

This article is related to General Studies-Paper-I (Geography) & III (Environment)

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"Atal Bhujal Yojana has been launched amid growing concerns over the country's groundwater resources. A look at the extent of depletion of these resources, and how the scheme will seek to address such issues."

ON Wednesday, Prime Minister Narendra Modi launched the Atal Bhujal Yojana, or Atal Jal, a day after the Cabinet approved it. Atal Jal is a World Bank-funded, central scheme aimed at improving groundwater management. It was approved by the World Bank Board in June 2018.

The idea first came up in 2015, in view of depleting groundwater resources. The government announced its intention to start a programme for management of groundwater resources in the Budget of 2016-17, with an estimated cost of about Rs 6,000 crore.

How scarce is water in India?

India accounts for 16 per cent of the world's population living in less than 2.5 per cent of the global area, and has just 4 per cent of the global water resources. According to the Central Water Commission (CWC), the estimated water resources potential of the country, which occurs as natural runoff in the rivers, is 1,999 billion cubic metres. Of this, the estimated utilisable resources are 1,122 billion cubic metres per year — 690 BCM per year surface water and 432 BCM per year replenishable groundwater. With the population rising, demand for water will increase manifold in coming years. According to the CWC, per capita availability in the country will decrease from 1,434 cubic metres in 2025 to 1,219 cubic metres in 2050.

By CWC benchmarks, a water-stressed condition happens when per capita availability is less than 1,700 cubic metres, and a water-scarcity condition when per capita availability falls below 1,000 cubic metres. Some river basins are facing a water-scarcity condition. Among these are the basins of the Indus (up to the border), Krishna, Cauvery, Subarnarekha, Pennar, Mahi, Sabarmati and east-flowing rivers, and west-flowing rivers of Kutch and Saurashtra including Luni. Water scarcity is most acute in the basins of the Cauvery, Pennar, Sabarmati and east-flowing rivers, and west-flowing rivers of Kutch and Saurashtra including Luni.

What is the groundwater situation in particular?

According to 'Water and Related Statistics 2019', a report published by the CWC, the annual replenishable groundwater resources in India (2017) are 432 BCM, out of which 393 BCM is the annual "extractable" groundwater availability. Fifteen states account for about 90 per cent of the groundwater potential in the country. Uttar Pradesh accounts for 16.2 per cent, followed by Madhya Pradesh (8.4%), Maharashtra (7.3%), Bihar (7.3%), West Bengal (6.8%), Assam (6.6%), Punjab (5.5%) and Gujarat (5.2%). The current annual groundwater extraction is 249 BCM, the largest

user being the irrigation sector. This is why the government has called for alternatives to water-intensive crops such as paddy and sugarcane.

Compared to the decadal average for 2009-18, there has been a decline in the groundwater level in 61% of wells monitored by the Central Ground Water Board (CGWB), according to a reply by the Jal Shakti Ministry in Parliament recently. Among the states where at least 100 wells were monitored, the highest depletion has been in Karnataka (80%), Maharashtra (75%), Uttar Pradesh (73%), Andhra Pradesh (73%), Punjab (69%).

What is the role of the CGWB?

The Board monitors water levels and quality through a network of 23,196 “National Hydrograph Monitoring Stations” — 6,503 dug wells and 16,693 piezometers —in January, March-May, August and November every year. A piezometer is a device placed in a borehole to monitor the pressure or depth of groundwater.

The CGWB has classified the country’s assessment units (blocks, taluks, mandals etc) into safe, semi-critical and over-exploited in terms of groundwater resources. The number of over-exploited units has increased to 1,186 in 2017, from 839 in 2004. In the north, more than 60% of the assessment units in Delhi, Punjab, Haryana and Rajasthan are either over-exploited or critical. During the Monsoon Session of Parliament, the Jal Shakti Ministry had said 14% of the country’s assessment units are semi-critical, 5% are critical, and 17% are over-exploited, as of 2017.

How much of this does the new scheme seek to address?

