



## SBM Reduced Infant and Child Mortality

**For Prelims:** [Swachh Bharat Mission \(SBM\)](#), [Infant Mortality Rate \(IMR\)](#), [Under-Five Mortality Rate \(U5MR\)](#), [Gram Panchayats](#), [Swachh Bharat Kosh](#), [UNICEF](#), [Robot Bandicoot](#), Asian Enigma, [Scheduled Castes \(SC\)](#), [Scheduled Tribes \(ST\)](#).

**For Mains:** Significance and Achievements of Swachh Bharat Mission (SBM), Challenges Associated with SBM.

[Source: DTE](#)

### Why in News?

Recently, Science journal **Nature** has published a study titled '**Toilet construction under the Swachh Bharat Mission (SBM) and infant mortality in India**'.

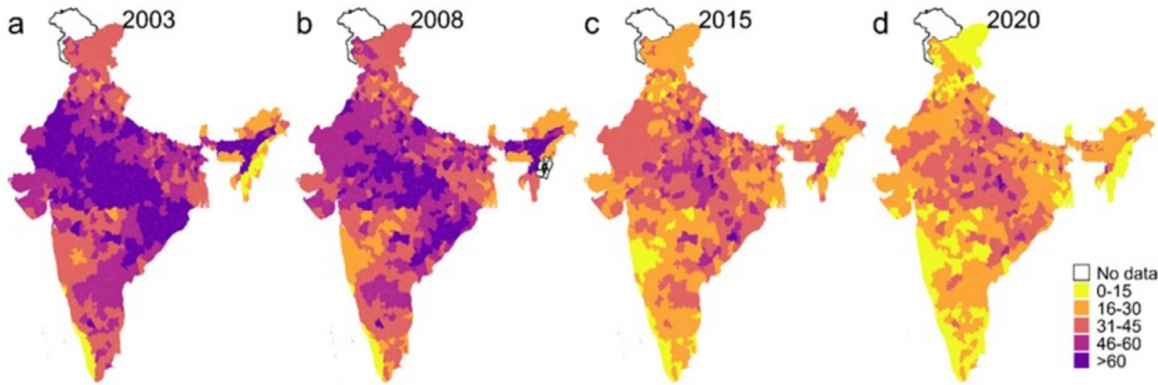
- It analysed data from **35 states/Union territories** and over 600 districts between **2011 and 2020**.

### What are the Key Findings of the Study?

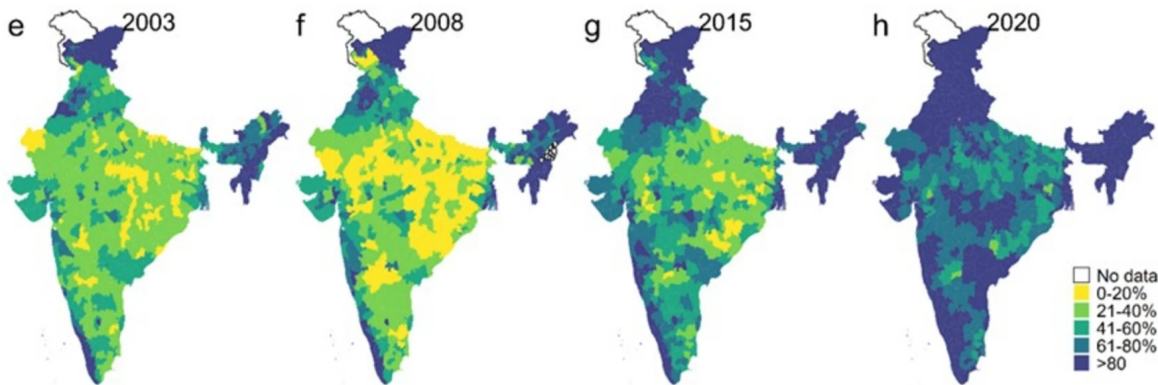
- Reduction in Infant Deaths:** The [Swachh Bharat Mission \(SBM\)](#) potentially **averted 60,000-70,000 infant deaths** annually between **2011-2020**.
  - Districts with over **30% of toilets** constructed under SBM experienced **5.3 fewer infant deaths** and **6.8 fewer child deaths** per 1,000 births.
  - Every **10% increase** in district-level toilet access after SBM correlated with a reduction in [Infant Mortality Rate \(IMR\)](#) by **0.9 points** and [Under-Five Mortality Rate \(U5MR\)](#) by **1.1 points** on average.
- Accelerated Decline in IMR:** During the post-SBM period, IMR reductions accelerated, with an **8-9% annual decline**, compared to a **3% annual decline** in the pre-SBM period (2000-2014).
- Toilet Availability:** The availability of **toilets increased twofold**, and open defecation declined from 60% to 19% in the first five years of SBM.
  - From 2014 to 2020, the government constructed **109 million household toilets** and declared that more than **600,000 villages are [open defecation free \(ODF\)](#)**.
- Additional Benefits of Improved Sanitation:** Enhanced access to toilets has broader benefits, including **women's safety**, financial savings due to reduced medical expenses, and overall improved quality of life.
  - Families in ODF villages **saved an average of Rs 50,000 annually on health costs**.
- SBM's Unique Approach:** SBM's approach of combining toilet construction with substantial investments in [IEC \(Information, Education, and Communication\)](#) and community engagement represent comprehensive strategies to deal with open defecation.

