

CORPORATE OFFICE

Delhi Office

706 Ground Floor Dr. Mukherjee
Nagar Near Batra Cinema Delhi -
110009

Noida Office

Basement C-32 Noida Sector-2
Uttar Pradesh 201301



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BHARAT NEW CAR ASSESSMENT PROGRAMME (BHARAT NCAP)

This article covers "Daily Current Affairs" and the topic details "Bharat New Car Assessment Programme (BHARAT NCAP)". The topic "Bharat New Car Assessment Programme (BHARAT NCAP)" has relevance in the "Economy" section of the UPSC CSE exam.

For Prelims:

What is Bharat New Car Assessment Programme (BHARAT NCAP)?
What is the Global New Car Assessment Programme?

For Mains:

GS3: Economy

WHY IN THE NEWS?

The Ministry of Road Transport and Highways has introduced a new indigenous star-rating system for evaluating the safety of vehicles involved in collisions.

Bharat New Car Assessment Programme (NCAP)

- The system, known as the Bharat New Car Assessment Programme (NCAP), aims to provide consumers with valuable safety information when purchasing cars.
- Scheduled to commence on October 1, 2023, this initiative is crafted to tackle the alarming road fatality rates in India.

OBJECTIVES AND IMPACT OF BHARAT NCAP

- The primary objective of the Bharat NCAP is to empower consumers with safety-related information, enabling them to make informed decisions when purchasing vehicles.
- The program aims to create demand for safer cars, ultimately contributing to a reduction in road fatalities in India.
- The country currently experiences a high number of road crash-related deaths, accounting for 10% of global road crash fatalities despite having only 1% of the world's vehicles.
- This initiative is in alignment with global efforts to enhance road safety and has the potential to positively impact India's economy, considering that road crashes are estimated to incur a cost of 5 to 7% of GDP to the nation annually.

SCOPE AND CRITERIA OF BHARAT NCAP

- The Bharat NCAP is applicable to passenger vehicles with a maximum of eight seats, excluding the driver's seat, and a gross vehicle weight not exceeding 3,500 kilograms.
- The program will evaluate vehicles by conducting crash tests according to the soon-to-be-published Automotive Industry Standard 197.
- The crash tests will focus on the base models of nominated car variants.

The safety evaluation will be based on three key parameters:

- **Adult Occupant Protection:** This assesses how well a vehicle safeguards adult passengers during a collision.
 - **Child Occupant Protection:** This evaluates the protection provided to child passengers.
 - **Safety Assist Technologies:** This examines the presence and effectiveness of safety features in the vehicle.
 - **Crash Tests and Evaluation**
 - **Frontal Offset Test:** In this test, a vehicle is driven at 64 km/h with a 40% overlap into a deformable barrier, simulating a collision between two cars of similar weight.
 - **Side Impact Test:** This test simulates a side collision at 50 km/h.
 - **Pole-Side Impact Test:** A vehicle is crashed into a rigid pole sideways at 29 km/h.
- Based on the results of these tests, vehicles will receive a star rating ranging from one star to five stars. The higher the star rating, the better the vehicle's performance in terms of safety.

VOLUNTARY PARTICIPATION AND EXCEPTIONS

- Participation in the Bharat NCAP is voluntary for automobile manufacturers. However, certain scenarios may necessitate mandatory testing:
- Base model of a popular variant with a minimum sale of 30,000 units.
- Recommendations from the Ministry of Road Transport and Highways based on market feedback or public safety concerns.

GLOBAL NCAP

- The testing protocols of the Bharat NCAP are inspired by the Global NCAP, an initiative led by the U.K.-based NGO, Towards Zero Foundation.
- The Global NCAP serves as a collaborative platform for assessing vehicle safety across various countries.

Parameter	Bharat NCAP	Global NCAP
Safety Rating Categories	<ul style="list-style-type: none">● Requires 27 points for 5-star rating in adult occupant protection.● Requires 41 points for 5-star rating in child occupant protection.	<ul style="list-style-type: none">● Requires a minimum of 34 points for a 5-star safety rating in adult occupant protection.● (16 points for front crash test, 16 for side impact, 2 for seatbelt reminders)
Types of Crash Testing	<ul style="list-style-type: none">● Uses three crash tests: offset deformable barrier frontal impact test, side impact test, and pole side impact test.● Mandates additional safety features like six airbags, electronic stability control (ESC), improved emergency braking systems, etc.	<ul style="list-style-type: none">● Utilizes similar crash testing protocols: offset deformable barrier frontal impact test, side impact test.
Top Speed for Crash Tests	<ul style="list-style-type: none">● Frontal crash test at 64 km/h.● Side impact test at 50 km/h.● Pole-side impact test at 29 km/h.	<ul style="list-style-type: none">● Speeds for frontal and side impact tests might vary but are generally around 64 km/h and 50 km/h, respectively.
Variety of Cars	<ul style="list-style-type: none">● Applies to CNG and EVs, rating them based on performance.	<ul style="list-style-type: none">● Primarily focused on conventional internal combustion engine vehicles.
Unified Rating	<ul style="list-style-type: none">● Provides a single unified rating for both adult and child occupant protection.	<ul style="list-style-type: none">● May have separate ratings for adult and child occupant protection.

