From ME to WE.....

From MINE to OURS!

A Story of how motivation changes people's perceptions and drives Community Action

WOTR
water gives life

KEY WORDS

Stakeholder* engagement

Rural stakeholders

Games for behavioural change

Research for action

Water use efficiency

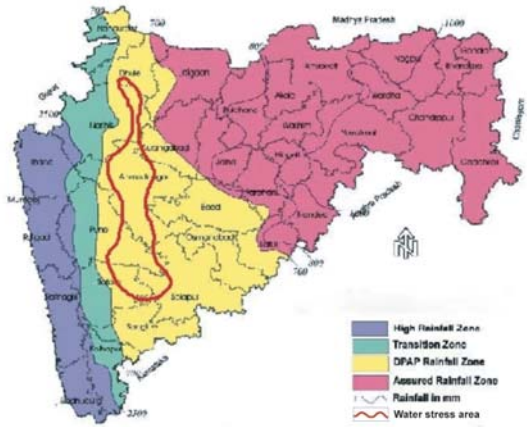
*Stakeholders:

(i) Primary stakeholders - the principal users of the resource (landowners with water resources, small and marginal farmers, landless poor, women, the community at large and may also include industry if it uses the local water resources)

(ii) Secondary stakeholders - neighbouring villages that surround the primary stakeholders' village

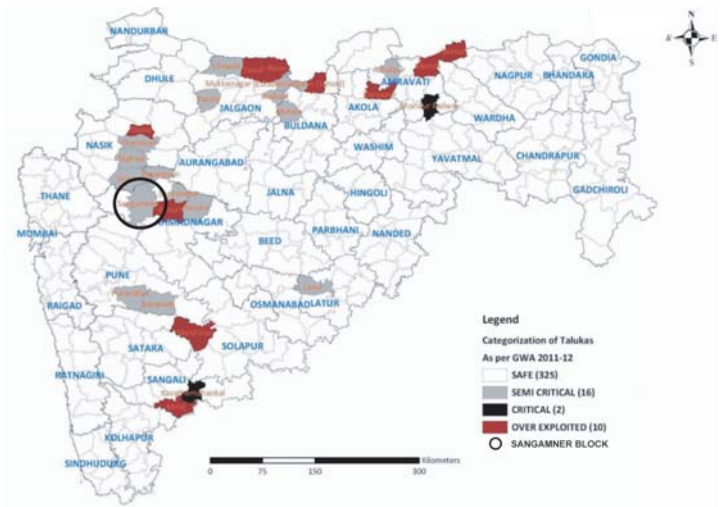
(iii) Tertiary stakeholders - those who influence the primary and secondary stakeholders e.g. policy makers and administrators; subject experts; facilitating and mobilizing practitioner agencies

THIS STORY IS LOCATED IN THE SANGAMNER BLOCK OF AHMEDNAGAR DISTRICT, IN MAHARASHTRA, INDIA



Map1: Rainfall Distribution in Maharashtra

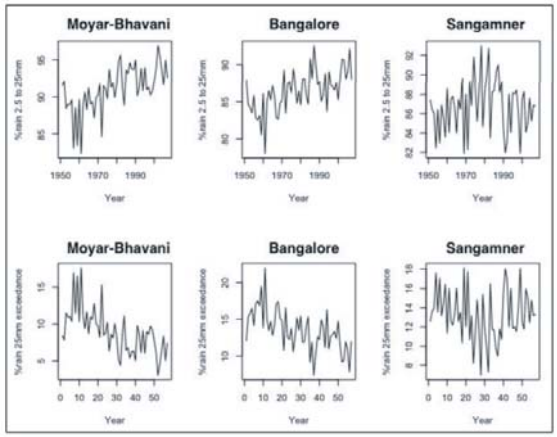
Source: GSDA (Groundwater Surveys and Development Agency) Report 2011-12



