



## Editorial

### More Precious Than Gold

Soothsayers, it is often said, love to travel on the path of pessimism. But when it comes to water resources, the prediction of the world running out of water very soon is more closely connected with scientific reality than any doomsday reflection from a crystal ball.

If 97 per cent of water on the earth is salt water, leaving only 3 per cent as fresh water of which slightly over two-thirds is frozen in glaciers and polar ice caps, it does create a need to think about what will happen to our requirement for water in the years to come. Fresh water is a renewable resource, yet the world's supply of clean, fresh water is steadily decreasing. The demand for water already exceeds supply in many parts of the world and this is directly proportional to the increase in population.

Unfortunately, awareness of the global importance of preserving water has emerged only very recently and scientists therefore feel that it already may be too late to take any corrective action. One need not go too far to find an example.



The shortfall in rains this year has become a cause for concern across the country and the government will have no choice but to declare many regions as being affected by drought.

The fact that 69 per cent of worldwide water use is for irrigation, with 15-35 per cent of irrigation withdrawals being unsustainable, it is but a foregone conclusion that drought means a drastic decrease in the production of food grains and this will subsequently impact the entire economy.

In 2000, the world population was 6.2 billion. The United Nations estimates that by 2050 there will be an additional 3.5 billion people with most of the growth in developing countries that already suffer water stress. Thus, the demand for water will increase unless there are corresponding increases in water conservation and recycling of this vital resource.

What is also troublesome is that increasing affluence will lead to a more wasteful use of water. The rate of poverty alleviation is increasing in thickly populated countries like India and China. However, this will inevitably lead to more water consumption. As such, this issue of the WOTR newsletter is dedicated to water management, focusing on both urban and rural areas. Save water. Save the next generation.

**Huned Contractor**  
Editor

## Update

### WOTR Office Inaugurated

On July 6, 2009, WOTR moved into its new and spacious office located on the Pune Satara Road. The inauguration was done by the State Minister for Agriculture, Balasaheb Thorat in the presence of distinguished guests representing the government, the development sector, industry and education. Speaking on the occasion, Shri Thorat recalled his initial days of association with WOTR and the journey on the path of watershed management. "The most important factor of WOTR's work over the years has been its holistic model that looks at the total development of a village which includes women empowerment, child education and entrepreneurship," he said. Films promoting water conservation anchored by noted film director Shekhar Kapur were also screened on this occasion.



A book titled 'Panchayat Raj On The Ground' authored by Ravi Deshpande and Dr Marcella D'Souza was released on this occasion by Shri Thorat. WOTR conducted a study of the functioning of the Panchayat Raj Institutions (PRIs) in 12 villages, three each in the regions of North Maharashtra, Vidarbha, Marathwada and Western Maharashtra during the year 2007. This book is the outcome of the conducted study.

# Darewadi Sets An Example

*When it comes to rural water harvesting, the Darewadi project in Ahmednagar district is often taken up for study and emulation*



About 15 years ago, Darewadi was a picture of despair. A remote village, without any assurance of drinking and irrigation water, it was dependent on about 300 mm of rainfall received each year. Agricultural production - even in a year of reasonably good rain - was not sufficient even for 3-4 months, employment opportunities were scarce and primary education was a distant dream for the children. Women had to toil hard, either in the places to which they had migrated or in their own village, to fetch water, fuel and other basic needs. But their lives soon underwent a dramatic transformation after they approached WOTR for assistance.

However, WOTR's conditions such as four days of shramdaan and a ban on free grazing deterred them. Therefore for about a year they kept on finding ways and means to avoid WOTR's diktats, but failed. Then, one bad monsoon and its differential impact on the region opened their eyes. Finally the work started in 1996. A year later, in 1997, they took permission from the Forest Department to work in the reserved forest zone following the ridge to valley concept. In 1998, the project entered the full implementation stage. A series of technical treatments (contour trenches, gully plugs, farm bunds and

contour bunds, check dams, etc) along with bio-regeneration (plantation, grass seeding, etc) were undertaken.

The once degraded landscape was slowly transformed, providing adequate drinking and irrigation water with increased soil moisture for better crop production and sufficient (sometimes even surplus) fodder and fuel. This transformation of Darewadi would not have been possible without the emergence of effective local institutions. They interfaced with WOTR as well as government departments - planning, implementing and monitoring all the activities while evolving systems for conflict resolution. Over the years increased agriculture production due to increased availability of water and enhanced soil moisture regime has created linkages with markets for selling the surplus.

