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Jal Choupal for Household Water Security in rural areas - SDG goal 6.1

Puneet Srivastava*,

WaterAid, Lucknow, India

India is facing unprecedented challenges to water security and economic development. NITI Aayog (Policy Commission) mentioned in its 2018 report that India is facing its 'worst' water crisis in history and that demand for potable water will outstrip supply by 2030 if steps are not taken. Nearly 600 million Indians faced high to extreme water stress and about 2, 00,000 people died every year due to inadequate access to safe water. Twenty-one cities, including Delhi, Bengaluru, Chennai and Hyderabad will run out of groundwater by 2020, affecting 100 million people, the study noted. If matters are to continue, there will be a 6% loss in the country's Gross Domestic Product (GDP) by 2050, the report says.

To ensure rural water security in context of household water supply, WaterAid India started a process of democratisation of water using Jal Choupal at village, Gram Panchayat, Block, District, state and national levels from 2016-18 in a project based on transboundary water governance and water security in Ganga Basin supported by The Asia Foundation . These Jal Choupal used the modules on water budgeting, gender for water and climate change adaptation for water for preparing people centric water security plans for six Gram Panchayats situated in six blocks of Kanpur and Fatehpur districts along the Ganga River.

This paper presents the key learnings from these Jal Choupal and Water Security Plan and action which might be hugely relevant to inform National Rural Drinking Water Programme (NRDWP) policy and action.

The key learnings include the focus on source sustainability through use of rain water surface water and ground water based on understanding of water quality needed for different purposes, interconnected ness of ground water and surface water, reducing time taken in fetching water to reduce drudgery and integrated approaches towards water sanitation, hygiene and health for sustainable water security.

Keywords: Rural Water Security, Jal Choupal, Rain Water Harvesting, Ground Water Recharge, Democratisation of water, Climate Change adaptation, Participatory vulnerability assessment, Gender and Water, Water Budgeting , Water Governance , Transboundary Water

Introduction

The National Rural Drinking Water Programme (NRDWP) is a centrally sponsored scheme of Government of India aimed at providing every person in rural India with adequate safe water for drinking, cooking and other domestic basic needs on a sustainable basis. Safe water is to be readily and conveniently accessible at all times and in all situations and therefore, the scheme focuses on the creation of the infrastructure. The goal of NRDWP is to ensure that at least 90% of rural households are provided with piped water supply; at least 80% of rural households have piped water supply with a household connection; less than 10% use public taps and less than 10% use hand pumps or other safe and adequate private water sources.

However, the implementation of NRDWP has been marred with slow progress and questions about its sustainability due to various factors, major being lack of demand for safe water supply triggered by poor knowledge of water safety and community participation resulting in lack of demand and ownership of rural water supply schemes .

Realising above, In June, 2018, Government of India started Swajal Scheme under NRDWP in 115 aspirational districts which talked about Single Village Mini Piped Water Supply schemes based on ground water largely with 10% community contribution towards financing capital costs and taking over 100% responsibility of operation and maintenance. Swajal Scheme is based on intensive community participation in planning, designing and managing single village water supply schemes.

In past three decades, there are several decentralised water governance approaches that have been tried out for delivery of rural water supply in India. However, most of them have faced the challenges of using convergent approaches towards water security, failure to raise community awareness on water safety, gender and water, water availability, water budgeting and climate change adaptation and mobilising them to raise demand for SAFE and Sustainable water supply. Embedding the governance of rural piped water supply in Panchayat Raj Institutions (Local Self Government in rural areas) has been fraught with challenges of choosing right levels of decentralisation using activity mapping or functional assignment and lack of political well at central and state levels.

As in 2018, India is facing unprecedented challenges to water security and economic development. NITI Aayog (Policy Commission) mentioned in its 2018 report that India is facing its 'worst' water crisis in history and that demand for potable water will outstrip supply by 2030 if steps are not taken. Nearly 600 million Indians faced high to extreme water stress and about 2, 00,000 people died every year due to inadequate access to safe water. Twenty-one cities, including Delhi, Bengaluru, Chennai and Hyderabad will run out of groundwater by 2020, affecting 100 million people, the study noted. If matters are to continue, there will be a 6% loss in the country's Gross Domestic Product (GDP) by 2050, the report says.

