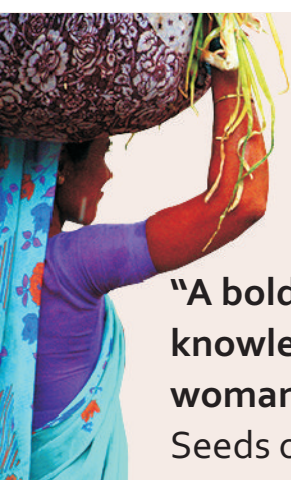


ECOLOGIC

A WOTR NEWSLETTER



9

"A bold and knowledgeable woman"
Seeds of hope in MP



Oil scarcity:
Who will fall first?

5

5 Water Myths...
and what
WOTR is doing
about them

7



Contents

1

"In an unbalanced world,
spirituality needed"

2

Planting seeds
for a better future

3

Deep Ecology: Notes from Nature

5

Shape of Change

7

Five myths about water...
and what WOTR is doing
about them

9

Watershed development
is just the beginning

10

Copping Change

Editors: **Radha Kunke**
Sam Jewler

Published by: **Watershed Organisation Trust.**

The views expressed here may not necessarily reflect
the official views of WOTR or any of its partners.

"In an unbalanced world, spirituality needed"

"We have killed our Girl Cells", said Eve Ensler (of Vagina Monologues fame), passionately in a recent TED Talk given in Mysore. "We have now come to live in a world where the most extreme forms of violence, the most horrific poverty, the genocides, the mass rapes, the destruction of the earth, is completely out of control – and because we've suppressed our girl cells and suppressed our girlship, we do not feel what is going on, so we are not being charged with the adequate response to what is happening." From the suppression of our empathetic feminine side, we find ourselves as a civilization that has lost all connection to Wasundhara. Mother Earth. The Feminine.

Being connected and contented comes from being Whole. Truth, justice, compassion, co-operation comes from the wisdom that comes from being Whole. A wisdom that brings with it pluralism, diversity, and respect for the other. Today, we are a world gone berserk – unconnected, unbalanced, and skewed by excessive want, consumption, power, control, and domination. We are slowly annihilating everything around, much in danger of annihilating even ourselves. What then is the Answer? The answer, as Bob Dylan says, is blowing in the wind. We need only to pause, to deeply listen, reflect, and see.

At an individual level we need to withdraw within ourselves, we need to go on an inward journey that will help us to reinstate the feminine/the spirit/the heart within us. We need to open ourselves to the feminine side all of us have – we need to become Whole.

At a social level, too, we need to go within – to our roots, to our communal support systems, to the innate cultural wisdom and take up once again the power and responsibility of decision-making, governance and self-sufficiency. It is not as if local communities haven't, in the past or in the present, taken matters in their own hands. They have and they continue doing so. These processes however go undocumented, often unnoticed and remain unconnected. They need to become a way-of-living. They have to become part of the Collective Conscious, the morphogenetic blueprints, as Rupert Sheldrake called them.

Now that Copenhagen has failed and Cancun didn't go much further, it is time to get to work without much ado. We need to eliminate our dependence on "them" and squarely bring the action back to "us". The Feminine needs to come back, to work on the basics, on empathy and passion and care, as women have done for millennia. We need to move towards local self-sufficiency. We need to stop the damage and plug the leaks at local levels, which is what we do at WOTR. In this issue of our newsletter we carry a few such stories. Dropadi's as much as Lata's stories stand as symbolic examples of a self-empowering Feminine. Similarly, WOTR's initiatives in Khahma, MP and Rajesh Gupta's initiatives in Khandwa, MP, are expressions of an empathetic, nurturing Feminine. Mihir's angst on Peak Oil and Girish's observations of the changes in the bio-diversity bring our attention to humanity's deteriorating connection with Wasundhara, with Mother Nature.

All of these stories point in one direction – that we need to not just adapt but to *mutate!* Spiritually mutate. We need today a progressive spirituality. Active. Strong. Alive. We need a male-female combine. A Whole.

