ACCOMPLISHMENT REPORT 2018

INDIA WATER PARTNERSHIP

ACCOMPLISHMENT REPORT OF
INDIA WATER PARTNERSHIP (IWP) 2018 ACTIVITIES IN BRIEF

PREAMBLE

In 2018 once again, IWP worked effectively with network partners towards achieving its vision and mission which are almost similar in line with GWP three prime goals (i) catalyse change in policies and practices, (ii) Generate and communicate knowledge, and (iii) strengthening partnerships, which helped us to grow strongly for improved water governance in the Country. India is suffering from the worst water crisis in its history and millions of lives and livelihoods are under threat. 600 million people in India face high to extreme water stress in the country. About three-fourth of the households in the country do not have drinking water at their premise. With nearly 70% of water being contaminated, India is placed at 120th amongst 122 countries in the water quality index as per NITI Aayog, Government of India Composite Water Management Index 2018. Extreme drought and flood coupled with industrialization and urbanisation has hit hard also South Asian countries especially India over the recent past. These events no doubt are in line with projections of global warming. Nonetheless efforts are underway to overcome these incidences. However the urgent need to find solutions to these problems has greatly improved, allowing us to better understand the past impacts and what the future holds. IWP effort is a small step towards water security and resilience to climate change in India.

IWP's commitment to sustainability is reflected in its contribution towards meeting the Sustainable Development Goals (SDGs). Through its projects in water sanitation and climate change, IWP contributes to the key objectives of SDGs. In particular, SDG 6 - Ensure availability and sustainable management of water and sanitation for all, and SDG 13 - Take urgent action to combat climate change and its impacts. Below are the highlights of IWP's contributions in brief to achieve three aforesaid IWP/GWP goals and SDGs (No. 6 & 13) during 2018:

ACTIVITIES HIGHLIGHTS

PROJECT: I - Water and Climate Change Resilient Youth Champions and Communities in Hindon River Basin (2018) Phase II

Hindon River is a tributary between Ganga and Yamuna rivers, meandering through 355 kilometres across Western Uttar Pradesh from Saharanpur to Noida. The industrial discharge from sugar, paper, textile and tannery industries, untreated sewage and other effluents are routed into the river Hindon as a result of which pollution of the river is rising at an alarming rate. The Central Pollution Control Board (CPCB) has stated that the river is not meeting the criteria with respect to dissolved oxygen, conductivity, BOD, total coliform, and faecal coliform levels. The amount of Chromium dissolved in the river's water is 140 times the maximum permissible limit as against the limit specified by the Bureau of Indian Standards which further has rendered the water unfit for drinking water.

Set in this backdrop, IWP in partnership with Centre for Youth (C4Y) has worked towards generating and communicating knowledge among stakeholders in Hindon river basin on climate change and water security and how the lives of the people in the community have been impacted by such climatic changes and water concerns. The collaborative program has engaged more than 1500 stakeholders comprising of 12 Gram Panchayats of 5 districts (Saharanpur, Baghpat, Shamli, Meerut & Ghaziabad) in two phases of the project.

C4Y in Phase-II (2018) carried out extensive awareness-raising activities in three districts of Uttar Pradesh namely Baghpat, Ghaziabad and Saharanpur falling under Hindon river basin. Several

capacity building workshops, quiz programs and training programs with distribution of information booklet, were organized to enhance the knowledge base of community (farmers, women and school children) on how to care and protect Hindon River. Further to engage larger community participation virtually through online channels, social media pages and groups on Facebook and YouTube were created. These social media platforms aim to build and disseminate information on issues pertaining to river pollution in the backdrop of climate change.

As per the Knowledge, Attitude and Practice Study conducted, the major outcomes of the project activities in 2018 are as follows:

Quantitative Outcomes	
• 80 youth were trained as Hindon Youth Champions of Change (HYCC). • 90 women were trained on climate change and water security. The program also given due importance to women which resulted into more confidence in voicing their concerns. • 80 farmers were empowered on climate change water security issues and their mitigation. • 9 teachers were empowered to take the positive messages on climate change and water security to their students and to the community.	• Teachers appreciated the design of capacity building modules. They are now prepared to impart the same learnings in a similar manner to their students. • Farmers' are gradually showing their understanding on how the indiscriminate use of submersibles to extract water is depleting the groundwater levels. • Capacities of students, teachers, Hindon Youth Champions of Change, Women and Farmer groups were built on the topics climate change and water security. • Informative and interactive capacity building modules is ready which can be used to upscale the programme in all seven districts falling on the banks of Hindon River.

