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Jalasamvad

Dialogue on Water Editor: Dr Datta Deshkar

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Cover Story: Water for People: Shri Vinod Hande

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VIP

Famous rivers in the world

(1) Yalong river (China)



(2) Kherlen River (China)



(3) Qiantang River (China)



(4) Chu river (China)



Jalsamvad



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Mouth Piece of Bharatiya Jala Sanskriti Mandal

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Editorial

Amravati, Akola, and Buldhana are the three districts in Vidarbha where the entire groundwater is saline. This saline water cannot be used for drinking or agricultural purposes. Even if the land is

fertile, one cannot grow two or three crops in a year. This region is experiencing various consequences of this. Only that much agriculture is possible there, which can be done depending on the rainfall. This has a very adverse effect on the lives of farmers. It is unfortunate that even though invaluable resource like land is available, it cannot be utilised in a proper manner. The farmers sincerely want some solution to this.

Many years passed, but no solution was found. Many committees were appointed, but nothing was achieved except for discussions after discussions. However, the reason why there is saline water in this particular area has now been revealed. In the long past, the area from which the Tapi River flows today was separated from the upper part of India. But, due to the movement of Earth's tectonic plates, these two land areas were connected to each other, creating a valley in between and keeping the earlier salty water as it was. These valleys were filled up over time by rainwater runoff carrying silt. The soil that was formed in the process is visible in the form of today's saline area. However, the salty water remained in the ground as it was. That saline water is now posing serious problems for the people there.

A few years ago, the then officer of the Water Resources Department, Mr. Ashok Jadhav, raised this issue on the global platform through Global Water Partnership. But, except for the discussions, nothing happened there either. Due to the untimely death of Mr. Ashok Jadhav, the discussion on this matter also got stalled. The suffering of the residents is tremendous. So, agriculture cannot be given enough attention. Farmers are deprived of Rabi crops. Due to this reason, farmers take crops like cotton in the Kharif season. Due to having to consume salty water, it has an adverse effect on health. In some places, fresh water is brought from faraway places by pipelines. But this benefit is limited only to urban areas. Bringing such water to rural areas is expensive. However, rural people have been suffering from this problem for so many years.

There is also a good reason to bring this topic to the readers' attention. Our friend, the father of the famous Shirpur pattern, Mr. Suresh Khanapurkar, has been consciously studying this issue for years. After thinking deeply, he decided to take this topic seriously and try to find the best solution for it. He took an extensive walk in the area and studied the ground strata of that area minutely. He noticed the peculiar topography of the region and found that the ground strata consist of layers of yellow soil which is impermeable, so, water cannot get percolated beneath that layer. Further, he found that beneath these layers, there are layers of sand. Considering this, he realised that, if the rainwater could be induced into that place, gradually the saline water would mix with it, and the salinity of that water would gradually decrease over the course of time. After a few years, fresh water would be produced there.

The question that arose before him was whether a pilot project could be taken up for this work. There is a proverb in English related to the game of bridge: "When in difficulty, play the trump cards". Following this saying, he decided to use trump card of Vidarbha to get strength to his idea. That card is no one else but the Hon'ble Shri Nitin Gadkari. Any new experiment means that Mr. Gadkari is always four steps ahead. He met Nitin Gadkari and briefed this issue to him, and the desired result was immediately observed. Mr. Gadkari sanctioned an initial amount of Rs. 2 crores for this pilot project, and now this experimental work has started. Mr. Khanapurkar is currently overseeing this work without caring about the hot waves of May by standing in the sun with a scarf tied around his head. Every week, he calls me and tells about the progress of the work. I am convinced by his enthusiasm while talking to him that he is pretty sure about 100% success in this endeavor. Last week, Mr. Nitin Gadkari boosted the enthusiasm of Mr. Khanapurkar by personally visiting this work.

I am sure that Mr. Khanapur will achieve the same success here also as in Shirpur.

Dr. Datta Deshkar Editor

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Water And Irrigation Panorama of India - 7

Dr. Suresh A. Kulkarni

M:9820158353

Irrigation Related Policies and Schemes Introduction

Government of India's main aim after independence was to accelerate development and address the regional disparity of investment, and serious food grain shortage. The post independence era has seen impressive increase in the irrigated areas by large canal systems under state management through successive Five Year Plans (FYPs), which started in 1951. In 1980s attempts were made to bring about reform in the management practices of Irrigation Department (ID), through the World Bank supported National Water Management Project (NWMP). Furthermore, Government of India through its National Water Policy (NWP) of 1987 placed emphasis on farmer's participation in the management of irrigation systems especially in water distribution and collection of water charges. The NWP of 2002 also emphasized on participatory approach for the management of the water by synergizing cooperation between various governmental agencies and other stakeholders including women participation in various aspects of planning, design, development and management of the water resources schemes. The mechanized lift irrigation from groundwater started in mid 1950s with the advent of new pumping technology, which made possible to drill deep wells. At the same time with the advent of 'Green Revolution' a voracious demand for water was created for the high-yielding hybrid crop varieties. The Green Revolution and tubewell revolution went hand-in-hand. In India, mechanized pump irrigated area has tremendously



increased from 6 million ha in 1950-51 to 33.3 million ha in 2000 and 45.7 million ha in 2019.

Irrigation also helped reduce inter-annual fluctuations in agricultural output and India's vulnerability to drought. One of the goals of Indian policy is to find ways to maintain the level of food grain availability per inhabitant in a context of population increase. Total water demand is expected to exceed water availability by 2030. The industrial and municipal water demand are expected to rise drastically at the expense of the agricultural sector, which will have to produce more with less water.

Water is a critical input for agriculture which accounts for about 78 percent of the current water use in the country. In 2018-19, the share of net irrigated area accounted for about 51 percent of the total net sown area and out of the net irrigated area, about 36 percent is irrigated through surface water and 64 percent through groundwater. Command Area Development and Water Management (CAD&WM) Programme primarily aims at the speedy utilisation of irrigation potential created. It is a centrally sponsored scheme started during 1974-75 and offers assistance to the state governments for implementation of various activities like land levelling, field channel, warabandi etc., and presently is being implemented in select (AIBP) irrigation schemes. The following paras briefly discuss various policies and schemes to promote irrigation development and management in the country.

National Water Policy :

India adopted its first National Water Policy in 1987, with an aim to govern the planning

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and development of water resources and their optimum utilization at the national level. The policy was revised in 2002, emphasized the need for river basin-based planning of water use and participatory approach for water resources management Water allocation priority was given to drinking water, followed by irrigation, hydropower, navigation and industrial or other uses. As water resources development is a state responsibility, all the states are required to develop their own state water policy within the framework of the national water policy. The National Water Policy 2012 was was adopted in 2013 which made recommendations on several key issues such as adapting the availability of water to climate change, water pricing, and conservation of river corridors, water bodies and infrastructure. The Ministry of Jalshakti has brought out a draft of the 4th edition of the National Water Policy in 2020. The new Draft National Water Policy (2020) calls for multi-disciplinary, multi-stakeholder approach to water management. However, the NWP (2020) it is yet to be approved by the Government.

Pradhan Mantri Krishi Sinchayee Yojana :

The umbrella scheme of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was launched by the government of India during 2015-16, with an overarching vision to ensure access to some means of protective irrigation for all agricultural farms in the country. The objective of the scheme is to lead to substantial increase in agricultural production and productivity thereby enhancing farm income. The programme has four components viz.(I.) Accelerated Irrigation Benefits Programme (AIBP), (ii.) Har Khet Ko Pani (HKKP), (iii.) Per Drop More Crop (PDMC), and (iv.) Watershed Development Component (WDC). A brief of each component is given below;

(i) Accelerated Irrigation Benefits Programme :

Irrigation is a state subject and irrigation projects are formulated, executed and funded by the State Governments themselves from their own resources. Central assistance is released in the form of block loans and grants not tied to any sector of development or project. Since the irrigation projects are capital intensive, and states with limited resources, at their disposal find themselves unable to meet the desired fund demands of all the projects, the implementation of these projects get delayed. Keeping the above challenge in view, Central Government, during 1996-97 had launched an Accelerated Irrigation Benefits Programme (AIBP) to provide Central Loan Assistance (CLA) to 292 major and medium irrigation projects in the country. However, of these only 143 projects could be completed by 2015. Government of India therefore in 2016 approved completion of 99 long pending AIBP projects including their command area development and water management (CADWM) works under PMKSY in a mission mode. Completion of these projects would create an additional irrigation potential of 35 lakh ha. Against this target, during 2016-2022 an additional irrigation potential of 24.35 lakh hectare has been created through these projects.

(ii) Har Khet Ko Pani:

In 2016-17, the CAD & WM programme was brought under the Pradhan Mantri Krishi Sinchayee Yojna (PMKSY)'s component Har Khet Ko Pani (HKKP). Surface minor irrigation scheme having command area less than 2,000 ha were separated from AIBP and introduced under HKKP component. As on March 2020, the scheme has achieved 64 percent of the target irrigation potential i.e. 0.68 million ha. The main objective of taking up CAD works in command area is to enhance utilization of irrigation potential created, bring overall efficiency in water utilization and improve agriculture production on a sustainable basis through participatory irrigation management and development of micro-irrigation infrastructure for facilitating use of sprinkler/drip irrigation systems. At present, CAD works are being implemented in 88 priority AIBP projects covering culturable command area of 45 lakh ha.

