

## State Profile Ground Water Scenario of Kerala

Area (Sq.km)	38,863
Rainfall (mm)	3073
Total Districts / Blocks	14 districts / 152 Blocks

### Hydrogeology

Physiographically, the state can be divided into three zones namely the Coastal plains, the Midlands and the Hill ranges. Major portion of the State is underlain by the crystalline rocks of Archaean age. Sedimentary formations of Eocene to Recent overlie these crystalline rocks along the coastal belt. The tubewells tapping the aquifers in crystalline rocks yield between 6-10 m<sup>3</sup>/hr. The midland area is capped by laterites where the yield of tube well varies from 10-15 m<sup>3</sup>/hr. In the coastal area, where Tertiary formations possess promising aquifers, the tube wells yield 12-15 m<sup>3</sup>/hr under free flow conditions.

<b>Dynamic Ground Water Resources</b>	
Annual Replenishable Ground water Resource	6.69 BCM
Net Annual Ground Water Availability	6.07 BCM
Annual Ground Water Draft	2.84 BCM
Stage of Ground Water Development	47 %
<b>Ground Water Development &amp; Management</b>	
Over Exploited	1 Blocks
Critical	2 Blocks
Semi- critical	23 Blocks
Ground Water User Maps	14 districts
Artificial Recharge to Ground Water (AR)	<ul style="list-style-type: none"> <li>▪ Area identified for AR: 4650 sq km</li> <li>▪ Quantity of Surface Water to be Recharged: 1078 MCM</li> <li>▪ Feasible AR structures: 4312 check dams, 7181 sub surface dykes, 10780 gully plugs, 10780 nalah bunds, RTRWH (0.7 lakh houses) , run off water harvesting (1200 structures)</li> </ul> <p>AR schemes completed before VIII Plan: 3 AR schemes completed during VIII Plan: 5 AR schemes completed during IX Plan: 13 AR schemes completed during XI Plan: 6</p>
<b>Ground Water Quality Problems</b>	
<b>Contaminants</b>	<b>Districts affected (in part)</b>
<b>Salinity</b> (EC > 3000 µS/cm at 25 ° C)	Palakkad
<b>Fluoride</b> (>1.5 mg/l)	Palakkad
<b>Iron</b> (>1.0 mg/l)	Alappuzha, Ernakulam, Idukki, Kannur, Kasaragod, Kollam, Kottayam, Kozhikode, Malappuram, Palakkad, Pathanamthitta, Thiruvananthapuram, Thrissur, Wayanad
<b>Nitrate</b> (>45 mg/l)	Alappuzha, Idukki, Kollam, Kottayam, Kozhikode, Malappuram, Palakkad, Pathanamthitta, Thiruvananthapuram, Thrissur, Wayanad

**Enactment of Ground Water Bill to regulate and control the development of ground water:**

The “Kerala Ground Water (Control and Regulation) Act, 1997” has been enacted.

**Inclusion of Roof Top Rain Water Harvesting (RTRWH) in building by laws:**

Roof top RWH has become mandatory as per Kerala Municipality Building (Amendment) Rules, 2004 for all new buildings.

**Central Ground Water Authority**

	NIL
Areas Notified for Regulation of ground water development	
Mass Awareness Programme (as on 30.11.2016)	26
Water Management Training Programme (as on 30.11.2010)	22
Training Programme (Tier II)	13
Training Programme(Tier III)	10