

DIALOGUE SERIES

WATER AND LIVELIHOOD SECURITY

The Foundation to Make India Atmanirbhar

DIALOGUE # 2:

Ecoregion-specific Water Conservation

October 31, 2020



SUMMARY REPORT

BACKGROUND

The Institute for Sustainable Communities (ISC) and Tarun Bharat Sangh (TBS) initiated a dialogue series titled “Water and Livelihood Security: The Foundation to Make India Atmanirbhar.”

The series features interactive discussions involving practitioners, representatives from government, civil society, academia and communities to ideate, discuss and share experiences on improving and enhancing water and livelihood security. It highlights unique initiatives and experiences for us to learn, adapt and adopt.

Discussions in the first dialogue centered around the need to build an atmosphere of constructive dialogue amongst all stakeholders to increase awareness, foster collaboration and create a nationwide water literacy campaign engaging universities and educational institutions. The message emanating from the discussions was that Atmanirbharta needs to begin from India’s villages and self-sufficiency in villages is possible through land, soil and forest conservation.

The second dialogue in the series was organized on October 31, 2020 on the theme of **Ecoregion-specific Water Conservation**. Key Participants and Speakers included Jal Purush Dr. Rajendra Singh, Chairperson, Tarun Bharat Sangh; Dr. Heera Lal, Additional Mission Director, Uttar Pradesh National Health Mission; Pratibha Shinde, General Secretary, Lok Sangharsh Morcha; Biplab Ketan Paul, Ashoka Fellow, Innovator & Director, Naireeta Service Private Limited; Divyang Vaghela, Head-WASH, Tata Trusts; Dr. Indira Khurana, Vice Chairperson, Tarun Bharat Sangh; and Vivek P Adhia, India Country Director, Institute for Sustainable Communities. The Session was moderated by Romit Sen, Associate Director, ISC.

Practitioners across different ecological regions shared their experiences to address water scarcity through community engagement and building a local cadre of water guardians. Examples were shared from saline areas in Gujarat, hilly areas in Himachal Pradesh and Nagaland, tribal areas in Maharashtra, and from Banda district in the drought-prone region of Bundelkhand.



ACTION POINTS

The major highlights and action points that emerged are given below.

RESPECT FOR GEO-CULTURAL DIVERSITY

- **India has 90 agro-ecological climatic zones.** It is essential to understand the characteristics of these different agro-ecological climatic zones in order to plan for water and livelihood security. Structural design for water conservation needs to factor in the differences on how water moves and behaves in catchments across these different zones, in order to sustain water conservation initiatives.
- **The geo-cultural region approach to water conservation integrates the human and natural dimensions.** It enables us to engage communities, and adopt suitable water and agriculture practices that are appropriate and therefore find acceptance. These are the two major factors for ensuring the sustainability for any water conservation initiative.
- **Traditional water harvesting structures were the mainstay for providing water to a large section of the population across different parts of the country.** However, years of neglect has led to their degradation. Reviving these structures will enable us to embark on a pathway to water security. The landscape of India is dotted with traditional water harvesting structures and there have been efforts to document these and outline their effectiveness. It is time that administrators, communities and civil society organizations work together to revive our lost heritage.



CONVERGENCE OF SCHEMES MAXIMIZES IMPACT

- **Planning and execution of water conservation works in a village is possible through a convergence of schemes.** Convergence allows for better and effective utilization of financial resources. In addition, it provides an opportunity for engagement with local organizations, communities and government to design simple, low-cost and effective solutions.
- **Strengthening local level institutions and ensuring the involvement of women** in these institutions allows for local discourse leading to problem solving and enhancing community participation for execution of projects, and ensuring their operation and maintenance. However, one needs to ensure the representation of all sections of the society, particularly the ones who are socially marginalized and economically weak.
- **Employment generation at the village level reduces distress migration.** One needs to develop innovative employment generation activities, keeping in mind the availability of local natural resources, and in harmony with the nature.
- **Changes in climate are impacting the communities.** It is also true that over the year's communities have been adapting to these changes by developing their own coping mechanism. Recognizing the collective wisdom of communities and planning for interventions that recognize local science and experiences, leads to the development of unique solutions. For example, the problem of soil salinity and ingress of saline water can be addressed by the aquifer storage and recovery mechanism technique that allows for using the property of density of water to harvest, and use freshwater in saline areas.
- **Demystification of technology that allows for simplifying of complex concepts, enables adoption by communities.** Technology solutions for water are well-understood by communities if they are simplified and contextualized to local settings and conditions.



EXAMPLES OF ECO-REGION SPECIFIC CONSERVATION

- **The Bundelkhand region had a history of traditional water bodies.** Revival of these water bodies can ensure water security for the villages. In addition, measures like protection of flood plain, rainwater harvesting and groundwater recharge, and source protection will allow communities to overcome the shortage of water. The Jal Jeevan Mission provides opportunities for engaging communities, government agencies and civil society organizations in developing long term water security plans.
- **Tribal communities in Nandurbar district of Maharashtra have worked to conserve the natural resources in the region.** In addition to that, they have engaged in livelihood generation activities using local resources like production of hand sanitizer from Mahua flowers during the time of the lockdown. Working in close coordination with the district administration, the villagers have set up monitoring committees at village, block and district level to ensure the smooth implementation of government schemes and allowing for communities to share their experiences with the government officials.
- **Bhungroo (meaning hollow pipe in Gujarati) filters, injects and stores storm water in sub-soil.** It has 17 technical designs for a variety of agro-climatic zones and can be customized based on 27 variables. It works in areas where annual rainfall ranges from 400 to 2,100 mm in salt affected and seasonally eroded soil. Using only one square meter surface area, each Bhungroo augments 1 to 4 million litres of water/year and allowing farmers to retrieve stored water and use it for irrigation.
- **Springs have been the source of water for our rivers originating from the Himalayan region.** However, the springs are a threatened ecosystem and face degradation. There are over 30 lakh springs spread across the Indian Himalayan Region spread across 12 states. It is a major source of drinking water for the communities living in the region. Integrating science, social science, research findings and then using these to design and implement programs ensures success.



WATER SECURITY NEEDS PARTICIPATION OF THE PEOPLE, GOVERNMENT AND CIVIL SOCIETY ORGANIZATIONS

All examples demonstrated the spirit of partnerships, wherein stakeholders came together to address water scarcity challenges through adoption of processes and technologies, that were suited for the specific areas. The sharing of examples also demonstrated the key role of committed government officials who spared no effort in addressing the challenges.



Presentations made by the speakers is available at sustain.org/dialogue-series-water-and-livelihood-security-resources

ISC and TBS will host several sessions as part of the dialogue series over the next five months, covering a range of topics. A paper will be developed at the end of the series highlighting curated solutions as part of a roadmap to ensure water and livelihood security. We look forward to your suggestions and participation.

For further information, contact:

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