

WASH Innovations in Action: Modern Public Toilets as Catalysts for Inclusivity and Urban Comfort



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Background

Access to safe and sufficient water, sanitation, and hygiene (WASH) facilities is critical for public health, especially in urban settings. However, many developing regions still face challenges in maintaining well-equipped and hygienic public sanitation systems. In Godawari Municipality, Nepal, while the region was declared Open Defecation Free (ODF) in 2018, the availability and maintenance of public toilets were still subpar. Despite the presence of 14 public toilets in Godawari, only nine were operational, with a large majority of the facilities in poor condition both aesthetically and sanitation-wise.

The Godawari Municipality's struggle to maintain these facilities pointed to a need for innovation in public toilet design and management. The existing systems were insufficient in terms of accessibility, cleanliness, and user comfort, which hindered the community's ability to uphold hygiene standards and contributed to a diminished quality of life. Public toilets should be more than just functional—they should serve as inclusive, comfortable, and hygienic spaces. The challenge was clear: WASH innovation at the public toilet infrastructure to meet the needs of a growing urban population and foster inclusive public health outcomes.

The Integrated Urban Water Management (IUWM) project, led by ENPHO in collaboration with BORDA South Asia and Godawari Municipality, set out to address these challenges by renovating and upgrading the Chapagaun Public Toilet. The project focused on transforming the conventional Public Toilet into a model of WASH innovation by improving both its technology and service delivery, creating a modern and sustainable facility that could serve as a model for other municipalities in Nepal.

Objective

- The primary objective of the Chapagaun Public Toilet renovation project was to integrate innovative WASH technologies and efficient service delivery models to create an inclusive and user-friendly facility that catered to the diverse needs of the community.
- The project aimed to elevate the Chapagaun toilet by improving accessibility, sanitation, hygiene, and comfort while incorporating sustainable management practices. The ultimate goal was to provide a replicable solution for other municipalities struggling with similar sanitation challenges.

Methodology

The Chapagaun Public Toilet, located in Ward 11 of Godawari Municipality, was constructed in 2013, just two years before the major earthquake that affected Nepal. Although the facility was functional, it was neither user-friendly nor well-equipped to meet the community's needs. The toilet had not been sufficiently maintained, and its management lacked the structure to ensure long-term sustainability.

To address these issues, an improvement plan was developed including physical, technological, human resource, financial, and management improvements to elevate the Chapagaun Public Toilet to a modern standard.

The refurbishment on the basis of plan included several technological and infrastructural innovations, which were carefully integrated to ensure the facility met the diverse needs of the community. These innovations included:

- **Enhanced Infrastructure:** The facility has undergone significant upgrades with the integration of advanced automated systems. Automated urinals, sensor-operated faucets, sensor-based flushing systems, automatic LED lighting, and touchless soap dispensers have been installed to minimize physical contact, ensuring a cleaner and more hygienic environment.
- **Sustainability Features:** A coffee shop has been incorporated into the business model, creating a sustainable revenue stream to support the ongoing operation and maintenance of the facility. This innovative approach ensures long-term financial viability while enhancing user experience.
- **Inclusion-Oriented Services:** To promote inclusivity, the facility is equipped with pad vending machines and sanitary disposal units, specifically designed to address the hygiene needs of women. These thoughtful additions foster a welcoming and inclusive environment for all users, regardless of gender.

The project also integrated a community-driven governance and business model for operation and maintenance. Local community members were trained to manage the facility, and the inclusion of a coffee shop within the premises helped generate income, ensuring financial sustainability and efficient management of the toilet services.

Impact

- The renovated Chapagaun Public Toilet now serves over 100 users daily and has become a model for public sanitation improvement in the region. It provides a clean, hygienic, and accessible space that meets the needs of a diverse urban population. The facility has received overwhelmingly positive feedback, especially from women who benefit from the installation of pad vending machines and sanitary disposal units. These additions have made it easier for women to maintain hygiene during menstruation, addressing a major gap in public sanitation services.
- The modernization of the Chapagaun toilet has also increased foot traffic, contributing to the sustainability of the facility. The integration of modern infrastructure, user-friendly services, and community-led management has created a sense of ownership and pride among local residents. Additionally, the income generated by the coffee shop has helped cover operational costs, ensuring the long-term financial sustainability of the facility.
- The success of the Chapagaun Public Toilet has sparked interest from other wards and neighboring municipalities, many of which are keen to replicate the model. The facility has become a point of interest for visitors and researchers, who view it as an exemplary demonstration of how public toilets can be transformed into inclusive, sustainable, and comfortable spaces.



Conclusion

- Integrating modern sanitation technologies, community involvement, and sustainable operational models, the project has successfully transformed a basic public toilet into a functional, comfortable, inclusive, and hygienic facility.
- This initiative contributes to several Sustainable Development Goals (SDGs), including SDG 6 on clean water and sanitation, by improving access to safe and well-maintained public toilets; SDG 11 on sustainable cities and communities, by enhancing public infrastructure for healthy urban living; SDG 5 on gender equality, through facilities designed to meet the hygiene needs of all genders, especially women.
- This project exemplifies the potential of WASH innovations not only in terms of technology but also in service delivery models. By addressing the needs of the community, incorporating sustainability features, and empowering local governance, the Chapagaun Public Toilet project serves as a replicable model for improving public sanitation in urban areas. It highlights the role of well-designed public toilets in transforming urban spaces into more inclusive, sustainable, and health-promoting environments.