Map 2: Groundwater Status of the Blocks in Maharashtra

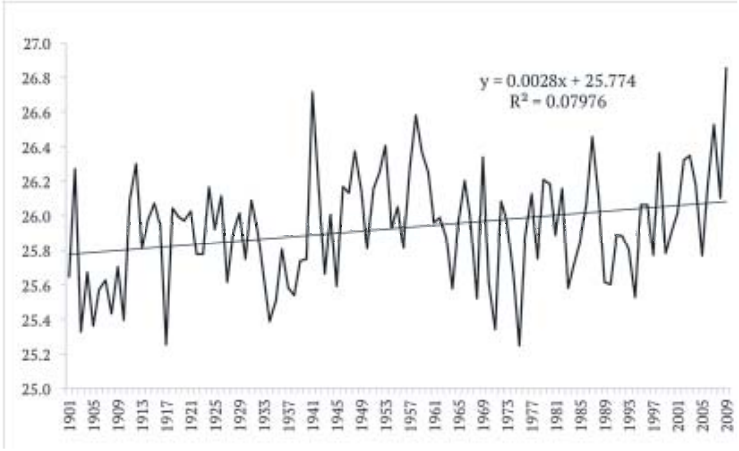
Source: GSDA (Groundwater Surveys and Development Agency) Report 2011-12

RAINFALL AND TEMPERATURE PATTERNS IN THE SANGAMNER BLOCK



Graph 3: Historical trends (1951–2007) in percentage contribution of sparse rain events (2.5 mm–25 mm) and moderate rain events (25mm exceedance) as a proportion of total rainy days in Sangamner.

Rainfall in the Sangamner block is projected to increase but will be more erratic

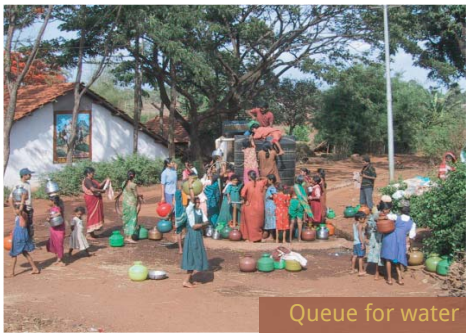


Graph 4: Historical trends (1901–2009) in mean annual temperature in Sangamner.

Read more: Vulnerability and Adaptation to Climate Change in Semi-Arid Areas in India, Chapter 3: Climate Change, Trends and Projections- An ASSAR Working paper (page 40 onwards)
https://bit.ly/1Fg67WH

THE WATER SITUATION

Women carrying water



Queue for water

THE STRESS AND THE WASTAGE

Women carrying water over long distances

Flood irrigation wastage

Evaporation wastage

TOWARDS BEHAVIOURAL CHANGE

Stakeholder identification- relationship of individuals, groups and their livelihoods

Rating the impacts of watershed development on their agriculture and land related livelihoods

Stakeholder engagement- An important strategy used by Watershed Organisation Trust (WOTR) to bring the various actors-Primary, Secondary and Tertiary to share their experiences and discuss issues, so that the participants actively engage in their development process.

THE UNSEEN, THE UNSPOKEN SURFACES... VILLAGERS FOR THE FIRST TIME TALK TO ONE ANOTHER ABOUT THE DIFFERENT PROBLEMS FACED

Stakeholder Engagement
Dialogue 1

MY and YOUR problems become OUR problem

RESEARCH FINDINGS PRESENTED TO STAKEHOLDERS...

Climate risks increasingly experienced since the year 2000:

- Drought and rainfall scarcity
- Delayed onset of monsoon, at times in late August
- Long dry spells between rainy days
- High intensity rainfall in short duration
- Unseasonal rainfall
- Shorter winters with higher temperature
- Longer and hotter summers

Identifying Climate Risks and Assessing Differential Vulnerability of Communities in Ahmednagar and Aurangabad Districts of Maharashtra, A CARIAA-ASSAR Working Paper #4 D'Souza M., Rao K.B, Awasthi S., Nazareth D., Bendapudi R.

https://bit.ly/2rhObus

Read more:
1. Thomas, R., & Duraisamy, V. (2016). Hydrogeological delineation of groundwater vulnerability to droughts in semi-arid areas of western Ahmednagar district. The Egyptian Journal of Remote Sensing and Space Science- https://bit.ly/2RuuucI
2. Stakeholder engagement workshops- https://bit.ly/2EBFyDd

Stakeholders have a better understanding of their situation and locale

LEARNING THROUGH EXPERIENCE ...
... WHILE PLAYING GAMES AND HAVING FUN

As anyone who has spent time working on groundwater governance in India will testify that interactions with community members can lean towards the instructive. It often becoming fixated on the question of conservation. It alienates community members for whom groundwater is the pivotal resource over which agrarian prosperity and food security is determined. In order to approach this sensitive issue, games prove to be an effective tool to broach the topic and trigger discussions

Farmers play the Water and Straw game, in a stakeholder event in Sangamner

Game 1: Straw & Water Game

Another fun way to begin talking about ground water extraction was a game using straws and water. Here participants were divided into teams of three, with each player representing a generation, i.e. grandparent, parent, & child. Players are handed straws and are told to suck out water from a tub and fill up water in individual bottles, starting from grandparents, then parents, & finally children. Generally chaos ensues with players jostling around to get the most water. Some enterprising players begin using multiple straws. It's only after the first two generations finish that the meaning of the game becomes clear.

