

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	271	77	271	77	272	77	277	78.47
2	Semi-critical	61	17	63	18	62	18	57	16.15
3	Critical	9	3	8	2.26	7	2	9	2.55
4	Over-exploited	11	3	10	3	11	3	9	2.55
5	Saline	1	0.28	1	0.28	1	0.28	1	0.28
Total number of AUs		353		353		353		353	

Recommendations: -

The State is underlain by diverse rock types of different geological ages from Pre-Cambrian to Recent. The state is mostly covered by Deccan Traps. The other geological formations, older and younger than Deccan Traps, occur in the northeast and as isolated patches in the Sindhudurg and Ratnagiri districts.

The Ground water resources have been assessed for 353 talukas in the state. Total Annual Ground Water Recharge of the State has been estimated as 32.76 bcm and Annual Extractable Ground Water Resources is 30.95 bcm. The Annual Ground Water Extraction is 16.66 bcm and Stage of Ground Water Extraction is 53.83 %. Out of 353 assessment units (taluks), 9 units (2.55%) have been categorized as 'Over-exploited', 9 units (2.55 %) as 'Critical', 57 units (16.15 %) as 'Semi-critical' and remaining 277 units (78.47 %) as 'Safe' and 1 unit (0.28 %) as 'Saline' categories of assessment units.

More numbers of Water Harvesting and Conservation Structures may be constructed to catch the rain as the State is blessed with more than 1100 mm annual rainfall. State may also effectively use "Master plan for Artificial Recharge" prepared by CGWB in consultation with State Government. (<http://cgwb.gov.in/Master%20Plan%20to%20GW%20Recharge%202020.pdf>)

National Aquifer Mapping & Management Programme (NAQIM) 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)).

Increase in irrigation efficiency through adopting of micro—irrigation techniques in more areas.

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/essay competition for school students etc.) regarding water conservation etc may be organized at appropriate level.

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 :

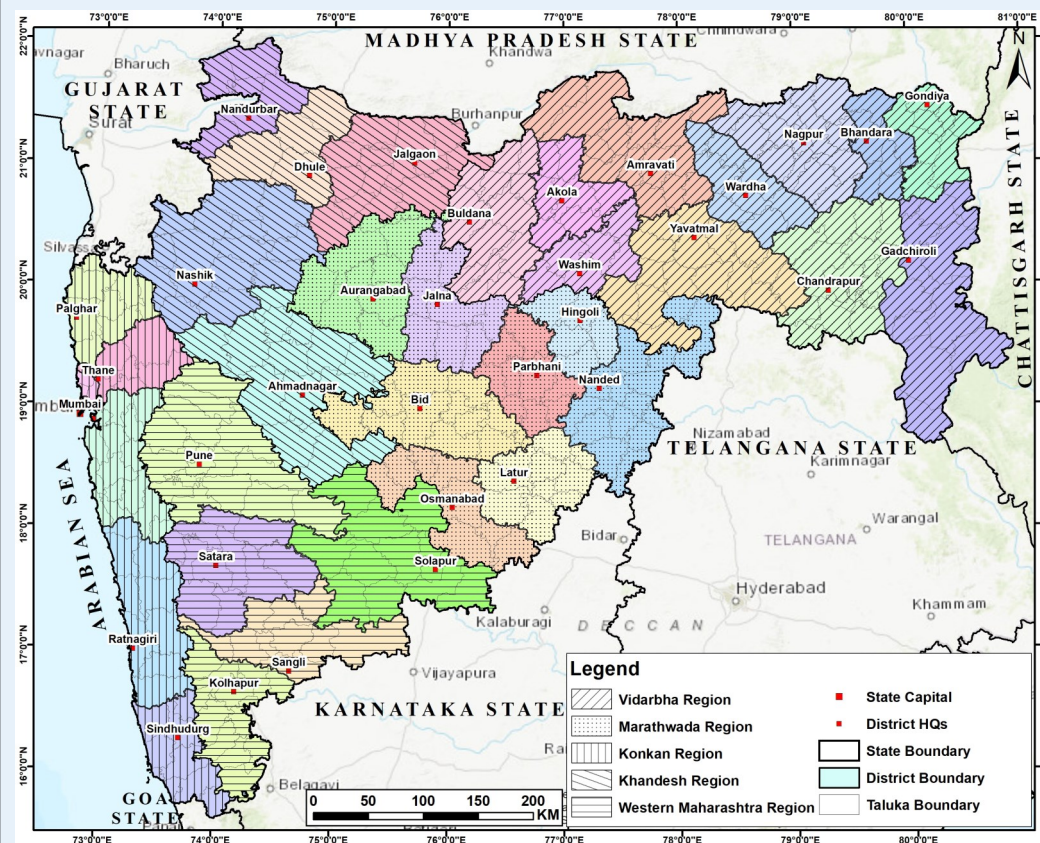
Chairman, CGWB, Bhujal Bhawan,
NH IV Faridabad, Haryana - 121001
Email: chmn-cgwb@nic.in