(iii) Per Drop More Crop :

The scheme was launched in 2015 as one of the components of PMKSY under the aegis of the central Ministry of Agriculture an Farmer's Welfare. The scheme aims to enhance water use efficiency in the agriculture sector and encourages farmers to use water saving and conservation technologies. The scheme mainly focuses at farm level interventions through micro and sprinkler irrigation. Besides promoting precision irrigation and better on-farm water management practices to optimize the use of available water resources, this component also supports micro level water storage or water conservation/ management activities to facilitate micro-irrigation. Since the inception of PMKSY (2015-23),70 lakh ha was brought under sprinkler and drip irrigation across the country, while a total area covered under MI from 2005-06 till date is149.14 lakh ha (Drip: 68.93 lakh ha & Sprinkle: 80.21 lakh ha)

(iv) Watershed Development Component :

Rainfed agriculture is vital to India's economy and food security as it contributes to about 40 percent of the total food grain production. Rainfed regions support two-thirds of livestock and 40 percent of the human population. Moreover, 80 percent of small and marginal farmers that are most vulnerable to monsoon failures depend on these areas for livelihoods. Watershed development aims to develop rainfed regions of cultivated area, culturable wastelands and degraded lands. A total of 6,382 projects have been taken up under watershed development component (WDC).

Participatory Irrigation Management :

Since 1985, Ministry of Water Resources has been inspiring farmers 'participation in irrigation water distribution and management of tertiary system in the projects covered under the CAD programme. The concept of involvement of farmers in management of the irrigation system has been accepted as a policy of the Government of India and has been included in the national water policy adopted in 1987. It has been recognized that participation of beneficiaries will help optimize the upkeep of the irrigation system and promote the efficient use of irrigation water. The participation of farmers in irrigation management is formulated based on the creation of water user associations (WUAs), which aims to - (i) promote and secure distribution of water among users, (ii) ensure adequate maintenance of the irrigation systems, (iii) improve efficiency and economic use of water, (iv) optimize agricultural production, (v) protect the environment, and (vi) ensure ecological balance by involving the farmers and inculcating a sense of ownership of the irrigation systems.

Recognising the need for sound legal framework for participatory irrigation management (PIM) in the country, the Ministry brought out a model act to be adopted with suitable modification by the State Legislatures for facilitating PIM. In accordance with the model act more than 16 states have enacted exclusive legislations for involvement of farmers in irrigation management. The legal framework provides for creation of farmers organisations at different levels of irrigation scheme viz., (a) Water User Association (WUA) at tertiary canal level having a delineated command area on a hydraulic basis as also which shall be administratively viable, (b). Distributary Committee (DC) comprising five or more WUAs. By 2016, some 93,668 WUAs covering the command area 17.84 million ha were formed across India. Despite PIM is being promoted in India by the central and state governments for over last three decades, its wide-scale adoption and performance is far from satisfactory.

Groundwater Related Schemes :

Several state governments are implementing watershed development programmes, in which, groundwater conservation constitutes an integral component. The Central Ground Water Board in 2019 has initiated National Aquifer Mapping and Management Programme (NAQUIM), which envisages formulation of aquifer management plans to ensure sustainability of the resources. So far, an area of 130 million has been covered out of the total 240 million ha area identified for mapping in the country.

The goal of Atal Bhujal Yojana is to demonstrate community-led sustainable ground water management which can be up scaled further. The scheme will be implemented over a period of five years from 2020-21 till 2024-25. The primary objective of this scheme is to improve the management of groundwater resources in the water stressed areas of 78 districts of the select states of Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. It also aims at bringing about behavioral change at the community level through awareness programs and capacity building for fostering sustainable groundwater management. The programme is implemented mainly through convergence among various on-going schemes with the active involvement of local communities and stakeholders.

Model Groundwater Bill 2016 for the conservation, protection, regulation and management of groundwater was circulated among all the states to encourage the constitution of State Ground Water Authority (SGWA) and the modalities for regulation of groundwater resources.

Pradhan Mantri Agricultural Energy Security Mission (PM-KUSUM):

In 2019, the Government of India launched a major scheme to promote solar-powered irrigation, 'Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahaabhiyan '(PM-KUSUM). The scheme aims to add solar capacity of 30,800 MW by 2022 with total central financial support of Rs. 34,422 Crore including service charges to the implementing agencies. The Scheme consists of three components, viz., (A) 10,000 MW of solar capacity through installation of small Solar Power Plants of individual plates of capacity up to 2 MW, (B) Installation of 20 lakh standalone Solar Powered Agriculture Pumps, and (C) Solarisation of 15 Lakh Grid-connected Agriculture Pumps. This will enable shifting away from highly subsidized grid electricity can relieve financial pressure on electricity distribution companies (DISCOMs). Furthermore, solar-powered irrigation can help India shift to clean energy, reducing air pollution and greenhouse gas emissions. More information on PM-KUSUM is available a t https://pmkusum.mnre.gov.in/landing.html

Reference:

International Institute for Sustainable Development (IISD), 2021. Implementing Solar Irrigation Sustainably: A guidebook for state policymakers on maximizing the social and environmental benefits from solar pump schemes, implementing-solar-irrigation-sustainably.pdf

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IIFA's Water Conservation Campaign

News

Rajkummar Rao and Rakul Preet Singh join IIFA's Be Water+ve campaign for water conservation

IIFA has launched the Be Water+ve initiative in collaboration with AquaKraft Foundation, after Prime Minister Narendra Modi's call for participation in water conservation.

In response to the Hon'ble Prime Minister Narendra Modi's call for participation from civil society, IIFA has launched the Be Water+ve initiative in partnership with AquaKraft Foundation. IIFA will initiate an aggressive advocacy campaign to educate civil society about water conservation and at the same time work towards on-ground interventions across the mostdisadvantaged villages to make them Water+ve. Supporting the Be Water+ve initiative, were actors Rajkummar Rao and Rakul Preet Singh who signed the Be Water+ve pledge.

Launching Be Water+ve, the press conference was addressed by the Hon'ble Union



Minister of Jal Shakti – Shri Gajendra Singh Shekhawat via a live conference link. The Minister said, "Looking ahead the need for water is increasing manifold. While the Jal Shakti Ministry has been doing extensive work that is being recognized as an inspiring effort across the world, it can only succeed when people join hands with government efforts. As our Prime Minister Shri Narendra Modiji has said, Jal Jan Abhiyaan and Jan Bhagidaari are needed simultaneously to achieve India's Water Vision 2047 thereby ensuring longevity and permanent solutions."

Rajkummar Rao shared his happiness about his debut on the IIFA stage, wherein for the first time he would be hosting the IIFA Rocks in the company of Farah Khan. Rajkummar Rao said, "The UN Sustainable Development Goals are the subject of a fantastic initiative to raise awareness and spur action. Being the international festival of Indian cinema, IIFA has always been sensitive to such delicate issues looking towards the primary objectives of ecology, sustainability, and water conservation. I'm happy to be a part of such a huge initiative along with this I'm very excited to be making my debut at the IIFA Rocks and IIFA Awards in Yas Island Abu Dhabi.".

Rakulpreet Singh would be performing for the first time at the IIFA Awards and spoke about her performance and shared her dance moves at the press conference. Rakul Preet Singh said, "Transforming our relationship with nature is the key to reversing the triple planetary crisis of climate change, nature and biodiversity loss, and pollution and waste and I'm glad to give my small contribution towards it. I'm very excited to be performing for the first time at the IIFA Awards."

"Working together, IIFA and AquaKraft will create an informative and exciting campaign that would enlist support from civil society, corporate India and global corporates, while at the same time ensuring that the technologies deployed are worldclass, sustainable and easy to implement over long periods accommodating climatic changes in line with the vision of Water SECURITY 2047", said Dr Subramanya Kusnur speaking on behalf of the Be Water +ve initiative.

"NEXA and IIFA have been partners for 7 continuous years and through this partnership, we have always strived to create impeccable experiences that not only impress but inspire. Both organizations have been taking conscious efforts for environmental and community well-being at large. Sustainability is a strong pivot for premium customers today and NEXA is committed to introducing innovative technologies like hybrid, CNG, and electric vehicles which reduce greenhouse gas emissions. We at Maruti Suzuki have also taken up sustainable solutions across our value chain from the product design stage to our processes ensuring zero use of groundwater, and water conservation in plant operations and service workshops, in addition to benefitting 25 villages in our endeavour to provide safe and hygienic drinking water through our Water ATMs", asserted Shashank Srivastava, Senior Executive Officer, Marketing and Sales, Maruti Suzuki India Limited

Ravi Menon, Co-chairman of Sobha Realty, said, "We are delighted to be the title sponsors of the 23rd edition of IIFA Weekend. The event will witness the presence of the who's who of the Indian film industry with the glitz and glamour that makes Indian cinema widely popular. With a rich culture of performing arts in our nation itself, we are honoured to recognize and celebrate the longstanding allure of Indian cinema and its outstanding contributors. Indian films are watched across the world, and we are pleased to welcome the numerous actors, artists, and talents of our nation, further bringing Indian cinema to a global audience. IIFA Awards recognizes the highest quality and artistic expressions in the Indian film sector, just like we at Sobha Realty recognize the value of quality, art, and design in our work."

