

Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development and Ganga Rejuvenation
(National Water Mission)

Proceedings of the Twelfth Water Talk

- National Water Mission (NWM) has been organizing a seminar series-‘Water Talk’ -to promote dialogue and information sharing among participants on variety of water related topics. The ‘Water Talk’ is intended to create awareness, build capacities of stakeholders and to encourage people to become active participants in conservation and saving of water. NWM had organized ten ‘Water-Talks’ on the range of topics dominating the sector concerns. The list of speakers and topics they deliberated upon are annexed.
- TwelfthWater Talk in this series was held on 21stFebruary 2020 and was delivered by ShriAyyappaMasagi. Shri U.P. Singh, Secretary (D/oWR, RD & GR) M/oJS, Shri G. Asok Kumar, Additional Secretary and Mission Director, NWM and officers from CWC, CGWB, NMCG, CSMRS, NWDA and D/oWR, RD & GR attended the programme.
- Shri**G. Asok Kumar**, Addl. Secy. & MD, NWM, New Delhi, welcomed the speaker, ShriAyyappaMasagi and the participants. He continued the rain harvesting techniques initiated by the speaker have benefitted citizens of the country.He maintained that the villages have seen complete coverage of functional household taps and grey water management which can be depicted as a model case for inspiring similar actions across the country. He expressed concerns to mainstream water conservation and preservation efforts at the lowest possible unit of management. He requested the audience to imbibe key learnings from the experience of ShriMasagi in water rejuvenation and related service management.
- Shri**U.P. Singh**, Secretary, D/o WR, RD & GR, M/o JSenunciated key pillars of sustainability that defined ShriMasagi’s river water rejuvenation mission, stressing upon the significant role of sustained public engagement.He concluded with the importance of learning from the fieldexperiences andhow it would further abet the Water Talk Series in expanding its scope from theoretical concerns to practical considerations. He urged the audience to draw inspiration from ShriMasagi’s life-story and particularly, his zeal to mobilize the power of people for delivering shared benefits.
- Shri**Masagi**, guest speaker, thanked NWM and the Ministry for recognizing his efforts and appreciating the need for system of harvesting rainwater. He pointed out the current abuse of groundwater sources, increased dependency on centralized systems, in future decades, urging us to manage our water resources in increasingly optimal and efficient ways. He

stressed that water crisis is not inherent but is a result of unsustainable management of Water Resources.

- He further mentioned that his organization, “**The Water Literacy Foundation**” designs and implements systems that utilize rainwater as and when it falls to replenish surface, sub-surface, sub-soil and underground water reserves. These low maintenance systems increase the water availability drastically while restoring the natural balance of ecosystems. He added that numerous individuals, communities and organizations have become self-sufficient and are often able to give excess water back to the ecosystem.
- Touching upon the concept of greywater, he stressed that it is an important source of water for water harvesting. He further pointed out that it is important to differentiate between greywater and sewage. In this context, he mentioned that water after washing, showering or even kitchen water is not sewage but it is greywater. He stated that 90% of water we flush away as sewage, is greywater in reality. If it is separated from the sewage and is filtered, it can be cleared from oil, grease and most of the soap residues. It can then be injected into a soak pit or an infiltration well, from where it percolates into the ground. Even with some soap left, the water is filtered by the soil and cleared until it reaches the sub-surface and groundwater tables.
- Elaborating on some of the indigenous systems practiced to enhance water availability, he explained that Earthen Dams are water management constructions that are built against streams and nalas to aggregate the surface run-off. An effective alternative to large dams, they are built out of an excavated soil with a supporting wall on the load bearing end.
- He further explained the system of stream water harvesting wherein a polyethene sheet is used to obstruct and construct a sub-surface dam. Stream water harvesting offers water security over prolonged periods by storing the surface runoff in the ground water table.
- In non-irrigational agricultural systems, ShriMasagi practices PattaBunding, Compartment Bunding and the Trench & Pit System.
 - PattaBunding- In this system, the land is split into a number of compartments, around which 1.5 ft. burrows are dug, turning the whole land into an earthen tank. This implementation enables the soil to retain moisture from the scantiest rain upto 1.5 feet, inherently enriching the soil and hence the agricultural produce.
 - Compartment Bunding – The compartments vary in size from 1-4 acres, according to the slope of the land to quickly stop the surface runoff, thereby encouraging the natural leveling of the land, in addition to creation of containers to hold water, ensuring a more efficient runoff management. This system is ideal for the practice of horticulture as it drastically enhances the availability of water as moisture in the sub-soil region.