Thakubai Ramu Toite a woman of Bhojdari village explains, "We learnt how to save water and that it is common and natural property. If we save water now, it will then be there for the next generation."

Common Bucket Game - Manual (English) : **https://bit.ly/2EmC9bl**

Common bucket game- ASSAR blog by Bidisha Sinha: **https://bit.ly/2RSbIwLn**

Facilitation material for the Goundwater utilization game

The 1st chart represents the ground water level (blue level indicator); the 2nd chart: the payoffs and water requirement of each crop (the Pink crop yields of Rs. 2000 used 1 unit of water, while the blue crop yields of Rs. 5000 and uses 3 units of water)

An all women group with a male observer playing a game

Game 2: *Pik, Paani, Paisa* **(Crop, Water, Money)**

The game simulates the dilemma of common pool resource management where individual farmers using a common groundwater source must choose between growing one of two crops – a high value water guzzling crop or a low water food crop. This takes place in repeated rounds, with the cropping pattern that emerges determining the level of groundwater abstraction.

Participants remarked that they found it "unfair" that the water table had reached a critical stage because of the unsustainable practices adopted by some farmers. They observed that those who had prioritised sustainability were left worse off when the groundwater depleted as they had accumulated considerably less income compared to players who had prioritised incomes. One player pointed out that during the communication rounds players would agree to sow low water crop but when it came to the decision to plant a crop each would sow the high water crop, playing what they believed was the best strategy. The thinking behind this was, "the rest of them are taking the low water crop, so if one farmer takes a high water crop, it will not affect the overall ground water situation."

Modified from Games for Sustainability: **https://bit.ly/2QL43PI**

HEADS COME TOGETHER...
... SEARCHING FOR PRACTICAL SOLUTIONS

Stakeholder engagement dialogue 2

EMERGING RESULTS...
IMPACTS BY MARCH 2018 IN GUNJALWADI

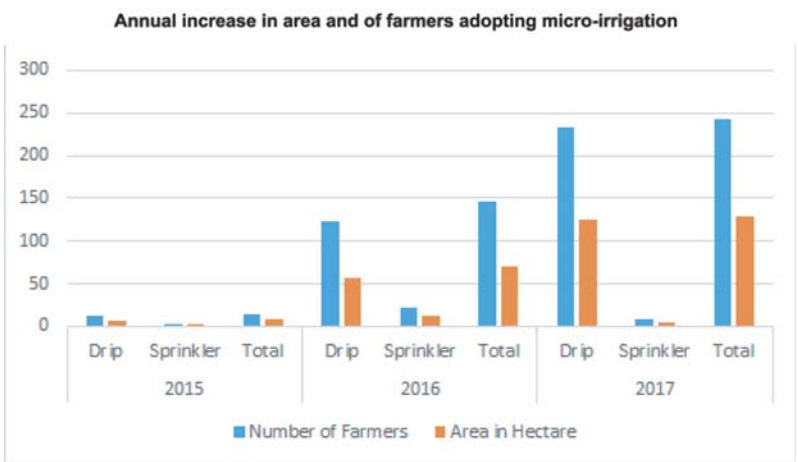

Yogesh at his Demonstration plot

Supporting village teams are Jal sevaks - water caretakers - who are highly motivated village youth capacitated by WOTR to provide leadership, motivation, facilitation and technical knowhow, on water-related issues.

