

## **Terms of Reference for Research Project**

**TITLE:** A comprehensive study on the management of mobile toilets.

### **1. BACKGROUND**

**1.1** Mobile toilets (MT), play a crucial role in addressing sanitation challenges, particularly in densely populated areas and during events or emergencies. In India, where access to proper sanitation facilities is a significant concern, the mobile toilets are deployed to improve hygiene and provide temporary solutions in various settings.

**1.2** Mobile toilets are commonly deployed during public events, festivals, fairs, and gatherings where a large number of people are expected, construction sites where permanent sanitation infrastructure may not be available, urban areas with slums or informal settlements, where access to proper sanitation is limited, and disaster-stricken areas or during emergencies.

**1.3** Various initiatives are taken by the government to improve sanitation facilities in the country, and mobile toilets are also part of these initiatives. The Swachh Bharat Abhiyan (Clean India Mission) is one such initiative that focuses on improving sanitation and hygiene.

**1.4** Mobile toilets come in various designs, including simple portable units with basic amenities like a toilet seat and a waste collection system. Some units may be more advanced, offering features such as handwashing facilities, proper ventilation, and waste treatment systems. Despite the positive impact, there are challenges associated with mobile toilets in India, such as maintenance issues and the need for proper waste disposal systems.

**1.5** In order to take a holistic view, the Drinking Water Supply, Wastewater and Stormwater Systems and Services Sectional Committee, SSD 14, has decided to conduct a detailed study on the management of mobile toilets.

**1.6** The project aims to prepare an analytical report on best management practices adopted by concerned service providers on the management of mobile toilets.

### **2. OBJECTIVE**

The primary objective of the project is the collection of information, data, and evidence from primary and secondary sources for study on the management of mobile toilets.

### **3. SCOPE**

**3.1** Undertake comprehensive study of existing literature including related standards, regulations, reference materials, case studies and SoPs related to the management of mobile toilets.

**3.2** Comparative analysis of information and data collected as per **3.1**.

**3.3** Conduct a study and submit a report to develop a framework for the management of mobile toilets based on information, data and evidences on the following:

- a) What are the physical components and management aspects of mobile toilets;
- b) Key parameter to evaluate the performance of mobile toilets;
- c) Identification of risks associated;
- d) Transportation, installation and disassembly context of mobile toilets;
- e) Requirements for operation and maintenance;

- f) Process and requirements for cleaning and disinfection;
- g) Identification of testing methods;
- h) Details of instructions for Protection Guide; and
- i) Rapid response mechanisms.

**3.4** Conduct visits as per clause **4 (d)**.

#### **4. METHODOLOGY**

The research project will follow a structured methodology that includes, but not limited to, the following:

- a) Prepare a preliminary report and structured questionnaires in consultation with BIS/TC through the review conducted as per **3.1** and submit the report to BIS/TC.
- b) Collection of feedback through the circulation of structured questionnaires (to be finalized in consultation with BIS) to obtain relevant information/data from at least **fifty** experts in context with **3.3**.
- c) Conduct interviews with at least **five** experts/auditors and have focus point discussions on important aspects as mentioned under para **3.3**.
- d) Conduct field visits at industries engaged in the design, construction, execution, operation and maintenance of mobile toilets (three manufacturers, two water utilities, and three users in the country) and collect information/data as covered under **3.3** above. After identification of water utilities to be visited, take prior consent of BIS before proceeding further.
- e) Focused discussions with experts to analyze and comparative analysis of the information/data collected.
- f) Prepare a study report on the basis of findings and data collected as covered in scope (para **3**).

#### **5. DELIVERABLES**

**5.1** An analytical report containing information/data as mentioned in Scope (para **3**) and append evidence containing statements, questionnaire, details of interviews, outcome of consultation with experts and data collected during literature review and visits.

**5.2** Hard as well as soft copies of the report shall be submitted within the timeframe as mentioned at para **6**.

#### **6. TIMELINE AND METHOD OF PROGRESS REVIEW**

**6.1** The time frame for completing the study and submitting the report is **4** months from the date of the award of the project.

**6.2** Stage wise timelines are given below:

Stage	Time from date of award of research project	Progress of work

Stage 1	Within 45 days	Completion of review of literature and preparation of sampling plan
Stage 2	46-75 days	Completion of field visit, expert interviews, focus point discussion
Stage 3	76-90 days	Submission of draft research report to BIS for evaluations and recommendations by TC.
Stage 4	91-120 days	Submission of final report

**6.3** In case of delay in submission of report at any stage, the justification shall be given awardee for consideration by the Sectional Committee

## **7 BIS SUPPORT**

BIS will provide access to the latest available editions of Indian standards and/or international standards relevant to the project, on request.

## **8. NODAL PERSON**

### **Nodal Person:**

Smt. Priyanka Singh, Sc B/SSD &  
Member Secretary, SSD 14  
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