

State Profile

Ground Water Scenario of Tamil Nadu

Area (Sq.km)	1,30,058
Rainfall (mm)	995
Total Districts / Blocks	32 Districts

Hydrogeology

Nearly 73% of the total area of the State is occupied by a variety of hard & fissured crystalline rocks like charnockite, gneisses and granites. The depth of open wells varies from 6 to 30mbgl. While the depth of borewells generally varies from 30-100m. The sedimentary formations consist of sand stones, limestones and shales whereas Quaternary sediments in the State represented by Older alluvium and Recent alluvium and coastal sands. In the Cauvery delta of Thanjavur District, the artesian pressure head ranges between 4.5 m to 17 magl with free flow up to 270 m³/hr. The yield of wells in the alluvium varies from 27 to 212 m³/hr. The yield of wells in the fissured formations varies from 7 to 35 m³/hr.

Dynamic Ground Water Resources (2011)	
Annual Replenishable Ground water Resource	21.53 BCM
Net Annual Ground Water Availability	19.38 BCM
Annual Ground Water Draft	14.93 BCM
Stage of Ground Water Development	77 %

Ground Water Development & Management	
Over Exploited	374 Blocks
Critical	48 Blocks
Semi- critical	235 Blocks

Artificial Recharge to Ground Water (AR)	<ul style="list-style-type: none"> ▪ Area identified for AR: 68839 sq km ▪ Volume of water to be harnessed: 712.30 MCM ▪ Feasible AR structures: <ul style="list-style-type: none"> ❖ Percolation tank- 5388 ❖ Check dam/NB- 16163 ❖ Recharge Shaft- 154578 ❖ Recharge tube well- 743 ❖ RT(KM)- 539 ❖ Farm pond/Recharge pond-16163
--	---

Ground Water Quality Problems

Contaminants	Districts affected (in part)
Salinity (EC > 3000 μ S/cm at 25 ° C)	Arriyalur, Chennai, Coimbatore, Cuddalore, Dharmapuri, Dindigul, Kancheepuram, Karur, Nagapattinam, Namakkal, Perambalur, Pudukkottai, Ramnathapuram, Salem, Sivaganga, Thanjavur, Theni, Tiruppur, Thiruvallur, Tirunelveli, Trichchirappalli, Tuticorin, Vellore, Villupuram, Virudhunagar.
Fluoride (>1.5 mg/l)	Coimbatore, Dharmapuri, Krishnagiri, Namakkal, Kancheepuram, Pudukotai, Ramanathanpuram, Salem, Sivagangai, Thiruvannamalai, Tiruchirapally, Tiruppur, Vellore, Virudhunagar
Iron (>1.0 mg/l)	Namakkal, Salem
Nitrate (>45 mg/l)	Ariyalur, Chennai, Coimbatore, Cuddalore, Dharmapuri, Dindigul, Erode, Kancheepuram, Kanyakumari, Karur, Madurai, Namakkal, Nilgiris, Perambalur, Pudukotai, Ramanathanpuram, Salem, Sivagangai, Theni, Tiruppur, Thiruvannamalai, Thanjavur, Tirunelveli, Thiruvallur, Trichy, Tuticorin, Vellore, Villupuram, Virudhunagar
Heavy metals: Lead (above 0.01 mg/l)	Lead : Dindigul, Tiruvallur, Kancheepuram Cadmium : Tiruvallur

<p>Cadmium (above 0.003 mg/l) Chromium (above 0.05 mg/l)</p>	<p>Chromium: Cuddalore, Dindigul, Erode, Kanchipuram, Tiruvallur</p>
---	---

Central Ground Water Authority

<p>Areas Notified for Regulation of ground water development</p>	<ul style="list-style-type: none"> ▪ Pollachi_S Block of Coimbatore District ▪ Morappur Block of District Dharmapuri ▪ Pappireddipatti Block of District Dharmapuri ▪ Usilampatti Block of District Madurai ▪ Kuttalam Block of District Nagapattinam ▪ Rasipuram Block of District Namakkal ▪ Attur-S Block of District Salem ▪ Gangavalli Block of District Salem ▪ Panamaruthupatti Block of District Salem ▪ Talaivasal Block of District Salem ▪ Veerapandi Block of Salem ▪ Chengam Block of District Tiruvannamalai ▪ Valangaiman Block of District Tiruvarur ▪ Udangudi Block of District Tuticorin ▪ Gudiyatham Block of District Vellore ▪ Jolarpet Block District of Vellore ▪ Pernampet Block of District Vellore ▪ Tiruppathur Block of District Vellore
--	---