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	6	67	7	78	7	78	4	80	4	80
2	Semi-critical	3	33	2	22	2	22	1	20	1	20
3	Critical										
4	Over-exploited										
5	Saline										
Total number of AUs		9		9		9		5		5	

Recommendations:-

* Lakshadweep islands are composed of calcareous sand and materials derived from coral atolls. Alternate layers of loose sand, moderately cemented calc-arenites and well cemented, hard and compact limestone underlie the islands. In these islands, fresh ground water occurs under phreatic conditions as lens floating over the saline water and is in hydraulic continuity with sea water.
* Lakshadweep is a unidistrict state wherein the dynamic ground water resources have been assessed for individual islands and the output is generated block wise.
* The total Annual Ground Water Recharge in the UT has been estimated as 0.014 bcm and Annual Extractable Ground Water Resources works out as 0.005 bcm. The total current Annual Ground Water Extraction has been assessed as 0.003 bcm and the Stage of Ground Water Extraction as 61.32%.
* Out of the 5 assessment units, 4 blocks (80%) are categorized as 'Safe' and 1 block (20%) Kavaratti, as 'Semi Critical'.
* Island Hydrogeological set up demands judicious and measured use of fresh water lenses seasonally (though falls under Safe category).
* National Aquifer Mapping & Management Programme (NAQUIM) Reports prepared by CGWB (https://cgwb.gov.in/cgwbpnm/) 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/cgwbpnm/).
* 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.

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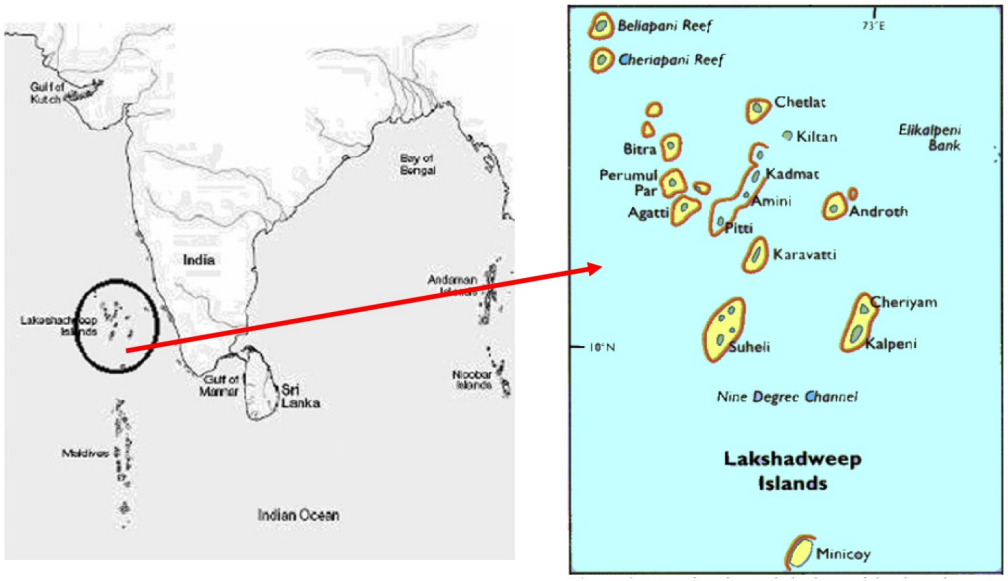
https://x.com/CGWB_CHQ

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



Dynamic Ground Water Resources, 2024
Lakshadweep

December, 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 (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 (<= 70 %), Semi-Critical (>70 % and <=90 %), Critical (>90 % and <=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.

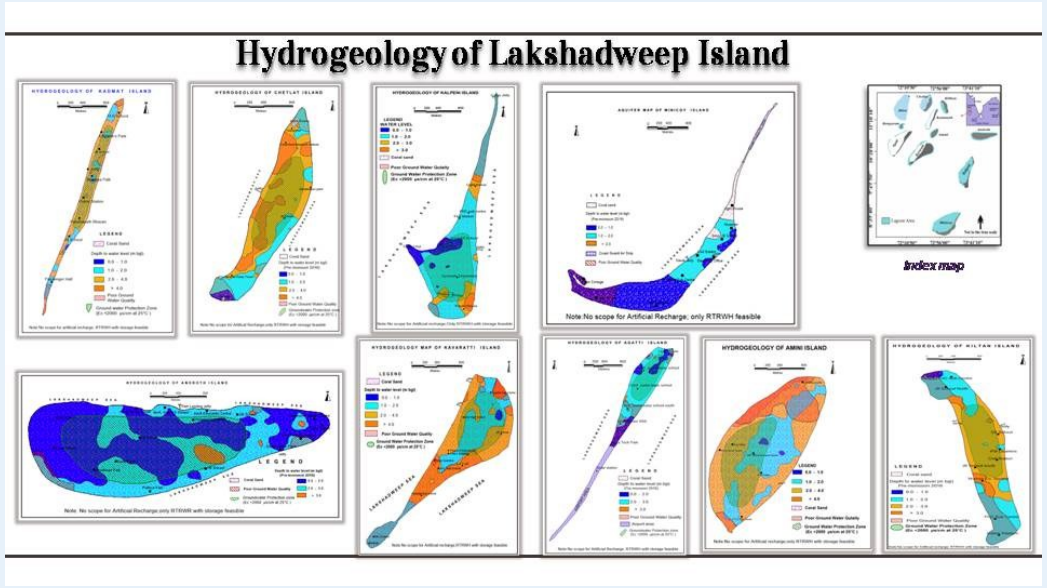
Salient Features

1	Rainfall	1,805.54 mm
2	Hydrogeology	Lakshadweep islands are composed of calcareous sand and materials derived from coral atolls. Alternate layers of loose sand, moderately cemented calc-arenites and well cemented, hard and compact limestone underlie the islands.
3	Recharge Worthy Area of the State	26.21 Sq. Km
4	Assessment Unit (AU) Type / Number	Block / 5 Numbers
5	Average area of Assessment Unit	5.24 Sq. Km

Findings

	Attribute	GWRA-2017	GWRA-2020	GWRA-2022	GWRA-2023	GWRA-2024
1	Total Annual Ground Water Recharge (in bcm)	0.01	0.01	0.01	0.01	0.01
2	Annual Extractable Ground Water Resources (in bcm)	0.004	0.005	0.01	0.005	0.01
3	Annual Ground Water Extraction (in bcm)	0.002	0.003	0.003	0.003	0.003
4	Stage of Ground Water Extraction (in %)	65.99	58.47	61.6	61.72	61.32

bcm: Biliion Cubic Meters



CATEGORIZATION MAP OF LAKSHADWEEP ISLAND