NASA’s Report on Hydrological Change

Why in news?

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NASA satellite observations of Earth has found that there is a serious decline in the availability of freshwater in India.

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What are the findings of the study?

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- NASA used data on human activities to map locations where freshwater is changing around the globe.
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- This is the first time that observations from multiple satellites in a thorough assessment of how freshwater availability is changing everywhere on Earth.
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- In some regions water supplies were found to be relatively stable, others experienced increases or decreases.
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- The study found that Earth’s wet land areas are getting wetter and dry areas are getting drier due to a variety of factors.
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What is the reason behind this decline of fresh water?

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- The factors for this phenomenon includes human water management, climate change and natural cycles.
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- Distinctive pattern of the wet land areas of the world getting wetter those are the high latitudes and the tropics and the dry areas in between getting dryer.
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- Pumping groundwater for agricultural uses is a significant contributor to

freshwater depletion throughout the world.
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- Groundwater levels are also sensitive to cycles of persistent drought or rainy conditions
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What are the implications for India?

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- Areas in northern and eastern Indiaare among the hotspots where overuse of water resources has caused a serious decline in the availability of freshwater that is already causing problems.
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- In northern India, groundwater extraction for irrigation of crops such as wheat and rice have caused a rapid decline in available water, despite rainfall being normal throughout the period studied.
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- The extractions in these parts has already exceed recharge during normal precipitation and does not bode well for the availability of groundwater during future droughts.
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Source: The Hindu, Business Line

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