2019 FOURTH QUARTER

ICID news

A WATER SECURE WORLD FREE OF POVERTY AND HUNGER

MESSAGE FROM
THE PRESIDENT

Dear Colleagues,

The last year of the decade, 2019 was an exciting year for ICID. We not only started to celebrate our 70th anniversary, the year was also eventful in many ways. To begin with, the International Micro-irrigation Conference in January 2019 in Aurangabad, India was a huge success. Simultaneously the study tour of senior Egyptian and Tunisian decision makers observed the micro-irrigation developments in India. Micro-irrigation is showing significant potential as we deal with water scarcity and related problems, particularly the climate-change phenomenon. Combination of solar power and micro-irrigation appears to be a win-win option as demonstrated by many pilot projects in India, that I also happen to visit and observed first hand.

In my opinion, what we need right now is "main-streaming climate change" in our design processes for policies, technologies, infrastructure, and development institutions, and of course in consumer and farmer behaviours. And, it is not only the agriculture sector, but all the sectors of economy will have to respond. Agriculture, being responsible for food security and practiced in open environments, is at the forefront of this battle line. It is a historic opportunity for this sector to show the way to other sectors on how to fight climate change or to put it more positively how to befriend it. A unified strategy based on diverse stakeholder consultations, multi-disciplinary approaches and inter-sectoral collaborations should be the first response.

With the World Irrigation Forum in Bali, Indonesia in September 2019, we could sense the convergence of diverse stakeholders through sharing a common platform to address water issues and how we deal with them. It was a vibrant gathering of more than 1500 delegates from all sectors of economy and from all over the world showing a common commitment to sail us through in these tough times. The technical discussions ranged from the role of various stakeholders to hard-core technologies coming from our research institutions and even farmers as this year we gave a WatSave award to a farmer for his community building efforts on micro-irrigation in paddy farming. We need more such examples to mobilize the farming communities to take lead in futuristic climate-smart farming.

The next big event to look for is ICID Congress in September in Sydney, Australia. It has two pertinent questions to answer. Question 62: What role can information and communication technology play in travelling the last mile? Question 63: What role is played by multi-disciplinary dialogue to achieve Sustainable Development Goals?

Considering the rapid climatic changes, we should focus on achieving the Sustainable Development Goals as well as ICID Vision. The recent bush fire experience of Australia should be an alarm enough for rest of us to take droughts and floods seriously. ICID fraternity has a long experience of dealing with water related disasters and I urge to all of you to join us in Sydney to share your experiences and case studies for managing such events and coming to terms with them.

As I close, I look forward to seeing you all in Sydney and a very happy and prosperous New Year!

With Regards,

Felix Reinders
President, ICID

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International Cooperation in Water Sector

Ashwin B. Pandya*

Water is a common pool resource and does not recognize political and social boundaries as it flows past. More often, these social and political boundaries are incongruent with the trans-basin boundaries. Worldwide, 154 countries share 310 rivers and lakes and 592 transboundary aquifers. Approximately, 52% of world population lives within shared river basins and almost 90% of the world population lives in countries sharing transboundary waters. However, the management and developments have to follow the political and administrative boundaries involving issues of land, developmental priorities as perceived by the societal groups. In this context, it is inevitable that we have to share the common resource of water across boundaries. Hence, Water Diplomacy is urgently needed to address the water insecurities and cross-border management through integrating science, policy, and practical perspectives to contribute to improved transboundary water cooperation.

Cooperation in Water Sector

Need for Cooperation

Transboundary basins provide water for agriculture, industries, hydropower, ecosystem and domestic purposes. Hence, they create social, economic, environmental and political inter-dependencies. In all the cases, it has been observed that the desired goals of the development by each country are easy to achieve once a bilateral mechanism is in place. Bilateral mechanisms allow for the quick planning and financing of the measures of intervention for utilizing the water resources by either party. Overall, as per FAO estimates about 3600 treaties have been signed on water since 805AD.