LOOKING FORWARD:

- India needs to develop crash testing capabilities and knowledge for meaningful implementation of Bharat NCAP.

- A software system linked to dummies in cars is necessary for assessing injury nature and extent.
- As India strives to make its roads safer, adopting best practices from international counterparts like the U.S. NCAP and Japan's NCAP will contribute to a comprehensive and holistic approach to vehicular safety, safeguarding not only the passengers but also pedestrians and other road users.

Sources:

Explained | What is the Bharat New Car Assessment Programme? – The Hindu

Q1. With reference to Bharat NCAP, consider the following statements:

1. The Ministry of Heavy Industries has introduced the Bharat New Car Assessment Programme (NCAP) to ensure the safety of automobiles in the Indian market.
2. The program aims to create a supply of safer cars through legal safeguards. .
3. The testing procedures of the Bharat NCAP draw inspiration from the Global NCAP, which operates as a United Nations initiative.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None

Answer: (d)

Q2. Consider the following statements:

1. The Bharat NCAP program is designed to address the increasing pollution rates in India.
2. The Bharat NCAP applies to passenger vehicles with a maximum of eight seats and a gross vehicle weight not exceeding 3,500 kilograms.
3. The safety evaluation under the Bharat NCAP includes parameters like Engine Performance and Fuel Efficiency.

How many of the abovementioned statements are correct ?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (a)

Q3. Discuss the significance of the Bharat New Car Assessment Programme (Bharat NCAP), especially in light of India's high road accident statistics, in addressing road safety concerns.

Gaurav Nikumbh

WORLD WATER WEEK IN LIGHT OF JAL JEEVAN MISSION

This article covers "Daily Current Affairs" and the topic details "World Water Week in Light of Jal Jeevan Mission". The topic "World Water Week in Light of Jal Jeevan Mission" has relevance in the Social Justice section of the UPSC CSE exam.

For Prelims:

About the Jal Jeevan Mission?

For Mains:

GS 2: Social Justice

Current Water Resource Management Challenges in India?

Path Forward for Water Resource Management?

Why in the news:

From August 20th to 24th, 2023, the annual global water forum known as World Water Week will be conducted by the Stockholm International Water Institute. The theme for this year is "Seeds of Change: Innovative Solutions for a Water-Wise World," which underscores the importance of innovation in addressing present water-related challenges.

Similarly, the Jal Jeevan Mission, initiated in 2019, has the vision of ensuring safe and sufficient drinking water to all rural households in India through individual tap connections by 2024. This ambitious endeavor is aimed at learning from past program limitations and rectifying their shortcomings.

Shaping the Jal Jeevan Mission through Past Rural Water Supply Experiences and Challenges:

Historical Endeavors and Limitations:

Initial Steps (1950s-1960s):

- The foundation of catering to rural water needs was laid in the first five-year plan (1951-56).
- However, this was primarily focused on easily accessible villages, leaving out many remote areas.

National Rural Drinking Water Supply Programme (1969):

- With UNICEF's support, borewells and piped water connections were established, but coverage was inconsistent.

Changing Approaches (1970s-1980s):

- Initiatives like Accelerated Rural Water Supply Scheme (ARWS) and Minimum Needs Programme were introduced, but implementation and coverage challenges persisted.

Mission Evolution (1986-1996):

- ARWS evolved into the National Drinking Water Mission and subsequently the Rajiv Gandhi National Drinking Water Mission (1991).
- Responsibility for water supply was delegated to Panchayati Raj Institutions.

Shortcomings and Gaps (2002-2007):

- A Comptroller and Auditor General of India (CAG) report revealed that between 2002 and 2007, existing schemes could cover only about 50% of the intended habitations.

Har Ghar Jal Program (2017):

- In 2017, the government launched the Har Ghar Jal initiative to provide piped water to every rural household.
- Nonetheless, by April 1, 2018, only 20% of rural households were connected to piped water, as reported by the Department of Drinking Water and Sanitation.



Har Ghar Jal Jal Jeevan Mission

Previous Schemes Shortcomings:

- **Unsustainable Water Source:** Over-reliance on groundwater led to its depletion, causing some initially covered areas to lose access over time.
- **Lack of Community Ownership:** Insufficient community ownership resulted in poor infrastructure maintenance and functionality.
- **Lack of Transparency:** Limited public awareness and participation hindered progress and awareness efforts.
- **Mismanagement of Funds:** Despite substantial investments, inefficient fund allocation and utilization persisted, leaving the water supply issue unresolved.