PROJECT: II - Climate Resilient Development – A Case Study of Mashi Sub Basin in Rajasthan

Mashi river (part of Banas River Basin) covers approximately 6400 square Km. (2,16,110 hectare), has 33 macro watersheds and 151 micro watersheds, spread over three districts of Rajasthan (Jaipur, Ajmer and Tonk), 6 Blocks and 382 villages covering more than 84,289 households with 4, 91,430 population (2, 53,765 male and 2, 37, 665 female). The Mashi River in Rajasthan has been experiencing changes in its flow in the recent times. The expected changes in global climate and water needs may create serious problems, including loss of native biodiversity and risks to ecosystems as well as humans from increased flooding or water shortages. The river discharge under different climatic condition and the consequent water withdrawal is changing every year and the population is experiencing water stress.

Since 2015, India Water Partnership (IWP) with support from its network partners, Centre for Environment and Development Studies, Jaipur (CEDSJ), has made a case for setting up of "River Basin Parliament" for Mashi River Basin in Rajasthan as a new model of water governance with community participation which aims to better water resources management in the Mashi river basin. Mashi River parliament will focus on initiatives like efficient use of water; improve soil fertility; arrest soil erosion by construction of water harvesting structures; prohibit illegal sand mining; generate self-employment and alternative livelihood options through better management of land, water & forest resources, promote cultivation of water saving crops with local seeds and manure. This initiative intends to make Mashi river basin resilient to climate change in line with SDG-13.

The way towards to setting up of this kind of a Parliament will bring all the stakeholders to work together to protect the Mashi river wherein there are defined roles and responsibilities of people, civil society organizations, government, and technocrats. The new governance model will be people centric which will be in contrast to the present State Driven Government Centric Decentralized Model that in most cases failed to deliver. The River Basin Parliament will seek support from State Government of Rajasthan to provide legal, financial and other support with its minimum role in the working of River Basin Parliament and to create an enabling environment for better democratic functioning of the Parliament. The team of Technical Support Group (part of the River Basin Parliament) will provide all kinds of technical advice on different aspects of natural resources rejuvenation, conservation, protection and sustainable management, they will also build the capacity of stakeholders to facilitate equal (gender-wise) for better participation in governance system and facilitate selection of good livelihood options that exists in the river basin to reduce pressure on natural resources.

The numerous meetings and capacity building programs undertaken by CEDSJ in 2018 in collaboration with India Water Partnership came-up with following major outputs/outcomes:

- Increased consciousness and awareness among people had led to discussions about major reasons for groundwater depletion. This in turn led to seeking solutions in their ways to irrigate the farms. Farmers are now willing to switch over to water saving technology like sprinklers, drip, using plastic films to reduce evaporation losses and Polly house technology. They are even willing to adopt rainwater harvesting in farm ponds. However they are little apprehensive about changing the cropping pattern as of now.
- Consensus has also been arrived to adopt rooftop rainwater harvesting which will ensure availability of safe drinking water at least for six months in a good monsoon year.
- Households have agreed to construct soak pits to safely treat domestic waste water thereby resulting to clean and hygienic environment and become a source of groundwater recharge.
- Interest has been expressed to link Mashi River with Yamuna River under the Interlinking of Rivers scheme. The local Member of Parliament and Members of Legislative Assembly have given press statements in favor of it.

PROJECT: III - Solid Waste Management in Village Garhi Harsaru under IWRM Approach

The pilot project started in 2015 by India Water Partnership in association with TARU Leading Edge to implement Integrated Water Resource Management (IWRM) to ensure safe drinking water and sanitation in the peri-urban village, Garhi Harsuru, District Guguram, Haryana (India). The pilot project resulted in preparation of Detailed Project Reports on (i) Investment Plan, (ii) IWRM; and (iii) Solid Liquid Waste Management for the project village in 2016 under Phase-I of IWP-GWP-South Asia under Water and Climate Resilience Program.

