

State Profile

Ground Water Scenario of Gujarat

Area (Sq.km)	1,96,024
Rainfall (mm)	1243
Total Districts / Talukas	33 Districts

Hydrogeology

The diverse terrain conditions have given rise to different ground water situations in the State. The rock formations ranging in age from Archaean to recent include gneisses, schists, phyllites, intrusive, medium to coarse grained sandstones, basalts and recent alluvium. The high relief area in the eastern and north eastern part occupied by Archaean and Deccan Trap have steep gradient allowing high run-off and therefore have little groundwater potential. The yield of wells in these formations range from 5-10m³/hr. The yield in sandstones varies from 50 to 170 m³/hr. The yield of wells tapping Quaternary alluvium in Cambay basin ranges between 75-150m³/hr. There are five major aquifers in alluvial sediments out of which the top one has dried up due to over exploitation.

Dynamic Ground Water Resources (2011)	
Annual Replenishable Ground water Resource	18.57 BCM
Net Annual Ground Water Availability	17.59 BCM
Annual Ground Water Draft	11.86 BCM
Stage of Ground Water Development	67%
Ground Water Development & Management	
Over Exploited	24 Talukas
Critical	5 Talukas
Semi- critical	13 Talukas
Artificial Recharge to Ground Water (AR)	<ul style="list-style-type: none"> ▪ Area identified for AR: 19407 sq. km. ▪ Volume of water to be harnessed: 1483.54 MCM ▪ Volume of water to be harnessed through RTRWH: 110.40 MCM ▪ Feasible AR structures: <ul style="list-style-type: none"> ❖ Percolation tanks- 1800 ❖ Check dam-16975 ❖ RTRWH(H)-475000 ❖ RTRWH(G&I)- 25000
Ground Water Quality Problems	
Contaminants	Districts affected (in part)
Salinity (EC > 3000 µS/cm at 25 ° C)	Ahmedabad, Amreli, Anand, Banaskantha, Bharuch, Bhavnagar, Dahod, Jamnagar, Junagadh, Kachchh, Kheda, Mahesana, Navsari, Patan, Porbandar, Rajkot, Sabarkantha, Surat, Surendranagar, Vadodara, Narmada
Fluoride (>1.5 mg/l)	Ahmedabad, Amreli, Anand, Banaskantha, Bharuch, Bhavnagar, Dahod, Junagadh, Kachchh, Mehesana, Narmada, Panchmahals, Patan, Porbandar, Rajkot, Sabarkantha, Surat, Surendranagar, Vadodara
Iron (>1.0 mg/l)	Ahmedabad, Banaskantha, Bhavnagar, Kachchh, Mehesana, Narmada,
Nitrate (>45 mg/l)	Ahmedabad, Amreli, Anand, Banaskantha, Bharuch, Bhavnagar, Dahod, Jamnagar,

Junagadh, Kachchh, Kheda, Mehesana, Narmada, Navsari, Panchmahals, Patan, Porbandar, Rajkot, Sabarkantha, Surat, Surendranagar, Vadodara
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Central Ground Water Authority

Areas Notified for Regulation of ground water development	<ul style="list-style-type: none">▪ Gandhinagar Taluka, District Gandhinagar▪ Kalol Taluk, District Gandhinagar▪ Mansa Taluk, District Gandhinagar▪ Mahesana Taluk, District Gandhinagar
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