



# G E M

## Green Earth Movement

An E-Newsletter for the cause of environment.  
Remember - "you and I can save the future"

We need a global approach to this from all sides. We need to educate people, we need the scientists to create new technologies, we need the engineers to create the networks, we need every human being to be aware of how precious water is and save it. Everybody has to be involved in a very firm and assertive way.

-Isabel Allende



### FREQUENTLY ASKED QUESTIONS ON RAIN WATER HARVESTING

Be praised, My Lord, through Sister Water: she is very useful, and humble, and precious, and pure -St Francis of Assisi

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Water, like religion and ideology, has the power to move millions of people. Since the very birth of human civilization, people have moved to settle close to it. People move when there is too little of it.

#### What is rainwater harvesting?

It simply means catching and holding rain where it falls and using it. You can store it in tanks or you can use it to recharge groundwater.

#### Does it work?

Yes. Our ancestors harvested rain just as naturally as they tilled the ground to grow crops. We lost touch with these local solutions. But now, as the taps dry up, more and more people are reviving this age-old system and practicing it very successfully.

#### Can I harvest rain in my own house?

Yes you can. Structures to harvest rain require little space. A dried borewell, a row of soak pits or a tank--concealed below the ground- are all that you need. The open spaces -- rooftops and ground - can be used as your catchment (surface to catch rain).

#### How much will it cost?

It varies, depending on the area of your roof and other structures that you will use to harvest rain. But rainwater harvesting does

People move when there is too much of it. People journey down it. People write, sing and dance about it. People fight over it. And all people, everywhere and every day, need it - Mikhail Gorbachev.

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Every human should have the idea of taking care of the environment, of nature, of water. So using too much or wasting water should have some kind of feeling or sense of concern. Some sort of responsibility and with that, a sense of discipline.

-The 14th Dalai Lama Tenzin Gyatso

not require major construction work, so the expenses suit most of our pockets. Find out for yourself.

### Who will build it and how long will it take?

You need someone who understands rainwater harvesting. It is simple but it still needs someone who has experience in the principles of rainwater harvesting. Then a skilled mason or a plumber can do the job for you within 10 days. Know more about water harvesters in your city. We have put together a list of such people and will keep updating this list as more people harvest rain.

### Who will it benefit?

You. Your groundwater will be recharged. But as groundwater moves, your neighbourhood will gain too. So for best results, get all your neighbours to become rainwater harvesters as well.

### What will be the quality of water?

You are putting rain water into the ground, which once contaminated, cannot be cleaned easily. Please do not let water with sewage or other dirt flow into your recharge pits. This is why the cleanest rainwater is from our rooftops. There are also filters to keep some dirt out. See for yourself.

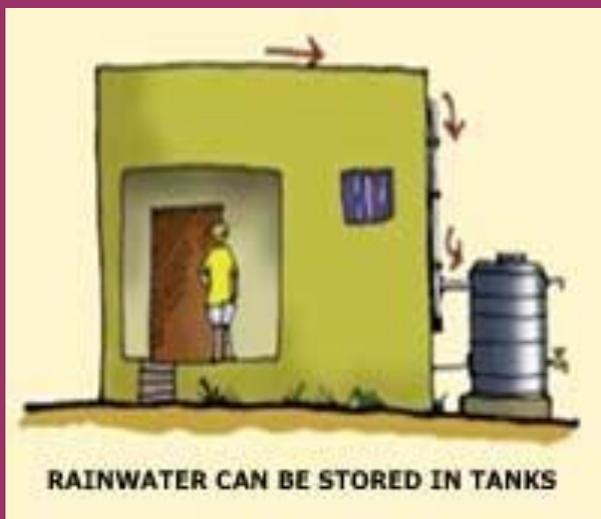
### Does it require a lot of maintenance?

Once or twice a year, at very little cost. Remember rainwater harvesting means that you have to get involved. This is about making water all our business. This is about building our relationship with water. With the environment. Harvest rain. Learn the value of each raindrop.

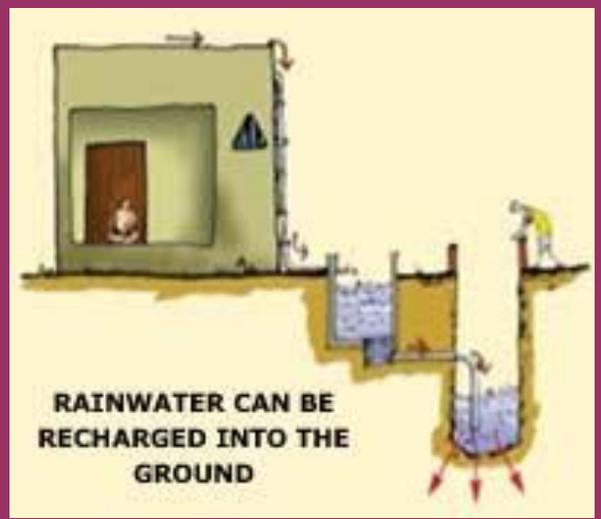
## HARVESTING SYSTEM

### BROADLY RAINWATER CAN BE HARVESTED FOR TWO PURPOSES

**Storing rainwater for ready use in containers above or below ground**



**Charged into the soil for withdrawal later (groundwater recharging)**



# FROM WHERE TO HARVEST RAIN

## Rainwater harvesting can be harvested from the following surfaces



**1. Rooftops:** If buildings with impervious roofs are already in place, the catchment area is effectively available free of charge and they provide a supply at the point of consumption.