The project focussed on Solid Liquid Waste Management in line with SDG-6 & 13 in 2017 and further continued in 2018 under Phase-II. Following is the brief summary of the project undertaken in 2018.

The quantities of solid wastes are increasing in the village and if the wastes are disposed in an uncontrolled manner, it will cause adverse impact on public health and environment. With the emerging concern of large quantity of the waste being produced both as solid and liquid forms, the concept of waste management has emerged as a key area in the village of Garhi Harsaru located in Gurugram.

With the idea of processing waste, along with proper waste segregation and having an efficient waste collection system, IWP with its network partner TARU Leading Edge, envisioned to tackle the problem more efficiently in in 2018. The activities under Phase II started with a discussion between IWP, TARU, Sarpanch, ward members and other active members of the community. To start the project, the stakeholders selected 3 wards out of 20 of the project village on the basis of the following selection criteria:

- Ward having approx. 70 households.
- Active participation of the ward members in undertaking SLWM activities in their wards.
- Willingness of the community members of the ward in paying user charges for collection and safe disposal of waste from their houses Door-to-door collection of garbage, street sweeping and cleaning of drains is being done on a regular basis by the cleaning staff.
- A Waste Collection Management Agency was engaged to ensure safe disposal and treatment of the collected waste.

Following are the outcomes of project activities:

- **Increased awareness among people**: The community has taken up the ownership under the Swachh Garhi Harsaru Campaign. The majority of the residents now oppose the defaulters who are dumping their waste in the open lands. This is a clear indication of increased and more responsible behaviour of the people of project village.
- **Landfill clearance**: Plots which were once used as dumping grounds by the community members have now been cleaned by their own initiative.
- **Successful fee based garbage collection**: The efficient functioning of door-to-door waste collection has attracted attention of the neighbouring communities who are now willing

to pay Rs. 150 per month for door-to-door waste collection. Thus there exists the possibility of scaling up the project in other wards of the village.

- **Punishment to defaulters for irresponsible behaviour**: A fine of Rs. 500/- will be imposed by the Sarpanch (Village Head), on those who dump waste in the open land. The money collected from the fines will be deposited in the User Charge Collection bank account to use for better sanitation in the project village.

- **Installation of dustbins**: Dustbins have been installed at sites decided by the community and now the waste is regularly cleared by the garbage collectors. This has made the roads clean, mosquito free and hygienic.

- **Swachh Gully Award**: The Swachh Committee team was prepared for inspecting the gullies (lanes) by conducting a transect walk. On the basis of that two gullies (lanes) were shortlisted from the selected wards and their respective ward members were felicitated with a certificate by the Sarpanch. Also, community dust bins and potted plants were given to them as a token of appreciation for the commendable efforts.

PROJECT: IV- Impact Assessment for Building Resilience through Promotion of Safe Drinking Water in Samastipur District, Bihar

Poor water quality is one of the major challenges in Bihar where arsenic pollution of groundwater is prevalent in almost 18 districts of the state. The situation worsens with recurring floods as the contamination increases at a rapid rate. Water purifiers which can help in filtering the contaminated water are often expensive and awareness about the usage of such machines is low especially among poorer sections of the society. As a result, many people become victim of water borne diseases especially during monsoon period.

Set in this backdrop, India Water Partnership with its partner organisation S M Sehgal Foundation (SMSF) helped to create informed decision-making in twenty villages of East Champaran and Samastipur districts of Bihar that led to the adoption of low cost, sustainable and easy-to-use bio sand filter namely Jalkalp. The installation of JalKalp filter has helped in reduction of water borne diseases and saved significant amount of household expenses that is spent to access safe water.