The Nexa IIFA awards and Sobha IIFA weekend will be returning to Yas Island in Abu Dhabi on May 26th and 27th, 2023 for its 23rd edition. IIFA is the world's biggest celebration of Indian cinema and media event that is all set to bring together the very best in music and entertainment under one roof.

Joining hands with the United Nations in India on Sustainability Marking the beginning of another chapter in the IIFA journey, the United Nations in India joined hands with the International Indian Film Academy to create the first-of-its-kind initiative comprising advocacy, education and onground action on the Sustainable Development Goals, with a focus on sustainability. Through this engagement, IIFA proposes to use its platforms and the voices of celebrities and actors to raise awareness about issues of sustainability and climate action in our daily lives. With the knowledge and support of the United Nations in India, IIFA aims to encourage sustainable living, environment and water positivity in India and key regions across the world.

Addressing the media, Shombi Sharp, United Nations Resident Coordinator in India said, "The UN in India and IIFA are united in the urgent need to harness the tremendous power of culture and creativity for climate action. The triple planetary crisis of climate change, pollution and biodiversity loss is already having a devastating impact on the most vulnerable, especially women and children. But there are simple actions we can all take in our daily lives right now to start building a better future. With its unparalleled reach, India's film industry and IIFA can help amplify the call for sustainable living. The UN in India joins hands with IIFA this year to broadcast this message and to mobilize audiences across the world to save our only home, together for people and planet."

The initiative draws from Prime Minister Modi's LiFE (Lifestyle for Environment) campaign and will advocate for citizens to take action for conserving the earth's resources and fighting climate change. Several well-known members of the film and music communities, many of whom serve as UN Ambassadors, Champions, and Advocates, will highlight the challenges and the collective and individual action to achieve the Sustainable Development Goals.

IIFA has in the past championed advocacy and action for environment and sustainability, women empowerment, and girls' education, with celebrities and actors advocating for these causes.

In 2007, IIFA replaced its traditional starstudded red carpet, with an earth-friendly green carpet to turn the spotlight on Planet Earth and environmental degradation. In 2008, renowned actor Amitabh Bachchan and the late Dr RK Pachauri, then chairperson of the Intergovernmental Panel on Climate Change, planted a tree at the United Nations regional office in Bangkok to symbolize the coming together of IIFA and the UN Environment Programme.

Dia Mirza, Goodwill Ambassador, United Nations Environment Programme and United Nations Secretary-General's SDG Advocate said, "It is important to remind ourselves that concepts of refuse and reduce precede reuse, recycle and repair. Every year, the world produces more than 400 million tonnes of plastics, causing untold damage to the environment and societies. India's response is proactive and multipronged. But all of these measures would be incomplete if 'we' – the citizens, don't adopt a more environmentally conscious lifestyle."



Prof. John Briscoe, South Africa

Shri. Gajanan Deshpande, Pune (M): 9822754768



(An article series has been launched in August 2020 to learn more about the World Water Prize winners and their work.)

South African-born Professor John Briscoe, driven by an unwavering commitment to improving people's lives, was honoured with the 2014 Stockholm Water Prize for his outstanding contributions to global and local water management. Prof. John Briscoe currently lives in the US and is a Distinguished Professor at Harvard University.

The Stockholm Water Prize Committee said in its citation that Prof. John Briscoe combines world-class research and policy implementation approaches with an integrated approach to water resources development and management, as well as improving access to safe drinking water and sanitation.

Today's world is beset by daunting water challenges, threatening human water security and biodiversity. At the same time, the global demand for water is increasing, and droughts and floods are causing deadly disasters. These challenges cannot be met alone. Prof. Briscoe's keen intelligence is reflected in his fusion of science, policy, and implementation practises, which has given him unparalleled insight into how water should be managed to improve the lives of people around the world.

In the mid-1970s, Prof. Briscoe moved to a small village in Bangladesh and learned how infrastructure to protect against floods and droughts can transform the lives of the poor. He keenly realised that you can only be a credible policymaker if you can help solve the fundamental problems of building infrastructure and running it, and later in the late 1970s, Prof. Briscoe took up a specialist role as an engineer in the government of the newly independent Mozambique.

Commenting on the honour, Prof. John Briscoe says, "Practitioners of their ideologies are delighted to be recognised by this award.



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Ultimately, what actually happens on the ground is more important. It should be rigorously tested to see if the policies are actually making a difference. I believe it is because of the years I spent working at the micro level that I was able to become an effective policy maker".

Prof. Briscoe's many achievements include the 2003 water policy designed for the World Bank. This water policy has set a new creative and sustainable standard for global understanding of the need for both good infrastructure and developed institutions. The policy has had farreaching implications beyond the watershed, ensuring that developing and emerging countries have a strong voice in global governance.

Prof. Briscoe brought his high-level policy experience to Brazil in 2005 as Country Director to the World Bank. Brazil was one of the largest creditors of the World Bank. Prof. John Briscoe's contribution to bridging the gap between good environmental management and the economic goals of development in the Amazon and other rapidly developing nations has been commendable.

Professor Briscoe is known for his passionate commitment to sustainable economic development, his outspoken stance on building walls of inequality, and his insistence on raising the voices of those affected, from poor farmers to the private sector to the political sphere.





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Note : While designing the issue of Jalsamvad -English we find very interesting news, information and articles specially on water and its management. That tempts us to include the same in our issues. Getting formal permission for this inclusion is that way difficult. Therefore our effort is to print them as it is in our magazine. We may kindly be excused for such inclusions. We express a deep sense of gratitude to the original writers.

Thanks.

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Organization - Water for People

Shri Vinod Hande

(M) 9423677795

"Water for People" was founded in 1991 by the American Water Works Association(AWWA) as a response to the increasing water crises. It is a non-profit international development organization that helps people in rural parts of developing countries to achieve greater access to the drinkable and potable water and sanitation facilities. It is working for 6th Sustainable Development Goal of United Nation. 6th SDG is : availability of clean water and sanitation and monitoring of freshwater facilities for progress of human health. "Water for People" also works in educating people for healthy sanitation. Organization is working in 30 districts of nine developing countries. These developing countries are Guatemala, Honduras, Nicaragua, Bolivia, India, Peru, Rwanda, Uganda and Malawi. Head quarter of "Water for People" is at Denver, Colorado United States and Eleanor Allen is CEO of organization. "Water for People's country team carefully selects region that they call district of that country where work will be focused. The goal is to bring 100% coverage in water and sanitation with each district.

"Water for People" was founded in 1991 by American Water Works Association. In early 1980 Ken Miller, former president of AWWA, Wayne Weiss of Black & Veatch and John B. Mannion former executive of AWWA, shared a vision of a world where people have access to safe water and adequate sanitation. These three are responsible of creation of "Water for People". Today "Water for People" has become the leader in social responsibility and innovation sector. "Water for People" partner with AWWA, The Water Environment Federation, National Association of Water Companies, National Association of Clean Water Agencies and US Water Alliance. Mission of Organization is about people and their work is for people. Organization thanks their partners for solving their challenges of unsafe water and poor sanitation in the developing world.

Vision of "Water for People" – A world where every person has access to reliable and safe water and sanitation service. Values of organization are based on integrity in all they do.

• Accountability : to communities, partners and each other

• Courage : to innovate, to risk, to lead

• **Empowerment :** of citizens, families and local institutions

• **Partnership** : on the ground, in the sector and at all levels of government

• **Transparency** : in what we do, what it costs and what is working

Organization believe everyone deservers lasting access to safe water and sanitation. They have proven solution to the global water and sanitation crises. Their programs in nine countries they bring together local entrepreneurs, community members and local governments to build and deliver water and sanitation services that lasts long.

Everyone Forever- What is Everyone Forever? They want every family, clinic, and schools to have lasting access to safe water and sanitation for generations to come. This they call Everyone Forever.

Why Everyone Forever works.

• **Ownership**: "Water for People" never fully funds water and sanitation infrastructure, because they want to make sure the districts they work should

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invest in their own water and sanitation services. Individuals, communities and government become the partners of organization where they work. Districts own the system they build and are responsible for maintenance and care of structures.

• Capacity Building (Sustainability): Sustainability is the main criteria of everything they do. They are creating systems that will last and focus on building capacity of communities for maintenance of system after they leave the site.

• Monitoring and Reporting: "Water for People" trains local services authorities to collect data, monitor operations and keep data record system at high level. This monitoring keeps service authorities accountable to the people about the system working.

• **Replication :** "Water for People" believe that once momentum builds at the district level replication across countries becomes easier led by national water authorities.

Community, Government, Market and Technical are forces of Everyone Forever. "Water for People" helps building capacity within each of these forces to promote water and sanitation services that lasts.



Water:

Round the globe 2.1 million people don't have access to safe water. Safe water reduces water

borne diseases like diarrhea and cholera and save hours every day spent for fetching water specially for women and girls. Safe water keeps family healthy. Establishing safe and reliable water services is more than digging wells and installing pumps. Water changes every thing. Safe water means people live longer and healthier life. Parents are more likely to see their children grow up well. Their economic condition should also grow. Families can keep their kids in school. There is more time for work, rest and play.



