

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 (Block).
- ◆ 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	3171.9 mm
2	Hydrogeology	The state is occupied by hard rocks belonging to the Archean gneissic complex with acidic and basic intrusives and Precambrian Shillong Group of para metamorphites. Ground water occurs under unconfined condition in the weathered residuum and fractured rocks.
3	Recharge Worthy Area of the State	8.17 Thousand Sq. Km
4	Assessment Unit (AU) Type / Number	Block / 39 Numbers
5	Average area of Assessment Unit	210 Sq. Km

Findings

	Attribute	GWRA-2017	GWRA-2020	GWRA-2022	GWRA-2023
1	Total Annual Ground Water Recharge (in bcm)	1.83	2.04	1.72	1.83
2	Annual Extractable Ground Water Resources (in bcm)	1.64	1.82	1.51	1.51
3	Annual Ground Water Extraction (in bcm)	0.04	0.08	0.05	0.07
4	Stage of Ground Water Extraction (in %)	2.28	4.22	3.55	4.58

bcm: Billion Cubic Meters

HYDROGEOLOGICAL MAP OF MEGHALAYA