## Housing Society Finds A Way

When Col Shashikant Dalvi retired and settled down in Viman Nagar, he was appalled at the scarcity of water, a common feature in this area. "The borewell in our housing society would run dry in half an hour. Obviously insufficient for

the residents of 57 flats, we had to resort to water tankers at least thrice a day. This was a whopping expenditure. Besides, I was doubtful of the hygienic conditions of the tanker and the origin of the water," he recalls. Having been posted in dry areas like Rajasthan, he had observed how old havelis made use of even scanty rainfall by storing that water in bawris, which would last for drinking purposes almost throughout the year.

He had vaguely heard of rain water harvesting (RWH). Now he studied it and was soon able to convince his society members to install it. "Initially, in June 2003, the rainwater run-off from only 3,000 square feet of our rooftop was used. As the water table rose, the bore well could now draw out greater quantities of water. It was such a success that in the succeeding years the entire 10,000 square feet rooftop area was brought into our rain harvesting system. Nowadays, we hardly need any tankers and our water bill has been reduced by almost 95 per cent," he adds on a triumphant note.

With the success of the project in his own society, Col Dalvi has helped to install RWH units in a few other housing societies, as well as in some schools in and around Pune. He gives a few interesting statistics to emphasize the necessity of saving every drop of water. "According to records, 40 years earlier, Pune had a percolation rate of 45 per cent. But now, with increased areas under concrete and tarring, the rate has gone down to 8 per cent. The water table is depleting every day. At the same time demand for water, by an ever increasing population, has gone up drastically. It makes ecological and financial sense not to waste a pure natural resource available in such large quantities on one's roof," he points out.



# Water As Entitlement

*Quite too often, the significant link between water and women, especially in rural areas, is forgotten in the flurry of discussions related to water conservation and its need for agricultural and personal use*

**Prabha Krishnan**

It is no coincidence that historically the world's great civilisations arose on the banks of rivers. Today water is a part of the crucial debate on entitlements that erupts in the form of a million mutinies all across this country – think Singur, Nandigram, Plachimada. Water is also a deeply gendered terrain.

## Water And Health

The health picture can be assessed by considering just this one statistic – in 2000-02, while sugarcane production in Maharashtra was at 45,140, all cereals accounted for 9,305 and all pulses at 1,280 (all figures in 1,000 tonnes). Sugarcane is a voracious water user, and the product - refined sugar - depletes the human body of scarce vitamins, minerals and enzymes. The connection between water scarcity, water-borne diseases and infant mortality is well known. However, the impact of water scarcity can be minimised by carefully selecting purification techniques, which currently lean heavily towards chlorine tablets and bleach. Chlorine is a well-known potent carcinogen. Instead we can consider these (see box) natural water purifiers and herbal remedies.

The WHO has been promoting the use of Moringa seeds (drumstick) as purifier in Africa. This tree is commonly available and used in India and hence it can be propagated and widely used. Dried seeds are powdered and a teaspoon full of the powder is added to 10 liters of water (one pot full). The water is allowed to stand for 24 hours. The clear water is used for drinking.

Humus is essential for increasing the water-holding capacity of soil and it greatly increases food production. But the

fuel situation is so dire that trees, branches and agricultural wastes, as also animal dung, is burnt. A considerable portion of women's time and energy is used up in gathering fuel wood – this increases their workload, while degenerated soil conditions ensure that their search for water and fuel remains as elusive and back-breaking as ever.

## Women As Subjects And Agents

It is the girl child who drops out of whatever schooling is offered in order to fetch water or care for the siblings while her mother trudges to the water source. Whereas studies have shown that increased years of schooling, and thus delayed marriages, impacts fertility declines and infant health favourably. As any watershed programme is land-based with men holding title to land, watershed development was seen as a male domain. Women were considered incapable of absorbing technical matters. If grudgingly women were included in water governance matters, they were consulted on domestic water use, not for irrigation issues.

The self help group (SHG) movement has helped to reduce women's drudgery and enhanced their economic status. As of March 2009, WOTR has promoted / supported in Maharashtra, Andhra Pradesh, Madhya Pradesh and Rajasthan 4,240 SHGs involving 57,169 women members. As of March 2009, Sampada Trust has promoted 2,664 SHGs in 713 villages across 12 districts of Maharashtra through 45 promoters in the Women Empowerment Programme. A total of 34,632 women are active members of these SHGs. Out of these, 8,637 women members have availed loans from Sampada Trust.



