Innovation Hub for Urban Water, Sanitation & Hygiene Solutions: The Ecosystem of WASH in Urban India

An Ecosystem can be defined as a complex network of individual entities that are interconnected. Even though, each component may seem separate; together they constitute a cohesive ecosystem that is distinctive from one another. To cite a few examples; Business Ecosystem, Educational Ecosystem, Technology Ecosystem are some of the post-modern complex networks. Along the same lines; Water, Sanitation and Hygiene – three important components for basic healthy living form the WASH sector, which caters to the WASH Ecosystem that conserves, enhances and sustains the three parent branches through a common interference.

The Innovation Hub for Urban Water, Sanitation and Hygiene Solutions (IHUWASH) project was developed with the premise to address the key issues of WASH in Urban India through innovative technologies, creative service delivery models, capacity building at the community level and the forging of partnerships with key city stakeholders for creating an ecosystem to provide equitable WASH services. The project is supported by the United States Agency for International Development (USAID) and is being implemented in the three cities of Faridabad, Udaipur, and Mysuru since October 2016.

During these three years IHUWASH has been able to establish three WASH Labs by partnering with the Urban Local Bodies in the project cities and with local academic institute that houses the Lab. The project is in the process of scaling up 8 innovations under its accelerator program out of the 58 applications that were received. So far, more than 1600 government officials and stakeholders have been trained on various WASH Innovations and capacity building exercises. At present, State-of-the-Art public and community toilets are under construction in the project cities and is expected to benefit more than 10,000 people daily by the end of 2019.

The first edition of the IHUWASH’s Newsletter, I-WASH has been themed around the concept of WASH ECOSYSTEM to give a bird’s eye view of the entire paradigm through the project interventions of IHUWASH. The title of the Newsletter I-WASH stands for making WASH a very personal factor in one’s life. “I” stands for the Individual who is an important stakeholder in the WASH Ecosystem. The letter “I” also represents the project in a nutshell – “I” as self, Innovation, Ideas and Information.

To know more about the project, please check: https://ihuwash.niua.org
IHUWASH project facilitates GIS training for Udaipur Municipal Corporation (UMC) officials

Commemorative Photograph at the end of the GIS training at Udaipur

Geographical Information System (GIS) has become an indispensable software for capturing, processing, organizing and mapping data. Incorporating GIS technology to track the status of WASH facilities can help implement target-based interventions as it would aid a more informed solution based on the assessed environment.

The application has already been utilized in analyzing water distribution system and sewerage system, locating contaminated pipe lines, manholes and maintaining departmental record. Though GIS Application is now being integrated in the sector, there is a lack of knowledge regarding its usage and functionality. Moreover, many urban local bodies don’t have an access to the software. The Udaipur city team of IHUWASH determined to bring about this change one step at a time. With support from local partners - UMC and Geetanjali Institute of Technical Studies (GITS); a training for government officials on the GIS application was organized. The training aimed to enable the officials in mitigating localized WASH challenges through GIS.

The two day training on Application of Innovative Tools in Water Supply & Sewerage System Management – Geographic Information System (GIS) was organized on 20th-21st December, 2018. Government officials from UMC, Urban Improvement Trust (UIT), Public Health Engineering Department (PHED) and Town Planning Department (TPD) attended the training programme. Officials received a hands on learning experience in using the application.

During the workshop; Shri Siddharth Sihag (I.A.S.), then Commissioner of UMC emphasised that GIS platform shall become the norm for Urban Local Bodies in the future. He insisted that officials must acquaint themselves with such tools for better planning and designing of infrastructure.

Considering the usefulness of the GIS training to UMC officials, Shri Sihag proposed a core group of 4-5 officials within municipal corporation who can be further trained on GIS software. IHUWASH has facilitated the follow up training in April 2019.

The concerted efforts of the IHUWASH Project; has enabled UMC to procure the ArcGIS software version 10.3 from Director of Local Governance, Government of Rajasthan.

Innovation is the key to the future. Ability to think differently and provide innovative solutions to a persistent problem can bring about dynamic changes. This applies to the WASH Sector as well. There are a number of entrepreneurs in India creating innovative products, services, and business models to solve urban WASH problems. However, they seldom get the opportunity for further upscaling. Keeping this mind, the Innovation Hub for Urban Water, Sanitation and Hygiene Solutions launched its Accelerator Program in December 2017 with the aim to scope, select and support scalable, market-based innovations to solve key WASH problems for the IHUWASH project cities. Ennovent - a partner in the project, has been the backbone of the Program.