"Water for People" empowers local communities to create lasting change. Organization also ensure communities have water that lasts for generations. So they achieve this by following few steps,

• Listening: They do everything in partnership with local government and communities. When they go to their area they meet with their partners, listen to their ideas and assess existing sources.

• **Planning**: They make a plan that covers every family, clinic and school. No one get overlooked.

• **Building :** They build wells, lay pipes and install taps. They make sure that the water is treated and tested.

• **Training :** They also train local mechanics and govt. offices to monitor, repair, and manage water system. They also train communities and local partners for tariff collection and manage water resources.

• Advocating : In the process they work hand in hand with local and national Govts. for advocating laws that will manage and protect water services for a long.

There are further few more steps like Monitoring, Observing and Existing for ensuring

water that lasts long. Till date "Water for People" provided reliable water access to 4.7 million people.

Sanitation- In the world 4.5 billion people lack access to adequate sanitation. Safe sanitation services give families dignity, good health , and eliminates probabilities of contamination of water supply. Almost 500 million people still defecate in open. Unless until families invest in their own toilets they are less likely to use them. For this "Water for People" have a affordable toilet option. They achieve this in six steps like

• Educating- "Water for People" educates families about stopping open defecation to improve community health by taking help of their partners.

• Inventing- Based on local communities need, organization invent new ways of sanitation services and new sanitation products. This includes new type of toilets, methods of financing and constructing toilets and ways to safely manage waste.

• Testing- After installation of toilets, organization test them with customers and entrepreneurs in local markets. This test shows where improvement require in product and future demand.

• Monitoring- Monitoring require for satisfactory working of product, whether they are reaching to the new families and supply is maintained for spares.

• Scaling- If a new product is doing well in markets they are marketed in other cities and areas so that more people can access better sanitation services.

• Exiting- When organization see enough growth of a product or service they stop their involvement and trust the market to sustain strong sanitation service.

By providing families with affordable option for materials to built bathrooms, contractors to build and maintain their bathrooms and safe management of waste, "Water for People" has reached till date 1.77 million people by sanitation initiatives program.

Hygiene:

Water and sanitation infrastructure are important but people must understand the importance of using it. "Water for People" put thrust on education about safe hygiene practice. Hand washing with soap could reduce diarrheal death by 50%. Every year 3.5 million deaths occur from water borne disease. On community level they motivate hygiene behavior change and in school they create hygiene curriculum and support teacher who lead sanitation club in their classroom and teaches about proper hygiene practices. Organization make sure about school have hand washing and toilet facilities. In 2019 "Water for People" educated 269361 people about hygiene.



In 2017 "Water for People" had a five year plan to benefit 4 million people of 40 district where they work by Everyone Forever sustainable module program and further multiply it's impact by 20 times i.e. 80 million people.

Above it is mentioned that "Water for People" is working in nine countries and India is one of them. Work of "Water for People" in India. India

Like many other countries, India has many boreholes and hand pumps installed to supply safe drinking water are broken condition and non operational state due poor maintenance. "Water for People-India is working to solve this problem and create long lasting water solutions by educating communities and local governments. This program is known as Jalabhandhu (friends of water). The Jalbandhu are provided with training on how to repair and maintain different hand pumps. These jalbandhu are independent and earning their income from communities, schools and local govt. . This provides job security to Jalbandhu.



"Water for People" began working in India from 1996. Initially they started with small project in West Bengal to help eliminate naturally occurring arsenic in water supply. In 2007 organization established a full fledge country program with office in Kolkata. By the end of 2010 they had programs in several districts of West Bengal. In 2012 organization expanded their work of operation in Bihar State.

Everyone Forever program in India

Everyone Forever is a unique effort to provide water and sanitation to Everyone in targeted districts and municipalities. Forever means, these districts and communities will not need to rely on support from external water agencies to meet their water needs. "Water for People" is focusing it in two Blocks in the districts of South 24 Parganas in West Bengal and all five Blocks in the district of Sheohar in Bihar. "Water for People" believes long lasting water and sanitation solution can be achieved when all players like private sectors, civil society, and local government support them and understand them. "Water for People" build the skill of district, block government, Gram Panchayat and Panchayat Raj, local self groups and communities based organizations. Sagar block south Paraganas district of West Bengal is a home for approximately 211991 people and mostly are farmers and fishers. Neighboring Sagar is Patharpratima is also a home for approximately 346064 people and mostly of them are also farmer and fishers. Sheohar district of Bihar have five blocks with combined population of 656916 people and mostly are farmers and day laborers. Their team is working on the system of arsenic removal technology in schools and communities.



Sanitation

Sanitation solutions are also a part of "Water for People-India". Organization works in schools to increase sustainable sanitation and water facilities. This promotes good hygiene practice among students. Organization is helping local partners in constructing of toilets and water infrastructure.

In addition to above work "Water for People-India" developed a voucher scheme and e-Catalogue to promote demand driven sanitation programming. The scheme allows consumers to purchase household toilets before they receive their subsidy. Scheme was launched in 2015 and some 2000 vouchers were distributed. e-Catalogue helps them to decide what kind of toilet they can have to meet their demand. In 2016 "Water for People-India" continued to work with local partners to construct water points and implemented water, sanitation and hygiene education programs. Working area are the districts of West Bengal an Bihar. They have also started working in Chikhaldara in Amravati dist. of Maharashtra.



Other countries

Guatemala : "Water for People" is working in Guatemala since 1997. More than 100 water, sanitation and hygiene system installed and implemented throughout the country.

Honduras : Since 1997 "Water for People" supported water and sanitation work in Honduras. From 1997-2006 "Water for People-Honduras" worked with partner organizations in more than 90 rural communities.

Nicaragua : In 2010 "Water for People-Nicaragua" received legal status of NGO. They initiated their first water and sanitation program in the municipalities of San Rafael and La Concordia.

Peru : In 2013 Everyone Forever implemented in two districts i.e. Cascas and Asuncion .

Bolivia : "Water for People" started working in Bolivia in 1997. Since then they have developed a strategic program to deal water and sanitation needs in four municipalities. **Uganda :** 95 percent of people in urban areas and 71 percent in rural areas have access to the safe water but 34 percent of the population in both urban and rural are using improved sanitation facilities. Despite major water infrastructure, a lack of operation and maintenance system they are broken and not meeting govt. standards for access, quantity and quality.

Rwanda : Since 2008 "Water for People" is providing education through Everyone Forever program on sustainable drinking water, sanitation and hygiene in targeted districts.

Malawi : Organization is working in Malawi region since 2000.

Achievement of "Water for People" till 2022

• 229682 people reached with new or improved water services.

- 296767 people reached with new or improved sanitation services
- 171 schools with access to improved WASH
- 22 health clinics with access to improved WASH

Solving the global water and sanitation crises is a big challenge. Organization needs help of people to reach Everyone Forever program with safe water and sanitation services. Interested can join organization.

Similarly "Water for People" accepts donations from individuals right from \$25 onwards to bring water and sanitation services for every family and school.

"Water for People" is having strategic partnership with Charity:water, Focusing Philanthropy, Kimberly-Clark, Sea Grape Foundation, American Water, One Drop, etc.

Contact details of "Water for People"

100 E. Tennessee Avenue Denver, CO 80209. info@waterforpeople.org 720 488 4590 www.waterforpeople.org **Address in India** C - 2/51, Ground Floor, Block C 2, Safdargunj Development Area,

Hauz Khas, New Delhi, Delhi 110016 Phone - 011 2656 4225

World Water Day - 2016

Better Water - Better Jobs

Shri. Gajanan Deshpande, Pune -(M) : 9822754768



(A new article series has been launched from August 2021 to learn more about the importance of World Water Day and the various water awareness programs implemented every year.)

World Water Day 2016 under the theme "Better Water, Better Jobs" highlighted the interrelationship between water and job creation, which is directly or indirectly generated by water resources around the world. If abundant and goodquality water is available, it will increase the availability of jobs and bring about positive changes in people's lives. This year's programmes were implemented in collaboration with the International Labour Organisation. The event brought together key activists working in various sectors, such as the water sector and environmental groups, to highlight the symbiotic relationship between those sectors.

Water is an essential element for life. But as much as it is needed to quench thirst or protect health, it is essential for creating jobs and economic, social, and human development. Water quality and adequate availability can make a positive difference to societies, their economies, and the quality of life around the world.

Water is central to human existence as well as the environment and the economy. Communities with minimal access to water and sanitation often lack healthcare and stable jobs, perpetuating the cycle of poverty. Disparities in access to water and sanitation facilities between men and women, urban and rural areas, and rich and poor are also of concern.

This stream focuses on how proper water management can change the lives of workers.

Water management and employment generation are closely interlinked. Almost all jobs depend on water. Small enterprises or large global enterprises cannot survive without reliable and safe access to water. At the same time, a large amount of educated manpower is required to establish, maintain, operate, and manage water systems well.

Where quality water and a good work culture exist, they have the power to change people's lives. Millions of people struggle to achieve these things. But many have to be deprived of it. Furthermore, many people who work in these sectors do not receive real recognition for their work, and their basic labour rights are often not granted or protected.