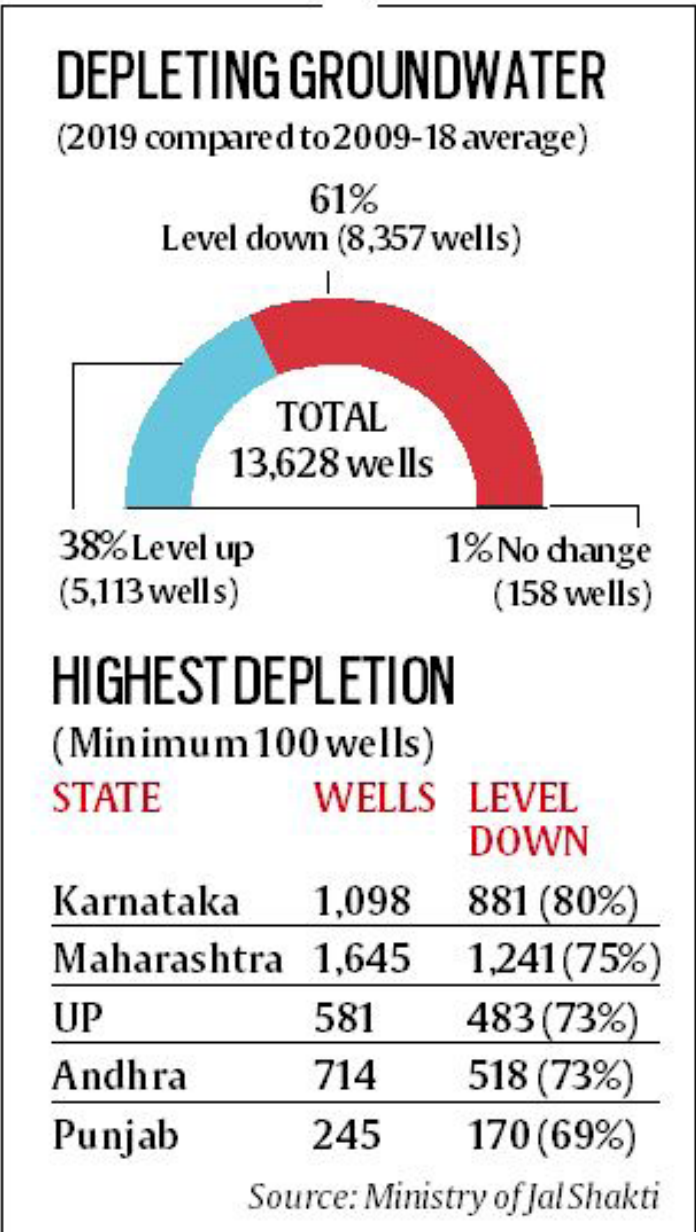
For now, the Atal Bhujal Yojana will be implemented in seven states – Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and UP over five years from 2020-21 to 2024-25. It is expected that it will benefit about 8,350 gram panchayats in 78 districts. According to Jal Shakti Ministry sources, if the scheme meets its objectives in water-stressed areas, it will be extended to other parts of the country.

How will these objectives be met?

The focus will be on arresting the rate of decline of groundwater levels as well as water consumption. The scheme will seek to strengthen the institutional framework and bring about behavioural changes at community level for sustainable groundwater resource management. It envisages community-led Water Security Plans.

There has been a Groundwater Management and Regulation scheme to manage the country’s groundwater resources since 2013. The new scheme is an updated and modified version. Concepts such as ‘Water User Associations’ and Water Budgeting will be introduced. Better performing districts and panchayats will get more funds.

Where will this money come from?



Of the Rs 6,000 crore, Rs 3,000 crore will be contributed by the World Bank as loan while the other half will be provided by the central government in the form of central assistance. All of it — the World Bank component and central assistance — will be given to the states as grants.

Expected Questions (Prelims Exams)

1. Consider the following statements in the context the Atal Bhujal Yojana.

1. Atal Bhujal Yojana is a scheme sponsored by World Bank and Central Government
2. A total of 6500 crores Rs. has been allocated for this scheme.
3. This scheme has been launched with the objective of increasing the ground water level.

Which of the above statements is/are correct?

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

Note: Answer of Prelims Expected Question given on 26 Dec., is 1 (b)

Expected Questions (Mains Exams)

Q. Atal Bhujal Yojana can prove to be a better step to solve the problem of receding ground water level and non-availability of universal drinking water in India. Analyze this statement.

(250 words)

Note: - The question of the main examination given for practice is designed keeping in mind the upcoming UPSC main examination. Therefore, to get an answer to this question, you can take the help of this source as well as other sources related to this topic.