Preserving Waterbodies - Chennai Case Study

What is the issue?

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Though blessed with thousands of water bodies and the annual average rainfall being reasonably good, water shortage still persists in Chennai.

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What is the present situation?

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- Chennai district ended with a 57 % deficit in Northeast monsoon rain in 2016.
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- Chennai Metrowater is planning to tap water from new resources, abandoned quarries or agricultural wells and smaller water bodies.
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- Residents are already thinking of sinking deeper borewells.
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- Meteorologists note that the water scarcity is more of human-induced, as the annual rainfall has been less than 100 cm only on a few occasions since 1969.
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- According to UN-Water, about 50% of the world's population live in cities and this is bound to increase to 70% by 2050.
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- The global water demand too is set to go up by 50 % in two decades.
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- There is a rise in haphazard urbanisation with least importance to urban ecosystem management.
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What is the problem?

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- There are nearly 3,600 waterbodies in Tiruvallur, Chennai and Kancheepuram districts.
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- If maintained properly, nearly 80 tmcft of water could have been stored during floods.
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- The reservoirs that cater to the city have only a capacity to store 11 tmcft.
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- Nearly 300 thousand million cubic feet (tmcft) of water is estimated to have drained into the sea through various waterways during 2015 floods.
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- Water experts point out that could have been saved and used in times of crisis had we taken care of the waterbodies in and around Chennai and its neighbouring districts.
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What should be done?

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- We should understand the characteristics of mansoon and plan accordingly by preserving water bodies.
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- The extreme weather resulting in floods or drought must be expected and used as an opportunity.
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- Drought is the best time to desilt waterbodies.
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- Waterbodies have been neglected for the past decades, leading to their systematic destruction and groundwater depletion.
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- The government accelerate the project to lay a direct pipeline to transmit surplus water from Mettur dam.
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- The government and residents should take a collective responsibility to arrest sewage flow into rivers.
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- The building plan approvals must be provided to those large commercial buildings that show a water source to cater to the demand of residents.
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What is grey water recycling?

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- Greywater or sullage is all wastewater generated in households or office buildings from streams without fecal contamination.
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- Any attempt to restore the city waterways is futile, unless raw sewage flow is arrested and a comprehensive sewer network is in place.
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- Though water from waterways cannot be used directly, they would be a good source of groundwater recharge.
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- Chennai generates nearly 700 million litres of sewage daily. This could be recycled through decentralised treatment plants.
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- It would work out cheaper at Rs 28-30 per kilo litre than the desalinated water that costs Rs 48 per kilo litre. The sludge could be converted into bio manure.
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Source: The Hindu

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