Water is collected, used for various purposes, and finally returned to the natural environment, either directly related to its management (supply, infrastructure, wastewater treatment, etc.) or in economic sectors that rely heavily on water, such as agriculture, fishing, energy, industry, and health. It is an important factor in the development of employment opportunities. Good availability of drinking water and sanitation helps in attracting educated and energetic manpower, which becomes an essential factor for sustainable economic growth. It also highlights the important role of water in the transition to a green economy. In many developing countries where large quantities of water are required, irrigation projects are considered an important pillar of the economy and a source of employment.

Water is a force for job creation. Its safe and clean distribution requires a large number of

workers. Almost half of the world's 15 million workers work in water-related sectors, and almost all jobs depend on water and those who ensure its safe delivery. However, many of these workers do not have access to clean water. When water and sanitation are lacking in workplaces and in the settlements where workers live, disease spreads, the gender gap widens, and economic growth slows; This makes it impossible to achieve global goals and achieve sustainable development.

As water scarcity becomes more of a reality, industries that rely heavily on water, such as textiles and agriculture, are at risk of rising costs putting wages and jobs at risk. This increased cost, is then passed on to the consumer.

The implementation of World Water Day 2016 brought recognition to organizations and their activists working to improve the quality and

need to shift to better jobs, and many also got opportunities. Three out of four jobs worldwide are in water-dependent sectors. According to the World Water Development Report of the United Nations published on the occasion of World Water Day 2016 in Geneva, it is opined that economic growth may be limited in the coming years due to scarcity or lack of water.

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The Largest Dam in Missouri:

An Architectural Masterpiece

News

Missouri's basin is home to an estimated 17,200 dams and reservoirs, the majority of which are modest, regional water storage facilities. The watershed's reservoirs have a combined capacity of about 141,000,000 acre-feet. Together with dams on the river's tributaries, these structures lessen the likelihood of downstream floods along the Missouri and Mississippi. The largest dam in Missouri, the Bagnell Dam, is an architectural masterpiece. In this article, we will be exploring the history of this dam and its purpose.



Bagnell Dam is located on the Osage River in Missouri.

The Bagnell Dam, located on the Osage River, is the largest dam in Missouri. The dam is a hydroelectric dam on the Osage River in central Missouri, located near the city of Lake Ozark. It was built between 1929 and 1931 by the Union Electric Company of St. Louis and was named after company president, Walter Bagnell.

At the time of its construction, the Bagnell

Dam was one of the largest and most expensive projects of its kind in the United States. It is a gravity-type dam, meaning it relies on the weight of the concrete structure to hold back the water without the use of any mechanical components. The lake behind the dam, known as Lake of the Ozarks, has a surface area of over 54,000 acres and stretches for over 90 miles.

What Is The Primary Purpose Of The Bagnell Dam?

The primary purpose of the Bagnell Dam was to generate electricity for the growing population of Missouri. The dam's six generating units have a combined capacity of 215 megawatts and can provide electricity to over 100,000 homes.

In addition to generating power, the Bagnell Dam has become a popular tourist attraction in recent years. The lake behind the dam is a popular destination for boating, fishing, and other recreational activities. There are also several resorts, campgrounds, and other attractions located around the lake.

There are ongoing discussions about the future of the Bagnell Dam and its role in maintaining the health of the Osage River ecosystem. Some environmental groups have raised concerns about the impact of the dam on native fish populations and the overall health of the river.

How Deep Is The Water At Bagnell Dam?

At its deepest, Lake of the Ozarks is just over a hundred feet. The lake level measurement is the vertical distance from the mean sea level to the lake's surface. The lake's full pool level is 660 feet above mean sea level.



Can You Visit The Bagnell Dam?

Yes, you can visit the Bagnell Dam. It is located near Lake of the Ozarks in central Missouri and is a popular tourist destination. The area



around the dam offers scenic views and recreation opportunities, including fishing, boating, and hiking. The dam itself can be viewed from various vantage points and there are usually guided tours available if you want to learn more about its history and inner workings.

You can take a tour around its grounds or check out its museum which displays artifacts from when it was first constructed as well as some interesting facts about how it works today. You can also enjoy fishing on either side of the lake or explore nearby trails for an outdoor adventure! And if you're feeling daring enough – try taking their zip line course!

Is Bagnell Dam Near Lake of the Ozarks?

The Bagnell Dam is right by Osage Beach, on the banks of the Lake of the Ozarks. This is a popular vacation destination for locals and tourists alike. Osage Beach provides numerous restaurants along with some shopping opportunities too! From delicious seafood dishes to classic American cuisine – something awaits everyone here no matter what their taste buds desire. Plus, don't forget about checking out local attractions such as Big Surf Water Park while here too!

Overall – visiting Bagnell Dam is sure to be an unforgettable experience filled with lots of fun things to do for both outdoorsy types and those who prefer more leisurely pursuits. Everyone can find something they'll love doing here year-round. So, make sure to add this destination to your list next time you are planning a getaway near Lake Ozark, Missouri!

Fishing Spots At The Bagnell Dam

The Bagnell Dam in Missouri is a popular fishing spot where anglers can catch a variety of game fish, including largemouth and smallmouth



bass. There are also other types of fish in the Osage River, which is a true multispecies fishery. While the dam itself may not be family-friendly, there are nearby areas where visitors can enjoy the scenery.

White bass, walleye, catfish, hybrid stripers, and paddlefish all cluster below the Bagnell Dam in the spring to spawn, making it an excellent time to go fishing. Walleye move upstream toward the dam to spawn in early spring, and this is the best time of year to pursue these fish. Anglers can expect to catch a wide variety of game fish, including largemouth and smallmouth bass, crappie, sunfish, catfish, white bass, hybrid stripers, walleye, paddlefish, and drum.

What Would Happen If Bagnell Dam Broke?

If the Bagnell Dam were to break, it would result in a catastrophic flood downstream for several miles. The massive amount of water stored in Lake of the Ozarks (which the dam forms) would rapidly rush downstream, affecting nearby towns and potentially reaching the Missouri River. The floodwaters would cause severe property damage, disrupt transportation and communication infrastructure, and could potentially result in loss of life. The resulting damage could take years to recover from and would require significant effort from government agencies and disaster relief organizations. It is important to note, however, that the likelihood of the Bagnell Dam breaking is low, as it is regularly monitored and maintained by responsible authorities.

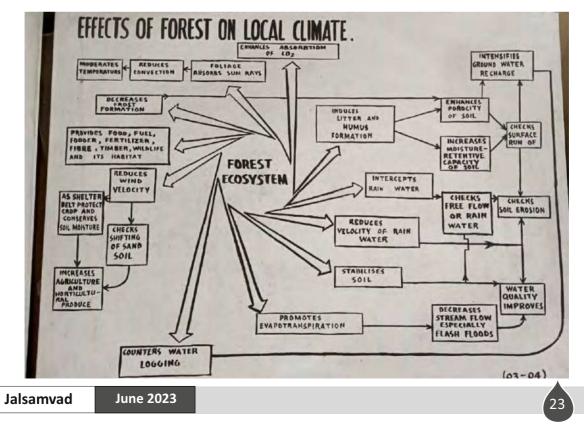
The post The Largest Dam in Missouri Is an Architectural Masterpiece appeared first on AZ Animals.



अभिनव जलनायक सामाजिक कार्यकर्त्यांनी का वाचावे ?

- ओढ्यात, बांधाऱ्यात, तळ्यात पाणी साठवले ,पण त्या साठवलेल्या पाण्याचे अचूक व्यवस्थापन करण्यासाठी लागणारे विविध तंत्रज्ञान.
- गावचे सांडपाणी ओढ्यातच करा नैसर्गिक पध्दतीने शुद्ध ! ट्रीटमेंट प्लंटचा मोठा खर्च, वीज, केमिकल्स, मनुष्यबळ यापैकी काहीही लागत नाही अशी दोन तंत्रज्ञान. ओढे नाले स्वच्छ झाले की नद्या ही होतील अमतवाहीन्या !
- ३.आरो प्लांट पेक्षा कितीतरी स्वस्तात पाणी निर्जंतुक करणारी ओझोन टेक्नॉलॉजी ची माहिती.
- ४. कचऱ्याचे डोंगर वेगाने खतात रूपांतर होण्यासाठीचा मंत्र आणि तंत्र.
- ५. कचऱ्याची दर्गंधी पूर्ण थांबवली पूणे महानगरपालिकेने, काय केले त्यांनी? त्याची माहिती.
- ६. बंद पडलेल्या बोअरवेल साठी जमिनीतच असणारे पाणी शोधून बोअरवेल भरण्याची किमया
- ७. बारा गावांचा गट करतो भूजल व्यवस्थापन व नियोजनाचे यशस्वी प्रयत्न.
- ८. दुर्गम भागात पिण्याचे पाणी शुद्धी करण्यासाठी मोबाईल फिल्टर
- ९. गावच्या तळ्यातले पाणी भिजवते दप्पट क्षेत्र या तंत्रज्ञानाने
- १०. बंधाऱ्यातून, तळ्यातून, जमिनीतून होणाऱ्या पाणी गळतीला थांबवण्याचे उपाय. ही सर्व तंत्रज्ञाने सोप्या शब्दात वाचा या पुस्तकात.





