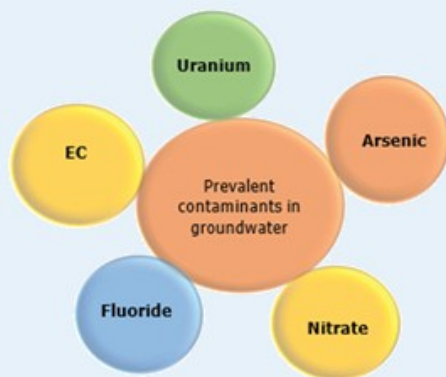


Groundwater Quality Scenario in Mizoram

Parameters	No of samples	Permissible limit	No. of Samples above permissible limit	% Samples above permissible Limit
EC	3	3000 $\mu\text{S}/\text{cm}$	0	0
Fluoride	3	1.5 mg/L	0	0
Nitrate	3	45 mg/L	0	0
Arsenic	3	10 ppb	0	0
Uranium	3	30 ppb	0	0



Districts with anomalous values at sporadic locations

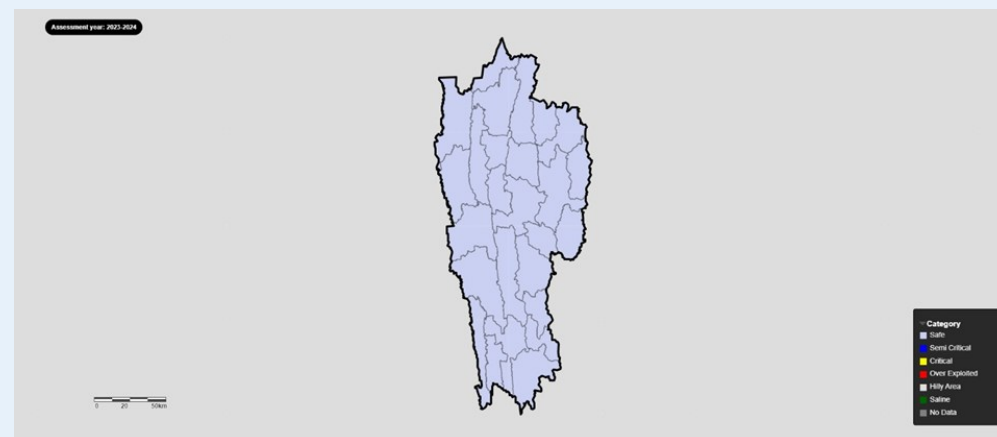
EC (3000 $\mu\text{S}/\text{cm}$)	Not Any
Fluoride ($F > 1.5 \text{ mg/L}$)	Not Any
Nitrate (Nitrate $> 45 \text{ mg/L}$)	Not Any
Arsenic ($\text{As} > 10 \text{ ppb}$)	Not Any
Uranium ($\text{U} > 30 \text{ ppb}$)	Not Any

For Further Information, Contact to :
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 NH IV Faridabad, Haryana - 121001
 Email: chmn-cgwb@nic.in

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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 & Ground Water Quality of Mizoram, 2024

December, 2024

Groundwater Resource Scenario in Mizoram

- ◆ 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-2024, 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	Rainfall	2,098.03 mm
2	Hydrogeology	Ground water is confined only to valley filled areas and secondary porosities of semi-consolidated rocks. These aquifers are the main source for springs.
3	Recharge Worthy Area of the State	3.15 Thousand Sq. Km
4	Assessment Unit (AU) Type / Number	Block / 26 Numbers
5	Average area of Assessment Unit	121.13 Sq. Km

Findings

	Attribute	GWRA-2017	GWRA-2020	GWRA-2022	GWRA-2023	GWRA-2024
1	Total Annual Ground Water Recharge (in bcm)	0.21	0.22	0.22	0.22	0.21
2	Annual Extractable Ground Water Resources (in bcm)	0.19	0.2	0.2	0.2	0.19
3	Annual Ground Water Extraction (in bcm)	0.01	0.01	0.01	0.01	0.01
4	Stage of Ground Water Extraction (in %)	3.82	3.81	3.96	3.70	3.95

bcm: Billion Cubic Meters

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

Sl. No	Category	GWRA-2017		GWRA-2020		GWRA-2022		GWRA-2023		GWRA-2024	
		Number of AUs	% of AUs	Number of AUs	% of AUs	Number of AUs	% of AUs	Number of AUs	% of AUs	Number of AUs	% of AUs
1	Safe	26	100	26	100	26	100	26	100	26	100
2	Semi-critical										
3	Critical										
4	Over-exploited										
5	Saline										
Total number of AUs		26		26		26		26		26	

Recommendations

- * The State is occupied mainly by the rocks of the Tertiary formation ranging in age from Oligocene to Miocene to Recent. The Barail form the lowermost rock units comprising siltstone and bands of soft and hard fine grained sandstone with strings of carbonaceous material and occur in the north eastern part of the state. The Surma is divided into two formations, Bhuban and Bokabil. The Bhuban is made up of grey sandstone and shale and occupies the major part of the State all along the length of the state. The Bokabil, predominantly argillaceous, mostly occurs along the western part of the State. The Tipam sandstone is of semi- consolidated nature comprising medium to coarse grained sandstone with subordinate shale and occurs in limited extent in the north western part of the state. The alluvial deposits comprising silt, clay and sands occur in the valley fill area with very limited thickness. Ground water is confined only to valley filled areas and secondary porosities of semi-consolidated rocks.
- * The ground water resources for the state have been assessed block-wise.
- * Total Annual Ground Water Recharge has been assessed as 0.21 bcm and Annual Extractable Ground Water Resource is 0.19 bcm. The Annual Ground Water Extraction is 0.01 bcm and Stage of Ground Water Extraction is 3.95 %.
- * All the 26 assessed blocks have been categorized as 'Safe'.
- * All the assessment units are in safe category as well as future allocation of ground water is also sufficient, State Government can judiciously develop the ground water resource mainly for agricultural use, however, at no point of time the extraction level should exceed 70%.
- * National Aquifer Mapping & Management Programme (NAQUIM) Reports prepared by CGWB (<https://cgwb.gov.in/cgwbpnmi/>) 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 (<https://cgwb.gov.in/cgwbpnmi/>).
- * Development of Springs and their catchment in hilly areas.
- * 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.