Therefore, policy need is being felt of a decentralised water governance model that can bring along convergent approaches, using community participation and action and leveraging different water security related government programmes to build up source and system sustainability together as envisaged under NRDWP guidelines.

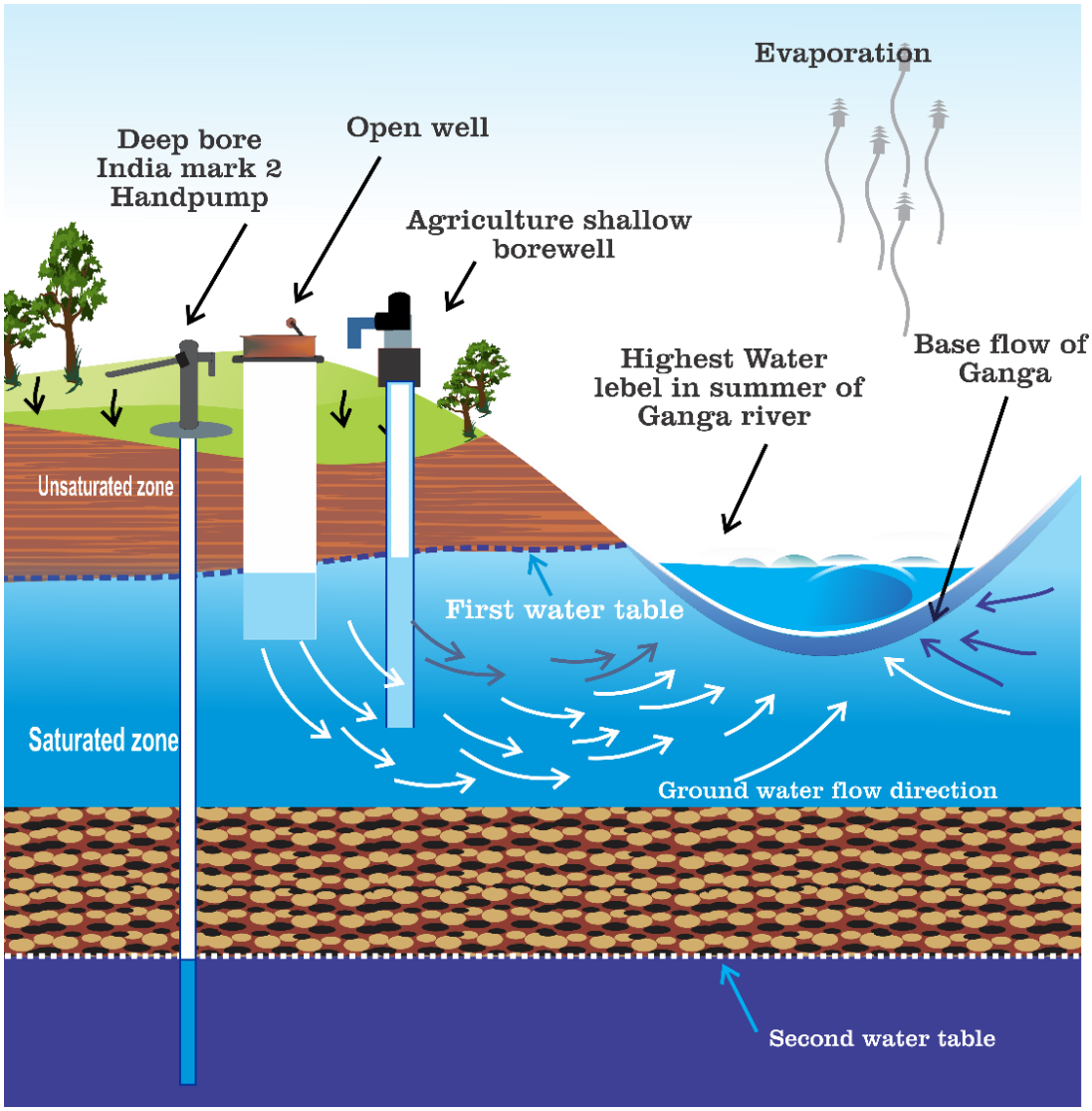
Project on democratic dialogues on water using Jal Choupal (Water Platform) and key learnings

