**Haryana**

Haryana comprises three of Agro Ecological Region (AER) 2,4 and 9.

**Agro-Eco Region 2 :** AER 2 in Haryana comprises of Bhiwani, Fatehabad, Hisar, Mahendergarh and Sirsa districts of Eastern Plateau under Agro Ecological Sub Region (AESR) 2.3.

**Agro-Eco Region 4 :** AER 4 in Haryana comprises of districts Gurgaon, Jhajjar, Jind, Kaithal, Karnal, Kurukshetra, Panipat, Palwal, Rewari, Rohtak, Sonipat, Faridabad and Mewat of Northern Plain and Central Highlands including Aravallis under Agro Ecological Sub Region (AESR) 4.1.

**Agro-Eco Region 9:** AER 9 in Haryana comprises of Ambala, Panchkula and Yamunanagar districts of Northern Plain under Agro Ecological Sub Region (AESR) 9.1.

**Major NRM issues :**

**AESR 2.3 :** The region warm hot typic- arid ESR with deep, loamy desert soils (inclusion of saline phase), low AWC and LGP 60-90 days in a year.

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| **Districs** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Bhiwani | Waterlogged | Low in OC, Soil deficient in N, P, Zn & Fe | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals | Extreme Drought |
| Fatehabad | - | Low in OC, Soil deficient in N, P, K, S, Fe , B & Mn | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals | **-** |
| Hisar | Waterlogged | Low in OC, Soil deficient in N, P, K, Fe & Mn | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals | **-** |
| Mahendergarh | **-** | Low in OC, Soil deficient in N, P, S, Zn & Fe | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals | **-** |
| Sirsa | **-** | Low in OC, Soil deficient in N, P, B & Fe | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals | **-** |

**AESR 4.1 :** The region hot semi-arid ESR with deep loamy alluvium-derived soils (occasional saline and sodic phases), medium AWC and LGP 90-120 days in a year.

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| **Districs** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Faridabad | **-** | Low in OC, Soil deficient in N, K & P | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals |  |
| Gurgram | **-** | Low in OC, Soil deficient in N & P | Saline, GW Contaminated with F, NO3, Fe & heavy metals |  |
| Jhajjar | Waterlogged | Low in OC, Soil deficient in N & P | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals |  |
| Jind | **-** | Low in OC, Soil deficient in N & P | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals |  |
| Kaithal | **-** | Low in OC, Soil deficient in N & P | Saline, GW Contaminated with F, NO3, Fe & heavy metals |  |
| Karnal | **-** | Low in OC, Soil deficient in N & P | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals |  |
| Kurukshetra | **-** | Low in OC, Soil deficient in N & P | GW Contaminated with F, NO3 &Fe |  |
| Mewat | **-** | Low in OC, Soil deficient in N & P | Saline, GW Contaminated with F & NO3 |  |
| Palwal | **-** | Low in OC, Soil deficient in N & P | Saline, GW Contaminated with F, NO3 & As |  |
| Panipat | **-** | Low in OC, Soil deficient in N & P | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals |  |
| Rewari | **-** | Low in OC, Soil deficient in K & P | Saline, GW Contaminated with F, NO3 & heavy metals |  |
| Rohtak | **-** | Low in OC, Soil deficient in N & P | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals |  |
| Sonipat | **-** | Low in OC, Soil deficient in N & P | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals |  |

**AESR 9.1:** The region loamy to clayey alluvium-derived (inclusion of saline and sodic phases) soils, medium AWC and LGP 120-150 days in a year.

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| **Districs** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Ambala | **-** | Low in OC, Soil deficient in N, K & P | Saline, GW Contaminated with F, NO3, As, Fe & heavy metals | **-** |
| Panchkula | Exclusively water erosion | Low in OC, Soil deficient in N & P | GW Contaminated with F, NO3, As, Fe & heavy metals | **-** |
| Yamunanagar | Waterlogged | Low in OC, Soil deficient in N, K & P | GW Contaminated with F & NO3 | **-** |