In 2018, an evaluation of Jalkalp Filter was conducted by India Water Partnership in Samastipur District to determine the rate of sustained use, efficacy and user satisfaction of the filters and to determine the impact of awareness and capacity building program conducted in project villages of both districts in 2016 & 2017. The research methods included household interviews with the help of questionnaires, water sample collection from the Jalkalp user households and water quality testing for iron, arsenic and biological contaminants.

Following are the outcomes of assessment:

- The sensitization and awareness building sessions was a successful attempt to change the behaviour of people towards the safe drinking water. Out People who attended the training 65.25% became aware about the safe drinking water whereas it was observed that people who did not attend the training session from them only 31.25% were aware about the safe

drinking water and not much aware about the importance and functioning of JalKalp filter. Through the various training programs, people were aware about the health issues related to drinking water and also made changes in their daily lifestyle.

- Jalkalp was found to be a sustainable and appropriate technological solution as per response of the community. From remarks given by people, it was seen that Jalkalp offers increased filtration rate, better portability and quality control. 90.32% of respondents who had jalkalp filters were satisfied with the result of their water quality. Whereas 62.50% of respondents were not satisfied with water quality.

- The water quality tests demonstrate effectiveness of Jalkalp filters against biological contaminants, arsenic and iron contamination. 100% satisfaction level was reported from the respondents using water through Jalkalp which was found to be safe for drinking.

- As per the people of the study area or Jalkalp users, Jalkalp is a long term investment which reduced their economic burden as members of the family were not getting ill due to water borne diseases or any type of water contamination and they did not have to buy packed water which was much expensive.

- As per respondents view, the Jalkap filtered water gives better food colour and taste.

PROJECT: V - Integrated Urban Water Management Planning and Implementation in Ajmer City, Rajasthan

Working with different agencies and various Departments of Government of Rajasthan, viz, Rajasthan Urban Infrastructure Development Project, sanitary workers, and local NGOs has contributed to closing the water loop in the city of Kishangarh town, Ajmer District, Rajasthan.

Solid Waste Management is also integrated in this loop as wastes are responsible for blockage in drainage system leading to water clogging. Collaborating with all the above stakeholders, ICLEI-South Asia (a network partner of India Water Partnership and Global Water Partnership) undertook a pilot project on behalf of India Water Partnership on Integrated Urban Water Project (IUWM) in Kishangarh town, Ajmer District, Rajasthan in 2017. The major outcome of this project was conservation of ponds in the city through measures for pollution abatement (for liquid and solid waste). As part of this initiative, 500 houses in 2 wards of Kishangarh town (ward 13 and 18) have been sensitized on waste segregation to reduce pollution in the natural drain and catchment of the Hamir Sagarpond. More than 30 Municipal officials and sanitary workers were trained on segregated waste collection and vermi-composting. The project enabled to achieve more than 50% waste segregation in 2017 in Kishangarh town.

India Water Partnership along with ICLEI-South Asia scaled-up this project in Ajmer City, Rajasthan in 2018. The major activities under the project included implementation of ICLEI's Rapid IUWM toolkit for the city in ward 60, located in the catchment area of the Ana Sagar Lake to demonstrate adoption of IUWM approaches. The adoption of the Rapid IUWM toolkit in Ajmer helped the city to work towards Sustainable Development Goals: good health and well-being (Goal 3), for clean water and sanitation (Goal 6) and for sustainable cities and communities (Goal11). The project demonstrated how efficient waste management can support the revival of natural drainage system and improve natural resource management. The project

also helped to build capacity and raised the awareness levels of municipal officials on Integrated Water Resources Management, the inter-linkages of different sectors and their impacts on water resources of the city, and importance of catchment level initiatives to deal with water quality and quantity issues. Trainings were imparted to municipal staff on IUWM, water management, solid waste management, waste segregation and composting. More than 30 municipal officials were trained on solid waste management and IUWM toolkit whereas more than 50 municipal sanitary staffs were trained on segregated waste collection and composting. The project has also ensured the involvement of the community in water management, by involving them in training programmes, workshops and meetings, particularly through the pilot intervention. Built capacities and raised the awareness levels of municipal officials working on National Clean India Mission (Swatch Bharat Mission) on the topic like Integrated Water Resources Management, the benefits of different sectors working together for the better management of water resources, and importance of catchment level initiatives to deal with water quality and quantity issues.