By its very nature, cooperation becomes an essential precondition to sustainable development, peace and security. International best practices suggest that better water management and rational allocation to sectors adding value to GDP is best pursued through such cooperation. Transboundary water cooperation is essential for resolving water management and development issues such as dynamic water allocation, increasing demands, water quality, addressing issues of floods or droughts, and implementing strategies to mitigate climate change. This cooperation facilitates monitoring and exchange of water data and information through joint monitoring, analyses and assessments. Joint planning and management are achieved through development of action plans for international basin management and development of the infrastructure. Several mechanisms are put in place through bilateral or multi-lateral agreements to implement and address the procedural and institutional issues such as conflict prevention and resolution, information exchange, consultation on planned measures and so forth.

Being a spatially and temporally distributed resource, water sharing requires dynamic mechanisms for operating the treaty provisions over time. Consultative mechanisms are required to take care of emerging situations and respond to the needs of the either party while demonstrating that the benefits derived are in line with the requirements of the treaty.

Recently the International Commission on Irrigation and Drainage (ICID) has constituted a task-team to address

* Secretary General, International Commission on Irrigation and Drainage (ICID)

the challenge of transboundary water governance from water and food security perspective. The initiative aims to analyze the successful examples of transboundary water sharing agreements and address important concerns such as – impact of political ecology on the principles of transboundary water sharing enunciated by the rules/ convention, transboundary groundwater governance, impact on the water-food-energy security nexus, emerging new technologies of water augmentation, water quality concerns and climate change and its implications on the hydrological regimes, planning practices and governance challenges – and how these factors pose challenges to transboundary water sharing. Transboundary water cooperation can, in fact, have a positive effect on most of the Sustainable Development Goals, either directly (goal 2, 6 and 17) or indirectly (goal 1, 3, 7, 8, 9, 11, 13, 14 and 15).

Challenges

Cooperation agreements or treaties for water resources also have to face the challenges arising out of evolving anthropogenic activities. Water resources across the boundaries (regional/ international) are under severe stress due to climate change, population growth, growing economies, changing priorities of usages and new technologies and approaches being implemented from time to time, increased environmental pressure through land and ecosystem degradation, water mismanagement, and overall unsustainable development and management of resources. However, joint management of transboundary waters is often inhibited by different levels of socioeconomic development, institutional capacities, divergent priorities of the involved priorities, inconsistent policies, non-cooperation among stakeholders and conflicting interests due to large-scale development projects on the upper riparian system.

Mechanisms for Cooperation

There are many other treaties existing in the world over where similar mechanisms are in place in bilateral or multilateral forms. Collating the experiences will provide guidance for planning future arrangements in respect of water sharing. Water sharing does not remain confined to the consumptive parts alone but also span across the disaster warning and management areas as well. Apart from treaty, a number of other mechanisms like agreements, Memoranda of Understanding and Compacts are also in place in the world. A study of the sturdiness of these forms of understanding is also interesting.

For successful transboundary cooperation agreements, a long-term vision with specific goals need to be set that can transcend political-cycles and can be updated given the dynamic parameters. Since water is a matter of global significance requiring a governance framework that brings all interested governments to the table. Transboundary issues involve solving complex water problems which demands technical solutions, political trade-offs as well as behavioral change among the communities which share the water resources. Political trade-offs need to be negotiated on the basis of science and hydrology. The capacities of government agencies should be developed to engage with the research and industry sectors to improve innovation adoption. At the same time, the reforms need to be translated to the larger communities effectively, so that the stakeholders are well-informed and educated. Sustained financing mechanisms must be available for research to improve knowledge and enable evidence to advise decision-makers of the consequences of the political trade-offs. Water reform is necessary not only for regional/rural development but also for environmental restoration, so it is necessary to invest heavily in transitioning affected sectors. The water policy reforms should be coupled with the new water infrastructure investment in order to deliver long-term, sustainable solutions. Furthermore, basin-wide planning is essential to mitigate third-party impacts from ad hoc policy reform or infrastructure investment.

