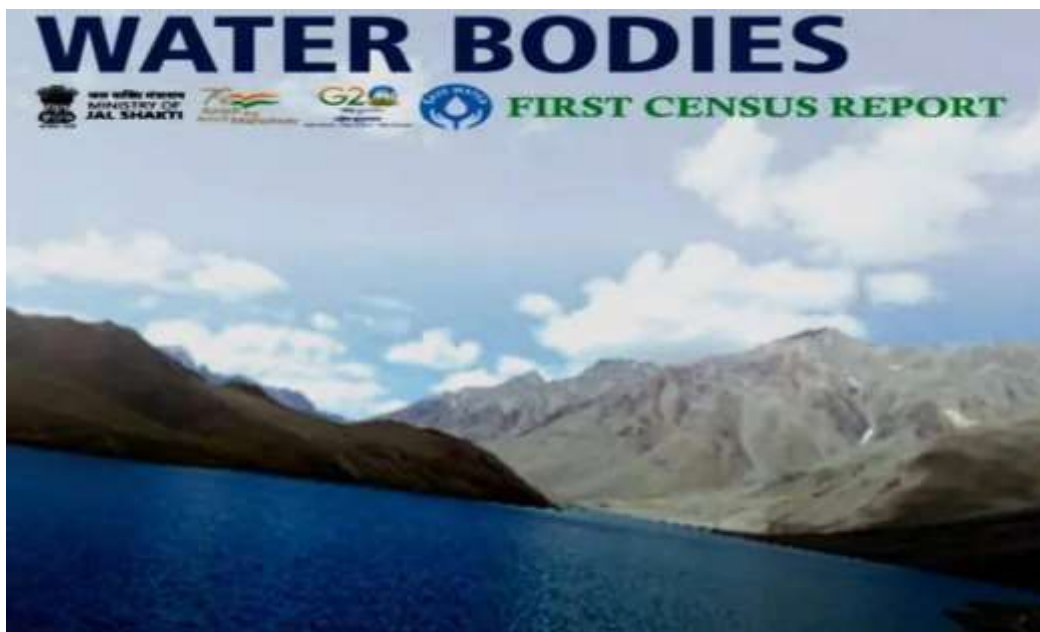


2. Water Bodies Census: First-Ever By The Ministry of Jal Shakthi

Prelims Syllabus: Environment

Mains Syllabus: GS-III Environment & Biodiversity | Climatic Change Conservation, Environmental Pollution & Degradation, Eia



Why in News?

- The Ministry of Jal Shakti has released the first-ever census of water bodies in India, highlighting the number of water bodies and their usage. The census has identified 24,24,540 water bodies in India.
- The Census highlighted disparities between rural and urban areas and varying levels of encroachment and revealed crucial insights into the country's water resources.
- The data can help in planning rural development initiatives and conserving natural resources.

Definition of water bodies:

- Water bodies in this census are defined as any natural or man-made structures used for storing water for various purposes, such as irrigation, industry, fish farming, domestic use, recreation, religious activities, and groundwater recharge. They are classified as tanks, reservoirs and ponds.
- A structure that collects water from melting ice, streams, springs, rain, or drainage from residential or other areas, or stores water diverted from a stream, nala, or river, is also considered a water body

All you need to know about the Water Bodies census

- **Launched under Irrigation Census:** The census was launched under the centrally sponsored scheme, Irrigation Census in convergence with the 6th Minor Irrigation Census in order to have a comprehensive national database of all water bodies.
- **Comprehensive information:** The information on all important aspects of the water bodies including their type, condition, status of encroachments, use, storage capacity, status of filling up of storage, etc was collected.
- **Extensive coverage:** It covered all the water bodies located in rural as well as urban areas that are in-use or not in-use. The census also took into account all type of uses of water bodies like irrigation, industry, pisciculture, domestic/ drinking, recreation, religious, ground water recharge etc.
- **Completed and published:** Census has been successfully completed and the All India and State-wise reports have been published.