For the pilot project in ward 60, 100 households (HHs) were targeted, trained on at source waste segregation and segregated collection. More than 400 local residents including women were trained on decentralized management kitchen waste. Almost 150 school children were covered under various IEC activities conducted in the ward. The pilot project has achieved more than 60% segregation of waste at source and a total of 150 kg/month of wet waste is being collected and composted. A decentralized compost plant has also been constructed to manage the collected kitchen waste.

Capacity of more than 200 residents including 60 women built on segregation of waste and composting. Capacity of more than 120 students within the city (including students of project ward no. 60 participated in competitions and quiz) was built on SWM, WASH, segregation, composting, plastic waste. The major outcomes of the project activities in 2018 are as follows:

OUTPUTS	OUTCOMES
• Two High Density Polyethylene (HDPE) compost beds set up for ward 60. • 100 Households (HHs) were trained at source segregation of waste, and/or segregated waste collected and disposed. • Provided more than 100 HHs with dustbins for segregation of waste. • Training workshops and community awareness programmes conducted – capacity building of more than 400 local residents including women and IEC activities with more than 150 students in the city.	• Trained more than 30 municipal staff and 25 stakeholders on solid waste management and IUWM toolkit. • Hands on training for 10 sanitary staff and local residents on composting. • 100 Households (HHs) in the ward trained on composting. • Provided municipal team working on door to door solid waste collection with dustbins for collection of waste along with modified collection vehicle. • A monitoring and evaluation framework established to make the system sustainable. • A framework developed to implement rapid IUWM for Indian cities.

EVENTS HIGHLIGHTS

India Water Partnership organized and participated in a large number of meetings, workshops and consultations in 2018 with regard to water security and climate change. A selection of these is as follows:

- Participated in the Hindon Mela held on February 24, 2018 at the Office of the Divisional Commissioner, Meerut, Uttar Pradesh.
- Participated in "Swachhta Pledge" administered to all the officers and staff of WAPCOS Ltd., Gurgaon including IWP staff on March 16, 2018.
- Participated in a meeting conducted by Bureau of Indian Standards (BIS) on "Environmental Assessment and Management of Water Resources Projects" in India Sectional Committee, WRD 24" on 21st March, 2018 at New Delhi.
- Participated in World Water Day on 22nd March, 2018 at Central Water Commission (CWC), New Delhi on United Nations (UN) theme 'Nature for Water' – exploring nature-based solutions to the water challenges we face in the 21st century.
- Participated in First Partners' Consultation meeting for the Phase II of the Hindon River rejuvenation program held on March 28, 2018 at the Office of the Divisional Commissioner, Meerut, Uttar Pradesh, a project undertaken by India Water Partnership in association with its network partner Centre for Youth on "Water and Climate Change Resilient Youth Champions and Communities in Hindon River Basin**"**.
- Attended a meeting of selected members of Mashi-Bandi River Basin Parliament in Watershed -1 of the Mashi Basin organised at Kalakh Dam on March 30, 2018, Jaipur, Rajasthan under India Water Partnership (IWP) - Centre for Environment and Development Studies, Jaipur (CEDSJ) program.
- Participated in stakeholders' consultation workshop under India Water Partnership-ICLEI-South Asia program on "Integrated Urban Water Management (IUWM) Planning and Management" in Ajmer City, Rajasthan organised on 2nd May 2018 in Ajmer city.
- Attended the "Beat Plastic Pollution" event organised by Government of India on World Environment Day on 5th June, 2018 at Vigyan Bhawan, New Delhi.
- Participated in a meeting conducted at ICID office, New Delhi on 6th June, 2018 for "Setting up a think tank for water resources management and development in India".
- Organized and participated in Nirmal Hindon Technical workshop organized on 9th June 2018 at Divisional Commissioner's Office Meerut, Uttar Pradesh to share Hindon river basin knowledge and experience gathered by various organizations during their research studies and/or field work to prepare a Road Map for Hindon river rejuvenation on five verticals like; (i) afforestation, (ii) ponds & wetlands, (iii) green agriculture & organic farming, (iv) waste management, and (v) participation & governance.

