

AN INTERVIEW by Namitha Dipak, LPPS

NO FULL STOPS FOR THIS RAINMAN



SHREE PADRE, farmer, water journalist, and rainwater harvesting “evangelist” based in Kerala, India.

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*Surplus water and deficit water are like two sides of a coin, and the processes of managing “surplus” water could not just impact people living in the drylands, but also offer some pointers for those working on issues of desertification and drought. The insights that emerge from **Shree Padre**’s quest to uncover scattered success stories, disseminate information or analyse success itself, reveal that the community can be both the driving force and the beneficiary of better water management.*

Namitha Dipak: When did you first develop an interest in rainwater harvesting (RWH)?

Shree Padre: We have been publishing a farm monthly in the Kannada language (spoken in the southern state of Karnataka) called *Adike Patrike* for twenty years now. I realized in the mid-1990s that even in an area with heavy rainfall like ours, the efforts of farmers who toil for a full year goes to waste because of water shortage in summer. So we started collecting information on solving the water crisis. Unfortunately there was no easy solution and ordinary people could not follow whatever was suggested. People recommended construction of dams across rivers and things like that which was far above the reach of many of us. Wasn’t there any method that common people like us can easily implement? This was our question.

We started corresponding with and telephoning soil and water conservation research organisations, universities and watershed departments with one simple request: “Please give us contact details of places where they have solved their water crisis by simple low-cost methods.” Unfortunately, for almost one year, we couldn’t get any information. Of course, some offices sent us bulky books that even a science graduate like me could not understand! Our search continued.

It was in the later part of 1996 that we sniffed out a success story in Kannur, in north Kerala. Immediately, we rushed there. At last, there were a few lessons anybody could understand and implement. Through them, we got contacts of other

groups that have got success with RWH. All these weren't government organisations, but were harvesting rain out of necessity and interest. One after another, the stories we compiled started piling up. With these, we started a feature series by the title "Hundreds of ways to conserve soil-n-water" in *Adike Patrike* in September 1996. There were two main criteria for the selection of stories: there shouldn't be any government subsidy for the work, and that the methods used should have replication value at least in that neighbourhood. This series ran into 100 instalments in eight years.

Can you give us a historical perspective about soil and water in our country, the cycles of plenty and deficit, and the attitudes of people who depend on these resources?

Many of our ancestors knew the importance of soil and water and conserving these resources. Go to any drought-hit area, there are traditional water conservation systems, or traces of them, that can make us proud. Karnataka, for example has some very reliable drought-proofing techniques, the principles of which might be relevant and useful elsewhere too. Unfortunately, we haven't documented these systems properly. Anupam Mishra's two classic books in Hindi, *Raajasthan ki rajat boondein* (The silver drops of Rajasthan) and *Ab bhi khaden hai talaab* (The lakes are still standing) should be compulsory reading for any student of soil and water conservation. They tell us about the wonderful scientific knowledge ancestors in Rajasthan had and still have in these disciplines. When the State starting "giving" water to the people and many new technologies came in like dams, bore wells, submersible pumps and even tap water, the communities lost hold and control of water. The value of water was slowly forgotten. Self-help in water management became an unknown concept.

Most of your work is in regions with heavy rainfall, but have you had any successes in raising the water table in adjoining areas with low rainfall?

The observation is right. Most of my awareness activities are in heavy rainfall areas. But I have done many programmes in areas with less rainfall too. I don't implement the RWH work anywhere myself, but lots of people have done so by reading my writing and seeing my RWH slideshows. There are very good successes as well. Whenever I move out to a new area, I study the soil and water conservation systems there and visit places where common people have achieved successes. I learn from them and spread information to others. That's why I always mention that I learn from the "people's university" and not from textbooks or formal universities.

Can you relate an inspiring experience that led to successful rainwater harvesting in a village and how it changed the lives of the people?

A very interesting incident happened decades ago. In Kollam district of Kerala, there was this rubber farmer, the late T.J. Mathew. His house was situated atop an egg-shaped hillock. The dug-well was slightly below. Every February, his well would go dry and they had to get down the hill and walk a long distance to bring water. Years later, he constructed a compound wall around his half-an acre house site. There was a heap of sand in a corner. It occurred to Mathew that this sand would be washed away during the monsoon. To prevent this, he requested the mason to construct a small threshold there(see photo 1). "How big?" asked the mason. "One inch in height and three inches wide", Mathew replied. By mistake, the mason kept both the width and height at three inches. The next year, their well didn't run dry. Why? Because each time it rained, rainwater from the half-acre site didn't flow out – it percolated slowly into the ground.