- Editor

In Darewadi, planting seeds for a better future

Sam Jewler

I'm apprehensive to ask Lata whether her husband used to beat her. When I finally pose the question, she flashes a smile and cheerfully nods yes.

"How are you able to laugh about that?" I ask her, beginning to smile myself.

"Because he doesn't do it anymore."

Progress is in the air at the Darewadi Training Center, where Lata and two dozen other villagers are finishing a two year Eco-Course conducted by WOTR. The students, mostly in their twenties and thirties, come from around the state to learn about climate change, ecosystems, systems thinking and watershed development. But by the end of their time here they've come away with much more.

"In their personal lives we can see the improvement day by day," says their teacher Rajesh. "The confidence, the learning capacity, the ability to do something for their villages, do something for their families. When they got here they were too shy to speak their names even. Now they say that if they don't get any jobs when they go home they'll be able to create their own livelihoods."

I'm there on the second to last day of the course, watching the students present on what they've learned. In between talks on biodiversity and village democracy, the whole group gathers to sing songs they've written about the material. Until the songs are translated for me all I can tell is how they feel. They carry the sound of enlightenment, of the promise of a new day. But the lyrics, when I finally hear them, are grim: We've sold our forests, land and water... all the birds have flown away... all the rivers and streams have dried up.... Another song reminds me of Buffalo Springfield's classic anti-war anthem: Something funny is happening here... people have done too much for profit... the season cycles are changing... hunger is increasing... too much waste... something wrong is happening here. I wonder to myself why they sing these lyrics in such high spirits, and I think I know – they're not only sharing the knowledge they've gained, but celebrating the empowerment that's come with it.

After the presentation ends I thank the students for inspiring and teaching me – but I wonder why only three of the 25 are women. They say most families won't allow their daughters to leave the village. Safety is a concern, but more importantly, why forgo two years of labor power to invest in her education when she's going to get married and leave the family anyway? Most women



Photograph: Sam Jewler

couldn't apply in the first place – only 65 percent of Indian women are literate, and less than that in the villages.

Lata's village didn't want her to learn, but her parents did. Instead of marrying her off at nine or ten, as is custom there, they waited until she was 18. Still, her lack of freedom in life had her contemplating suicide during her teenage years. But her parents told her she could only fight if she was alive, and after three years of marriage she finished her B.A. in nearby Aurangabad. Whenever exam time came, she had to tell her in-laws she was ill and going home.

When WOTR came to her village she joined a self-help group (SHG – micro-finance empowerment groups set up by WOTR) and then became president of the Samyukta Mahila Samiti (SMS – each village's consortium of SHGs). That connected her to the Eco-Course, where the first skill she had to master was announcing her name in front of her classmates.

She joined the class with her husband, and they say it saved their marriage. Systems thinking helps them analyze their problems in a productive way. Now he no longer drinks excessively or beats her.

Thanks to Lata, he's not the only recovering alcoholic around. With the support of WOTR staff and other village women, she succeeded in banning liquor from her village and one other. Lata ran a total campaign, going door-to-door to gather support and destroying the liquor production machinery. Now the villagers have less violence and more disposable income.

Lata is just one of 25 villagers eager to return home and share their newfound knowledge. When I asked the class how many wanted to become leaders in their villages, almost everyone raised their hands. And in perfect harmony, they all declared that they had never felt that way before.

Deep Ecology: Notes from Nature

Girish Jathar

Though it can be easy to forget, we as humans depend upon countless other species for our very existence. Without biodiverse ecosystems, we would be unable to grow enough food, breathe clean air, or find enough fresh water, among countless other obstacles. In fact a group of scientists found that the value of the earth's biodiverse ecosystems – if it were possible to assign such a thing – is at least US\$33 trillion per year. For much less money WOTR is working with villagers to better document and understand the biodiversity around them, helping to reverse the worldwide trend of declining ecosystem health. Our biodiversity expert Girish Jathar describes his experience observing biodiversity and sharing that knowledge with villagers.

