

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								
2	Semi-critical	1	100	1	100	1	100	1	100
3	Critical								
4	Over-exploited								
5	Saline								
Total number of AUs		1		1		1		1	

Recommendations: -

Chandigarh is underlain by the Quaternary alluvial deposits and comprises layers of fine sand and clay. Coarser sediments occur along the Sukhna Choe and Patialiki Rao, whereas relatively finer sediments underlie the area between these two streams. Fair to good aquifer horizons occur in most part of Chandigarh comprising medium to coarse sand, to a depth of 180 m bgl below which they become finer.

Adoption of Roof Top Rainwater Harvesting in feasible areas of Chandigarh for recharging the Ground water Reservoirs.

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)).

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 :

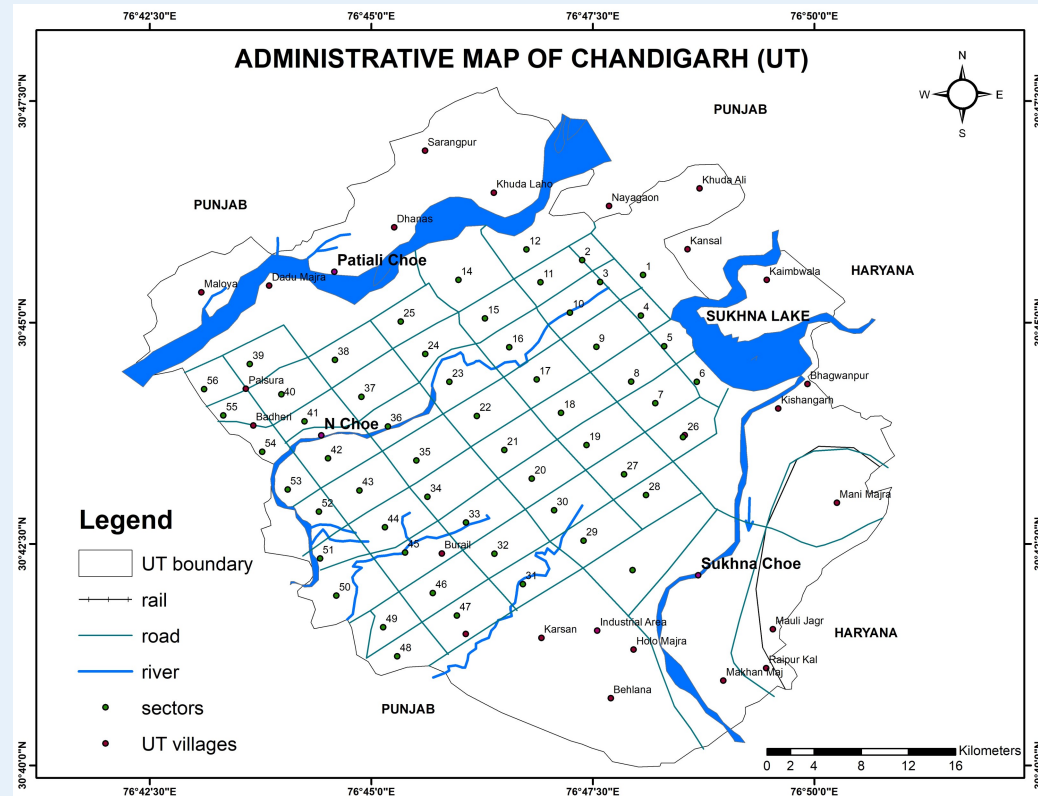
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Central Ground Water Board Department of Water Resources, RD & GR Ministry of Jal Shakti, Government of India



Dynamic Ground Water Resources, 2023 Chandigarh

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 (UT).
- ◆ 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 742.4 mm

2 Hydrogeology Quaternary alluvial deposits comprising layers of fine sand and clay. Ground water occurs under confined as well as semi-confined conditions.

3 Recharge Worthy Area of the State 114 Sq. Km

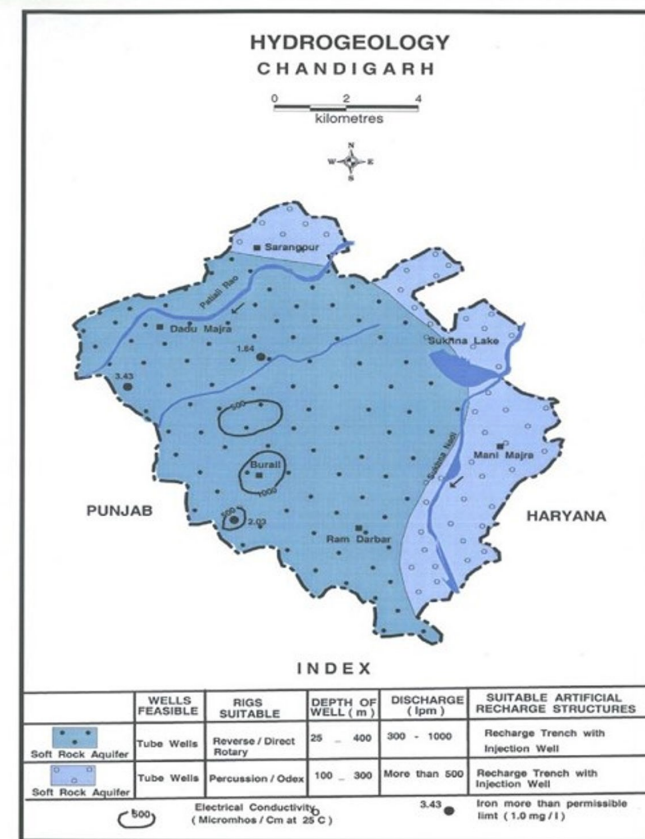
4 Assessment Unit (AU) Type / Number UT / 1 Number

5 Average area of Assessment Unit 114 Sq. Km

Findings

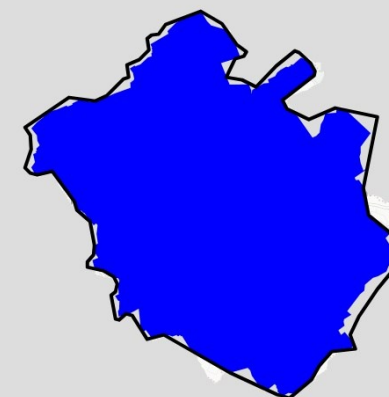
	Attribute	GWRA-2017	GWRA-2020	GWRA-2022	GWRA-2023
1	Total Annual Ground Water Recharge (in bcm)	0.04	0.06	0.05	0.05
2	Annual Extractable Ground Water Resources (in bcm)	0.04	0.06	0.05	0.05
3	Annual Ground Water Extraction (in bcm)	0.03	0.05	0.04	0.04
4	Stage of Ground Water Extraction (in %)	89	80.6	80.99	75.41

bcm: Billion Cubic Meters



Assessment year: 2022-2023

CATEGORIZATION MAP OF CHANDIGARH



Category

- Safe
- Semi Critical
- Critical
- Over Exploited
- Hilly Area
- Saline
- No Data