

## Inter Governmental Convergence for Integrated Sewerage System Bhubaneswar

The present case study relates the initiative of Govt. of Orissa Housing & Urban Development Department innovative strategy to mobilize funds for the integrated sewerage system of Bhubaneswar City.

Using Intergovernmental financial mechanisms funds for the development of integrated sewerage network in Bhubaneswar was identified. The officials involved in the process

have made a lot of effort in convincing various levels of Govt. to contribute funds in favour of development of the system. Problems were faced in the beginning but continuous efforts and determined approach made the task done. This initiative is unique in nature due the involvement domestic & international agencies.

**Bhubaneswar**  
Bhubaneswar, located on the east coast is one of the fastest growing cities of India. The city was planned by Otto H. Königsberger in 1948 for a area of 16.48 sqkm with a population of 40000 is now covers an area 135 Sq km with more than million population. The city has 60 wards with an elected Mayor since 2003.

### Situation before the Initiative

Being the capital city and popularly known as “Temple City” of India. As usual citizens demanded for a better level of services from the service provider. In Bhubaneswar Orissa Water Supply & Sewerage Board is responsible for development of integrated sewerage system. The quantum of demands and infrastructural needs of the city was beyond the financial capacity of the state govt.

In terms of infrastructure for waste water disposal, the city had open surface drains and a number of soak pits. Seepage from the soak pits was leading to the severe contamination of the ground water. Open surface drains served as the favourable habitat for insects to grow. Such conditions posed as a serious matter of concern in front of the city representatives and officials.

### Problems

The present system Covers part of city area, having Poor collection and transportation system and the sewage is discharge in 10 Nos. of open drains. There is no planned system to take present and future population load and mostly executed in piecemeal manner. This

lead to overflow, stagnation of sewage in road side ditches, pits, creates unhygienic condition, proliferation of flies, mosquito and weeds.

### Strategy Adopted

The problems motivated the administration to find out an innovative solution to overcome its financial weakness and meet the demand posed by city. Then Govt. funded for preparation of a Detailed Project Report (DPR) titled “Integrated Sewerage System for Bhubaneswar City” amounting to Rs. 754.23 Crores. The project divided Bhubaneswar city into 6 (six) Sewerage districts for implementation of the project, having independent collection network, Pumping system, Sewage Treatment Plant, treated effluent disposal system and sludge handling system.

### Results

The Uniqueness of the initiative is mobilizing funds through convergence. The innovative financing mechanism of the initiative ‘pulled Municipal Bodies, State Govt., National Govt., and International Banks ’ and ‘generated their concern’ right from the stage of conception of the sewerage network scheme for the City of

Bhubaneswar. Contribution came from a number of resources through loans and grants. The exhibit below shows the various sources of funds involved in the project financing:

<b>JNNURM</b>	<b>Rs. 498.91 Crores</b>
Govt. of India ACA (80%)	Rs.399.13 Crores
Govt. of Orissa & ULB share (20%) The 20% State share shall be met from JBIC loan	Rs. 99.78 Crores
<b>12<sup>th</sup> Finance Commission Grant</b>	<b>Rs. 140.00 Crores</b>
<b>Govt. of Orissa Share for Land</b>	<b>65.43 Crore</b>
<b>JNNURM funding for soft components like DPR preparation cost, PMC service, IEC, A&amp;OE etc. (Presented to MoUD, GOI)</b>	<b>Rs.49.89 Crores</b>

The sewerage system of Bhubaneswar city envisages (a) Laying of 412 Km length of underground gravity sewer for collection of sewage from households and establishments throughout the city in uncovered areas, (b) Replacement and renovation of all existing old sewers, (c) Construction of main, Intermediate & Lift Pumping Stations (34 Nos.), (d) Construction of Sewage Treatment Plants (6 Nos., total capacity upto 2021 - 190 MLD) & (e) Construction of Low Cost Sanitation Units in the city area (New community toilets complexes in public places and slum areas - 49 Nos. and renovation of existing community toilets - 26 Nos).

### Lessons Learned

- Convergence of various funds for Infrastructure projects is possible through the collective efforts and transparent proceedings.
- It is possible to bring international agencies active participation in the development of the city infrastructure. The requirement is to build a rapport with them.
- Inter Governmental coordination and involvement of stakeholders throughout the project development phase assures in-time

achievements. Concern of the stakeholders also provides strength and motivation to the implementing agency to overcome the problems that may occur during the project implementation.

### Sustainability

- The project will ensure proper treatment of generated sewage in the city area with provision of *modern treatment technology like Standard Activated Sludge Process*.
- PSP in O&M of the system is envisaged.
- The project will provide good and effective sewerage services to the urban population including urban poor and will reduce non-point source of pollution.
- Govt. of Orissa have taken decision to transfer the water supply & sewerage systems to Bhubaneswar Municipal Corporation.
- Political will should stand behind the initiative to sustain the rapport between the citizens and the urban local body.

### Transferability

Development of an underground sewerage network is a conventional engineering practice. The unique feature of the initiative that the other local bodies can adopt is the innovative approach of financing to raise funds for the project.

### Innovation

- A leadership to lead Inter Governmental Financing Systems.
- For the first time in Country integrated various sources of funding for one project.
- Mobilizing soft loans from International Banks for a part of the project.
- The involvement of citizens in project development and financing formally gives them a status of stakeholders of the project.