- Participated in Inter school drawing and painting competition on 28th July 2018 in the Tikam Chand Government Senior Secondary School located in ward 60 of Ajmer city, Rajasthan organized under India Water Partnership- ICLEI-South Asia program **"**Integrated Urban Water Management (IUWM) Planning and Management". Around 80 students from 5 schools located within the ward 60 participated in the competition.

- Organized 38th Board of Governors (BoG) Meeting of the India Water Partnership (IWP) on 1st August, 2018 at 3rd Floor, Kailash Building, WAPCOS Limited, 26 K G Marg, New Delhi to discuss about the programmatic interventions, programs and activities done by India Water Partnership.

- Attended a meeting with new Divisional Commissioner's Meerut, Uttar Pradesh on 6th September, 2018 for the Road Map planning and Implementation for the Hindon River Rejuvenation based on the five verticals viz. afforestation, pond rejuvenation, organic farming, solid & liquid waste management and governance.

- Organized 39th Board of Governors (BOG) and 16th Annual General Body Meeting (AGBM) followed by GWP Online Network Meeting on 27th September 2018 at WAPCOS Ltd., 3rd Floor, Kailash Building, 26 K.G. Marg, New Delhi to discuss about the programmatic interventions, programs & activities done by India Water Partnership till date; preparation of new GWP strategy and to increase the engagement of GWP Partners.

- IWP Executive Secretary-cum-Country Coordinator attended ECO Grants Final Jury Meet as Sector Expert Committee Member held on 5th November, 2018 at Shriram School, Vasant Vihar, New Delhi and given her judgment for selection of final grants.

- The India Water Partnership (IWP) along with WAPCOS Ltd. welcomed GWP Steering Committee Member Ms. Mina Guli's at WAPCOS Ltd. Gurgoan office on 23rd November 2018 for her initiative on "Running Dry": Running 100 Marathons in 100 Days.

- India Water Partnership along with WAPCOS Ltd. organized a Round Table Conference (RTC) at WAPCOS Ltd. Gurgaon, Haryana on 4th December, 2018 on behest of U.S. Embassy on water audit and water /energy nexus. Mr. William Deoreo, President and Principal Engineer, Aquacraft was Chief Guest on behalf of U.S. Embassy and made a presentation. His presentation was prefixed with presentation of India Water Partnership and WAPCOS Ltd. about recent works done on water conservation and water security in India.

FEATURED PUBLICATIONS

- **IWP-C4Y Capacity Building Information Booklet** on Climate Change & Water Security and programmer report was released by Hon'ble Divisional Commissioner, Mr. Prabhat Kumar, I.A.S.
- **Proceedings of the 9thJune, 2018 Nirmal Hindon Technical Workshop** on Knowledge Sharing and Capacity Building of Stakeholders for Preparing a Road Map for Collective Action for Hindon River Rejuvenation.

LEARNINGS FROM 2018

Water crisis has become a big challenge in recent past in India coupled with climate change and we need to find out viable solution for water security as per our learning from 2018 project activities.

Communities (rural and urban) have experienced the effects of poorly managed water resources management as per the project activities undertaken by India Water Partnership in 2018 and have also provided some suggestions/recommendations to overcome, while our project activities displayed a very clear and alarming picture of how much worse things will get unless we change course.

India Water Partnership is committed to highlight the local water issues with communities on a big scale with recommendations to contribute to water security in India in 2019 also

PLANNED ACTIVITIES IN 2019

The major activities planned for 2019 are given below:-

- Increasing finance access to women social entrepreneur for small water enterprise to improve public health;
- Capacity Building of Local Urban Bodies in Rajasthan on Integrated Urban Water Management (IUWM) to achieve Sustainable Development Goals;
- Youth Fellowship for Water Champions;
- Creation of multi-stakeholders platform for rejuvenation of Hindon River and its tributaries;
- Community resilience to water induced disasters and climate change: A study and documentation of good practices in selected river islands of the Brahmaputra River Basin, Assam and knowledge dissemination workshop.

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