Mechanisms may differ depending on different situations. For example, long standing treaties such as Indus treaty of 1960 between India and Pakistan and Ganges water sharing treaty of 1996 between India and Bangladesh exemplify two different approaches for the agreement, however both have withstood the test of time (in Indus case has survived two wars between the countries). In the case of Indus river, a geographical distribution of the basin resources was the basis of water-sharing whereas in case of Ganges river, a dynamic distribution of the current flows at various periods of time in a hydrological year is considered for transboundary agreement.

Conclusions

1. Implementing integrated approaches to water management at the local, national, and transboundary levels to strengthen water governance, and ensure gender and social inclusion
2. Basin level organization is needed in order to implement Integrated Water Resources Management (IWRM)
3. Policy advice and guidance in long-term decision-making
4. Conflict resolution strategies need to be implemented to harness the benefits of cooperation
5. Multi-level involvement and participation of stakeholders is essential
6. Capacity building of the relevant stakeholders is paramount
7. Cooperation with international organizations – synergy with diverse network worldwide – developing knowledge database of best practices
8. Transparent knowledge sharing and technology transfer, and proper dialogue between the stakeholders form the foundation for cooperation
9. Meaningful communication precedes any fruitful cooperation and mutually beneficial collaboration among stakeholder from heterogeneous groups considering multi-disciplinary nature of water.

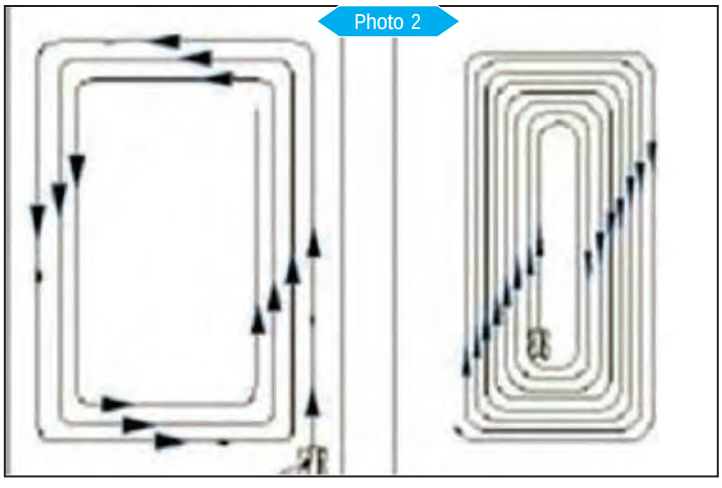
Ancient Chinese Water Management – As Detailed on Bronze Ritual Vessels by Bruce Jones

The Shang Dynasty existed roughly from 1780 BCE to 1054 BCE. The Shang were an agricultural society who went into an area of basically mountains, forests, and rivers with the intention of setting up cities at the confluence of two rivers so that they could control the trade of the adjacent catchment basins. The Shang were very methodical about providing food for the new cities and set up agricultural outposts with millet being the crop of choice.

The land grants were mapped out on bronzes with rituals surrounding the assignment of lands. For over two thousand years researchers and scholars have used rubbings/stampings to study these designs. A wet thin silk cloth was carefully put on the bronze and ink was blotted on it to give a two-dimensional rendering of the image. (Photo 1).

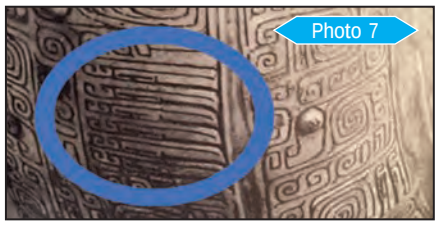
Understanding Shang water management requires us to remember that their rain was dictated by monsoons and that 80% of their rain arrived during a three-month period. Thus, successful agriculture necessitated keeping enough for three or four watering needed before the millet harvest.