One of the notable innovations that was appreciated by the adjudicators has been SquatEase; a unidirectional inclined toilet pan to eliminate improper usage of community toilets, thereby reducing recurring maintenance costs. The toilet pan is also accessible for users with physically challenges or disabilities. Sanotion Private Limited; the creators of SquatEase claims that the pan reduces stress on knees, hips, and thighs; allowing people with joint problems to use the Indian toilet easily.

Squat Ease, with its unique feature was also the preferred choice in the makeshift toilets at Kumbh Mela 2019, wherein the company installed over 5000 toilets for the mega event.

Currently, both Udaipur and Mysuru Municipalities have opted for SquatEase toilet pans for pilot testing in the public and community toilets that are being constructed under the IHUWASH project. The IHUWASH program; enabled the startup to connect with investors and showcase its product at various national platforms.

Speaking about IHUWASH; Satyajit Mittal, Founder of SquatEase said that he hopes IHUWASH can create a sound foundation for increased collaboration in the WASH ecosystem.

- SquatEase was awarded the best Innovation in Swachh Bharat Mission 2018 on Swachh Bharat Diwas 2018 by the Honorable Prime Minister of India and UN Secretary General.
- Satyajit Mittal is also in the prestigious Forbes list of 30 Under 30 in Asia in Industry, Manufacturing & Energy 2019.
IHUWASH celebrated Global Handwashing Day in all the three project cities on October 15, 2018. The hub partnered with Savlon India for the celebrations in two of its project cities i.e. Faridabad and Udaipur as a CSR engagement. Savlon’s Swasth India Mission is a programme designed to encourage behavioural change towards washing hands amongst children and adults through various engaging and entertaining educational initiatives. In Faridabad and Udaipur, IHUWASH engaged with school students for an awareness creation on the importance of handwashing and clean hands for which Savlon provided 550 kits for students of Udaipur and 350 kits for the students at Faridabad. Each kit contains the following products:
- Savlon Handwash Chhota Bheem Pump Pack
- Savlon Fresh + Protect Soap
- Savlon Antiseptic Liquid

As per the United Nations Industrial Development Organization (UNIDO); Corporate Social Responsibility (CSR) is generally understood as being the way through which a company achieves a balance of economic, environmental and social imperatives while at the same time addressing the expectations of shareholders and stakeholders. India is the first country in the world to make CSR mandatory, following an amendment to The Company Act, 2013 in April 2014 that recommends supporting initiatives, which measurably improve the lives of the underprivileged. Among others; promoting preventive health care, sanitation and making available safe drinking water are also some of the key focus areas.

To achieve the goals of Swachh Bharat Mission, significant CSR contribution has been made by leading institutions indicates that most popular states for CSR in WASH was Maharashtra with 17 companies reporting a program in the state, followed by 16 companies working in Uttar Pradesh and 15 in Rajasthan. The top 5 Public Sector Units (PSUs) contributing in WASH includes Coal India, ONGC, Power Finance Corporation, and GAIL India. The top 5 Non-PSUs contributing in WASH were Bharti Airtel, Infratel, Tata Steel, State Bank of India, Mahindra & Mahindra, and Tata Consultancy Services.

IHUWASH project is actively supporting city administrations in Mysuru, Udaipur and Faridabad to implement WASH infrastructure through innovative funding mechanism. In Mysuru, J K Tyres has supported the Municipal Corporation by partially contributing for the construction cost of around 204 individual household toilets (IHHL) in urban areas and 2000 IHHL in rural areas. In Udaipur; Hindustan Zinc is supporting the Smart City to construct sewergate treatment plant. In Faridabad, Industrial Association has supported municipal corporation in eradicating open defecation by constructing few community toilets. Escorts Group in Faridabad is also working to improve the school sanitation in the city.

The trends show that CSR’s contribution in India in WASH gravitates towards the rural sector. This calls for a paradigm shift to address the urban WASH challenges through CSR funding. There is a need to realign CSR contribution from infrastructural amenities to addressing the entire value chain of the sanitation ecosystem. Aspects like behavior change, encouraging community participation or executing viable operational models and practices also need to be reflected under the ambit of CSR to bring sustainable change.
Games

(Use ludo discs and dices available at home to play this game)

1. Each player puts their disc on the block that says START.
2. Each player takes turn to roll the dice.
3. A player can begin if the dice number shows 6.
4. As you move forward; If your disc lands at the bottom of a ladder, you can move up to the top of the ladder.
5. If your disc lands on the mouth of a snake, you must slide down to the bottom of the snake.
6. One who reaches the END first is the winner.

**Project Partners**

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National Institute of Urban Affairs
1st Floor, Core 4B, India Habitat Centre,
Lodhi Road, New Delhi - 110003, INDIA
(+91 11) 24643284/2467517, (+91 11) 24617513
E-mail: niua@niua.org  Website: www.niua.org

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