I SAVE WATER

An IPA Social Mission on Save Water

TO SAVE 130 CRORE LITRES OF WATER IN 2019
(@ 1 LITRE/PERSON/YEAR)

"By providing Water Pressure Compensating Aerators and Pressure Compensating Washers free of cost"

Creating Water Security by Improving the consistency of the water sources

Gauranga Das
Director, Govardhan Ecovillage
ISKCON

Water is Precious
SAVE IT
by
HARVEST
RAINWATER

WORLD
WATER
DAY
MARCH 22nd

INDIAN PLUMBING ASSOCIATION
www.indianplumbing.org

OUR RESOLUTION

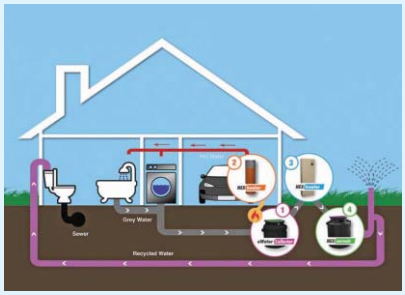
REDUCE. REUSE. RECLAIM.

REDUCE WASTAGE

Every citizen should reduce use of water by adopting technologically advanced control devices in our homes, offices and work-places. And also reduce leakages and wasteful practices. With our people clamouring for better quality of life, the importance of pure water for drinking and sanitation can never be over-emphasized. But its supply is endangered by errant monsoons, shrinking flow of rivers and over exploitation of ground water. Supply and Distribution systems in cities are already under severe pressure.

REUSE GREY WATER

Enormous quantities of water is being and will be used for sanitation purposes as entire India is becoming Open Defecation Free. The grey water generated which generally finds its way to pollute our rivers can be put to good use by treating through modern STPs and WTPs. The treated Grey Water should be used for Gardening, Flushing and washing pathways, which should not be directly in touch with human body.



RECLAIM BY RAINWATER HARVESTING

In monsoon precious & pure water flows away in sheer waste. Massive deforestation and reduced absorption of excess rain water massive concretization of our cities lead to reduced recharge of wells and water bodies. These periodic foods not only do massive damage to irrigation canals, river basins but also erode banks and valuable top soil of fertile deltas and lands, leading to less and less agricultural production. If rain water harvesting is adopted by every home, the cycles of foods and draughts can be halted and then effectively reversed. Farmers then can enjoy stable incomes and security. The Rainwater Harvesting is mandatory in the states of Tamil Nadu and Kerala.

CONSERVE AND SAVE WATER

Jal Hai to Kal Hai,
Jal Nahin to Kal Nahin !

Take a short 2 minutes shower.
A showerhead uses as much as
16 litres per minute

Install Pressure Compensating
Aerator in all faucets
for regulated Water flow

Don't use a hosepipe
to wash your car,
use a bucket to save water.

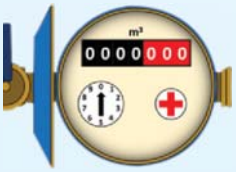
Install Pressure compensating
washer in shower
heads for regulated flow

Use plants that
require less water.

Water your garden with a
watering can early morning
rather than a hosepipe.

Water your lawn or garden
early in the morning or late
in evening-before
10 am or after 4 pm

Use dishwasher
and washing machine
only for full loads



Use your water meter
to check for hidden water leaks
and keep'n eye on your usage.

Install new Double
Flush Cisterns that
use less water per flush

Flush your Toilet only
when necessary

Turn off sink faucet
while scrubbing
dishes and pots.

Use a broom, not a
hose, to clean
driveways and walkways.

FIX LEAKAGE SAVE MONEY

One drop Per Second
1 day loss 4.3 Litres
1 Month loss 130 Litres

Two drops Per Second
1 day loss 14 Litres
1 Month loss 380 Litres

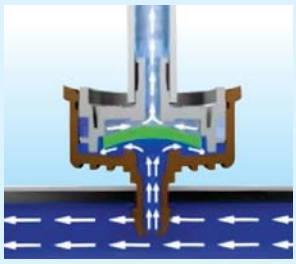
Braking Stream Per Second
1 day loss 91 Litres
1 Month loss 2650 Litres

1.6 mm Stream
1 day loss 320 Litres
1 Month loss 9460 Litres

2 mm Stream
1 day loss 980 Litres
1 Month loss 29520 Litres

IPA propagates the installation of PCA (Pressure Compensating Aerator) and PCW (Pressure Compensating Washer) a most scientific and a sound engineering solution to save water. This would mitigate future challenges caused by water scarcity with our growing population.

PCA
Pressure Compensating Aerator



PCW
Pressure Compensating Washer

Sample calculation of water saving using PCA/PCW for a flat with 2 faucets and a shower in a 40 M high apartment building is given below.

	Wash Basin Pillar Tap	Kitchen Sink Tap	Overhead / Hand Shower
Normal Flow	8-10 lpm	8-10 lpm	10-12 lpm
We get PCA's/PCW's from	2.5 lpm		6 lpm
Recommended PCA/PCW with Min. flow rate	2.5 lpm	3.8 lpm	6 litres/min
Normal Saving of	6 lpm	5 lpm	5 lpm
Wash basin/Sink/Shower is used for	2 min/day	20-30 min/day	3-5 min/day
Thus we can save per WB/Sink/Shower	12 lpd	125 lpd	20 lpd
Thus yearly saving per WB/Sink/Shower	4380 litres	45625 litres	7300 litres
Total yearly water saving	57305 litres		
Total yearly water saving for a family of 5 persons	104025 litres		

$$Pbhp = \frac{HQ}{(4570 * \text{pump efficiency})}$$

Q is the water flow rate in lpm & H is the Head in m

$$Pbhp = \frac{HQ}{(4570 * \text{pump efficiency})}$$

$$Pbhp = \frac{867 \times 40}{4570 \times 0.5}$$

Pbhp = 30 HP/year

PkW = 22.5 kW/year

Cost of Energy Saved @ Rs 15/kW per year = Rs 340/flat

Energy Saved for 133 crore litres of water saved = 2,89,495 kW / year

Cost of Energy Saved for 133 crore litres of water saved = Rs 43,42,500 / year

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