To achieve this, the Shang used two methods: First, we see the square spirals throughout the piece. (Photo 2) These depict mould board plowing. Mould board plowing

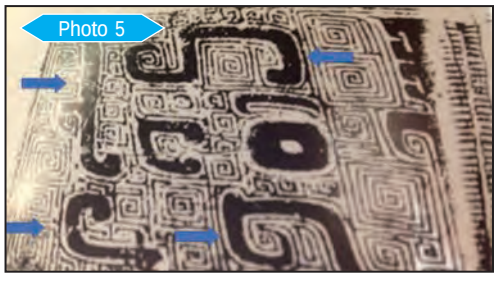


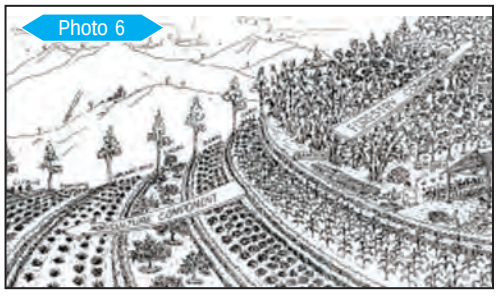
builds high ridges by piling the dirt from troughs on rows to the side, therefore the spirals (Photo 3). These deep troughs capture water during the monsoon. The millet on the top of each row are protected from drowning and the water percolates down, making compost of the buried rubble. (Photo 4). Mould board plowing provided for the first watering.

Upriver capture can be a simple matter of digging a large hole and letting the rains fill it until you have a lake or reservoir. The problem with poor planning is that to water a field the water must be transported from the lake to the field, which can be labor



for hundreds of years, a remarkable sustainable system. Water management was therefore two-fold. Firstly, through the mould board plowing and secondly, the use of ponds. But the millet fields were mainly larger and flatter areas of land. As these areas became saturated with agriculture, fields worked their way upslope. (Photo 6, 7).





intensive. For a millet crop, which is high volume low value, this would not be cost effective.

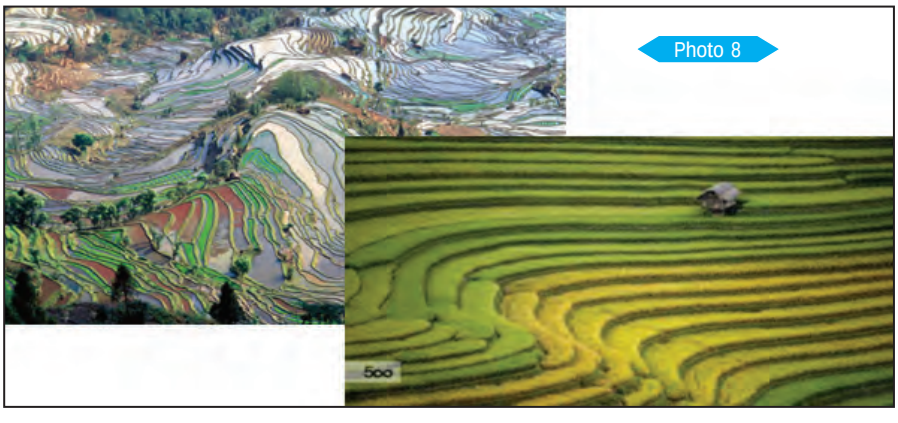
The Chinese chose instead to dig long narrow holes in coordination with the topography. (Photo 5).

Notice that each field is directly adjacent to a water source.

It might be suspect that the Chinese would allow 20% of their land to be wasted for water storage. But that was definitely not the case. The Chinese used these ponds for aquaculture.

