

Categorization of Assessment Units based on the 'Stage of Ground Water Extraction'

Sl. No	Category	GWRA-2017		GWRA-2020		GWRA-2022		GWRA-2023	
		Number of AUs	% of AUs	Number of AUs	% of AUs	Number of AUs	% of AUs	Number of AUs	% of AUs
1	Safe	1	100	1	100				
2	Semi-critical								
3	Critical								
4	Over-exploited					1	100	1	100
5	Saline								
Total number of AUs		1		1		1		1	

Recommendations: -

The entire area of UT of Dadra and Nagar Haveli is underlain by hard rock terrain (Deccan basalts). The entire D & NH has been considered as a single assessment unit. Total Annual Ground Water Recharge of the UT of DNH has been assessed as 0.09 bcm and Annual Extractable Ground Water Resources as 0.08 bcm. The Current Annual Ground Water Extraction for all uses is 0.11 bcm and Stage of Ground Water Extraction is 131.53 %. The entire UT of D&NH has been categorized as 'Over Exploited'.

Adoption of Roof Top Rainwater Harvesting in urban areas of Dadra & Nagar Haveli for recharging the Ground Water Reservoirs.

Creating awareness (Mass Awareness Campaign for public and farmers, slideshows, display boards on water conservation, Water Management Training Programme for personnel related with water sector, painting/elocution competition for school students etc.) regarding water conservation etc may be organized at appropriate level.

National Aquifer Mapping & Management Programme (NAQUIM) Reports prepared by CGWB (<http://cgwb.gov.in/AQM/AQM-Reports.html>) which are also being shared with State/District Authorities and Ground Water Year Book published by CGWB having water level & water quality data may be used in Ground water management. ([http://cgwb.gov.in/Ground-Water/GW%20YEAR%20BOOK%202019-0%20ALL%20INDIA%20FINAL%20752021%20\(1\).pdf](http://cgwb.gov.in/Ground-Water/GW%20YEAR%20BOOK%202019-0%20ALL%20INDIA%20FINAL%20752021%20(1).pdf)).

State may review their free/subsidized electricity policy to farmers (if applicable), bring suitable water pricing policy and may work further towards crop rotation/diversification/other initiatives to reduce overdependence on groundwater.

Regulation & control of Ground water Extraction: Ministry of Jal Shakti has issued the guidelines for control and regulations of ground water extraction vide notification dated 24.09.2020 which has further been amended in March 2023. Concerned departments may ensure implementations of the guidelines.

For Further Information, Contact to :

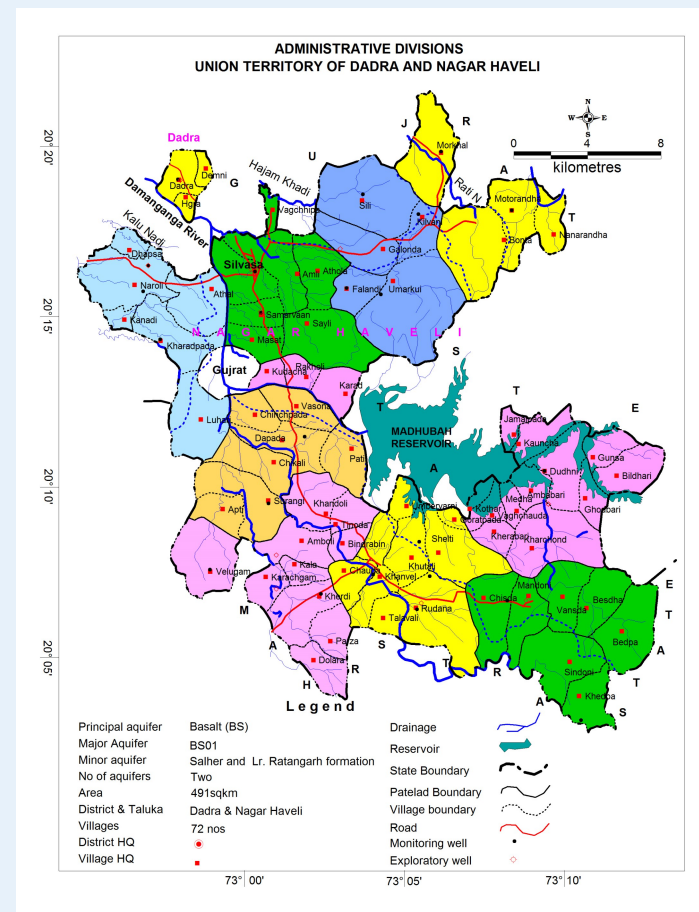
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Central Ground Water Board Department of Water Resources, RD & GR Ministry of Jal Shakti, Government of India



