

State Profile
Ground Water Scenario of Uttarakhand

Area (Sq.km)	53,484
Physiography	Ganga Plain, Siwalik Hills, Lesser Himalayas, Central Himalayas
Drainage	The State is drained by major perennial rivers like Ganga, Yamuna, Ramganga, Sarda and Kali and their tributaries.
Rainfall (mm)	1523
Total Districts / Tehsils	13 Districts

Hydrogeology

The predominantly hilly State of Uttarakhand has a varied hydrogeological setup and can be divided broadly into two distinct hydrogeological regimes viz. the Gangetic alluvial plain and the Himalayan mountain belt. The former is covered with a vast expanse of alluvium and unconsolidated sedimentary material of varying size fractions (ranging from boulder to clay) and is a promising zone for ground water development. The latter zone, being predominantly hilly, offers much less potential for large scale development of ground water. Ground water in the hilly region occurs mostly in fissures/fractures and emerges as springs. The springs are amenable to small scale development of ground water resources in the State. The yield of tube wells in Siwalik formation ranges from 50.4 m³/hr to 79.2 m³/hr, in Bhabar formations yield is upto 332.4 m³/hr. In Tarai belt yield of tubewell ranges 36m³/hr to 144 m³/hr and in Indo-Gangetic plain yield varies from 90 m³/hr to 198 m³/hr.

Dynamic Ground Water Resources (2011)	
Annual Replenishable Ground water Resource	2.17 BCM
Net Annual Ground Water Availability	2.07 BCM
Annual Ground Water Draft	1.05 BCM
Stage of Ground Water Development	51 %
Ground Water Development & Management	
Over Exploited	NIL
Critical	2 Blocks
Semi- critical	28 Blocks
Artificial Recharge to Ground Water (AR)	<ul style="list-style-type: none"> ▪ Areas identified for AR: 13542 sq km ▪ Volume of water to be harnessed: 6578 MCM ▪ Volume of water to harnessed through RTRWH: 13.67 MCM ▪ Feasible AR structures: <ul style="list-style-type: none"> ❖ Percolation tank- 450 ❖ Check Dams- 2300 ❖ Recharge shaft- 150 ❖ RTRWH(H)- 47500 ❖ RTRWH(H)- 750
Ground Water Quality Problems	
Contaminants	Districts affected (in part)
Nitrate (>45 mg/l)	Dehradun, Hardwar, Udham Singh Nagar
Iron (>1.0 mg/l)	Dehradun, Hardwar, Udham Singh Nagar

Central Ground Water Authority

Areas Notified for Regulation of ground water development	NIL
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