The ponds were used to grow fish. Fish are extremely efficient converters of low value feed into high value protein. Mulberry trees were often planted next to the ponds. When your water buffalo got too hot you could tie him to the tree. And silkworm moth dropping would feed the fish. At the end of each season the ponds would be drained (mosquito control) and the mineral rich pond bottom mud spread on the surrounding fields. Fields were used continuously for agriculture

Labelled SALT technology by the United Nations (Sloped Agricultural Land Technology), upslope agriculture used trees and narrow bands of fields to block erosion and capture water. A particularly valuable crop on slopes was wet rice (oryza sativa). Rice fields must be level (so that some plants are not dry while others drown) and water control is essential. The water temperature can stress the rice and curtail production so a small field can be managed more efficiently than a large one. These narrow rows in Photo 8 show rice paddies and drainage. The modern views of rice paddies on slopes are visible in Photo 8.



Conclusively, it is visible that the water management during the Shang Dynasty is documented on their bronze ritual vessel land grants. Careful examination of the bronzes is helping us to understand what early Chinese agricultural production capabilities were. Recent phytolythic evidence confirms what has been up to now controversial findings about early Chinese agriculture.

H_2 Opportunities: Innovations in Water Sector

Dr Sahdev Singh*

Since time immemorial, water, like energy, has been an enabler of development of civilizations, societies and communities in all parts of the world. Early human settlements emerged around water availability and flourished through domestication of plants and animals that required adequate supply of water for intensive biological growth. As a result, human population increased exponentially and along with this changed our water consumption behaviour as largely manifested in our more water-intensive diets, higher sanitation needs and even water-based recreational sports. The underlying assumption was always that water is not a limiting factor for growth or development. So much so that we started believing "water is life" and it will always be there in sufficient quantities, leading to our mindless creation of billions of human lives on earth.

However, when population has reached a level that challenges the adequacy of freshwater availability around us, we are forced to question the validity of our early assumptions of plentiful supplies and more so in the wake of a lack of understanding of future ambiguities posed by the climate change phenomenon. Similar was the case of our worldview and handling of finite coal and petroleum resources. For centuries we used them indiscriminately for development and luxurious living without any inkling that finite is always finite unless we do something about it. Both knowingly and unknowingly we were also feeding the climate change monster that has come to haunt us now.

Fortunately, events of early 1970's, aka Oil-shock, brought us to face difficult realities of finiteness of things around us and we did start counting calories by the name of carbon-footprint, improving our energy efficiency by both design and choice, exploring and using renewable energy sources such as solar, wind, biomass, hydel, geothermal, tidal waves, etc. Though we haven't reached the point where these new sources have completely replaced coal and petroleum, at least a beginning has been made in our collective consciousness and we are much less alarmed about the global energy situation. What made it all possible was probably our belief in science and its application in finding solutions to the problems of humankind. In many places, the solar power generation is competing with the traditional thermal sources even on economic fronts, besides being environment-friendly. In addition to renewable bio-diesel, rapid developments in energy storage devices such as batteries are challenging the petroleum-based transportation system around the world. Hydrogen-powered vehicles are on the verge of becoming new realities. Wind and bioenergy are also being looked upon as new cleaner sources to satisfy our hunger for energy.

Our scientific awakening to face the above energy challenge serves as a powerful guiding light when it comes to the case of freshwater crunch that we are experiencing and struggling with. We have to start counting our water, being more efficient with its use, and more importantly exploring technologies that make it possible to harvest freshwater from oceans, wastewater, ambient humidity, and other unknown sources that may be present around us, just like we did for energy.

It is not that we are starting from scratch, we have several bright sprouts already visible around us. To begin with we need to (a) improve our current understanding and uses of hydrologic cycle by water accounting for various activities using Big Data from satellite observations, (b) exploit extreme flood events through advanced scientific designs of water storage facilities which can mitigate variability of freshwater availability and supply throughout a hydrologic cycle, (c) invest more on making water conservation technologies such as drip and sprinkler irrigation affordable for smallholders class, and (d) research and develop water conversion technologies such as desalinization of brackish and seawater, in-situ wastewater treatment, and water harvesting from ambient humidity. There might be some more sources of freshwater that have not been explored yet and are waiting for us. Remember, a couple of decades back, harnessing solar energy seemed like the most expensive thing to do in the world. Probably, what the sun did to our awakening, the sea will do the same again.