A roundup of Important News updates

Aarti Kelkar Khambete



Panaji's waste revolution model sets an example for other cities to follow

Goa's capital Panaji, a zero-landfill city, segregates and recycles its waste, leaving nothing to be sent to landfills when other cities continue to struggle with their waste.

The key to Panaji's success is its efficient recycling and sorting process that sorts and recycles solid waste into categories besides managing its wet waste separately. The waste categories include different kinds of paper, hard and soft plastics, cloth, electronic waste, tetra packs and nonrecyclables. Even coconut shells and ceramics are segregated.

A Material Recovery Facility or Swachhta Kendra (cleanliness centre) was set up in the city 2014 where men and women – known as Safai Sathis, or cleanliness helpers, sort waste wearing aprons and gloves. The Corporation of the City of Panaji employs sanitation workers who collect segregated wet and dry waste from all houses in the city. Other workers gather garbage from public dustbins or litter from the streets. All this waste is collected at mini sorting stations or transported directly to the material recovery facility for segregation and recycling.

The city also has an efficient system of segregation of garbage at source and segregated wet and dry waste is collected from individual homes while large housing colonies are encouraged to establish waste sorting stations on their premises. Around 40 percent of the housing colonies in Panaji are currently a part of the project. An average of 14 tonnes of dry waste is collected daily from homes, commercial establishments and public bins.

Nature based learning programmes improve environment and climate literacy in Chennai

Chennai is one of the most at-risk coastal cities in the country and the city ranks second on the climate vulnerability index in a district level vulnerability assessment conducted across India by the Council on Energy, Environment and Water (CEEW).

The city's vulnerability is further at risk as the government of Tamil Nadu has allowed polluting industries to be set up about 20 km north of Chennai in the ecologically sensitive Ennore-Pulicat region. There is a growing residential development happening along the coast, water bodies within the city continue to be poorly managed, construction waste is dumped in wetlands.

Realising the importance of citizen involvement in conserving and protecting the environment and biodiversity in their city, naturebased educators in the city are now working to improve environment and climate literacy among the people through outdoor, place-based programmes. They are also taking steps to mainstream nature education in classrooms.

A bilingual guide (in Tamil and English) has been prepared for the coastal fauna of Chennai to encourage documentation of local knowledge and encourage involvement of local communities. The nature-based learning programmes are tailored according to different age groups. With children, the aim is to create a sense of excitement and wonder with their landscape, while with adults, it is to help them understand the need for that space and then advocate for it (Mongabay, India).

Jalsamvad

June 2023



Organic farming empowers farm widows in Maharashtra

Widowed farm women in drought prone Marathwada and Vidarbha regions in Maharashtra have to undergo extreme hardships after the death of their husbands with no control on the land or property, making it difficult to make ends meet. Many of them have now resorted to organic farming since 2020-21 and started cultivating local varieties of pulses, soybean, cotton and millets and vegetables such as spinach, tomato and coriander.

The Mahila Kisan Adhikaar Manch (Makaam) started this initiative for female farmers, mostly widows of farmers who had died by suicide, sugarcane cutters and marginal farmers from the drought-affected Marathwada and Vidarbha regions of Maharashtra.

Female farmers would not have food to consume at home and they had to depend on rations provided by social organisations during the pandemic. They agreed to participate in the initiative and did not entirely stop cultivating cash crops, but cultivated 15-25 crops--pulses, millets, vegetables, oilseeds and one main crop (soybean or cotton) for food security.

Many of the women faced initial resistance from their families when they decided to take up organic farming. To deal with this problem, Makaam asked the women to start experimenting on half an acre. The organisation trained women in methods of producing manure from farm and animal waste, and vermicompost. They also provided training to produce pesticides made using leaves of various trees, cow urine and cow dung. Once the half-acre experiment began to show signs of success, several women were able to go organic on a larger scale.

The naturally growing vegetables, together with organically grown food such as pulses and millets, has increased the physical strength and fitness of families, resulting in fewer hospital visits. Organic farming has also increased the credibility of female farmers (Indiaspend).

Kerala adopts tuber conservation for nutritional resilience to tackle climate change

The Kerala state government is encouraging conservation of tuber diversity with support from NRLM and Kudumbashree (a rural development agency) to ensure nutritional security among tribal groups in Thriunelly, Wayanad.

Wayanad district in Kerala has the largest population of eight recognised tribes and remains one of the poorest districts in the state with high levels of malnutrition among under five children. Changing land use practices and climate fluctuations have led to poor availability of land and water for cultivation of cereals and pulses. While tubers were a part of the tribal diets of the region for a long time, they soon began to be neglected due to changing food preferences and the supply of rice through the public distribution system. Communities also did not have an idea of how to



grow tubers.

Now, lands are being leased and each parcel divided for paddy, banana, t u b e r s and other vegetables and given to the tribal community to support themselves. Tribals are now being trained to grow these crops, prepare land for each tuber variety, and save seeds and protect them, under the initiative.

Jalsamvad

July 2023

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A recent survey conducted by Integrated Child Development Services (ICDS) in Wayanad has shown a marked improvement in the nutritional status of children in Thirunelly, showing that tubers can play a very important role in ensuring nutritional security among populations and help build resilience to climate change impacts (Village Square).

A seed festival in Odisha helps Kondh tribal farmers to revive their agricultural traditions

Farmers from the Kondh tribe in Odisha's Nayagarh district from 40 villages in Dasapalla block participate in the Bihan mela meaning seed festival every year since 2019. Women collect seeds of the indigenous varieties and store them in earthen pots and decorate the pots, place them in a bamboo basket and carry it on their heads accompanied by men beating drums and other traditional instruments to the site where the mela is organised.

Farmers in the region are mostly marginal and highly depend on the monsoons for agriculture. However, they have been experiencing repeated crop failures due to erratic rainfall or pest attacks in recent years. This is because they have lost all native crops and varieties that are naturally resistant to pests and better suited to the region's climate.

Even families on the hilltops who practised mixed cropping earlier have now shifted to monoculture cash crops like cashew. This has not only affected their food and nutritional security, but also degraded the soil and made the farmers more vulnerable to crop losses.

To deal with the situation, Nirman, a non profit working in the region, started this initiative to facilitate access to indigenous seeds among farmers by setting up a seed bank in Raisar village that encouraged collection and preservation of indigenous seeds from across Kondh villages and lending those out to farmers, which they had to return in double the quantity within the first year of cultivation. The bank, which was set up with just 12 varieties of paddy, now has 62 varieties of paddy, four varieties of millets, five varieties of pulses and eight vegetables. The bank is open to all Kondh farmers and has benefitted 750 families in the region (Down To Earth).

This is a roundup of important news updates from April 16 - April 30, 2023. Read our policy matters this fortnight here.





Why Pune's Citizens Are up in Arms About a

Riverfront Development Project

News

Along with eating into the riverine vegetation along the Mula-Mutha river, the riverfront development project that aims to address flooding and make the river more 'accessible' to people will not really do so, say activists.

The citizens replicated the Chipko movement to protest against the Pune Municipal Corporation's (PMC) riverfront development project that will require more than 3,000 trees along the nearly 11-kilometre stretch of the river to be cut.

The project has other flaws, too. The project proposes to build embankments in the riverbed that will destroy the riverine ecosystem in the area, said ecologists.

It will also not help with flood control, according to architects. In fact, the construction of the embankments in the riverbed will reduce its water carrying capacity and make nearby areas more prone to floods, they said.

However, a PMC official claimed that the embankments have been designed taking all these factors into consideration and that [the construction will happen] as per state norms.

PMC's tree authority will soon conduct a public hearing to discuss the details of the trees to be cut, the official cited above told The Wire.

Pune's citizens, however, won't compromise. They will keep protesting until PMC addresses these concerns and modifies the project correspondingly, they said.

'Developing' a river's banks

According to PMC, urbanisation along the river banks and the release of untreated sewage are degrading the river. Moreover, private properties

along the banks have made the river "inaccessible" to the public.

To address these issues, the civic body conceived a 'river development project'. The 44km-long stretch of all three rivers running through Pune – around 22 km of the Mula river, 10 km of the Mutha river and 11 km of the Mula-Mutha – will be developed at a cost of around Rs 5,500 crore. The project is divided into phases, and currently, work has begun along the approximately 11-km stretch of the Mula-Mutha river.

The work – costing Rs 1,450 crore, per some estimates – mainly involves building embankments along the river banks, primarily to tackle the issue of flooding. The embankments would house an interceptor sewer line, a means to divert sewage from the river and into the proposed sewage treatment plants. At the same time, the embankments would create a "continuous public realm" along the river that people can use, the PMC website said.

According to the civic body, the project will "prevent the environmental degradation of Pune's rivers, protect them from being choked by development, reduce the threat of flooding, create a public realm along the river and provide Pune with a vital riverfront that enriches life in the city". Trees to be cut, transplanted

Activists have alleged that the project will affect more than 7,500 trees that are placed along the banks of the Mula-Mutha river.

A total number of 4,429 trees would be transplanted for the project along the roughly 11km stretch of the Mula Mutha river, PMC's tree authority, which aims to protect trees in urban areas, informed Pune resident Ravindra Sinha, in response to his RTI queries.

And, as many as 3,110 trees would be cut, the RTI responses said.

