**Bihar**

Bihar comprises of two Agro Ecological Regions (AER) namely 9 and 13.

**Agro-Eco Region 9 :** AER 9 Bihar comprises of Arwal, Aurangabad, Bhabua, Bhojpur, Buxar, Gaya, Jahanabad, Nalanda, Nawada, Patna, Rohtas and Sheikhpura districts of Northern Plain under Agro Ecological Sub Regions (AESR) 9.2.

**Agro-Eco Region 13 :** AER 13 in Bihar comprises of Arariya, Banka, Begusarai, Bhagalpur,

Drabhanga, Gopalganj, Jamui, Katihar, Khagaria, KishanganJ, Lakhisarai, Madhepura, Madubani, Munger, Muzaffarpur , Pachim Champaran, Purba Champaran, Purnia, Saharsa, Samastipur, Saran, Sheohar, Sitamarhi, Siwan, Supaul and Vaishali districts of Eastern Plain under Agro Ecological Sub Regions (AESR) 13.1.

**AESR 9.2 :** The region is hot dry sub humid ESR with deep loamy alluvium-derived soils, medium to high AWC and LGP 150-180 days in a year.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Arwal | **-** | **-** | - | **-** |
| Aurangabad | Waterlogged | **-** | GW Contaminated with F, NO3, Fe | **-** |
| Bhabua | Water erosion under open forest | **-** | GW Contaminated with F, NO3 | **-** |
| Bhojpur | **-** | Soil deficient in N | GW Contaminated with NO3, As, Fe | **-** |
| Buxar | Waterlogged | Soil deficient in P | GW Contaminated with As, Fe | **-** |
| Gaya | **-** | **-** | GW Contaminated with F | **-** |
| Jahanabad | **-** | **-** | GW Contaminated with F | **-** |
| Nalanda | **-** | **-** | GW Contaminated with F | **-** |
| Nawada | **-** | **-** | GW Contaminated with F | **--** |
| Patna | Waterlogged | **-** | GW Contaminated with NO3 | **-** |
| Rohtas | **-** | **-** | GW Contaminated with F, NO3 | **-** |
| Sheikhpura | **-** | **-** | GW Contaminated with F | **-** |

**AESR 13.1:**The region is hot dry to moist subhumid transitional ESR with deep, loamy alluvium-derived soils, low to medium AWC and LGP 180-210 days in a year.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Arariya | **-** | **-** | - | **-** |
| Banka | Waterlogged | Low in OC & Soil is deficient in N | GW Contaminated with F, NO3 | **-** |
| Begusarai | Waterlogged | Soil is deficient in N | GW Contaminated with As, Fe | **-** |
| Bhagalpur | - | **-** | GW Contaminated with F, NO3, As | **-** |
| Drabhanga | Waterlogged | Soil is deficient in N | GW Contaminated with NO3, As | **-** |
| Gopalganj | Waterlogged | Low in OC & Soil is deficient in N | GW Contaminated with Fe | **-** |
| Jamui | - | **-** | GW Contaminated with F | **-** |
| Katihar | Waterlogged | Soil is deficient in N | GW Contaminated with As, Fe | **-** |
| Khagaria | Waterlogged | **-** | GW Contaminated with As, Fe | **-** |
| Kishanganj | - | Soil is deficient in N | GW Contaminated with As, Fe | **-** |
| Lakhisarai | - | **-** | GW Contaminated with F, As, Fe | **-** |
| Madhepura | Waterlogged | Low in OC, Soil is deficient in N, P & K | GW Contaminated with As, Fe | Extreme Drought |
| Madubani | Waterlogged | Soil is deficient in N | **-** | Extreme Drought |
| Munger | Waterlogged | **-** | GW Contaminated with F, As, Fe | **-** |
| Muzaffarpur | Waterlogged | Soil is deficient in N | GW Contaminated with As, Fe | Severe Drought |
| Pachim Champaran | - | Low in OC, Soil is deficient in N & K | GW Contaminated with As, Fe | Severe Drought |
| Purba champaran | Waterlogged | Soil is deficient in N | GW Contaminated with As, Fe | Severe Drought |
| Purnia | Waterlogged | Soil is deficient in N | GW Contaminated with As | **-** |
| Saharsa | Waterlogged | **-** | GW Contaminated with As, Fe | **-** |
| Samastipur | Waterlogged | Soil is deficient in N | GW Contaminated with As, Fe | **-** |
| Saran | Waterlogged | Soil is deficient in N | GW Contaminated with As | **-** |
| Sheohar | **-** | Soil is deficient in K | **-** | **-** |
| Sitamarhi | **-** | **-** | - | **-** |
| Siwan | Waterlogged | Soil is deficient in N & K | GW Contaminated with NO3, As, Fe | **-** |
| Supaul | **-** | Low in OC & Soil is deficient in N | GW Contaminated with Fe | **-** |
| Vaishali | Waterlogged | Soil is deficient in N & P | GW Contaminated with As | **-** |