Last but not least, the greatest service that we can do for our planet's sustainability is by promoting virtues of efficient, enlightened living and faith in science, and leaving behind a wealth of knowledge and wisdom for our future generations so that they do not repeat the history and reinvent the wheel.

* Director (Knowledge Management), International Commission on Irrigation and Drainage (ICID)

A Case Study: Water conservation through campaigns in India

Ms. Prashansha Gupta* and Dr. Shishir Chandra*

In the district Banda, Bundelkhand region of Uttar Pradesh in India, groundwater is a basic source of water supply to most of its citizens in rural and urban areas. This means that realization of this right for the people of Banda hinges crucially on perennial and sustainable availability of groundwater for all our water sources in district Banda.

As per Groundwater Year Book published by Central Groundwater Board (2015-16) of India, there are 14 observation wells in the district. The maximum range of fluctuation is 3.20 m (rise) and 5.26 m (fall) annually indicating high seasonal variability in availability of water in wells. The groundwater fluctuations and groundwater depletion rates are high in the Banda district in Uttar Pradesh resulting in seasonal acute water scarcity in most parts of the district. Additionally, most of the hand-pumps, ponds and wells in the district were lying in a state of neglect as the community's connect to preservation and upkeep of these community water sources has been lost culturally. This results in unreliable handpumps and dried ponds and wells particularly during summer months adding more water stress for household and community needs.

Overall, about 71% of the wells are showing groundwater depletion with 50% wells showing 0-2 m, 7% showing 2-4 m and 15% showing more than 4 m depletion annually. Thus, the situation related to groundwater usages and effects is truly alarming in Banda and requires a massive awareness campaign and interventions for groundwater recharge to reduce the threats to groundwater security.

Another big challenge pre-intervention was that rural communities were not aware about their Water Budget for the villages so as to make informed choices for long-term plans for household water security and collective community action for water conservation and groundwater recharge using rainwater harvesting.

Work done under the water conservation campaign

Phase 1: Campaign to enhance groundwater in the region and protect drinking water: January to March 2019

A structured tool of Water Budgeting using community approach model via organized village meetings, locally termed local water governance towards democratization of water developed by WaterAid India, an international not for profit organization, was included for use under the campaign by District Administration. In Phase-1 of the campaign which was conducted between January to March 2019, 34732 people who participated in local water governance in 469 villages directly were made aware about their water budget (demand and supply), rates of groundwater depletion of various strata and changes in rainfall patterns observed by community over period of last 20 years. This also triggered the community action of digging contour trenches for groundwater recharge around wells and handpumps as per technical designs prepared under the phase -1 of the campaign.

Output of Campaign Phase-1

The one-month long campaign resulted in 2605 contour trenches constructed by community members around 260 wells and 2183 hand pumps across 8 blocks and 470 village administrations in the region. These contour trenches are expected to retard the current depletion rate of water levels in drinking water sources contributing to enhanced water security. These contour trenches have created additional 110001 cubic meters (or kilo litre) per annum of recharge capacity around 2443 drinking water sources (handpumps and wells) in the entire region.

The administration of Banda made giant efforts to upscale the campaign, buoyed by success of phase-1 of the campaign. Therefore, Phase-2 of the campaign targeted massive campaigns for conducting the community meetings around rejuvenating local ponds and wells from April to November 2019.

Phase 2: Campaign to revive ponds and wells: April-November 2019

In the phase-2, 244 meetings were conducted to trigger community action towards digging of ponds and wells, while simultaneously reviving the culture of respect towards water bodies in rural masses, which was part of the long cultural history of the region. Technical models for construction of contour trenches, rainwater harvesting in wells and rehabilitation of ponds were developed and disseminated through public campaigns, booklets and posters extensively in simple local language for the benefit of rural masses.