//

## Infant mortality rate per 1,000



## Any toilet access, %

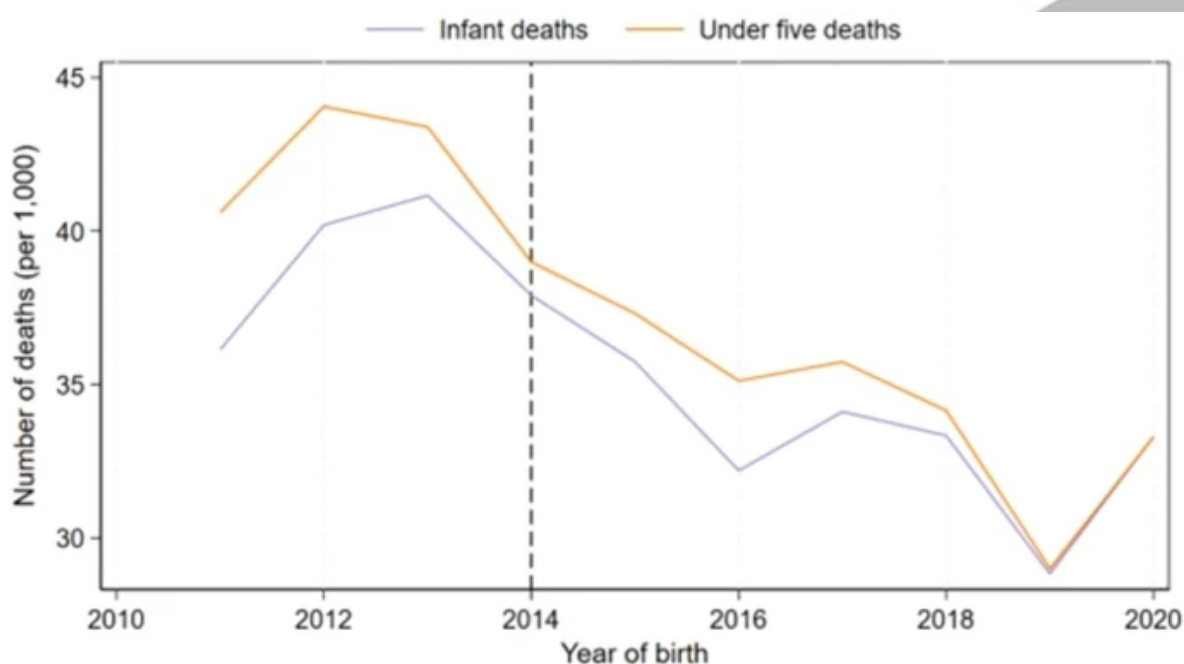


## What is the Swachh Bharat Mission?

- **About SBM:** It is a national-level cleanliness campaign announced by the Prime Minister on **Independence Day 2014** and launched on **2<sup>nd</sup> October 2014**, coinciding with [Gandhi Jayanti](#).
  - It is considered **India's largest-ever cleanliness drive**, involving 3 million government employees, school, and college students.
  - In February 2020, Phase-II of SBM was approved focusing on [sustaining ODF status and Solid and Liquid Waste Management \(SLWM\)](#).
- **Key Principles and Goals:**
  - **Toilet Construction:** Building individual, cluster, and community toilets to eliminate or reduce open defecation, a major cause of child mortality.
  - **Monitoring Usage:** Establishing an accountable mechanism to monitor toilet use, not just construction.
  - **Public Awareness:** Promoting awareness about the drawbacks of open defecation and encouraging toilet use.
  - **Behavioural Change:** Aiming to change people's attitudes, mindsets, and behaviours toward sanitation through dedicated ground staff and campaigns.
  - **Clean Villages:** Maintaining cleanliness in villages and ensuring effective solid and liquid waste management through [gram panchayats](#).
  - **Water Supply:** Installing water pipelines to ensure water supply to all households.
- **Funding and Budget Allocation:** SBM had an average annual budget of approximately **1.25 billion USD from 2015 to 2020**, reflecting the government's substantial **investment in improving national sanitation and public health outcomes**.
- **Financial and Technical Support:** Financial incentives provided by the central government to state governments for sanitation efforts, including toilet construction and waste management.
  - [Swachh Bharat Kosh](#) allows for public, corporate, and individual contributions for infrastructure purposes.
  - **Swachh Bharat Preraks**, volunteers recruited by Tata Trusts, monitor the progress of sanitation activities.