"Eureka!", Mathew shouted and started digging rain pits in his land. "We don't need big dams, what we want is small 'cradle pits' to solve our water crisis"... and he started campaigning. In 1983, when there was an unprecedented drought in the whole of this coastal belt, his Thumbassery Estate gave drinking water to the whole village! This prompted a leading Malayalam daily to run an interesting feature on this development. Though the Soil and Water Conservation Unit had been functioning under the state agriculture department since 1964, it was this success story of T.J. Mathew that gave the people of Kerala a very important message: "Even the common people can improve their water resources with least expenditure."

In general, what is the sustainability of such local efforts?

Wherever natural resource management work, including RWH, is done through educating the masses and is based on their own decisions or community decisions, the success, by and large, would be sustainable. They might err in their work, there may be some setbacks, but since they are doing it from their hearts and not to "show" anybody or please anybody, they will realise their mistakes and rectify it. If maintenance is required, they will carry it out. Still, there may be some spells of drought. But since the communities are well-sensitised by then, they have the *vidya* (knowledge) and they will use it.

Can you tell us about any interesting method or innovation that you have encountered during your travels, whether in a rain-fed or other area? Something that was striking in its simplicity and utility, and reflected the spirit of the people.

I strongly believe that if generations have lived in drought-prone areas, there should be some mechanism with which they could overcome the drought and succeed in producing their food there. Maybe the present generations have forgotten these systems or been made to forget them! So our search should be concentrated in that specific area. There is no point in holding seminars in capital cities and racking 'alien'

brains to come out with a solution to overcome drought in a distant village. Have an open mind, respect local people's wisdom, try to understand their parlance, their customs, soil conditions, farming systems, the strength and deterioration of natural resources there. Live there like an ordinary villager and go on interacting. If you are lucky and patient, you will be able to dig out the drought-proofing mechanism they had.

Sand mulching is one such widespread practice in the black-cotton soils of Koppal district in Karnataka(see photo 2). Its result, in the words of a senior agriculture scientist, "can be well compared to irrigated farming. Sand mulching acts as a one-way valve for entry of rainwater into the fields." In an area where most of the farmers are not able to produce anything in 2-3 years in a decade, I know farmers who have sand mulched their fields and are getting two good crops a year without fail since decades. This farmers' practice is there in many parts of the world. Awards for highest production of crops like Jowar often go to these farmers!

And is there one recent technology/tool that has really made a positive difference to the lives of those in rural areas, with reference to water or general improvement of life?

I am not aware of any. Most of the tools for augmenting your natural resources are old ones; sometimes, there maybe some innovations or adaptations. Rainwater harvesting in the strictest sense, or the artificial RWH too, is not new. Long before this concept was named, Indians have been following it, and much knowledge about this exists in our country that we can share with others. However, one important point that must be remembered is that it warrants site-specific or location-specific methods.

Any comments on the gender issue and water? A very typical scene is of women standing in line to collect water, or walking long distances to fetch water. Does rainwater harvesting make the lives of women less of a drudgery?

I call women the "ministers for water resources" of the family. It is they who manage most of the water-related work at home and collect the water from wherever it is available, except where tap water is available. It is women who suffer the most if water is not available nearby (see photo 3). Not just in Gujarat and Rajasthan, but even in areas with heavy rainfall, there are housewives who have to walk kilometres for fetching water. In some areas, most unfortunately, they have to spend most of their time fetching water! By following the appropriate RWH methods, water can be made available in the nearby water sources. Just imagine the difference to them if, instead of walking for kilometres, water is available in the community well that is five minutes away or in their own open well if they have one!

In Kasaragod district - with 3500 mm rainfall annually - I know a family that had to bring water from a neighbour's well in an uphill route for three months a year for over three decades. It was a sheer drudgery for them. Three years ago, after reading my column and learning about the options, this family built a 30,000 litres roof water harvesting tank. Their well provides water for nine months; and for the summer, this tank is more than sufficient. The relief that this family felt cannot be explained in words.

Wherever water shortage is there, it is the women who respond very positively when RWH is advised. In Hulegar, a village in Shimoga district (Karnataka state), women themselves came forward to dig rain pits. With proper follow-up, there are instances when the women mobilised their menfolk for implementing rainwater harvesting.