- Trench and Pit System- This system uses an alternating row of pits and trenches to obstruct the runoff in large volumes and charge the subsoil and eventually the ground water table. The pits are dug in suitable sizes varying with the slope and materials available to fill the pits. If sand is locally available, the pits shall be filled with sand to enhance the percolation rate, with the sand acting as a filter. If sand is not available, coarse soil with additional materials from organic fibres is used to fill pits.
- He further explained the concept of Direct Borewell Recharging which forms the fundamental concept of and core technology for his organization. According to him, it is an efficient and quick method to fill up the aquifers and raise the ground water table to ensure availability of water for future generations. Also throwing light on the use of “Online Filter” in rainwater harvesting systems, he explained that rainwater is collected on roofs and made to flow through rainwater pipes to the online filter, where the suspended particles are removed. The filtered water is then collected in a sump and used by the households. If the sump is filled up to maximum capacity due to strong rains, the overflow can be connected to a recharge shaft so that the rainwater is used to recharge the groundwater. Through this process, it is ensured that no rainwater is wasted and every drop of water is used either in households or to recharge the exploited aquifers in urban areas.
- Masagi concluded that they have been working relentlessly towards implementation of rainwater harvesting mechanisms and non-irrigational techniques and they have undertaken a number of activities in the areas of water conservation, water management, water quality conservation, inter-basin water transfer, groundwater management, recycling & reusing water & public involvement and capacity building.
- His talk was followed by a session of questions and answers wherein members from the audience were invited to discuss their queries with the speaker. The Talk ended with Shri G. Asok Kumar presenting a memento to the guest speaker and thanking the audience for their active and enriching participation.

Annexure

List of Past Water Talk Speakers and Respective Thematic Focus

Water Talks	Name of the Speaker	Theme of the Talk	Date
1 st Water Talk	Shri U.P. Singh Co Speaker: ShriPushpendra Singh, ShriAlokSikka, Shri Manu Bhatnagar, ShriSachinOza	‘Outlining the concept of Water-Talk ’ ‘Water conservation in Bundelkhand - AapnaTalaabAbhiyan’ ‘Agricultural water management’ ‘Urban water supply and management’ ‘Ground water management and integrated water resource management in the command area of irrigation systems of northern water stressed areas of Gujarat’	22.03.2019
2 nd Water Talk	ShriShashiShekhar	“Ground Water Governance-prospective, challenges and suggested interventions”	1.05.2019
3 rd Water Talk	Dr. Nayan Sharma ShriPradeep Gandhi Shri S.C.Bardhan	‘Upgrading Technology in Irrigation, Hydro Power, Navigation and Flood Control for Optimal Water Conservation’ ‘Water Conservation at Ground Level’ ‘Water Conservation and Management’	24.05.2019
4 th Water Talk	Dr. Anil Joshi	‘Ecology Inclusive Economy’	21.06.2019
5 th Water Talk	Dr.Tushaar Shah	‘Governing India's Energy-Groundwater Nexus: Old Constraints and New Opportunities’	19.07.2019
6 th Water Talk	ShriPopatraoPawar ShriUmakantUmrao	‘Hiware Bazar – A Water Budgeting model’ The Dewas Initiative: An economically viable & environmentally sustainable Water Conservation Model ‘Beyond Rivers’	23.08.2019
7 th Water Talk	Shri SonamWangchuck	Water Conservation and construction of artificial Glacier known as Ice-Stupa in Leh-Laddakh Region.	20.09.2019
8 th Water Talk	ShriHeeraLal	‘Water Conservation in Banda District, UP’	18.10.2019
9 th Water Talk	Dr. HimanshuKulkarni	‘Groundwater Management and Governance in India’	15.11.2019
10 th Water Talk	Dr.Mihir Shah	‘A New Water Strategy for India’	20.12.2019
11 th Water Talk	ShriBalbir Singh Seechewal	“Seechewal’s Participatory Model of Water Rejuvenation”	17.01.2020