**Gujrat**

Gujrat comprises of five Agro Ecological Regions (AER) 2,4,5,6 and 19.

**Agro-Eco Region 2:** AER 2 in Gujrat comprises of Banaskantha, Kachchh, Jamnagar, Patan, Porbandar, Rajkot and Surendranagar districts of Western Plain. Kachchh and part of Kathia war Peninsula under Agro Ecological Sub Regions (AESR) 2.2, 2.3 and 2.4.

**Agro-Eco Region 4:** AER 4 in Gujrat comprises of Ahmadabad, Gandhinagar, Khera, Mahesana, Sabar Kantha and Surendranagar districts of Northern Plain and Central Highlands including Aravallis under Agro Ecological Sub Regions (AESR) 4.2.

**Agro-Eco Region 5:** AER 5 in Gujrat comprises of Anand, Bharuch, Bhavnagar, Dahod, Junagarh, Khera, Narmada, Panchhmahal, Rajkot, Surat, Tapi and Vadodra districts of Gujarat Plains & Kathiawar Peninsula under Agro Ecological Sub Regions (AESR) 5.1,5.2 and 5.3.

**Agro-Eco Region 6:** AER 6 in Gujrat comprises of Dangs district of Deccan Plateau under Agro Ecological Sub Regions (AESR) 6.2.

**Major NRM issues :**

**AESR 2.2 :** The region hot hyper-arid ESR with deep loamy saline and alkali soils, low AWC and LGP <60 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Kachchh | Mining /Industrial waste & Coastal Salinity | Soil deficient in N & Fe | Saline, GW Contaminated with F, NO3, As & Fe | Moderately prone to flood, drought & cyclone |

**AESR 2.3 :** The region hot moist subhumid to humid transitional ESR with deep, loamy to clayey Red and Lateritic soils, low to medium AWC and LGP 210-270 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Banas kantha | **-** | Low in OC & Soil deficient in P & N | Saline, GW Contaminated with F, NO3 & Fe | Moderately prone to flood & drought |
| Patan | Salt affected soils | Soil deficient in N, Zn, B & S | Saline, GW Contaminated with F, NO3 &As | Extreme Drought |

**AESR 2.4 :** The region hot moist subhumid to humid transitional ESR with deep, loamy to clayey Red and Lateritic soils, low to medium AWC and LGP 210-270 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Jamnagar | Mining /Industrial waste | Soil deficient in N & K | Saline, GW Contaminated with F & NO3 | Moderately prone to flood, drought & cyclone |
| Kachchh | Mining /Industrial waste & Coastal Salinity | Soil deficient in N | Saline, GW Contaminated with F, NO3, As & Fe | Extreme Drought |
| Rajkot | Coastal Salinity | Soil deficient in N | Saline, GW Contaminated with F, NO3 & As | Highly prone to flood, drought & cyclone |
| Surendranagar | Mining /Industrial waste & Coastal Salinity | Soil deficient in N | Saline, GW Contaminated with F, NO3 & As | Highly prone to drought & flood |
| Porbandar | - | Soil deficient in N | Saline, GW Contaminated with F & NO3 | - |

**AESR 4.2 :** The region hot dry semiarid ESR with deep loamy Gray Brown and alluvium-derived soils, medium AWC and LGP 90-120 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Ahmadabad | **-** | Low in OC & Soil deficient in N | Saline, GW Contaminated with F, NO3 & Fe | Highly prone to drought & flood |
| Gandhinagar | **-** | Low in OC & Soil deficient in N | GW Contaminated with F& As | - |
| Khera | **-** | Low in OC & Soil deficient in N | Saline, GW Contaminated with F & NO3 | - |
| Mahesana | **-** | Low in OC & Soil deficient in N | Saline, GW Contaminated with F, NO3, As & Fe | Moderately prone to flood & drought |
| Sabar Kantha | **-** | Low in OC & Soil deficient in N | Saline, GW Contaminated with F & NO3 | - |
| Surendranagar | Mining /Industrial waste | Low in OC & Soil deficient in N | Saline, GW Contaminated with F, NO3 & As | Highly prone to drought & flood |

**AESR 5.1 :** The region dry semiarid ESR with shallow and medium loamy to clayey black soils (deep black soils as inclusion) medium AWC and LGP 120-150 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Amreli | Mining /Industrial waste & Coastal Salinity | Soil deficient in N | Saline, GW Contaminated with F, NO3, As & Fe | Extreme Drought |
| Bhavnagar | Coastal Salinity | Soil deficient in N | Saline, GW Contaminated with F, NO3, As & Fe | Extreme Drought |
| Junagarh | Coastal Salinity | Soil deficient in N | Saline, GW Contaminated with F & NO3 | **-** |
| Porbandar | - | Soil deficient in N | Saline, GW Contaminated with F, NO3, As & Fe | **-** |
| Rajkot | Coastal Salinity | Soil deficient in N | Saline, GW Contaminated with F & NO3 | Highly prone to flood, drought & cyclone |

**AESR 5.2:** The region hot moist subhumid to humid transitional ESR with deep, loamy to clayey Red and Lateritic soils, low to medium AWC and LGP 210-270 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Anand | **-** | Soil deficient in N | Saline, GW Contaminated with F, NO3 & As | Moderately prone to flood |
| Bharuch | Mining /Industrial waste | Soil deficient in N | Saline, GW Contaminated with F, NO3, As & Fe | Extreme Drought |
| Dahod | **-** | Soil deficient in N | Saline GW Contaminated with F, NO3 & As | **-** |
| Khera | **-** | Soil deficient in N | Saline, GW Contaminated with F & NO3 | **-** |
| Narmada | **-** | Low in OC & Soil deficient in N | Saline, GW Contaminated with NO3 & Fe | Extreme Drought |
| Panchmahal | **-** | Soil deficient in N | GW Contaminated with F & NO3 | **-** |
| Surat | Mining /Industrial waste | **-** | Saline, GW Contaminated with F & NO3 | Severe Drought |
| Tapi | **-** | Soil deficient in N | - | **-** |
| Vadodara | **-** | Low in OC & Soil deficient in N | Saline, GW Contaminated with F, NO3 & As | Moderate Drought |

**AESR 5.3 :** The region hot moist semi-arid ESR with medium and deep, clayey Black soils (shallow black soils as inclusions), medium to high AWC and LGP 120-150 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Bhavnagar | Coastal Salinity | Soil deficient in N | Saline, GW Contaminated with F, NO3, As & Fe | Extreme Drought |
| Junagarh | Coastal Salinity | Soil deficient in N | Saline, GW Contaminated with F & NO3 | - |

**AESR 6.2 :** The hot moist semi-arid ESR with shallow and medium loamy to clayey Black soils (medium land deep clayey Black soils as inclusion), medium to high AWC and LGP 120-150 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Dangs | Exclusively water erosion | **-** | GW Contaminated with NO3 | **-** |