However, activists have alleged that the fact that so many trees would be affected was not mentioned in any of the public consultations that were conducted for the project. These consultations included meetings with local people to inform them about the project, its impacts, and to register peoples' concerns, if any.

While PMC officials have claimed that they would cut down mostly exotic or invasive trees, activists have said this is not entirely true.

The stretch of the Mula-Mutha river where the work has begun is an example of a riparian forest, Shailaja Deshpande, co-founder and director of Pune-based NGO Jeevitnadi Living River Foundation told The Wire. It includes native species and trees such as the Salix tetrasperma, commonly called the Indian willow, she said. The RTI responses to Sinha mentioned that native and naturalised trees such as the Ficus species are also likely to face the axe.

However, only 1,500 trees are going to be cut for the project, a PMC official, who did not want to be named, told The Wire. Therefore, citizens' "apprehensions" over the project are unfounded, he claimed.

He added that this has been done as per the Tree Act, which provides guidelines on which trees can be cut, and that these [guidelines] have been certified by state-appointed consultants

He was referring to the Maharashtra (Urban Areas) Protection and Preservation Of Trees Act, which regulates tree felling. The Act came into force in 1975. This shortlist will be submitted to the tree authority, which will conduct a hearing during which citizens can raise objections, if they can prove them with facts and figures, he said.

The hearings are likely to take place on May 8, 9 and 10, he told The Wire.

'This is not just about the trees'

"But it's not just about the trees," said Sinha.

The project will affect the entire riparian zone, or the area spanning river banks that support a unique mix of vegetation and wildlife, including wateradapted species.

"From grasses, herbs, shrubs, climbers to aquatic free-floating plants, the Mula, Mutha and the Mula-Mutha together have more than 300 species [of plants] found along the river banks, in littoral ones and in the riverbed," said Deshpande.

The stretch is also part of the Dr. Salim Ali Biodiversity Park; the area is a proposed bird sanctuary. As per eBird, an online citizen science database that translates bird sightings submitted by birdwatchers into data on species diversity and abundance among others, the area is a birding hotspot and home to 100 bird species. These include migratory birds such as the Ruddy shelduck and birds endemic to the Indian subcontinent such as the purple-rumped sunbird.

When the river enters the Salim Ali Biodiversity Park, it flows through a rocky bed which supports diverse habitats like small river islands, pools, small rapids, aquatic vegetation and muddy banks – all of which support more than 150 species of birds including several migratory water birds, Kedar Champhekar, a Pune-based independent ecologist told The Wire.

"Ironically, this stretch from the confluence downstream is where the riverfront is being implemented, destroying the best habitat on the river system in Pune," he said.

"This will drastically reduce the bird diversity as the flow will be channelized and made uniform, thus destroying the habitat diversity that is required by different birds."

The old and dense trees on the banks that the PMC plans to cut also supports a large diversity of woodland birds, and serves as a shelter for water birds, and provides a corridor for biodiversity and stabilises the river banks, said Champhekar. Artificial banks

Creating a "public realm along the river", as the project aims to do, involves concretising the rivers' banks by building embankments. Jogging and walking tracks – even boating facilities – are also on the cards, as per the detailed project report.

However, activists believe the developments will restrict the local community's access to these areas.



"Who are these walking and jogging tracks for?" asked Deshpande. "The need is for an ecological and a holistic river rejuvenation that also takes into account social equity and justice of both upstream and downstream communities and in such a way that all sections of society are able to access the area," she told The Wire.

Another issue that citizens have raised is the impact of the embankments on the river's width. Though one of the main aims of the project is flood control through the creation of embankments, which would channelize the water, experts said the move will reduce the water carrying capacity of the rivers.

The state's Water Resources Department (formerly the irrigation department) has designated floodlines for the rivers. A blue floodline on the river bank indicates the area that would be submerged by the highest flood in a 25year-period, while a red floodline indicates the area submerged by the highest flood in 100 years. Construction is prohibited in the areas within the blue line, and it is restricted in the area under the red line.

According to Sarang Yadwadkar, an architect and a resident of Pune for the past 35 years, the construction of the embankments within the blue floodline – where construction is not permitted – will reduce the space available for water to flow by 40%. This will steeply increase the flood levels in Pune, he said.

On the other hand, a report by the Energy Resource Institute on climate change mitigation in Maharashtra suggests that the annual rainfall in Pune division will increase by 37.5% due to climate change, he added.

At the same time, the number of rainy days will reduce. Bouts of intense rainfall over a shorter time will be a regular phenomenon. This will lead to higher stormwater surface runoffs, which would contribute to frequent flooding instances, said Yadwadkar, who was also a member of the planning committee of Pune's development plan.

But even if the embankments do materialise, will they really prevent sewage from entering the river?

Learnings from the Sabarmati riverfront in Gujarat do not paint a very promising picture. As per some reports, the Sabarmati Riverfront Development Corporation Limited admitted that the interceptor sewers and sewage diversion networks woven into the riverfront development project have mostly failed due to factors including dysfunctional waste treatment plants.

Unless all the proposed sewage treatment plants are in place and are functioning, the vision of a clean, unpolluted Mula-Mutha is still far away, said Yadwadkar. (Also, the installation of new sewage treatment plants is not part of the riverfront development project.)

Despite the PMC official claiming that the embankments have been designed taking all these factors into consideration, the citizens have raised several concerns, he claimed. "If the floodline changes, if rain enters, and if it is more than what is estimated, then there will be no end to these discussions," he added.

Yadwadkar had approached the National Green Tribunal in 2020 challenging the environmental clearance (EC) given to the project. Though the NGT ruled that the EC be amended, that has not been done yet. When this was brought to the NGT's notice again, it ordered that no more new work orders be taken up until this is done. But it did not stop the ongoing construction work.

No compromise

In July and October last year, the state's Water Resources Department had warned the PMC that they would take action if the riverfront development project flouted the rules and regulations in place to protect the Mula-Mutha river, and that the river flow or course should not be altered in any way.

The construction of the embankments should not affect the width or depth of the river so that there is no reduction in the river's carrying capacity, said Vijay Patil, executive engineer of the Khadakwasla division in the state's Water Resources Department.

Recently, the PMC responded to the concerns raised by the department, said Patil. It said that these issues "have been taken care of" in

the detailed project report, and this has been verified by the Central Water and Power Research Station (CWPRS), he said.

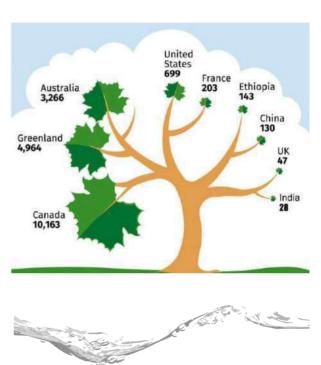
Meanwhile, Pune citizens are determined to not compromise.

More than 700 citizens have written to the Pune municipal commissioner, Vikram Kumar, just last month objecting to the trees being cut down for the project. According to Sinha, citizens have submitted their objections to the tree felling to the PMC's tree authority, Pune's chief conservator of forests and the Pune district collector, among others, in March this year.

It's about their survival too, they said.

"I want to be able to survive in this city," Yadwadkar told The Wire, when asked about why he was raising his voice against the project.

"We will continue to protest [against the riverfront development project] until the PMC addresses these issues and modifies the project appropriately," Deshpande told The Wire. "We are not against the project and we want river rejuvenation. However, the river should first be cleaned, and the project be implemented in such a way that the riparian stretch along the rivers is protected. We hope the PMC will alter the detailed project report accordingly." The PMC officer told The Wire that the department was "open" to "technical discussions" that are based on facts and figures. The litmus test may be the tree authority's upcoming public hearing on May 8.





Indian Council of Water & Culture -

A Bird's EyeView

Dr. Datta Deshkar - Shri. Gajanan Deshpande



Welcome friends, on this special session on "Various Ongoing Initiatives And Efforts By The Indian Council for Water And Culture, Aurangabad, India". At the outset, we take this opportunity to introduce ourselves. I am Dr. Datta Deshkar, Chairperson of this institute and myself is Er.Gajanan Deshpande, working as Secretary General of this organisation. We are thankful to SIWI on behalf of the council for making available this gracious opportunity for us.

We hope that you know Dr M.A.Chitale, recipient of the Stockholm water prize of 1993 and also the Chairperson of global water partnership, south Asia. After retirement he established 3 organizations related to water namely Sinchan Sahayog (a facilitator in the field of irrigation development), Sarovar Samvardhini , an organisation working in the field of Lake management and Conservation and the Indian Council of Water and Culture (an NGO) which we are representing here today. India has a rich heritage in the field of water. It begins right from the pious volumes like Rig-Veda and other historical documents. A common man believes that Rig-Veda is the base of Hindu religion. But if we go through the verses stated there in, we find that it is nothing but the praise of panchamahabhutas, viz: earth, water, air, fire, and atmosphere. Human being has started taking the benefit of all these facilities provided by Nature and therefore in return they really deserve the praise for what they have given. This is true about all the mythological documents. In fact, Hindu religion is a way of life and not a dogmatic religion like others. What we study about water from these documents is being experienced in reality today. The Basic principles about water

conservation, ground water, dams, canals, water rates, water pollution and climate, rainfall and the relationship between plants and water have been dealt with and explained in details in these volumes. Dr. Chitale had a thorough knowledge and study of these volumes and that is why he thought it proper to bring these facts to the notice of modern world. That prompted him to come forward and establish such an organization which would go in to the root of these resources. This organization was established in the year 2002 and registered under the society's Registration act 1860 which takes care of such organizations. There are about 500 registered permanent members and hundreds of other members drawn from different disciplines.