It was my first People's Biodiversity Register (PBR) exercise in the Shiswad village of Akole taluk of Ahmednagar, and I wasn't sure what to expect. I was going there to study the biodiversity of the village. On the road towards the village, we moved from the Deccan Plateau towards the Western Ghats. The landscape was serene, and as we climbed the Ghats the temperature change was evident. Likewise the vegetation changed rapidly, from open scrubs and grasslands to moist and semi-evergreen forest patches interspersed with crop fields.

Before reaching the village I assumed it would be a typical village in the Western Ghats; however, when we reached it I saw a completely different picture. The terrain is highly undulating, with very low vegetation and

forests nestled in the valleys, which are fringed by small hamlets and crop fields. I observed several types of vegetation typical of the Western Ghats. Interestingly the bird fauna was a mixture of species from both the Western Ghats and Deccan Plateau. This made it difficult for me to tell whether we were in the Western Ghats or in a transition zone where the birds from the plains might have shifted upwards, either due to habitat degradation up in the hills or change in land use patterns down in the plains. The ecosystem in these areas seemed to be degrading very rapidly; however, some patches of the forest still showed significant diversity. Protecting these parts will be one of the big challenges in this rapidly changing landscape, as it is very difficult to restore biodiversity.

We reached there in the afternoon and figured out the tentative programme and scope of exploration. In the evening we walked down to the river, which was rocky with shallow shores. I was able to see a few small fish species and some water birds hanging around the shore. This Lotic ecosystem was represented by swarms of Mayflies and other insects flying around, and Wire-tailed Swallows and Eurasian Crag Martins feasting on some of them. These Mayflies are good indicators of clean and unpolluted water. However, in some areas the standing water was murky and green. This could indicate nutrient-rich runoff from fields or detergent-based products used for washing clothes. I also saw a small swarm of springtails – small insect-like creatures – on the shore



Photography: Girish Jathar



where cattle used to drink water. They are part of the detritivores food chain and a very important part of ecology. All these indications suggest a healthy ecosystem in the area. However, degradation of the forest was also apparent based on the presence of plants such as Lantana and Parthenium. The soil on the hills there does not support forests, but supports grass species that are integral parts of people's day-to-day life. The various grasses are used for different purposes such as making baskets, household things, thatch roofs and most importantly for feeding cattle. Moreover they act as first barriers to slow down soil erosion.

Moving to the crop fields I observed very tiny herbs that had been harvested recently. Certain herbs grow in certain places based on the chemicals and elements available in the soil. The dynamics of a small patch of land might change every 15 days; therefore it is useful to study the geochemical cycles so that we can understand how biodiversity rules the agro-space of the area. I also noticed a lot of holes on the bunds of crop fields, which might have been dug by Land Crabs. Land Crabs are an integral part of agrarian ecosystems, especially those of rice fields. They make burrows on the edges of field which act as air exchange chambers and also drain excess water from one field to another. It is the presence of small, seemingly insignificant creatures like these that make an ecosystem function.

The terrain plays a very important role in the ecology of the Western Ghats. The basaltic hills and steep slopes create rocky riverbeds, which flow fast during monsoon season. This ecosystem supports a unique type of aquatic fauna. In fast flowing rivers the fish are generally flat, slender and small, and found only where the oxygen levels in the water is high. The fish seen here were mostly smaller in size; however, villagers informed us that there are also larger fishes in certain locations of the river. But since a barrage was constructed on the river the big fishes became scarce and smaller fishes have increased in number. I also observed an Indian Skipper Frog, which is indicative of stagnant water. I observed aquatic insects such as Water Skaters, Water Boatman and Whirligig Beetle, which live on the surface of ponds, slow streams, marshes, and other quiet waters. There they hunt for insects and other small invertebrates on top of or directly below the surface, using their strong forelegs, which end with claws. Some of them are predators and some are

scavengers or detritus food chain. This indicates high biodiversity and a vibrant ecosystem in the river.

During my stay I was also able to see 46 species of birds, 10 species of butterfly, 12 species of insect and indications of several mammal and small mammal species. These sightings are just a fraction of the biodiversity present in the Shiswad village.