Today, women form almost 44 per cent of the membership of the local self-government bodies after gaining experience and confidence in WOTR / Sampada's direct implementation projects. In one instance, women demanded and got their own all-women gram sabha. Through these groups, women have undertaken projects like non-formal education, hygiene, kitchen gardens, anganwadis (day-care centers), toilets, health camps, etc.

The Sampada Trust's work in generating viable employment opportunities within the villages prevents out-migration. This work has crucial health benefits because in the cities migrants are crowded in illegal slum settlements, without access to clean drinking water and sanitation and eating food of doubtful quality. The public health care system then takes over, dispensing vaccinations and antibiotics, further impoverishing their fragile health status.

While the products generated by the SHGs are important, the process of group formation and sustenance has truly empowered women to query their own position within the patriarchal fabric of society and the developmental processes within it. Soon, we may see the rise of a population able to shake off their internalised inferiority, and make authentic changes in their own situations, as well as that of their families, their communities, and the political space they occupy.

*(Prabha Krishnan is a health activist interested in issues related to gender, media and ecology.)*

Species	Symptom	Preparaton
Acacia catechu	Diarrhoea	Catechu-resinous extract from wood
Moringa oleifera	Diarrhoea, gastro disorders	Pounded seeds in curdled milk
Pongamia glabra	Intestinal worms, parasitic skin diseases	Seeds
Strychnos potatorium	Diarrhoea, eye infections, boils	Half to one seed rubbed into fine paste with buttermilk, powdered seed in honey

(Source: Vandana Shiva, 1988. *Staying Alive: Women, Ecology and Survival in India*. New Delhi, Kali for Women.)

# Farmers Of The Future

*Where the availability of water for irrigation has been always been a problem, farmers have agreed to experiment with different varieties of seeds that do not consume much water*

**M**urlidhar Mahadeo Wasekar, a farmer of the Musal cluster of Yeotmal district in Maharashtra, is today quite pleased at having agreed to an experiment. That is because the new variety of horse gram (chana) that he allowed for sowing in his field has turned out to be very productive. The project was implemented under the aegis of the 'Sunhera Kal' programme being implemented by WOTR-SIED in Musal where a majority of its residents belong to a tribal community.

Agriculture is the main occupation and villagers have always depended on traditional farming techniques. Most of the farmers are illiterate and unaware of the new and improved techniques now available. In fact, their ignorance of the improved variety of seeds has always kept them away from high productivity and income. It was against this background that the Village Development Committee decided to try out the faster growing variety of horse gram called Basanti introduced by Narmada Sagar Agro Seeds of Himmat Nagar, Gujarat. This particular variety requires less water inputs.

When Wasekar agreed to undertake the sowing on his farm, he was given 20 kgs of the seeds on November 15, 2008. The condition was that he would not use any chemical fertilisers. Wasekar therefore used natural manure before sowing the seeds and then watered the plantation thrice a day. Responding well to the atmospheric conditions, the harvest yielded 2.5 quintals of horse gram, which was a significant leap in terms of produce percentage. So impressed has Wasekar been with the crop that he has kept aside the new seeds for the next plantation and has also been recommending this variety to other farmers.

In a similar case, an experiment was carried out in Ruda village of Yeotmal district to augment the overall development of the village as well as enhance the standard of living of the villagers. Here too it had been observed by the Village Development Committee (VDC) that the farmers were relying on traditional farming patterns,

unaware of the improved variety of seeds available elsewhere. Being informed of a new variety of wheat called Pratham 7070 introduced by Mahico Seeds of Jalna, the VDC decided to conduct an experiment to test if this variety could stand up to its claims of less water requirement and the ability to grow on land of low productivity.

According to the company, the advantage of this variety is that it grows less in height as compared to other wheat and therefore is less prone to damage caused by forceful wind. Therefore, the VDC selected Subhash Vitthalrao Garshe to carry out the project. Garshe was given 24 kgs of seeds on November 25, 2008, which he cultivated using organic manure. The field was watered six times a day. The harvest yielded 5 quintals, much more than Garshe's expectations. He is therefore quite keen on continuing with this variety of wheat.

In this same village, Dattu Vithoba Meshram had a different problem on his hands. The owner of 7 acres of land, this tribal farmer had been growing cotton, sorghum and pulses over the years. However, the low yield and poor profitability would always force Meshram to undertake other odd jobs to be able to earn enough to sustain his family. Then, someone suggested that he should try out horticulture. That led Meshram to grow 20 trees of aamla and 25 trees of mango.