The Project for advancing water security of marginalised communities in Karnali, Ganga Basin in Nepal, India and Bangladesh has been implemented by WaterAid between 2016-17 (See the film on project at link http://wateraidindia.in/video/jal-chaupal-transboundary-governance/) . The Project aimed to build up dialogue at multiple levels of water governance in these countries for advancing the water security of marginalised communities living near the Ganga River banks including the linkages of Ganga flows and its impact on local water security. It aimed to look at how the water user's behaviour of people living on bank of Ganga for multiple usages of water and water security affects the downstream populations as the mighty Ganga flows from one village, town, district, state and country to another.

The project has been a unique pilot and perhaps the only one working out on demand side of transboundary Water linking it to local water security in villages on the banks of Ganga. The key learnings as it emerged from this attempt of democratisation of water through Jal Choupal with a potential for easing of pressures on Transboundary Water Issues in Ganga basin are as under.

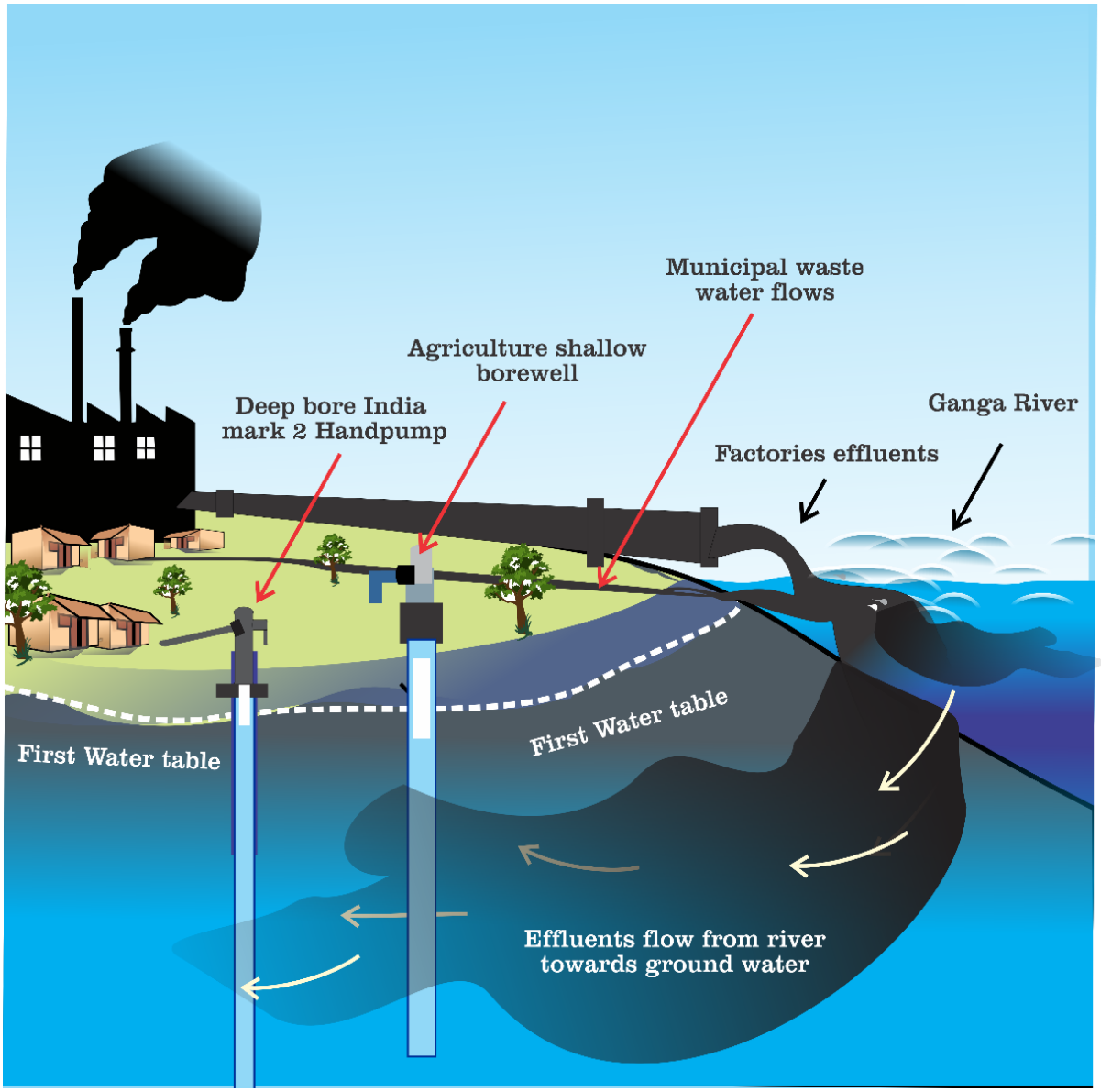
1. The groundwater based local water security for villages on the banks of river Ganga is hugely dependent on the flow of the river and water quality in Ganga in different seasons. . When massive dams upstream stop water flow in Ganga downstream in summer season and there is no maintained ecological flows, Ganga takes away shallow ground water to maintain its base flows, as we have seen in Kanpur villages. Result: small and marginal farmers face the brunt as they do not get water from shallow wells for irrigating their cash crops grown in these months.