## What is the Significance of the Swachh Bharat Mission (SBM)?

- **Key Public Health Intervention:** Improved sanitation has been linked to significant declines in IMR globally, with similar trends observed in the **United States** and other Western countries in the early 1900s.
  - The research confirms that improved sanitation under SBM has been a **critical factor** in reducing IMR and U5MR in India.
- **Addressed the 'Asian Enigma':** The study supports prior research on the **'Asian Enigma,'** where India's [high child stunting rates](#), despite **economic progress**, were linked to widespread **open defecation**.
  - The reduction in open defecation under SBM addresses this issue by improving sanitation, which is expected to have a long-term impact on reducing child stunting rates.
- **Economic Benefits:** [UNICEF](#) reports that **every rupee** invested in SBM yields a return of **Rs. 4.3** due to **reduced healthcare costs**, increased productivity etc.
  - If SBM achieved its aim of ending open defecation, with improved sanitation, the **damage costs** would be reduced to **2.7% of GDP**. It would save **Rs 8.1 trillion** from the current situation.



## What are the Challenges in Successful Implementation of SBM?

- **Behaviours Changes:** Open defecation is viewed by many in rural India as **healthier, cleaner**, and sometimes **religiously acceptable**.
  - Children, particularly those under 15, practice open defecation more frequently.
- **Non-Functional Toilets:** Empirical data suggest that toilets remain **non-functional** precisely because of **inadequate or no water facility**.
- **Pit Based Toilet:** Most of these toilets are connected to a **pit or a septic tank**. The pit fills up in **five to six years** of continuous usage and **cleaning of faecal material** remains a challenge.
  - **Unsafe stool disposal** in open places is a major factor contributing to higher rates of **diarrhoea and stunting**.
- **Ignorance to Hand Hygiene:** Hand hygiene is an essential cost-effective public health intervention, but its practice is **inconsistent** due to the lack of facilities (water, soap, handwashing space).
- **Challenges Faced by Marginalised Communities:** Disadvantaged sections, including **landless people**, [migrant labourers](#), and disabled persons, often lack access to toilets or find existing toilets inaccessible.

## Way Forward

- **Maintenance of ODF Status:** Post-declaration monitoring is necessary to **maintain ODF** status, as communities may revert to old practices.
  - There is a need for **trained volunteers** and incentives to monitor sanitation status.
- **Behavioural Change:** To achieve behavioural change in society, a trained workforce is essential to engage communities in **participatory self-analysis**, educating them on the harmful effects of inadequate sanitation.
- **Manual Scavenging:** Many marginalised communities are forced to **clean toilets**. Technology can play a key role in addressing this issue. E.g., [Robot Bandicoot](#) could help end the practice of manual scavenging.
- **Collaborations and Multi-Sectoral Efforts:** Department of Drinking Water and Sanitation, Ministry of Health and Family Welfare, [UNICEF](#), [World Bank](#), and several NGOs should work in coordination to avoid duplicating efforts.

**Drishhti Mains Question:**

Q. Discuss the recent achievements of the Swachh Bharat Mission (SBM). Highlight the challenges that still need to be addressed to ensure the long-term success of the mission.

## UPSC Civil Services Examination, Previous Year Question (PYQ)

### **Prelims**

**Q. With reference to bio-toilets used by the Indian Railways, consider the following statements: (2015)**

1. The decomposition of human waste in the bio toilets is initiated by a fungal inoculum.
2. Ammonia and water vapour are the only end products in this decomposition which are released into the atmosphere.

**Which of the statements given above is/are correct?**

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

**Ans: (d)**

### **Mains**

**Q. What are the impediments in disposing of the huge quantities of discarded solid waste which are continuously being generated? How do we safely remove the toxic wastes that have been accumulating in our habitable environment? (2021)**

**Q. "To ensure effective implementation of policies addressing the water, sanitation and hygiene needs the identification of the beneficiary segments is to be synchronised with anticipated outcomes." Examine the statement in the context of the WASH scheme. (2017)**

**Q. How could social influence and persuasion contribute to the success of Swachh Bharat Abhiyan? (2016)**