However, this turned out to be a tough task considering the scarcity of water in Ruda. At a time when he simply didn't know what he should do next, Meshram heard of a new technique being implemented by WOTR-SIED on the farm of Babaram Keram. He met the project volunteers and learned the technique of bottle drip irrigation that has been found to work very well in areas starved of adequate water. Using this technique on his farm, Meshram was able to save all his fruit trees. "I am now looking forward to planting more such trees to supplement my income," he states.



Agriculture is the main occupation and villagers have always depended on traditional farming techniques. Most of the farmers are illiterate and unaware of the new and improved techniques now available



# Mandwa: Where Fortunes Turned

*Here is an instance of how proper watershed management brought about a tremendous change in the lives of people who had totally lost all hopes*

**M**andwa, located in the Vidarbha region of Maharashtra, effectively showcases how developing the resource base through participatory watershed development can result in overall sustainable development. It is a small village of 80 households in the Hingna taluka of Nagpur district, with a mixed community having a predominantly tribal population. All villages of this area generally being small are organised into gat gram panchayats (group village panchayats), which implies clubbing together of 3 or 4 villages.

Mandwa is a member of such a Gat Gram Panchayat that consists of three other villages. It today is a clean and beautiful village with productive fields where happy and cheerful faces have replaced the distressed ones of yore. Not long ago, the scenario was completely different. Season upon season of failed rains had rendered the land unproductive and the villagers unemployed. Even during the good rainfall years, owing to the lack of irrigation facilities, agriculture was generally mere subsistent in nature. The half-year's employment that was available in the village was far from sufficient to take care of the basic needs of the villagers and the condition was even more severe during the low rainfall years.

At such a point of time, CRTDP (Comprehensive Rural and Tribal Development Project), an NGO working to provide health and education support to the villagers, felt the need for some sustainable action that would ensure a decent livelihood for the villagers. With this objective in mind, Karim David, Director, CRTDP approached WOTR way



back in 1993 to explore the possibilities of developing the watershed around the village. This started off a series of joint efforts wherein David from CRTDP and Crispino Lobo of WOTR made several visits to the village to convince the villagers about the benefits of developing their watershed. Perseverance paid off.

Thus, a group of 50 villagers went on an exposure visit to Ahmednagar district, where they engaged themselves in meaningful and eye-opening dialogues with farmers and witnessed the transition that had taken place. The fears of their lands being taken away from them and fears of conversions were laid to rest. This was indeed a turning point and the people zealously resolved to prove the credibility of watershed development in their own village.

One of the important factors in the success of watershed development in Mandwa was 'shramdaan' (voluntary labour), a non-negotiable in a watershed development project. It took the villagers time to get accustomed to the idea of 'shramdaan', which was both new and incomprehensible to them. Slowly, as they began to grasp the concept, two ways of 'shramdaan' were introduced. The first was that of providing on-site labour of one person-day a week at the watershed site. The bigger farmers however preferred the second method of contribution, whereby they sent one paid daily wage farm worker to the watershed site or paid one day's wages to compensate for his own absence.

Kurhadbandi (ban on cutting of trees but lopping permitted) and Charaibandi (ban on open grazing on treated area) were the other two essentials for making the project a success. The capacity building phase (CBP) was started in February 1995 and ended in 1997. The final implementation phase (FIP) was started in January 1998. This phase took exactly three years and the project came to an end in January 2001. The watershed project of Mandwa can be cited as a landmark success in the Vidarbha region. The watershed work

has brought about an unprecedented change in the occupational structure of the village. There is a resounding increase in agricultural employment and there is now very little dependence on tendu leaf collection. Earlier, the entire village was engaged in this occupation.

As Sadashiv Dadmal, a farmer, puts it, "Prior to watershed development more than half my land remained uncultivated for two seasons in a year. There was no water. Now as the water level has improved, I have dug more wells and purchased four motor pumps. I now have three wells that provide ample water for my fields." Dadmal grows cotton, sorghum, soya bean and all types of vegetables and pulses. He also feels that prosperity has seeped into the lives of all the villagers. "Now there are employment opportunities available in the village all year round and people are earning money. What is most important however is that people have learnt to save the hard earned money through SHGs. This has made all the difference," he states.

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The half-year's employment that was available in the village was far from sufficient to take care of the basic needs of the villagers and the condition was even more severe during the low rainfall years.