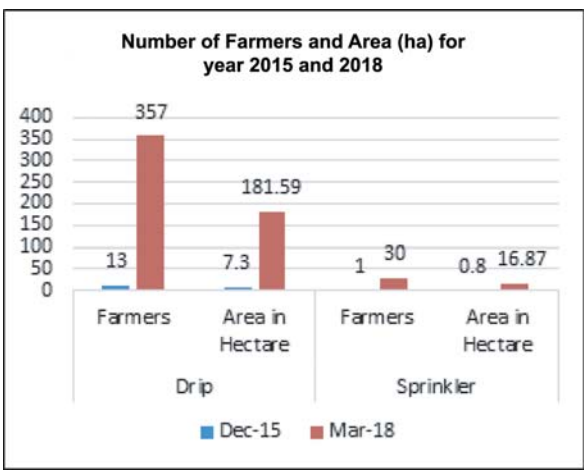
Yogesh Agalve: Interactions with farmers taught us that while the government provides subsidies for purchasing drip sets, it requires farmers to pay the full price of the costly ISI-certified sets upfront and then wait for the subsidy to be disbursed to them, sometimes a year or more later. Farmers like Yogesh identified low cost drip irrigation (LCDI) as a good alternative: it gives an assured harvest, saves water and is much cheaper.

Sandeep Bhagwat, an entrepreneur and leader in Gunjalwadi, who owns a small agricultural supplies store explains the benefits of these sets: “High quality ISI certified sets are good for perennial crops like pomegranate orchards, but when it comes to seasonal crops such as onion and tomato, durability of the drip sets is less important, as it is used for only one or may be two seasons; hence cheaper sets are better for these crops, and more likely to be accepted by farmers”.

MOTIVATION AND MOBILISATION BRING CHANGE IN THREE YEARS



Graph 3: Shift towards micro-irrigation in Sangamner (25 villages)



Graph 4: Affordability decides the choice of farmers (Gunjalwadi village)

TOWARDS OPERATIONALIZATION THE MAHARASHTRA GROUND WATER DEVELOPMENT AND MANAGEMENT ACT 2009

The Act 2009 that recently came into effect in Maharashtra in 2014, needs experiences from the ground. Motivation in villages and clusters of villages along aquifers, is the most important step to effectively mobilize local communities to manage their groundwater resources. Experiential games brought home the reality of the finiteness of the groundwater stock. Research studies conducted under ASSAR enhanced the information and knowledge of the participants of 25 villages. Thus stakeholder engagement emerged as an important strategy for addressing the groundwater crisis.

• As a result of research undertaken and the stakeholder engagement events, Gram Panchayats in 25 villages in the Sangamner block that are part of the Water Stewardship Initiative (conceived and implemented by WOTR through other funding sources), were motivated and have formed Village Water Management Teams that actively work on groundwater management.

• The stakeholder engagement approach supported by locale specific research studies initiated under ASSAR is a strategy adopted by WOTR in its groundwater governance projects. Today the outreach covers more than 120 villages in 3 districts of Maharashtra with the support of the Hindustan Unilever Foundation and ORACLE through CAF, India. Lessons learnt from this experience will play an important role in WOTR's efforts at up-scaling, as well as influencing groundwater policy in Maharashtra.

KEY OBSERVATIONS

• All village participants are eager to have better knowledge regarding the water reality of their village. It helps them make choices.

• Knowledge and information provided through research findings and discussions, plays an important role in bringing stakeholders of various socio-economic categories together, to dialogue more objectively on a sensitive issue such as 'use of water resources'.

• Knowledge supported by appropriate practice, such as through demonstrations of water management and good agriculture practices, promotes the uptake of methodologies. The benefits of water saving have motivated farmers to adopt micro-irrigation accompanied by good agriculture practices. Low cost drip irrigation is a good workable alternative.

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ABOUT WOTR

WOTR is a not-for-profit organization founded in 1993 operating currently in 7 Indian states; namely Maharashtra, Telangana, Andra Pradesh, Madhya Pradesh, Rajasthan, Jharkhand and Odisha. WOTR is recognized widely as a premier institution in the field of participatory Watershed Development and Climate Change Adaptation. Its unique strength lies in its on-field experience and in the systemic participatory approach it uses.. The W-CReS (WOTR Centre for Resilience Studies) is the applied research unit of WOTR.

ABOUT ASSAR

ASSAR uses insights from multiple-scale, interdisciplinary work to improve the understanding of the barriers, enablers and limits to effective, sustained and widespread climate change adaptation out to the 2030s. Working in seven countries in Africa and South Asia, ASSAR's regional teams research socio-ecological dynamics relating to livelihood transitions, and the access, use and management of land and water. One of four consortia under the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA), ASSAR generates new knowledge of climate change hotspots to influence policy and practice and to change the way researchers and practitioners interact.

WOTR
water gives life

CARIAA
Collaborative Adaptation Research Initiative in Africa and Asia

UKaid
from the British people

IDRC | CRDI
International Development Research Centre
Centre de recherches pour le développement international

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