**2. Paved and unpaved areas** i.e., landscapes, open fields, parks, storm water drains, roads and pavements and other open areas can be effectively used to harvest the runoff. The main advantage in using ground as collecting surface is that water can be collected from a larger area. This is particularly advantageous in areas of low rainfall.



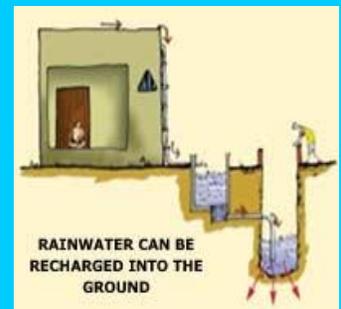
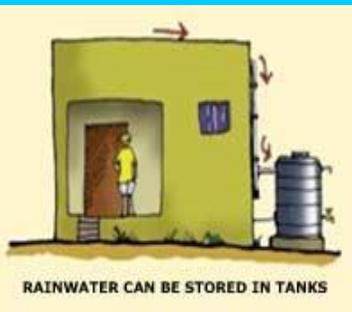
**3. Water bodies:** The potential of lakes, tanks and ponds to store rainwater is immense. The harvested rainwater can not only be used to meet water requirements of the city, it also recharges groundwater aquifers.



**4. Storm water drains:** Most of the residential colonies have proper network of storm water drains. If maintained neatly, these offer a simple and cost effective means for harvesting rainwater.

## WHETHER TO STORE RAINWATER OR USE IT FOR RECHARGE:

The decision whether to store or recharge water depends on the rainfall pattern and the potential to do so, in a particular



region. The sub-surface geology also plays an important role in making this decision. For example, Delhi, Rajasthan and Gujarat where the total annual rainfall occurs during 3 or 4 months, are examples of places where groundwater recharge is usually practiced. In places like Kerala, Mizoram, Tamil Nadu and Bangalore where rain falls throughout the year barring a few dry periods, one can depend on a small sized tank for storing rainwater, since the period between two spells of rain is short. Wherever sub-strata is impermeable recharging will not be feasible. Hence, it would be ideal to opt for storage.

**NOTE:** Above write up, taken from various sources is presented in a simple form for the easier understanding of the common people. There are many sites on Rain Water Harvesting with detailed technical descriptions - Editor.

## The Golden Takeout

Success does not happen in isolation,

it is most often a participatory and collective process.

So share the good practices, ideas and new knowledge

with your family, friends, team members and neighbours and all.

As they say: "Success breeds Success"

EUREKA FORBES INSTITUTE OF ENVIRONMENT IS PROVIDING FOLLOWING SERVICES ON THE PROJECTS CONNECTED WITH WATER HARVESTING (*courtesy: Cornerstones, Vol. III, No. 1*)

1] EDUCATION: In case you require us to meet with the members of the Housing Society or community to explain what Rain Water Harvesting is about – we undertake this as part of our education Programme.

2] TECHNICAL CONSULTANCY: Realising that consultants charge exorbitant rates we provide an economical alternative by providing the best services and techniques for a token commitment fee.

3] IMPLEMENTATION: We are not into implementation of Rain Water harvesting systems. However we have witnessed the work of a number of contractors and can support you by way of identifying and deploying them at the time of implementations.

We require the beneficiaries to contribute in some measure to promotion of Rain Water Harvesting by putting up a signage provided by us "We practice Rain Water Harvesting, thanks to the support of ...