Output of Campaign Phase-2

Campaign resulted in rehabilitation and digging of 49 minor irrigation ponds, 249 village ponds (under MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act 2005), 274 village ponds (under Gram Nidhi), construction of 840 farm ponds, 82 rooftop rainwater harvesting cum recharge pit structures at different government buildings, 29 trench/recharge pits at college buildings, 1507 trench/recharge pits at primary/ upper primary school buildings, 1311 recharge pits at agriculture land. All this construction/rehabilitation work led to the creation of 27,62,512-hectare meter per annum volume of annual water recharge capacity in district Banda till 15th of November, 2019 (source- minor irrigation department, Banda). In 2019, due to this campaign, massive targets were set under different national government programmes and were achieved with proactive support from different departments under district administration and rural communities triggered by the local village meetings to take action.

In Phase-2 of the campaign, 16448 people participated in the 244 village meetings where people discussed the discourse for taking action towards protection, upkeep and revival of ponds and wells. The focus of the campaign was the involvement of people of Banda with district administration and the model of Local water governances which resulted in triggering community action and self - action in many cases for restoration of pond and wells, digging of community trenches and rain water harvesting structures as is evident from results obtained from this campaign. The campaign is still ongoing, and the latest data is updated until till 15th November, 2019. The campaign created massive

* Water Aid India

irrigation potential in district using ponds, wells, recharge tranches, rainwater harvesting structures, farm ponds etc. and retarded depletion rates for groundwater and exacerbating groundwater / drinking water crisis.

Sustainability

Since the initiative of digging trenches was undertaken completely by communities based on triggers towards community action in local water governance around drinking water sources, the upkeep and ensuring that trenches are in place to recharge the groundwater rests with local rural communities living in villages and therefore ensuring sustainability. Similarly, the wells cleaned up during the campaign and converted in recharge well by rooftop rainwater harvesting have been protected and will be used as source of drinking water only by converting them into low cost water drinking water selling points after adequate chlorination at minimum costs by village entrepreneurs authorized by village authorities and making them responsible for its after care and sustainability. The idea of holding village meetings was to implant the democratic water dialogues at village level by holding such meetings at least twice a year on issue of water security.

Scalability

Given the demonstrated leadership at district level, the model is scalable to conduct such community action of digging of contour trenches around drinking water sources in other districts with limited resources and full public participation. The model does not require heavy funds to implement the campaign and is aligned with local self- governance processes in India using the route oflocal water governance. In fact, in a short period of time, this model has spread in the nearby villages in Banda in Phase-2 of Campaign. It is hoped that this model can be used for integrating the community's demand for water conservation in implementation plan of Water Ministry in all districts of India using similar institutional set ups.

Cost effectiveness

The model of the campaign is very cost effective as based on voluntary action of communities to dig recharge trenches after being triggered to conserve groundwater and make efforts to recharge it and local water governancedoes not take more than INR 5-10 (0.07-0.14 USD) per capita overall in areas where it has been implemented by agencies promoting it. The model is hugely cost efficient and more impactful as compared to other approaches tried out for Village Water Security.

Transparency

The model is completely transparent as no public funds were spent in this campaign for actual construction of contour trenches for recharging groundwater around drinking water sources. The involvement of all concerned departments and communities ensured that every step of the campaign is executed in completely transparent manner.

Accountability

The campaign called for community to be accountable for current groundwater stress situation based on how their practices (of mismanaging water) and take actions for its recharge by providing their contribution towards digging of contour trenches for rain water harvesting. Therefore, the public accountability was the concept that was built up in core of the local water governance model that was applied in this campaign.

