

State Profile

Ground Water Scenario of Uttar Pradesh

Area (Sq.km)	2,40,928
Rainfall (mm)	1279
Total Districts / Blocks	70 Districts

Hydrogeology

Hydrogeologically, the States can be divided into Five units namely (1) Bhabar (2) Tarai (3) Central Ganga plains (4) Marginal alluvial plains and (5) Southern Peninsular zone. The first one is in the extreme north followed successively by the rest southwardly. The yield of tubewells tapping Bhabar and Tarai zones ranges between 100-300 m³/hr and 100-200 m³/hr, respectively. The water level is deep in Bhabar where as in Tarai auto flow conditions are noticed with piezometric head of 6-9 magl. The Central Ganga plain is characterized by low relief and numerous alluvial features. There are four major aquifers in the depth range of 700 mbgl. The yield of these tubewells ranges from 90 to 200 m³/hr. The thickness of sediments in Marginal alluvium is 50-300 m and yield of tubewells is between 35 to 70 m³/hr. The yield prospects of Vindhyan & crystalline rocks in the southern peninsular region are limited.

Dynamic Ground Water Resources (2011)	
Annual Replenishable Ground water Resource	77.19 BCM
Net Annual Ground Water Availability	71.66 BCM
Annual Ground Water Draft	52.78 BCM
Stage of Ground Water Development	74 %
Ground Water Development & Management	
Over Exploited	111 Blocks
Critical	68 Blocks
Semi- critical	82 Blocks
Artificial Recharge to Ground Water (AR)	<ul style="list-style-type: none"> ▪ Area identified for AR: 110783 sq km ▪ Volume of water to be harnessed: 5185 MCM ▪ Volume of water to be harnessed through RTRWH: 221.18 MCM ▪ Feasible AR structures: <ul style="list-style-type: none"> ❖ Percolation tank- 3022 ❖ NB/CD/CP- 66285 ❖ RS/DW/TW- 39638 ❖ RTRWH (H)- 1140000 ❖ RTRWH (G& I)- 60000
Ground Water Quality Problems	
Contaminants	Districts affected (in part)
Salinity (EC > 3000 μ S/cm at 25 ° C)	Agra, Aligarh, Firozabad, Hamirpur, Kashganj, Kanpur Nagar, Mathura, Rae Bareli, Unnao
Fluoride (>1.5 mg/l)	Agra, Aligarh, Etah, Kashiram Nagar, Firozabad, Jaunpur, Mahamaya Nagar, Mainpuri, Mathura, Mau, Sonbhadra, Varanasi and Unnao
Iron (>1.0 mg/l)	Azamgarh, Ballia, Balrampur, Etawah, Fatehpur, Gazipur, Gonda, Hardoi, Kanpur Dehat, Kanpur Nagar, Lakhimpur, Lalitpur, Mau, Siddartnagar, Unnao
Nitrate (>45 mg/l)	Agra, Aligarh, Allahabad, Ambedkar Nagar, Auraiya, Azamgarh, Badaun, Baghpat, Balrampur, Banda, Barabanki, Bareilly, Basti, Bijnor, Bulandsahr, Chitrakoot, Etah, Etawah, Fatehpur, Firozabad, GB Nagar, Ghaziabad, Ghazipur, Hamirpur, Hardoi, Hathras, Jaunpur, Jhansi, Kannauj, Kanpur Dehat, Lakhimpur, Mahoba, Mathura, Meerut, Mau, Moradabad, Muzaffarnagar, Mirzapur, Raebarelli, Rampur, SantRavidas Nagar, Shajahanpur, Sitapur, Sonbhadra, Sultanpur, Shravasti, Siddarth Nagar, Unnao
Arsenic (above 0.05 mg/l)	Bahraich, Balia, Balrampur, Bareilly, Basti, Bijnor, Chandauli, Ghazipur, Gonda, Gorakhpur, Lakhimpur Kheri, Meerut, Mirzapur, Muradabad, Rai Bareilly, SantKabir Nagar, Shajahanpur, Siddarthnagar, SantRavidasNagar, Unnao
Heavy metals: Lead (above 0.01 mg/l) Cadmium (above 0.003 mg/l) Chromium (above 0.05 mg/l)	Lead: Muzzafar Nagar, Mathura, Moradabad, Allahabad, Bhadohi, Ghaziabad, Jaunpur, Kanpur, Raebareli, Sonbhadra Cadmium: Varanasi city, Unnao Chromium : Kashi Vidyapeeth, Varanasi, Kanpur, Unnao

Central Ground Water Authority

Areas Notified for Regulation of ground water development	■ Municipal Corporation of Ghaziabad, Ghaziabad District
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