One of the great scientists has rightfully said that "Individuals, no doubt, contribute an enormous knowledge stuff for the society, however, good organisation is a real strength". It suggests that if there is no good organisation to back up all such fine efforts done by various elements in the society, it all may go in vain. This emphasizes the importance of having an organization. Keeping this thought in mind, we are hosting this session on the topic of "Various Ongoing Initiatives And Efforts By The Indian Council for Water And Culture, Aurangabad - India, which is prominently working in the field of water for the purpose of well being of people.

If we look at the history of Water development in India and the sub-continent, we find that several periods of prosperity are quite evident in it. Numerous documentary and field evidences which attest to the then existing water systems which in turn were based on well-conceived planning and

Jalsamvad



regulation, are in existance in different parts of India and sub continent. However, compilation and analysis of all this historical experience is yet to be carried out in a coherent manner.

The methods of water development of respective periods have long been closely linked to the Indian climate, social fabric and living style. Innumerable inspiring examples such as the millennium-old canals off-taking from Kaveri River near Tanjawar in Tamilnadu, the water supply system existing in the empire of Vijanagar, the method of guaranteeing water in drought-prone area of Rashtrakutas and Yadawas, the Phad irrigation system ensuring equitable distribution of water existing in Kanhadesh (Khandesh) are spread all over India.

The history of India has left a considerably large legacy in the sector of Water Conservation. The dictum "Wherever there is water, there will be a habitation" is the very beginning of this legacy. Therefore, no habitation appears to have set up in the ancient or medieval periods unless assured water existed. However, of late, a kind of regressive practice of "Wherever there is a village, water should be supplied thereto" has been hard tried to inflict upon by paying least heed to this wisdom. Therefore the responsibility of supplying water to these habitats rests with the Government, which, in spite of its keenness to undertake the task, proves powerless owing to expending millions of rupees on such a type of system for years together. Historical water management system is required to be revived therefore. For this, the Council by undertaking more and more research can present such a scenario of historical water sites for public appraisal and their modernization.

At majority of the sites, these historical management systems can again be operationalised with minimal financial provisions & increasing public participation and they may continue to function for several decades on zero budget provision - a fact the Council would like to bring at home.

Several water management schemes are endangered due to pursuit of urbanization and

westernization, where historical management has been destroyed by the urbanization there. This Council desires to carry out proper planning of these management systems; desires to bring coherence therein.

It is a general drawback of the Indian society that it continues to remain in a sort of complex and reserve when it comes to talking about the ancient Indian public systems, which are a part of our rich cultural heritage. How can we forget the history? We do not yet fully appreciate the utility of ancient systems and cultural traditions. Per capita availability of water in the Vainganga Basin is more than that in the Godavari Basin. But people in the Vainganga basin are much poorer. It is because they have neglected their great tradition for construction and management of dams and lakes.

Our lake systems are being spoiled by the discharge of the municipal / Industrial waste water in to them. Yamuna River while flowing through Delhi now, mostly carries the waste water of Delhi in it. Since 80% diseases are water borne, we will have to improve the water quality of our rivers and lakes.

Sweden had the similar problem of river pollution after the advent of industrialization. But they have brought about the necessary improvement in the water quality status of their water bodies through stringent legal measures and persistent participatory efforts over 50 years after 1932. The Japanese people have also carried out the same job but in a considerably less period.

In our region if we work hard for this cause and rejuvenate the traditional respect for water a 'Teerth" (holy water) we will also be able to do it successfully in another two decades. We should start preparing the next generation for this great task ahead.

Owing to the neglect with which the data is subjected in course of time, innumerable hydraulic field structures and an invaluable stock of literary and documentary information pertinent thereto are gradually being pushed on the verge of extinction. It is not only necessary to get all this



preserved as a valuable historical heritage but also to learn relevant lessons from the wisdom with which the systems have served the people in adverse conditions for hundreds of years without assured water supply.

In an exercise carried out recently by the Maharashtra Water & Irrigation Commission, it has been brought to the fore the possibility of unearthing countless guiding principles through that data, which may prove useful in the context of structures being conceived in the new environment of India even today.

FORMATION OF ICWC:

In this background, it necessitated the like minded noted scholars, scientists, hydrologists, archeologists, historians, engineers, economists, architects, social activists to come together and form a platform to conserve this traditional wisdom in water management and accordingly "Indian Council for Water And Culture" has been formed at Aurangabad, a centrally located place of Maharashtra–India.

The basic objectives of the council are :

• To Systematically compile on a large scale information of the historical water management in Maharashtra and other regions in India

• To enable systematic presentation of more and more facts and findings there from before the Indian society

• To make efforts for the restoration of these water bodies with the peoples participation making use of the traditional wisdom of its water management; also with the assistance of likeminded organizations in India.

• To study various water issues and suggest solutions for them and provide a platform to activists,

• To make the general public water literate and change their attitude towards water issues,

• Organizing meetings, seminars, workshops and conferences etc. to create public opinion in relation to water issues,

• Producing publicity material and filmstrips and encouraging such activities to explain the nature and depth of the water issue to the general level.

• Networking to resolve water issues in collaboration with existing social service organizations,

• Encouraging literary and scientific literature and other media to emphasize the importance of water management;

• To study the ways proposed to solve the water problem in the world and track how far they can be used in the country,

• To study Laws and Acts in the field of current water management and suggest reforms to the rulers,

• Aspects of water other than irrigation such as water rates, land acquisition for projects, rehabilitation, water for domestic use, water for industry, water for power generation, tourism, fish production, boating as well as cooperation with the government and social service organizations working in the field to control water pollution and protect the environment.

Methodology of Working of Council:

The work of council is carried out in five main streams:

• Hydraulic Engineering Stream: Where it is trying to compile information of Historical Water Management Structures still serving.

• Water Literature Stream : Making a bibliography of India's water development history, collecting books and articles related to this subject, translating the best and scholarly books describing the bright heritage of Indian water culture for various languages, organizing water-related conferences.

• Folk Tradition Stream : Water related themes found expressions through social customs, social paradigms, folk songs etc. and prevalent laws related to water from time to time.

• Environment Stream: To support the government and social service organizations working in the field in order to control water pollution and protect the environment.

• Water Literacy Stream: Conducting public awareness campaign regarding water, trying to solve the water problem through public participation by explaining the importance and value of water, preparing reading material to boost water literacy, presenting before them the success stories in the field of water conservation and management.

Professional Composition of the Council:

This work can assume a proper shape only if it could muster participation of specialists and amateurs such as historians, archaeologists, engineers, economists, scientists, philologists who are well-versed in Sanskrit - Pali - Ardhamagadhi languages - all in diverse fields. The council has sought individual members from different professional disciplines. If classified, the scenario of its life members is like this –

1. Engineers	210
2. Economists &	
Social Scientists	45
3. Scientists	17
4. Social Workers	210
5. Literary Experts	24
Total	506

Council's Network:

The council is a member organization of Global Water Partnership (GWP). The council has also been named to act as a driver organization for strengthening the network of Water and Culture in South Asia region.

The council has got a sufficient network to carry out its activities in association with number of organizations working in different fields. With the assistance of these organisations, it undertakes various workshops and seminars on different topics suitable for the council's objectives as mentioned above. The council has so far worked in association with 25 different organizations in India. It has undertaken the branch expansion programme and is successful in establishing more than 10 branches all over.

ACTIVITIES OF THE COUNCIL:

The council carries its activities under the above-mentioned five main streams. The prominent activities carried out so far are:

ICWC has so far organized number of workshops on various topics like 'Wisdom in Traditional Water Management' and also number of other related topics to educate people and promote various developmental activities etc. The workshops received tremendous response everywhere. Delegates from other states like Tamilnadu, M.P., Karnataka Gujarat, Orissa also were among those who presented their papers in the workshops. The council organises lectures, talks, symposiums on various topics for the awareness of the people

Book Publication / Documentation of Water & Culture Literature:

The Council has assumed a task of bringing out a series of write ups on historical water management systems in the country. About 10 files are enlisted. In 1995 the Gandhi Peace Foundation, New Delhi has published a book (Aaj Bhi Khare Hai Talab) by Shri Anupam Mishra. The book is well received in all quarters of the country. R.S. Morwanchikar, a well known historian and former Vice president of the council has written a Book on Indian Water And Culture which has been released in June 2006. This has been translated in English and being translated in different Indian languages.

An English book expressing the traditional water management in medieval period viz: 'Devagiri Daulatabad an Archeological over view' written by Dr.R.S.Morawanchikar has also been translated in Marathi bearing title "Mdhayugin Jal Sandharan-Jalavyavasthapan - Devagiri Daulatabad" which has been published by the noted Sumeru Publication, Dombivali.

Contd.....



Famous rivers in the world (5) Xijiang River (China) (6) Jialing River (China) (7) Reka Argun (Amur) River (China) AND STANKING THE (8) Wujiang River (China)

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