Next day onwards we started our contact sessions with the PBR Team. The main focus of the discussions was documentation of important signs of biodiversity. We collected information on more than 12 varieties of food grains, five fodder species, domesticated animals, over 10 different types of pest insects and diseases on the crops, more than 30 types of medicinal plants and about 10 pages of information about their culture and festival. These include procedure of marriage, naming ceremony, season wise festivals, farming and harvesting procedures, myths and beliefs and history. From all this information we can now begin to understand the people we are working with and the ecosystem in which they live. Led by a committee of villagers, the village will maintain a biodiversity register in which it will keep all the information about the region's biodiversity. This way they can monitor the health of their ecosystem over time, knowing which parts are most important to protect and how to protect them. If our program is successful, the villagers will become aware of the biodiversity around them, and in turn, about the ecosystem services available to them and how to protect them and use them sustainably.



Photography: Rajesh Rajak

Shape of Change

Mihir Mathur

As I hear stories of how life use to be 50 years ago, from the people who have been witness to the dynamics of development and have lived through the shape of change, my heart skips a beat in anxiety. We have drastically altered our lives over the last half century and are continuously doing so, with little thought given to the outcome of such alteration.

I hear some say, "We have lost it." The fall of the human intellect, as we may call it. Travelling around villages that were once like islands, unreachable, unthinkable and serene, today serve tangs and drinks produced some 1000 kms away. My head goes into a tailspin!! An old man recollects, "30 years ago when there were no roads or transport, it use to take us 14 hours to reach Sangamner (40 kms) on a bullock cart, and the bull's leg used to get badly bruised." it took us 40 minutes to reach the same village today. He says, "this place was surrounded by

dense forests; daylight couldn't be seen once you were in there." Today when I look around, on an average I see 2 trees per 20,000 square feet. The jungles are all gone, leopards struggle to find a prey and this brings them to the villages in search of cattle, dogs, and at times humans. "We never used fertilizers and pesticides on our fields," they say – the pests had enough in the jungle and never had to bother us. But we provoked them to enter uncharted territories.

I kept wondering, thinking hard to imagine the shape of change and their dynamics, the structures that made these patterns emerge and grow. Today the same island is exposed to products made all over India and at times imported from other countries. Their road miles and carbon footprints are exorbitantly high. I am amazed at how carbon and energy intensive our lifestyles have become. Most parts of our country are now fully



Illustration: Aparna Goyal



5

Myths about Water – and what WOTR is doing about it

Sam Jewler



MYTHONE

Water is a completely renewable resource managed by the water circle. Scarcity is not a concern.

Reality: True, the water cycle makes much freshwater renewable. But problems arise from the heavy pollution of water and from a growing world population demanding a finite amount of it. Wetlands, considered nature's kidney for how they purify water, are being decimated by climate change and pollution. Additionally, though water may be globally renewable, localities can lose water to evaporation, which comes down in precipitation elsewhere.

WOTR says: There is a way to make water locally renewable, and that is to keep the water cycle circulating in one place using high levels of vegetation and strategic farming practices. When WOTR villagers plant trees and abolish overgrazing, the outcome is that water stays in the local ecosystem.

Desalination is a sustainable solution to the world water crisis.

Reality: Desalination is highly energy intensive and polluting to the air and water. It releases a toxic sludge byproduct into the ocean.

WOTR says: By revitalizing watersheds, WOTR programs reduce the need for water to come from unnatural sources such as desalination.



MYTHTWO



MYTHTHREE

The best way to reduce one's personal water consumption is to take shorter showers and turn off the faucet while brushing teeth.

Reality: One can save more water by reducing consumption of products such as meat (especially red meat) cotton and rice, as well as by using less electricity.

WOTR says: WOTR researcher Mihir Mathur teaches a great class at SCMLD, Pune, on water management, spreading this knowledge to hundreds of students every year.



MYTHFOUR

When water starts to get really scarce, the fight for it will be like the fight for oil.