# Defining Rainwater Harvesting

*Given the fact that climate change is bringing about a disruption in normal monsoon cycles, it is now more important than ever to make the most of the water that is available*

Rain water harvesting (RWH) is a way to capture the rain water, store that water above ground or charge the underground aquifer and use it later. This happens naturally in open rural areas. But in congested, over-paved metropolitan cities, we need to create methods to capture the rain water. All you need for a water harvesting system is rain, and a place to collect it. Even airports, temples, roads, highways, flyovers, parks, schools, colleges, hospitals, shopping arcades can be brought into the net. Typically, rain is collected on rooftops and other surfaces, and the water is carried down to where it can be used immediately or stored. You can direct water run-off from this surface to plants, trees or lawns or even to the aquifer.

If you have a roof, you already have 80 per cent of the RWH system. You just need to re-orient the plumbing design. The present designs of houses take all the rain water from the roof and all the ground level areas surrounding the house, and flow the water towards the street, where it ultimately floods the street, clogs the storm drains and sewer lines for a few days, before flowing away as sewage water. From the roof tops, bring the rain water down using closed PVC pipes and direct it to a sump. Include a simple three-

part filtration unit consisting of sand, brick jelly and broken mud bricks. If you do not have a sump, use a well. In many parts of the country, when old wells dry up, they are used as garbage dumps. Clean the well and direct rain water into it.

Or, in another type of RWH, collect the ground water and stop the flow at the gate. Build a two feet deep pit across the full width of the gate. Put a concrete slab with holes in it to allow people and automobiles to go over it. Collect and connect a pipe and flow the water to a well or a baby well. The costs are minimal, restricted to only the PVC pipes and digging the trench. The benefits of doing so are:

- Saves on the cost of water tankers bringing water from unknown sources and untested for quality.
- Increases water availability.
- Checks the declining water table.
- Is environmentally friendly.
- Improves the quality of groundwater through the dilution of fluoride, nitrate, and salinity.
- Prevents soil erosion and flooding, especially in urban areas.

During the rainy season, rain water is prevented from seeping into the ground because most of the ground is covered with concrete or tiles. As a result, recharging of the ground water level does not take place, bore wells dry up, and the quality of water deteriorates. At times, the quality of tanker water is also questionable. If one looks at the prospect of the RWH, then for a terrace with an area of 1,000 square metres and rainfall of about 600 mm in one season, 50,000 litres of water can be saved in one season. Another benefit is the recharging of the bore wells. The ground water level rises. Industries are also greatly benefited from RWH as the water collected is low in hardness and hence the treatment cost of the water is less.

## Use Of Water

The following is the percentage breakdown of 135 litres of water that the urbanite receives per day:

Usage	Percentage
Gardening	17
Drinking	02
Cooking	03
Washing Utensils	15
Washing Clothes	19
Bathing	15
Flushing	29

Looking at this break-up, what can YOU do to reduce the wastage of water?



All you need for a water harvesting system is rain, and a place to collect it. Even airports, temples, roads, highways, flyovers, parks, schools, colleges, hospitals, shopping arcades can be brought into the net.



# Taking The Reins

*Kiran Shivaji Mane of village Tambhol, taluka Akole, district Ahmednagar describes her journey from a housewife in a drought-stricken village to being the sarpanch for three years and the change experienced due to the benefits of watershed development*

I am 42 years old and have two sons and two daughters. My children are currently studying for their degrees. My husband is a farmer. I still remember the scenario when I first came to this village after marriage. Water was the biggest problem and therefore agriculture wasn't really a profitable occupation. People had to migrate in search of livelihood opportunities. In 2001, a watershed development programme was initiated in the village and this provided people with employment. During the beginning of the project I got an opportunity to visit other watershed villages as part of an exposure trip.

I was also chosen for SHG and SMS training. From what I observed in other villages, I was motivated to take the lead in women's activities. Prior to this my role had been limited to taking care of my home and family. I never used to interact with other women in the village. Thanks to the training provided by WOTR I developed leadership qualities. During the watershed development programme we developed horticulture plantation on our fields since there was sufficient water now available for farming activities. Before the watershed programme, the availability of water was restricted to only four months in a year but this now increased to eight months.

We have 23 acres of land out of which 11 acres of land could now be used for eight months of agriculture. In 1998, we had tried horticulture with 200 plants but the attempt had failed. However, the increased water level in the village prompted us to try it out again and we began the experiment with 1,000 plants. This time the yield turned out to be good and our earnings increased considerably. It was drip irrigation that worked this magic and gradually we were ensured of water availability for almost the entire year. This benefited the rabbi crops too. Our present plantation comprises fruit trees of mango, pomegranate, chickoo and jackfruit.