<https://ingres.iith.ac.in>
<https://cgwb.gov.in>
<https://www.facebook.com/cgwb.chg>
<https://www.instagram.com/centralgroundwaterboard>
https://x.com/CGWB_CHQ



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



Dynamic Ground Water Resources, 2023 Maharashtra

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 (Taluk).
- ◆ 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.

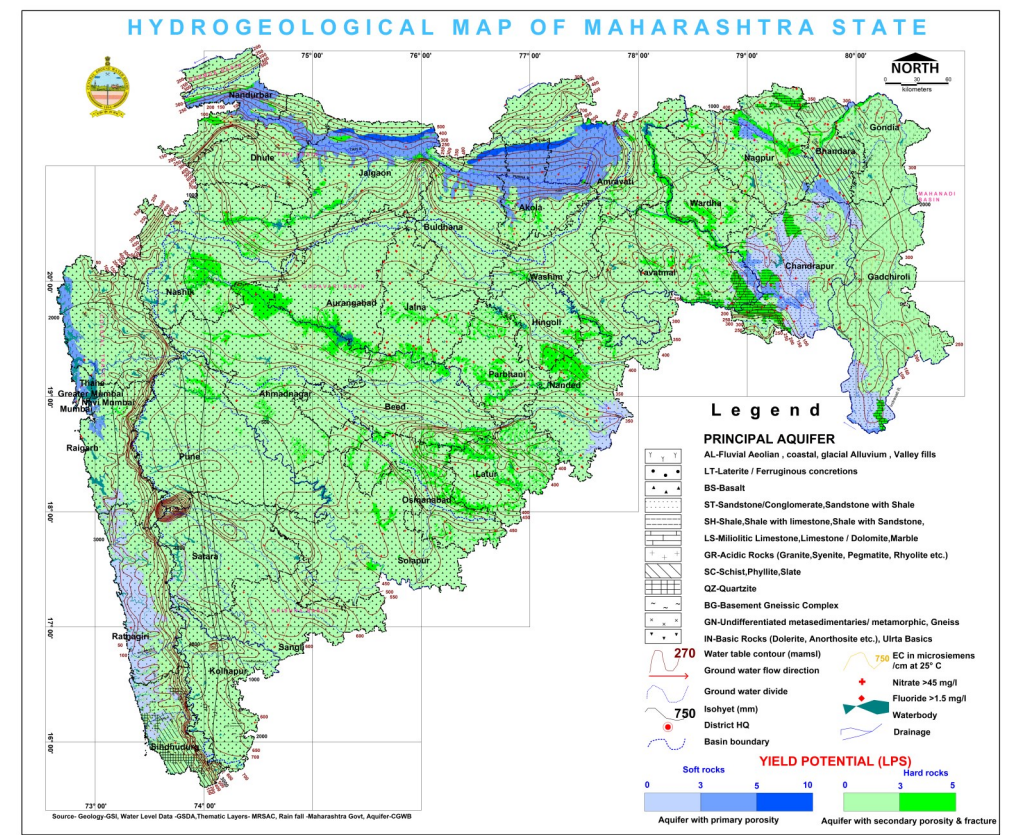
Salient Features

1	Average Annual Rainfall	1410.7 mm
2	Hydrogeology	Mostly covered by Deccan Traps. Other geological formations occur in northeast parts and isolated patches in Sindhudurg and Ratnagiri districts.
3	Recharge Worthy Area of the State	259.91 Thousand Sq. Km
4	Assessment Unit (AU) Type / Number	Taluk / 353 Numbers
5	Average area of Assessment Unit	736 Sq. Km

Findings

	Attribute	GWRA-2017	GWRA-2020	GWRA-2022	GWRA-2023
1	Total Annual Ground Water Re-charge (in bcm)	31.64	32.01	32.29	32.76
2	Annual Extractable Ground Water Resources (in bcm)	29.9	30.25	30.45	30.95
3	Annual Ground Water Extraction (in bcm)	16.33	16.63	16.65	16.66
4	Stage of Ground Water Extraction (in %)	54.62	54.99	54.68	53.83

bcm: Billion Cubic Meters



CATEGORIZATION MAP OF MAHARASHTRA

