State Profile

Ground Water Scenario of Jammu & Kashmir

Area (Sq.km)	2,22,236
Rainfall (mm)	998
Total Districts / Blocks	14 districts / 123 Blocks

Hydrogeology

The occurrence of ground water in the State is primarily confined to five alluvial regions namely (I) Piedmont deposits of outer plain of Jammu, (ii) Dune belt in the outer Himalayas, (iii) Isolated valley fill deposits in lesser Himalayas, (iv) Fluvio-lacustrine deposits in Kashmir valley and Moraines and Fluvio-glacial deposits of Ladakh. The piedmonts can be further divided into Kandi and Sirowal belts. Ground water, except Kandi area where deep water table conditions occur, is both under phreatic and confined conditions. Ground water potential in the Dune belt is limited and yield of wells, 80 to 130 m deep is 3-6 m3/hr. In isolated valley fills, the yield from confined aquifer is about 3 m3/hr. from well of 65 m depth. Dug wells in Kashmir valley have limited yield whereas deep tube wells yield between 17-216 m3/hr. Ground water occur as perched water table and gives rise to spring or unconfined conditions in Moraines and fluvio-glacial deposits. In these areas, yield of tube well varies from 36-54 m3/hr. The ground water in hard rock of Jammu region is confined to weathered residuum, where the tube wells go dry during summer seasons. The quality of ground water is generally potable.

Dynamic Ground Water Resources (2011)	
Annual Replenishable Ground water Resource	4.25 BCM
Net Annual Ground Water Availability	3.83 BCM
Annual Ground Water Draft	0.81 BCM
Stage of Ground Water Development	21 %
Ground Water Development & Management	
Over Exploited	NIL
Critical	NIL
Semi- critical	NIL
Ground Water User Maps	14 districts
Artificial Recharge to Ground Water (AR)	▪ Area identified for AR: 5000 sq. km. ▪ Volume of water to be harnessed: 1688 MCM ▪ Volume of water to be harnessed through RTRWH:12.00 MCM ▪ Feasible AR structures: ❖ Check dam- 1000 ❖ Pond- 688 ❖ RTRWH(H)- 95000 ❖ RTRWH(G & I)- 5000

Ground Water Quality Problems	
Contaminants	**Districts affected (in part)**
Fluoride (>1.5 mg/l)	Rajaori, Udhampur
Iron (>1.0 mg/l)	Baramulla, Budgam, Kathua, Kupwara, Pulwama, Srinagar
Nitrate (>45 mg/l)	Jammu, Kathua, Anantnag, Kupwara
Heavy metals: **Lead (above 0.01 mg/l)** **Cadmium (above 0.003 mg/l)**	**Lead**: Jammu (Gangyal), Bari Brahma, Kathua **Cadmium**: Kathua

Central Ground Water Authority

Areas Notified for Regulation of ground water development	NIL