Meanwhile, since our land holding is huge, we have involved other farmers

on a plot-sharing basis. These are experienced people who undertake the farming activities and also look after the marketing of the yield. The fact that all this has changed our lives is evident from our income. In 2002, the production yielded Rs 17,000 and in 2008 it shot up to Rs 1 lakh. This year I hope to get more than Rs 1.5 lakh even though the total income will be shared among all the farmers who are now cultivating our plots on a 50 per cent basis.

During the watershed programme we had requested WOTR to support us with a sprinkler set. With the help of this, water can be sprayed on other crops too. I now also cultivate wheat, onion and red gram. In 2005 I was elected the sarpanch of the village and remained so till 2008. Some of the projects undertaken by me during this tenure included a healthcare centre, a wall compound for the school, construction of toilets on the school premise, maintenance of the check dams, installation of a drainage system and building a facility for supply of drinking water to Mane Mala in the village. It has been a great journey so far.

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In 2005 I was elected the sarpanch of the village and remained so till 2008.

Pic: Joseph Shinde



# Trap The Rain

*Here are some practical tips and strategies for successful rain water harvesting*

There are many questions that will come to the fore if and when you decide to harvest the rain water and channelise it for proper use. Some of these FAQs are as follows:

## What is the need for rain water harvesting?

The acute scarcity of fresh water. Very soon, wars will be fought over fresh water rather than oil. As also the realisation that we are wasting more than 70 per cent of the rain water that we receive. If we harness just 2 to 5 per cent more fresh water, we can take care of all our immediate water problems. To replenish ground water costs less than Rs 3,000 per site. This is for perpetuity. No regular maintenance or any maintenance is required. No complicated piping either. Just a hole in the ground. All it takes is the knowledge of how to do it.

## What is the process?

Most important, choose the site carefully. Water should flow into the site. Drill a hole in the ground. Depending on the terrain, as little as 5 feet or as much as 30 feet. The hole can be 3-2 inches in diameter. Drop stones or (preferably) bricks into the hole so that the channel remains open forever. Cover with a one feet square mesh. Preferably double and stainless steel or galvanised. Cover with a layer of small pebbles. Cover this with loamy river silt / garden soil, never black cotton soil. Plant flowers on it, or cover with brick cobbling / brick paving. Forget about it. Convince others to implement it.

## How long does it take to complete a project?

The total time could be two to four hours if a drill machine is used.

## How does one maintain it?

This is very simple and maintenance-free. It's better than roof top harvesting, which involves filters / piping / plumbing process.

## Where can it be implemented?

RWH can be implemented on: Concrete flat roofs, inclined roofs, earthen tiled roofs, industrial sheds.

## Rainwater Filtration

In any rain water harvesting system, filtration of the rain water is a must or else it can lead to the problem of choking of a bore well or accumulation of dust load in the storage tanks. To make the rain water harvesting successful, specially developed rain water harvesting purifiers filters (RWH-purifiers) do the job of rain water filtration to remove the dust particles present in the rain water.

- This filter operates without any requirement of electricity.
- To remove the dust load accumulated in the filters, an inbuilt backwash system is provided.
- This filter is made up from PVC material and hence there is no problem of corrosion.
- It can be installed in the existing rain water drop pipes.

## Using Harvested Rainwater

Its use can include:

- Toilet flushing
- Laundry
- Car washing and floor washing
- Construction activities
- Industrial process usage
- Gardening
- Fountains and lakes
- Dilution of ground water quality



### New Publications Released

- 'Facilitating Local Governance: A Tool Kit' and 'Lokabhimukh Karbharachya Dishene -Gram Sabha Up-Samityanchya Kamkajasathi Sadhansanch' in English and Marathi respectively.
- Two booklets in Marathi titled 'Swayatta Va Shaktishali Gram Panchayat: Rachana Va Karya' and 'Zilla Parishad Va Panchayat Samiti: Rachana Va Karya' by Thomas Padghalmal.

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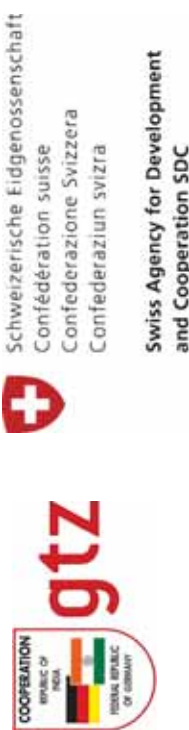
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