Media Coverage of the campaign

1. https://www.youtube.com/watch?v=IgsIRiX875E (Bhujal Badhao Payjal Bachao Abhiyan Banda campaign short movie- all about campaign phase one)
2. https://www.youtube.com/watch?v=ilpW343vteQ&list=PLfgXqhwOP9FM7AhVk-rtGK3Lcuq-Ex_ws (News coverage on Bhujal Badhao Payjal Bachao Abhiyan Banda campaign)
3. https://www.youtube.com/watch?v=A58ee6VuYY0&list=PLfgXqhwOP9FM7AhVk-rtGK3Lcuq-Ex_ws&index=2 (News coverage on Bhujal Badhao Payjal Bachao Abhiyan Banda campaign)
4. https://www.youtube.com/watch?v=jHii8IyC3V4&list=PLfgXqhwOP9FM7AhVk-rtGK3Lcuq-Ex_ws&index=4
5. https://www.youtube.com/watch?v=qMoC8uo65eg (Banda Campaign special coverage by doordarshan)
6. https://www.youtube.com/watch?v=J6slZWM1oQ8 (short movie on Banda campaign)
7. https://www.youtube.com/watch?v=oaC1YIbt8ro (Video clip on Kuan Taalaab bachao abhiyan, Banda)
8. https://www.youtube.com/watch?v=-pd8kX8lwZY (news coverage of kuan talab jiao abhiyan)
9. https://www.jagran.com/uttar-pradesh/banda-people-are-filling-water-in-ponds-and-wells-through-campaign-in-banda-jagran-special-19433806.html
10. https://egov.eletsonline.com/2019/08/banda-dm-heera-lal-launches-campaign-to-curb-water-crisis/
11. https://www.thebetterindia.com/201340/ias-hero-uttar-pradesh-water-scheme-revival-drought-solution-india/ (coverage of Banda campaign in The better India)
12. https://indianexpress.com/article/india/water-conservation-how-bundelkhand-is-keeping-drought-at-a-distance-by-recharging-wells-5829222/ (coverage of Banda campaign in the Indian Express newspaper)
13. https://zeenews.india.com/hindi/india/dm-started-kuang-talab-jiao-campaign-in-drought-affected-bundelkhands-banda-district-got-the-honor/553234 (coverage of Banda campaign in the Zee News)
14. https://www.outlookindia.com/magazine/story/india-news-hit-by-worst-water-crisis-why-india-may-die-a-thirsty-death/301968 (coverage of Banda campaign in the Out Look)

Till now Banda has been acknowledge for its water conservation work is as following-

- First Prize under best water management category to district Banda in 5th Smart Cities Award, 2019 organized by Exhibitions India Group in Pragati Maidan received from chief guest, Sri Parmeshwaran Iyer, Secretary, Department of Drinking Water and Sanitation, Ministry of Jal Shakti at New Delhi
- First Prize received by Sri Heera Lal, Senior Administrator, DM Banda for his work on best water management practice and leadership at Habitat Innovation and Impact Award 2019
- Entry of two records from the water conservation campaign from Banda in Limca Book of Records 2019 1) maximum number of local water governance (=469 in as many Gram Panchayats) conducted in a month by any district in world and 2) Maximum number of contour trenches dug around drinking water sources for ground water recharge in a month
- Sri Heera Lal, Senior Administrator, DM Banda was invited for Water Talks by Sri UP Singh, IAS, Secretary, Department of Water Resources, Ministry of Jal Shakti in Delhi; invited for Panel Discussion during Indo-Israel cooperation on Water Management and Environment event organized by Indo-Israel friendship forum, New Delhi.

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Editor-in-Chief: Er. A.B. Pandya, Secretary. General, ICID
Editorial Team: Dr. Sahdev Singh, Director (KM)
Madhu Mohanan, Communication Officer
Ms. Prachi Sharma, Knowledge Officer
Layout: Keshav Dev Tanwar

ICID, 48 Nyaya Marg, Chanakyapuri, New Delhi, India
E-mail: icid@icid.org, Website: http://www.icid.org