Dynamic Ground Water Resources, 2023 Dadra and Nagar Haveli

January, 2024

Background

- ◆ Ground Water Resources Assessment (GWRA)- jointly carried out by Central Ground Water Board and State Nodal/Ground Water Department periodically as per the Ground Water Resource Estimation Committee (GEC) methodology.
- ◆ Carried out under the guidance of the respective State/UT Level Committees (SLCs) and overall supervision of Central Level Expert Group (CLEG).
- ◆ As part of the assessment, 'Annual Extractable Ground Water Resource' as well as 'Annual Ground Water Extraction' are assessed for each assessment unit (District).
- ◆ The 'Stage of Ground Water Extraction' is computed as the ratio of 'Annual Ground Water Extraction' with respect to 'Annual Extractable Ground Water Resource' and is usually expressed in percentage. Based on the stage of extraction, the assessment units are categorized as Safe ($\leq 70\%$), Semi-Critical ($>70\%$ and $\leq 90\%$), Critical ($>90\%$ and $\leq 100\%$) and Over-Exploited ($>100\%$).
- ◆ GWRA-2023, 2022 and 2020 has been carried out through a software/web-based application "INDIA-GROUNDWATER RESOURCE ESTIMATION SYSTEM (IN-GRES)" developed by CGWB through IIT-Hyderabad.

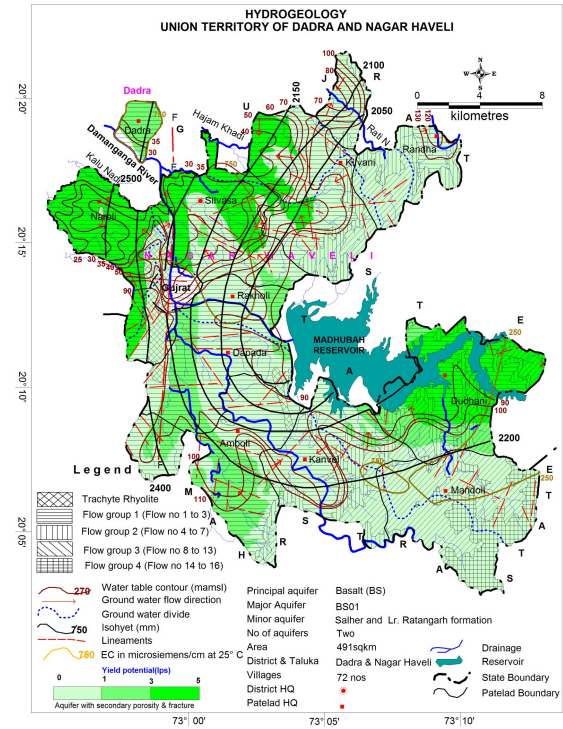
Salient Features

1	Average Annual Rainfall	3034.4 mm
2	Hydrogeology	The entire area of UT of Dadra and Nagar Haveli is underlain by hard rock terrain (Deccan basalts).
3	Recharge Worthy Area of the State	416 Sq. Km
4	Assessment Unit (AU) Type / Number	District / 1 Number
5	Average area of Assessment Unit	416 Sq. Km

Findings

	Attribute	GWRA-2017	GWRA-2020	GWRA-2022	GWRA-2023
1	Total Annual Ground Water Recharge (in bcm)	0.07	0.07	0.09	0.09
2	Annual Extractable Ground Water Resources (in bcm)	0.07	0.07	0.08	0.08
3	Annual Ground Water Extraction (in bcm)	0.02	0.03	0.11	0.11
4	Stage of Ground Water Extraction (in %)	31.34	45.99	133.2	131.53

bcm: Billion Cubic Meters



Categorization of Assessment Unit

