Ministry of Housing and Urban Affairs
Government of India

Smart City
MISSION TRANSFORM-NATION

CONSERVE

Digital model to inform water secure cities

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Current scenario

Cities in India are facing a major challenge in water resources management because of inefficient and unequal distribution use of water amongst different sectors, conflicts in between water users, inadequacy of funds for operation and maintenance, lack of a uniform approach in water planning and development, etc.

Currently, the major challenge within the water sector is to cater the increasing demands of the citizens within the limited availability. This is affecting the water security of the cities wherein major factors like climate change is severely impacting the hydrological cycle and consequently, water management. Higher temperatures and changes in extreme weather conditions are projected to affect availability and distribution of rainfall, snowmelt, river flows and groundwater, and further deteriorate water quality. Also, increasing population, migration and rising living standards will increase the demand for water in the coming years.

The need at present is to address these issues through planning and designing of new hydraulic infrastructures and tools that will bridge in the gap between demand and supply of water for domestic, industrial, and municipal uses

Idea

Project CONSERVE will work on the development of a robust & reliable GIS based interactive platform for water resources management of a city. It will help the state agencies, water utility regulators, and others stakeholders to be better equipped to cater the water needs of present and future years. The task will be carried out by developing a methodology/algorithm to generate the aggregate water availability from all the sources; and its demand and use in the various sectors.

This tool will also include the impacts of increasing urban population, climate change and water pollution to form future scenarios and therefore inform the key stakeholders to achieve water security. These scenarios will be tools to test hypotheses, data and assumptions about future urban demand and potential response strategies. Also, it will act as a transparent platform for citizens to monitor the distribution of their water resources.

References

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