Reality: Water is essential for human life; oil is not. Logic indicates that, as bad as oil conflicts are, water conflicts will be even more desperate.

WOTR says: WOTR villages become more empowered and self-sufficient, which should help protect and insulate them from water conflicts.

But 70 percent of the earth is water! We must have more than enough!

Reality: True, but only 2.5 percent is freshwater. Of that, two thirds is trapped in glaciers. Most of the rest of the freshwater is groundwater, which is non-renewable.

WOTR says: While water tables plummet around India and the world, WOTR watershed development results in rising water tables – for these villages, there really is enough water, and there will be as long as they stick to development.



MYTHFIVE



WOTR Trainings

Technical Training in Watershed Development

The training program on Technical Issues in Watershed Development has been specially designed to expose the participants in the various treatments in Watershed Development.

Training Dates: 24-27 May, 2011

For Whom: The course is meant for technical staff from NGOs and other agencies who are directly involved in implementation of watershed development projects.

Topics Covered: Various issues related to technical aspects such as planning, designing of structures, Participatory Net Planning (PNP), various measures for area and drainage line treatments with a focus on low-cost structures, with hands-on training using special software for PNP, will be covered.

The course will be conducted in English and Hindi

Venue: Watershed Training Centre, Village Darewadi, Sangamner block, Ahmednagar Dist., Maharashtra

Course Fees: The course fee covers the costs of lodging, boarding, course material and field visit travel expenses. Travel costs to and fro will have to be borne by the participants. A registration fee of Rs. 1,000/- (non refundable) and course fee of Rs. 4000/- totalling to Rs. 5000/- per participant will be charged. Payment should be made in the form of a Demand Draft drawn in favour of "Watershed Organisation Trust" payable at Ahmednagar. Please note that any other contingencies including medical expenses arising during the training course will be borne by the participant.

Please send your applications 15th May 2011.

Watershed Development – An Exposure & Orientation Program

The Exposure and Orientation to Watershed Development has been specially designed to expose the participants in the various treatments in Watershed Development.

Training Dates: 13-16 June, 2011

For Whom: The course is meant for middle level staff involved in implementation of watershed development projects and interested in learning, contextualizing and sharing of experiences.

Topics Covered: Issues related to community based organizations, participatory planning, involvement of the different stakeholders in watershed management will be taken up during exposure visits as well as during discussion sessions.

The course will be conducted in English and Hindi

Venue: Watershed Training Centre, Village Darewadi, Sangamner block, Ahmednagar Dist., Maharashtra

Course Fees: Rs. 1,500/- This program is sponsored by Swiss Agency for Development Co-operation.

The course fee covers the costs of lodging, boarding, course material and field visit travel expenses. Travel costs to and fro will have to be borne by the participants.

Payment should be made in the form of a Demand Draft drawn in favour of "Watershed Organisation Trust" payable at Ahmednagar. Please note that any other contingencies including medical expenses arising during the training course will be borne by the participant.

Please send your applications by 6th June 2011.

Contact: Kiran Shelke
Watershed Organisation Trust, Behind Market Yard,
Ahmednagar, Maharashtra.
Phone: 91-241-2450188. Email: kiran.shelke@wotr.org.in

WATERSHED DEVELOPMENT IS JUST THE BEGINNING



“Being a woman how could I handle the responsibilities of VDC?” thought Dropadi of Kahma village in Madhya Pradesh when she was elected Secretary of her Village Development Committee (VDC).

Read that question again; let it sink in. Dropadi lacked the confidence to lead not for being an uneducated woman or an inexperienced woman, but simply for being a woman. These are the social norms confronting us in many villages, stopping rural people from achieving their full livelihood potential.

Now there's something bigger than watershed development happening in Madhya Pradesh – something we might call livelihood development. It's about villagers earning money in sustainable ways, but more than that it's about them seizing opportunities never before had and putting in hard work to create new dignity and prosperity. This is WOTR's Wasundhara program.

