining that plant is talking to him that “My master we are dying please do something for us to alive, we will return back a lot to your family”.

After that he goes inside the house and washes his face. While washing his face he realizes after using this water goes to the sewerage line. If he able to save this soap/chemical free used water then he will reuse it in his garden. Then he goes to the kitchen and sees his wife is washing fruits and vegetables. Then he thinks this also chemical/ washing up liquid free used water that he can reuse in his garden.

Now he is desperate to find a solution that how to save this soap/ chemical free used water in an effective and easy way to reuse in his garden.

Now the main idea of this innovation is generated

After dinner he takes a pen and paper to figure out the estimated water quantity that he can reuse in his garden. Then he makes a model to save household soap and washing up liquid free used water.

The key points of his plan:

In general every resident house we consume maximum water in the washroom and kitchen.

A) In the wash room:

- 1) We use soap and shampoo during bath, we use hand wash liquid after toilet. We use face wash liquid or soap to wash our face average once in a day.
- 2) In general everyday so many times we wash our hand, face, leg without any kind of soap, liquid or chemical. We use just water.
- 3) Religious people wash themselves by just water before every prayer time.

If we count every time it is a small amount of water but if we count daily basis together then it is a huge amount of water that we use without soap/ chemical.

B) In the Kitchen:

- 1) We use washing up liquid during cleaning our cooking pot, utensil, plate, serving dish, glass to remove dirt and sometimes we use hand wash before cooking.
- 2) Every day we wash vegetables and fruits that we never use any soap or liquid.
- 3) Every day we wash rice, beans and other food items that we never use any soap.
- 4) Most of the time we wash our hand before and after cooking and dining that we never use any soap or liquid.
- 5) Sometimes we wash glass, plate, cutlery or other things that we never use any soap or liquid.

If we count every time it is a small amount of water but if we count daily basis together then it is a huge amount of water that we use without washing up liquid/ soap.

Now the conclusion is we use a huge amount of water without soap or chemical in our washroom and kitchen that is enough for a residential yard garden.

Now the challenge arises, how do we separate soap and chemical free used water?

Normally we use basin or sink that has one hole to drainage water through a single pipe. So how do we separate any soap or chemical free used water by same drainage line? We need such a sink or basin that has two holes and two different drainage pipe lines to drain out water. One is for soap free used water and another one is for dirty water that mixed with soap, shampoo, washing up liquid etc. Always we need to close one hole and open another one according to our need. Now we got an idea how to separate soap and chemical free used water.

We can't go to our garden every time to use the water. Sometimes we use hot water that we can't give to the plant directly. So we need to buy a large water tank that we place in the garden to reserve water. This water reserve tank is connected with the sink hole that is for soap and chemical free water. Another dirty water hole is connected with municipality sewerage line. Every times we need to close one hole and open another one according to our need.

Now this innovative idea is developed over discussion

After getting this idea he shares and discusses with his wife and wants review on this project. After listening the whole idea his wife says, "It is a fantastic idea but one single mistake can spoil a full tank of water. Sometimes we are busy, we are on hurry or absent minded to open and close the right sink hole. You know sometimes I forget the silly thing to do." He replies, then I have an idea that we can use two different sink side by side. One is for soap free water and another is for soap mixed water. So every time you do not need to open and close the hole. His wife add one more question that in the winter time we do not need water for the garden then the second sink will be useless because after fill the water tank where will go the excess water. Then he is itching his head and replies, under the sink we can put a socket to join two sink holes together to the sewerage line when we do not need to save water.

Then his wife says overall your idea is very nice, feasible, cheap to install, save water, save energy and moreover we will save water bill in every month. We can also help the environment by less consuming ground water. She also adds we can use this water to

clean outside of our home, garage, car etc. Then his wife says the main concept of this project is two different holes to pass the water in two different places, so we can say this project name is “Two hole water saving plant”. From tomorrow we can start working on this project. We do not need to save all household waste water. If we save just a part of it that’s enough for our home garden and outdoor washing purpose.

Note: We can implement this idea in the Mosque (Muslim prayer centre). There a huge amount of water is used for ablution. Maximum people use just water for ablution. Only a very few people need hand wash liquid for hygiene purpose. To implement this water saving idea in the mosque, we need to takeout the hand wash facility from every ablution area and setup some basin near the toilet area with hand wash liquid facility. That’s all. Now all the used ablution water will be soap and chemical free that we can store and reuse for plantation, gardening and outdoor washing purpose.

Summary of the final project

We need to setup two basin/ sink side by side in the kitchen and washroom. In the first basin we always use just water to clean and wash. We never use any kind of soap, washing up liquid or chemical in the first basin. We use all kind of soap, washing up liquid, chemical in second basin. We need to set up a large water reserve tank in the garden or outside of the home. First basin (soap free) is connected with the water reserve tank by a pipeline. Second basin is connected directly to the sewerage line. That’s all, the water saving plant is done. Now we can start saving water for gardening and outdoor washing purpose. It is a very simple project, very easy to set up and use. Find the details in the above description and below diagram.

Diagram of this project



Save household soap free used water for plantation by zero cost

Postscript of this project:

Mohammad Shahadat Hossain and his family are living in an underground cave house. Day by day it is getting difficult to live there. So he is desperate to move in a new house. His income is low so he has no other option to apply for a government house. After applying literally he has nothing to do just wait for the final draw. But his brain is excited about that house that he has selected first in his priority list. His brain starts planning what he will do after getting that house. His brain is making plan after plan about all of his dream and recover the difficulty that he will face in the future. This brain storming happened before the final draw.

In the final draw date the city corporation's computer missed to pick up his name. So the hope is ended to get that government cheap rental house. By this time already he has found an innovative idea "Two hole method household waste water saving plant" for plantation and outdoor cleaning purpose. His brain works hard because he is unable to pay extra water bill. His brain works in advance because he is poor who trying to move forward. If he would rich and have enough money to pay the excess water bill then maybe this innovative idea will never come. That's why beginning headline of this project is "A great innovative idea begins from a poor man's dream".

Mohammad Shahadat Hossain is still hopeful that he will setup this water saving plant in his own house, when he will manage a house with garden in future. Now he is trying to send this project to different organizations and authorities to disseminate this idea to implement in other people's house. He will be very happy when he will see people are using his idea to get benefit and help the environment by less consuming ground water. If he will get any recognition on this innovative idea that would be a bonus.

The beginning quote "If you are eager and desperate to move forward then who will pull you back" that he wrote during writing this project. He has very limited space in his underground cave house. He never can open his laptop during the day in front of his two little kids. If he presses once on the key pad, the same time his two kids press 10 times on the key pad. He has written his several projects including this one in his nearest public library, in the public waiting space in his nearest loja das finanças, even in the park's bench and also during the midnight when his kids sleeping. Thanks for listening my idea.

Mohammad Shahadat Hossain
(Lisbon, Portugal, 15/07/2024)