The key findings of the Census:

- **Disparities in rural and urban area:** 24,24,540 water bodies have been enumerated in the country, out of which 97.1% (23,55,055) are in rural areas and only 2.9% (69,485) are in urban areas.
- **Manmade v/s natural water bodies and encroachment:** 78% water bodies are man-made water bodies whereas 22% are natural water bodies. 1.6% (38,496) water bodies out of all the enumerated water bodies are reported to be encroached out of which 95.4% are in rural areas and remaining 4.6% in urban areas.
- **Top 5 States in terms of number of water bodies:** West Bengal, Uttar Pradesh, Andhra Pradesh, Odisha and Assam which constitute around 63% of the total water bodies in the country.
- **Top 5 States in terms of number of water bodies in urban areas:** West Bengal, Tamil Nadu, Kerala, Uttar Pradesh and Tripura,
- **Top 5 States in terms of number of water bodies in rural areas:** West Bengal, Uttar Pradesh, Andhra Pradesh, Odisha and Assam.
- **Categorisation of water bodies:** 5% of water bodies are ponds, followed by tanks (15.7%), reservoirs (12.1%), Water conservation schemes/percolation tanks/check dams (9.3%), lakes (0.9%) and others (2.5%).

- **Private ownership:** 2% of water bodies are owned by private entities. Out of all private owned water bodies, maximum water bodies are in hands of Individual owner/farmer followed by group of individuals and other private bodies. Top 5 States which lead in the private owned water bodies are West Bengal, Assam, Andhra Pradesh, Odisha and Jharkhand.
- **Public ownership:** 8% of water bodies are in the domain of public ownership. Out of all public owned water bodies, maximum water bodies are owned by Panchayats, followed by State Irrigation/State WRD.

Major use of water bodies:

- Among the total 20,30,040 utilised water bodies,
- **Pisciculture:** Top 5 States wherein major use of water bodies is in pisciculture are West Bengal, Assam, Odisha, Uttar Pradesh and Andhra Pradesh. Among the total 20,30,040 utilised water bodies,
- **Irrigation:** Top 5 States wherein major use of water bodies is in irrigation are Jharkhand, Andhra Pradesh, Telangana, West Bengal and Gujarat. 16.5% (3,35,768) is dedicated to irrigation,
- **Groundwater replenishment:** Among the total 20,30,040 utilised water bodies 12.1% (2,44,918) to groundwater replenishment, and
- **Domestic and drinking water:** 1% (2,05,197) to domestic and drinking water needs. The remaining are employed for recreational, industrial, religious and other purposes.

Importance of water bodies

- **Ecological Significance:** Water bodies serve as habitats for various aquatic plants and animals, maintaining biodiversity in ecosystems. They also contribute to the regulation of water cycles, groundwater recharge, and reduction of soil erosion.
- **Social Significance:** Water bodies have cultural and religious values in many societies. They also provide recreational opportunities for fishing, swimming, boating, and other leisure activities.
- **Economic Importance:** They play a crucial role in agriculture, providing irrigation water to crops. They also support the fishing industry, which is a significant source of livelihood for many communities. Moreover, water bodies contribute to hydropower generation and are used for industrial and domestic purposes.

- **Climate Change Resilience:** Water bodies can help mitigate the impacts of climate change by acting as carbon sinks and regulating the microclimate in surrounding areas.
- **Disaster Management:** Water bodies can act as natural buffers against natural disasters such as floods and droughts. They can also help in mitigating the effects of water scarcity by providing alternative sources of water.

What is the significance of the census of water bodies?

- **Better management and conservation:** The census provides an inventory of the country's water bodies, which can help in better management and conservation of these resources. It can aid policymakers in making informed decisions about their usage and allocation, especially in areas facing water scarcity.
- **Data-driven planning:** The data from the census can be used to identify the areas where water bodies are in need of restoration or protection. It can also help in identifying the gaps in availability and utilization of water resources, which can be addressed through data-driven planning and decision-making.
- **Addressing environmental concerns:** The census can aid in identifying water bodies that are under threat due to pollution or other environmental concerns. Such water bodies can be prioritized for remedial action and conservation efforts.
- **Economic benefits:** The census can help in identifying the potential economic benefits of the water bodies, such as for fishing, irrigation, or tourism. This can aid in promoting sustainable use of these resources and in creating livelihood opportunities for the local population.
- **Better targeting of government schemes:** The census data can be used to target government schemes and programs related to water conservation and management. This can aid in ensuring that the benefits of such schemes reach the intended beneficiaries and that the resources are used effectively.