Traditional villages have two common obstacles to social mobility: the wealthy run politics and the poor lack access to credit. The Wasundhara Approach has developed simple ways of removing these obstacles: having villagers choose local leaders from each economic class as well as from each gender, and putting women in charge of revolving loan funds.

Dropadi is a shining example of Wasundhara's effectiveness. After training with WOTR and earning money working in the village, she got a loan from the Samyukta Mahila Sammiti (SMS), the apex body of women-run self-help groups (SHGs), which make low interest loans to villagers. She only had to contribute 1200 rupees upfront

for a 5000-rupee loan, and used it to purchase three goats. A year later she owned ten goats, had repaid the loan, and began making a steady income.

Economic growth and poverty alleviation are everywhere you look in Wasundhara villages. In all of our Madhya Pradesh villages, between 2007 and 2009, the number of middle class and better off families went up and the number of very poor went down. For example in Mohpani, the number of middle class went from 5 to 39 while the very poor population dropped from 29 to 20. Overall, the number of middle and better off families went from 12 to 23 percent of the villages, and the number of very poor went from 22 to 11 percent. The average family progressed from the third wealthiest category to the second wealthiest.

Even beyond material gain, Dropadi has a whole new

life. “I just look behind and compare my life before this programme,” she says. “I was not able to open ghungat and talk to elders in the village; now I sit with elders and discuss with them. We were not coming in front of strangers. Now I speak in front of government officers and people from outside.... I never imagined in my life that a traditional lady like me would become such a bold and knowledgeable woman.”

Aside from restoring water to land, WOTR villagers are now restoring their own dignity and self-determination. Dropadi went from seeing her womanhood as a sign of incompetence to considering herself a “bold and knowledgeable woman.” Now imagine that in every woman, every man – and in every village.

COPPING CHANGE

“You’re a cop, why do you work on water issues?” Rajesh Gupta, Deputy Inspector General, Intelligence, PHQ, Bhopal, has been asked this question umpteen number of times. “It’s because I’m a cop that I’m working on water issues,” he counters energetically, “it will be causing riots in the near future, and my job is to stop riots.”

It is not everyday that one meets a cop who takes up development work at such a large scale as Rajesh Gupta has done. When he started his work in Khandwa district, there used be a drought or two every decade, but now there are five per decade. Clearly, rainfall patterns are changing and dry spells are increasing. “Why aren’t we able to utilize water optimally? Take plants for example. The total amount of water required by plants is twice the amount of total rainfall, yet they survive. This means nature has other mechanisms of surviving”, Gupta explains. “It’s about slowing down water - making it stop rushing, making it walk and making it crawl and seep into the ground”.

According to him, Climate Change can be combated. “There are many things we can do to adapt ourselves in the area of Water, Energy and Bio-Mass”, he says. In his experience and wisdom, he recounts the many things

that be done - water budgeting & auditing, zero run-off in fields and in villages, arresting peak rain, handling dry spells, pre-monsoon sowing, humidity harvesting, demand reduction in rabi, focal demand management, saturation of pheratic aquifers, and recharging of deeper & confined aquifers, are some of the many techniques that can be used to manage water. Similarly, conservation & precision farming, biomass management/budgeting in agriculture and switching to renewable energy/green energy, use of wastelands/badlands, massive afforestation/use of renewable material, and creating carbon positive living/natural carbon sinks is essential, he says.

“Why can’t we have Conservation Credits?”. Communities after all have been conserving and saving the environment over hundred of years. Shouldn’t this be rewarded?”, he muses. “The question, of course, is who would buy the credits?”, he wonders with a huge laugh.

“But”, he concludes, “no adaption will last without a strong mitigation component and vice versa”.

(from Rajesh Gupta’s presentation in the Climate Change Adaptation Conference, Pune)



Photograph : Isha Pungaliya

The publication of this newsletter and its contents are supported by the SDC.



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Embassy of Switzerland in India



If undelivered, please return to:
Watershed Organisation Trust
'The Forum', S.No. 63/2B, Padmavati Corner,
Pune Satara Road, Parvati, Pune 411009
Tel.: +91-20-24226211