

## **Determination of Quality of Sanitation Services in Rural Settlements of India based on User Perception**

### **Abstract**

This research first aims to identify appropriate attributes defining the service quality of household toilets and WWM based on user perception and then to prioritize the same to identify appropriate areas of intervention, and finally to determine the service delivery level of each attribute based on users' perception and expectation. While an initial list of attributes was selected from literature, the final list of attributes is selected after validation through focus groups discussions and expert opinion surveys. The attributes are prioritized using both stated and derived importance methods. The stated importance data is analyzed using the RIDIT analysis. The relative importance of attributes is derived through using weighted perception approach, the gap analysis and willingness to pay (WTP) for the provision/improvement of toilets and maintenance of WWM facilities. The service delivery level of attributes is determined using level of service (LOS) scales, the zone of tolerance (ZOT) and users satisfaction level (USL). The study shows that the attributes prioritized by the users are different from the experts. While government policies emphasize on the construction of toilets, maintenance of toilets is found to be an important issue for the users. The service quality of attributes of subsidized toilets is perceived as poor. The households without toilets want improvement in the service level of several attributes as compared to the service level specified under sanitation programs. The households' WTP for expected quality of sanitation services is significantly determined by their socio-economic characteristics and perceived service quality of sanitation facilities. The results also suggest that most of the users expect to have a toilet with the service level ranging between LOS A and LOS B. While ZOT for household toilet attributes range between LOS A and LOS B, ZOT for most of the attributes of WWM lies between LOS A and LOS C except few attributes where ZOT lies between LOS A and LOS B.

**Keywords:** derived importance; expectation; household toilets; India; perception; priority; rural; service delivery level; service quality; stated importance; wastewater management; willingness to pay