DRYNET deals with the issue of drylands and their management, so naturally water and soil are resources that matter to us as well. I read your article on the private high school near Sirsi that teaches "water literacy" to its students. Can you tell us something about this school? Is this something to be done only in regions like Malnad where there is high rainfall, or can it offer lessons to arid areas, also cities?

There is a dearth of the right kind of information in the field of RWH. For anybody to follow any method, seeing it personally is necessary. It is in this context that Rain Centres like the one in Sirsi become relevant. We also have an impressive Rain Centre in Chennai (in the neighbouring state of Tamil Nadu) that acts as a one-window information clearance house as far as urban RWH is concerned.

In my opinion, we need at least one Rain Centre in each *taluk* (administrative division of each state). It would be better if it is established in a school because our future generation too could be educated by doing so. Moreover, you can make the students into teachers of RWH for the visitors.

You can have Rain Centres anywhere in the country; instead of copying the others they should reflect the locally suitable measures and offer solutions that could be easily followed. We have to make self-explanatory models showing the kind of interventions that can be made in the area. Some live models - like working check-dams, farm ponds and the like can be associated with the Rain Centre - in about 5 to 10 km vicinity. The advantage of 'live models' is that, if the visitor is interested, he can understand the actual experiences from concerned people, the 'before' and 'after' differences etc.

Could you describe how drought-proofing works and give an example?

In the arid and semi-arid areas, it is not the actual rainfall, but the effective rainfall in a particular cropping period that is what really matters. Therefore any techniques

that can retain the soil moisture for long would protect the short duration crops that are generally grown in such areas. Such techniques that can insulate the crop from the ill-effects of drought are termed as "drought-proofing techniques". One very important principle for many drought-proofing techniques is to incorporate more organic content into the soil as the first defense against drought. As and when we go on cultivating, the organic content of the soil gets depleted. We have to replenish it with organic materials. The best way of doing so is to plant some tree species on the borders and ensure that organic material is produced *in situ*. Incorporating crop residues of the earlier crop is a good idea. The set-row cultivation method of Rajkot and Surendranagar districts of Gujarat, TFB (Trenches Filled with Bio-mass) method of dryland sericulture being popularised by Bird-K, Karnataka are classic examples for this principle.

Preparing the field soil in such a way that the whole field can turn moist even during small rains and excess water flows out only when the farmer allows it is the drought-proofing technique followed by farmers of Hungund taluk in Bagalkot district. In the recent three-year successive drought, this method allowed hundreds of families in this taluk to grow at least food enough for their families. There may be such techniques in Africa, Central Asia and elsewhere, even among the uneducated farming communities. Such methods have to be identified, analysed and properly documented for the benefit of other farmers.

Regarding the water journalism course that you are associated with, do you see any appreciable difference in the reporting quality and quantity after journalists undergo these sensitisation courses? How did such an idea occur at all to link up with active journalists? Did you also learn something from them that is of use in your own work?

This programme was organised by a non-governmental organisation, CDL, of Bangalore. CDL has for quite some time believed that "Water Journalism" warrants a separate identity and has to be built up seriously. It felt that sensitising mainstream media in this regard would bring about positive changes. A leading newspaper group, Deccan Herald, came forward with interest to have this for their staffers at different bureaus of the state. I would really prefer to call it an orientation session for journalists. Unfortunately, this wasn't followed up after that. It would have been good if journalists who showed genuine interest were taken for a detailed session and exposure visits to see successes in RWH and drought-proofing. Another important point we miss in many of the updating sessions of journalism is that we try to sensitise the journalists and never the management/editors.

I feel that since water is so important in day-to-day life and providing safe water is called the biggest development, big newspaper houses should try to groom Water Specialists in line with Sports specialists, Crime Specialists etc. Though the visible result of this above programme was not to the expected level, I don't think we

should have high expectations in such matters where changes come only with consistent effort.

In the state of Karnataka, interest in water journalism has grown visibly. Many staffers, and a few freelancers are now writing on soil and water and success stories of the same. This was not the case a decade ago. If my information is correct, five regular/occasional columns on water appear in different leading newspapers of the state. Rain harvesting is a concept very well discussed in at least considerable parts of the state. People have realised that drought is by and large man-made and that they can play a role in augmenting their water resources. This is a very important change in mindset, and major credit should go to the media for this.

You wear so many hats – “rain man”, journalist, author...do all these merge seamlessly, or is there one thing that you really enjoy doing the most?