Figure 1: Linkages between ground water and surface water in Choubeypur block of Kanpur



2. People realised through democratic dialogues in Jal Choupal - What we sow, that we reap: The notion of people to throw their waste, waste water and other pollutants in Ganga or its tributaries, hoping that it will all flow with the river was broken during Jal Choupal sessions as they found out that it comes back eventually into their shallow ground water affecting their irrigation water quality and risk of contaminants getting into the food chain. This was a big learning for people who were largely based on ground water for both irrigation and drinking water security to take action for clean Ganga and its tributaries benefitting both their fields and crops as well as that of people living downstream of river.

Figure 2: The connection between pollution thrown in Ganga and ground water



3. A river is known by its tributaries. In case of Fatehpur, we observed in Jal Choupal, that the local water security in district can only be brought back by investing in bringing back to life many tributaries of Ganga flowing through different parts of the district. The recharge potential whether through Ganga or rain water is very limited due to its unique topography because of which much of the rain water drains towards Yamuna leaving the district parched and dry. The revival of Sasur Khaderi river in this district by district administration, Swamy Vigayananda Saraswati jee, Local Water leaders, state administration and villagers along the river is a unique story of local leadership, grit and determination to bring back the water security to Fatehpur district by reviving many tributaries to Ganga and Yamuna.

4. Democratic dialogues on transboundary water and water security by people in Ganga basin communities using model of Jal Choupal, a neutral water users platform at multiple levels such as village, Gram Panchayat, Block, District, State, National Level and international levels, can unlock many opportunities for effective transboundary water governance dialogues and more importantly convergent action so essential for a multi-sectoral subject such as water. Trans-boundary is not just between upstream and downstream countries – it is also between upstream and downstream communities, between different districts and between different states, keeping in mind their local water security issues understand the impact of their water usages on downstream communities

in the same river basin. Institutionalisation of Jal Choupal, or Jal Kachori in Nepal and Pani Somonoi Songstha in Bangladesh within overall decentralised democratic governance processes is therefore the key to create a very powerful platform for transboundary water governance and water security issues particularly for poor and marginalised in Ganga River Basin and so as other river basins.The key outputs of these Jal Choupal was a 5 year people centric water security plans based on long term solutions to water problems and user behaviour change towards water conservation and rain water harvesting.

Creating Transboundary water governance linkages to local water security was a huge challenge as well as opportunity that this project had laid before us.

National Policy movements towards institutionalisation of Jal Choupal in processes of decentralised water governance through Gram Sabha and Panchayati Raj arrangements will ensure local water security in their respective villages or communities from perspective of easing out pressures on transboundary water in Ganga Basin not only between Nepal, India and Bangladesh but also between villages, blocks, districts and states of India situated within Ganga River Basin.

References

1. Niti Aayog , 2018

2. Ghar Ghar Aakash Ganga Abhiyaan , Shramik Bharti, INREM Foundation and WaterAid India