Learnings for the Jal Jeevan Mission:

- **Diverse Water Sources:** The Jal Jeevan Mission addresses this by incorporating both surface water and groundwater sources, while focusing on recharging and safeguarding them.
- **Community Engagement:** The mission emphasizes involving communities and implementing officials at all levels, fostering a sense of participation.
- **Information Sharing:** Progress data is shared through a central dashboard, promoting transparency, healthy competition, and prompt actions.
- **Holistic Approach:** The mission adopts a comprehensive strategy, including disaster readiness, technological advancements, bulk water transfers, and managing greywater. This approach aims to rectify the deficiencies observed in previous initiatives.

Present Status of the Jal Jeevan Mission:

Mission Objective:

- The Jal Jeevan Mission (Rural) aims to ensure that every rural household has access to 55 liters of water per person per day through Functional Household Tap Connections (FHTC) by 2024.
- It operates under the Ministry of Jal Shakti.
- Additionally, there is the Jal Jeevan Mission (Urban) which complements JJM (Rural) and strives for universal water supply coverage in all 4,378 statutory towns across India.

Current Progress:

- As of January 3, 2023, approximately 108.7 million rural households, accounting for 56.14%, have been provided with functional tapped water connections.
- The mission now faces the challenge of extending this coverage to an additional 76.3 million rural households (47.3%) within the upcoming two years.

- According to the program's dashboard, nine states and Union Territories have achieved the Har Ghar Jal status, ensuring tap water supply to all rural households. These are Haryana, Goa, Andaman and Nicobar Islands, Puducherry, Daman and Diu and Dadra Nagar Haveli, Telangana, Gujarat, Punjab, and Himachal Pradesh.

NOTE: The Government of India has also introduced the Jal Jeevan Mission (Urban), which works in harmony with JJM (Rural) and is designed to ensure comprehensive water supply coverage through functional taps in all of India's 4,378 statutory towns.

Current Water Resource Management Challenges in India:

Groundwater Depletion and Urbanization:

- Groundwater depletion remains a significant concern, exacerbated by rapid urban growth.
- Urban expansion increases water demand, leading to excessive groundwater extraction.
- Urbanization also reduces groundwater recharge due to impervious surfaces in cities.

Interstate Water Disputes and Federalism:

- Conflicts over sharing water resources among states, like the Cauvery River dispute, underscore the balance between state autonomy and national interests.

Water Quality and Health:

- Water contamination from industrial discharge, agricultural runoff, and poor sanitation results in waterborne diseases, impacting public health, particularly in rural areas.

Gender Dynamics and Water Collection:

- Women and girls in rural areas often bear the burden of water collection, limiting their education and economic opportunities while exposing them to safety risks.

Climate Change and Glacial Retreat:

- Glacial retreat in the Himalayas, a major water source, threatens long-term water availability for irrigation and drinking purposes.

Inefficient Wastewater Management:

- Inadequate wastewater management reduces the economic potential of water resources.
- A recent report by the Central Pollution Control Board (March 2021) highlighted low water and sewage treatment capacities, hindering efficient water use.

Path Forward for Water Resource Management:

Localized Water Resource Management:

- The Jal Jeevan Mission should address both water supply management and resource sustainability.
- Adopt effective watershed management at the local level and make rainwater harvesting mandatory for households.
- Ensuring harmony between water health and human health is essential for a prosperous society.

Water Footprint Labeling:

- Introduce a water footprint labeling system for products, akin to carbon footprint labels.
- Raise consumer awareness about the water used in production, fostering demand for water-efficient goods.

Water-Energy Nexus Management:

- Integrate water and energy management strategies to optimize resource utilization.

- Examples include using treated wastewater for power plant cooling and repurposing industrial process heat for water purification.

Hydro-Responsive Urban Planning:

- Implement hydro-responsive urban planning that adapts cities to water availability.
- Incorporate adaptable infrastructure such as moveable flood barriers, flexible drainage systems, and modular buildings that adjust to changing water levels.

By pursuing these measures, India can better manage its water resources, enhance sustainability, mitigate challenges, and pave the way for a resilient and water-secure future.

SOURCE:

<https://www.downtoearth.org.in/news/water/world-water-week-2023-demand-and-pollution-of-the-precious-resource-are-increasing-which-is-not-a-good-sign-91220>

Q.1 Consider the following statements regarding Jal Jeevan Mission:

1. It is a mission under the Ministry of Rural Development.
2. It does not have an Urban component.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

ANSWER: D

Q.2 Regarding 'Water Credit,' please evaluate the following statements:

1. This initiative utilizes microfinance strategies within the water and sanitation sector.
2. It is a worldwide effort initiated in collaboration with the World Health Organization and the World Bank.
3. The objective is to empower economically disadvantaged individuals to fulfill their water requirements autonomously, reducing reliance on subsidies.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

ANSWER: C

Q.3 Propose steps to enhance water storage and irrigation systems to ensure prudent utilization amid the declining water resource scenario.

Rishabh