I would call myself a messenger of rain harvesting. Journalism is the medium I have selected for spreading this message. Yes, I enjoy doing this. Many of our newspapers and electronic media have given good coverage about the shortcomings in policy, need for policy change, what should be the government's approach to water supply and other 'big' issues. I on the other hand, have selected a 'minor' area, writing about the success obtained by a "non-entity". (See photos 4 and 5)

I believe that instead of telling a hundred theories, it is far more impressive to reflect a success, however small it is. A common man's success story that can be achieved at a low cost can inspire hundreds, thousands of readers. When a success in RWH happens in the neighborhood, even the worst critic of the concept doesn't waste time in criticising it; instead, he jumps at it and follows suit. If you can offer low cost solutions for problems that people thought couldn't be solved by them, they don't wait for government subsidies... they "self-help". These are the lessons I have learnt in the process of campaigning for RWH.

In conclusion, a question that has been gnawing at me for some time in the context of my own work. I am trying to understand how we can define the "success" of an intervention. I believe the element of time comes into it, the element of the number of people whose quality of life has improved. As a person working with people directly, is it some kind of gut instinct, the voice of the people, or some scientific parameters that best serves you to define "success"?

I always go by the common person's parameters. If a well that used to dry up for two months in a year has stopped drying up and now yields water as a result of RWH, I would call it a success. But then, raising the water table alone is not the parameter. Improved vegetation, soil moisture, increased water table, wells that don't dry in summer, better food/milk production, bidding good-bye to 'tanker water'

etc... there are many such parameters. In drought-prone areas, absence or decrease of migration, and farming families not buying grains or fodder for their subsistence and their cattle are good indicators. Sometimes, for a farmer, the success may be regaining the ability to raise a second crop or stabilised productivity.

Even a layman has his own judgment of measuring success. I will give you one small example. At Sarang in Palakkad district, by facilitating the denuded forest to regenerate, a couple, Gopalakrishnan and Vijayalakshmi could revive their only water spring that had dried up six years earlier. One observation they made after that is interesting: they noticed a particular fern plant growing in the valleys that had vanished from that area 13 years previously.

At Lapodiya in Rajasthan, where Lakshman Singh's Gramin Vikas Navyuvak Mandal Lapodiya (GVNML) is able to revive the pasturelands in a big way, thanks to his unique *chowka* system, and the local grass varieties have been regenerated. The case of a particular grass variety(*Cynodon dactylon*) locally called as 'Dhob' is curious. This is a medicinal plant that requires good sub-soil moisture. This variety is very rarely found there; it grows only in the forests near the canals where there is good moisture.

It takes 4-5 years after the establishment of *chowka* system of soil and water conservation for the *dhob* to appear. Under the circumstances, I would call re-appearance of *dhob* as nature's receipt for a satisfactory soil and water conservation system. So, in this context, *dhob* can also play the role of a parameter.

Shree Padre has a Bachelor's degree in Science, and a Master's Degree in Arts. He lives in Padre a village in Kerala, very near the state of Karnataka. He has authored ten books on rainwater harvesting; nine in the Kannada language and one in English. He has been editing a unique 20-year old farm monthly, Adike Patrike in Kannada. He is part of the team at the Centre for Agricultural Media(CAM), an organization based in Dharwad, Karnataka, that organizes courses in farm journalism for farmers and media people. He formed a water forum called Jalakoota in 2001 that is involved in soil and water conservation activities. Besides writing and traveling to different parts of the country to study local water harvesting techniques, Mr Padre also initiated a campaign against hazardous endosulfan spraying in the cashew plantations of Kerala. **Email address: shreepadre@gmail.com**

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Photographs

1. A Eureka moment



T.J. Mathew (since deceased) pointing out the now famous threshold at his farm which helped in water conservation “accidentally”.

2. A well-entrenched conservation system



Sand mulching to conserve soil moisture is a widespread practice in the black-cotton soils of Koppal district in Karnataka.

3. Is there a way out?



Women sometimes walk kilometres to fetch water even in rain-fed regions. Use of appropriate rainwater harvesting methods can alleviate this drudgery.

4. Reaching out to different groups



Shree Padre speaking at a workshop on rainwater harvesting.

5. Printed information in the local language boosts dissemination of information



Books on rainwater harvesting authored by Shree Padre in the Kannada language of the state of Karnataka in southern India.

6. An indicator of success in water conservation



The reappearance of *Dhob* grass under the *chowka* system used by GVML in Lapodiya (Rajasthan) indicates healthy sub-soil moisture conditions

