

CENTRE FOR SCIENCE AND ENVIRONMENT

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Shri Prem Kumar
Hon'ble Minister for Urban Development and Housing
Government of Bihar
Patna

Note to Shri Prem Kumar, Hon'ble Minister for Urban Development, Government of Bihar

Date: 31 May 2012

Hon'ble mantri-ji,

We thank you for releasing Centre for Science and Environment's report, Excreta Matters, in Patna on 25 May, 2012. It has helped to create considerable awareness on water and sewage management.

As you had indicated, we are pleased to send a few suggestions for incorporation into urban planning guidelines. We hope these will find place in the State's policy on urban water and sewage management to make urbanization more sustainable and improve the quality of life in the cities of Bihar.

I) **Improve the quality of data on urban water supply and sewage management. This can include the following**

- a. A survey of urban domestic water to ascertain how much water is used and for which purpose, its quality and also pinpoint the amount of sewage generated
- b. A survey of urban toilet facilities to understand how many people use toilets, and what kind, and how many defecate in the open
- c. A survey of urban domestic water supply systems to determine the number and quality of water treatment plants, pipelines and type of connections
- d. A survey of urban sewage systems to enumerate the length and quality of sewage networks and the number and status of sewage treatment plants
- e. Setting up a system of monitoring urban water quality with a back-up action plan to tackle common problems of bacterial and chemical contamination

II) **Incorporate decentralized sewage treatment mechanisms into urban sewage and waste water management. These include**

- a. Bio-remediation using bacteria/enzymes to treat sewage in nallahs to

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reduce load on treatment plants, contamination of groundwater and surface water bodies.

- b. Constructed wetlands for sewage treatment especially in smaller towns. These are inexpensive and do not need electricity to run, therefore as well-suited for areas where power supply is scarce or erratic
- c. Waste-to-energy schemes in which biogas is generated from sewage and can be used for power generation or as fuel for cooking. The sludge from these schemes can be further processed into manure
- d. Promotion of toilet technologies such as ecological sanitation that convert excreta and urine into fertilizer

III) Demarcate the physical area of urban ponds, rivers and other surface water bodies including their catchment areas and channels. These must be provided with legal protection to prevent encroachment. These water bodies are absolutely critical in maintaining the quality and quantity of groundwater in cities.

IV) Launch a state-wide programme for rainwater harvesting, provide a subsidy and incorporate it into urban building bye-laws. The harvested rainwater can be used for either groundwater recharge to improve quality and quantity or stored for further use. As Bihar gets an average of 1,100 mm of rain a year, this can meet the potable water needs for every single person.

Yours sincerely,

Prakash Kumar, BTAST, Patna

Dr Ashok Ghosh, A N College, Patna

Arbind Kumar, Nidan

Nitya Jacob, Centre for Science and Environment

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