For further details you may connect up with: Eureka Forbes Institute of Environment

Mr Vishal bhanushali, Tel: 02230268236/35, email: [vishal.b@eurekaforbes.com](mailto:vishal.b@eurekaforbes.com)

## SLOGAN TO ACTION



To  
Fr John Rodrigues and his  
Team of Nature Club  
Brothers from ST PIUS  
COLLEGE, GOREGAON for  
launching the Project of  
ZERO GARBAGE.  
*St Pius College is the  
Archdiocesan seminary  
where more than 150 young  
men are being trained to  
become priests.*

## See Green, See Life



Following individuals and NGOs are ready to join hands with you in guiding and carrying out various eco-friendly projects shown aside in your housing society or institution. **YOUR INITIATIVE CAN MAKE ALL THE DIFFERENCE!**

## THE PROJECTS WHICH CAN SAVE THE MOTHER EARTH.

1. Organic Waste Management
2. Sewage Management
3. Bio- sludge Management
4. Waste-Water Recycling
5. Waterless Urinal
6. Infection Control
7. Odor Management
8. Bio- Gas Generation
9. Solar Energy Generation Systems
10. Organic Garden development.
11. Water Harvesting

1. Dr Emmanuel D'Silva, Environmental Scientist: Email - [ehdsilva@yahoo.com](mailto:ehdsilva@yahoo.com)
2. Stree Mukti Sanghatana (SMS). Tel. No. 24174381 (Dadar); Chembur: 25297198; Govandi: 65745835/65745840 email: [smsmum@vsnl.com](mailto:smsmum@vsnl.com)
3. Dr Franslina Pinto, GARBAGE CONCERN: Email - [francinpinto@gmail.com](mailto:francinpinto@gmail.com), Tel. 02228680636/9820702096/9892027518.
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6. INSTITUTE OF ENVIRONMENT: Tel: 02230268236/35; Email : [vishal.b@eurekaforbes.com](mailto:vishal.b@eurekaforbes.com); website: [www.eurekaforbes.com](http://www.eurekaforbes.com)

## CONTACT FOR EM SOLUTION and AWARENESS CD

- 1) FOR MAPLE EM 1 STOCK (currier delivery): Mr Jere - 9823036910, Email: [bhumiagroservices@yahoo.co.in](mailto:bhumiagroservices@yahoo.co.in)
- 2) FOR ACTIVATED (READY TO USE) EM SOLUTION AND MAPLE EM 1 STOCK: St Xavier's Community Centre, Panvel - 27455556.
- 3) FOR POWERPOINT PRESENTATION CD ON AWARENESS ON ZERO GARBAGE MAY BE DOWNLOADED FROM OUR WEBSITE [www.stfrancisxavier.in](http://www.stfrancisxavier.in) - GEM section, or email your request to [panvelchurch@rediffmail.com](mailto:panvelchurch@rediffmail.com)

**I FORWARD GEM TO ALL MY E-CONTACTS. DO YOU?**



*HELLO MY YOUNG FRIENDS  
Do you know the secret of my health and happiness?  
Perhaps you don't.  
My parents, my*

grand parents had left behind a beautiful, clean and green earth. If I had to live in a polluted earth, I would have died long ago. Thanks to my ancestors, I am still alive and active.

Can you think for a moment, when you become grand parents like me, what kind of earth you will live in, or what kind of earth you will leave behind to your future generations – your own children, grand children and great grand children? Don't you want them to live a happy and healthy life? IF YES, let's all work for a clean and green earth, let's care for creation doing our bit, so that our future generations will not have to live in a polluted and dirty environment. Leaving behind a clean and green earth will be our beautiful legacy to our future generations. **IF YOU AGREE WITH ME,**

**PLEASE SPREAD THIS NEWS TO ALL YOUR DEAR AND NEAR ONES. FORWARD THE GEM E-NEWSLETTER TO ALL OF THEM.**

# 101 ways CONTD.

**TO SAVE  
GREEN  
AND  
LIVE  
GREEN**



*These are very practical tips emailed by Jannet D'Souza (courtesy: Internet).  
These are being published in the GEM issues, in parts - Editor*

**41. Drink tap water at restaurants:** Tap water is more strictly regulated than bottled water and there's no need to add tons of plastic and glass bottles and jugs -- about 60 million a day -- to landfills. And recycling them takes energy, too.

**42. Download music:** Download tunes instead of purchasing them at the store. Each month, more than 45 tons of CDs become obsolete -- outdated or unwanted -- and end up in landfills.

**43. Rent, don't buy, movies:** One hundred thousand DVDs and CDs are thrown away each month. So you won't be contributing to the trash pile.

**44. Subscribe to online newspapers:** Cancel your paper subscription altogether and get your news -- often from the same newspaper publisher -- online. Each year, 10 million tons of newspapers are tossed into landfills and aren't recycled. If just half of these were recycled, it would save 75 million trees



**45. Turn off your entertainment center:** Electronics, including TVs, cable boxes, DVD players, computers, music systems and gaming consoles, consume up to 40 percent of their full operating power when switched "off" or left in standby mode. They also continue to produce heat, which increases home cooling loads. Turn them completely off all at once with a common surge protector. They'll last longer and you'll reduce your electric bill.

**45. Take an Eco-tour Vacation:** For a conscientious vacation, try an eco-tour. These earth-friendly getaways seek to enhance awareness of our natural world, promote conservation, minimize impact and provide a positive experience for guests and hosts. Some even put you to work improving the local ecosystem.