



# ***“Addressing Water Logging for Swachh Bharat”***

Collective inputs from over 335,000+ Citizen Community on

***“Swachh Bharat”***

***(Current Issues, Root Causes and Proposed Solutions)***

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## **Addressing Water Logging for Swachh Bharat**

### **Executive Summary**

Water logging is a major issue during monsoon season in Urban India. In most cities, the rainwater infrastructure, if it exists at all, is not sufficient to guarantee the drainage of the water so that streets in low-lying areas get inundated. Roads are blocked leading to traffic jams, pedestrians having to wade through flooded streets and the urban poor, living in slums or squatters have their homes often damaged by the water. Also, the water becomes polluted when it mixes with the garbage and waste that is littered everywhere and apart from disrupting traffic it also becomes a risk to health.

For Indian Cities to be Swachh and for them to move to the next level of becoming Smart Cities, it is critical that the challenge of water logging is addressed. The 335,000+ strong “Swachh Bharat” online community has come together to collectively identify the key issues, root causes and solutions for Improving the problem of water logging in Indian Cities and the community expects that the Central Government along with the 4500 Urban Local Bodies of India will work towards implementing the identified solutions.

### **Issues Identified:**

1. Roads get water logged
2. Drains get choked and start overflowing on to the roads
3. Water logging causes huge traffic jams
4. Water logging causes many accidents
5. Water logging also destroys roads
6. Many areas become unapproachable due to water logging
7. Water seeps inside many houses and shops
8. Collected and stagnant water becomes the breeding ground for mosquitoes
9. Water logging destroys underground wiring in many areas
10. It also makes it difficult for the pedestrians and two wheeler riders to commute
11. Water logging negatively impacts many vehicles thereby causing inconvenience
12. Water logging negatively impacts the efficiency of a citizen’s urban life, Businesses and the Government
13. Damage to vehicles negatively impacts citizens financially
14. Water mixed with garbage and sewage is a serious health hazard citizens.



### **Root Causes Identified:**

1. The design of the drainage system in most Indian cities is very old
2. All the roads don't have drains of proper capacity to combat the rainwater
3. The desilting and maintenance of the drains are not scheduled around the year
4. The pumps installed to push the water out from subways and underpasses are mostly broken
5. Water logging hides pot holes and open sewers leading to accidents
6. Drains get clogged with plastic and debris
7. People throw garbage in open drains
8. Road diggings are frequent, which obstruct the water flow
9. Roads don't have proper slopes
10. Bad engineering – most of the water logging happens where the flyover meet the base level
11. Pavement dwellers block the drains that run alongside the road to get more space for themselves
12. The municipalities lack accountability
13. Rag pickers rob manhole covers, exposing them to clogging
14. Lack of local helplines to timely report water logging
15. Roads are not repaired when they start breaking up which leads to bigger pot holes

### **Solutions Identified:**

1. A year-long maintenance schedule should be made to clean and desilt the drains and prepare them for the rainy season
2. Citizens should be trained on not throwing the garbage in the drains
3. The storm water drainage system should be refurbished
4. Roads which get water logged every season should be identified and water pumps should be installed clear the water
5. The broken pumps in underpasses and subways should be immediately repaired/changed
6. Roads should be made with the right slope so that the rain water could automatically slide down the drains
7. The good drainage systems of modern cities like New York should be studied and the findings should be implemented in Indian cities
8. More gardens and parks should be made so that the excess water could be absorbed.
9. The capacity of the drains should be increased



10. Roads dug should not be left open for more than 48 hours and proper barricading should be done to prevent accidents
11. A helpline should be started where citizens could report instances of water logging
12. Road maintenance should be carried out throughout the year
13. The civic agencies should be made accountable towards their work by introducing technology, community interface, citizen rating and reporting
14. The inter department coordination between civic agencies should be strengthened
15. For the violations for non-compliance by the developers apart from the penalties levied, the non-compliance should be removed
16. Road sanitation employees should make sure there are no plastic bags or clogging of drains
17. Manholes should have locks which can only be opened by the municipal employees.

### **Water Logging in India –A few Citizen posts and comments:**

1. Water logging very common during rainy season. I am astonished why funds are not used wisely and with proper planning. Poor people bear the problem. We are serving for poor's and for our country for years and look what we have given to our motherland. it is time to think over it – **Priyesh Pradhan**
2. Lack of GARBAGE disposal is the major problem leading to choking of drains consequently water logging. Garbage disposal in my city Ranchi is limited to lifting it from streets and dumping in different areas inside and just outside the city. I presume same must be the case in most of the towns/cities. I do believe good practices for total Garbage management is being followed in a few towns/ cities. Could such good practices for Garbage management be put on the net for all towns/cities to follow – **Akhauri Ranjan Sinha**
3. While designing drains, sizing should be adequate to handle future increased floor for any reasons. Adequate sloping of the drain floor to be ensured. – **Shankar Mallipatna**
4. Drainage near property lines are packed, unauthorized fencing on the road, excessive use of plastic, believing that everything will be done by Govt. Illegal and faulty constructions, lack of civic sense are main causes – **Jyotsnendra Singh**
5. the root cause for water logging is improper planning of surrounding area ,construction of buildings roads blocking of drainages. Local authority should check level of floor area while approving drawings. Poor maintenance is also major issue – **Pravin Bhaviskar**
6. So many vendors continue to give very thin low gauge polythene which normally don't go for reprocessing. The Governments have enacted the rules. If authorities



pay some attention on it the problem of logging due to plastic bags can be solved to great extent – ***R P Gupta***

7. Formation of roads should be changed, in such a way that water should go sideways and there should not be any water stagnated in the middle of the road and during the rainy reason, the flow of the water should be diverted to a nearby reservoirs or cheruvu, wells etc. as referred to above. So the water staging in the middle of the roads can be avoided, thereby damage to the road will not happen. The authorities also can study during the rainy season, the level of the water and stagnation of the water - ***Venkateshwararao***