**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.

**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.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districs** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Bhiwani | Waterlogged | Low in OC, Soil deficient in N & P |  |  |
| Fatehabad | - | Low in OC, Soil deficient in N, P & K |  |  |
| Hisar | Waterlogged | Low in OC, Soil deficient in N, P & K |  |  |
| Mahendergarh | **-** | Low in OC, Soil deficient in N & P |  |  |
| Sirsa | **-** | Low in OC, Soil deficient in N & P |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districs** | **Major technological Interventions** |
| Bhiwani |  |
| Fatehabad |  |
| Hisar |  |
| Mahendergarh |  |
| Sirsa |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districs** | **Relevant Developmental Schemes** |
| Bhiwani |  |
| Fatehabad |  |
| Hisar |  |
| Mahendergarh |  |
| Sirsa |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districs** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Bhiwani |  |  |
| Fatehabad |  |  |
| Hisar |  |  |
| Mahendergarh |  |  |
| Sirsa |  |  |

**Important Links :**

*District Soil nutrient status:*

*District Contingency Plan:*

*District Irrigation Plan:*

*District ground water status:*

*District Vulnerability status:*

***Relevant Research Institutes/SAUs/KVKs/STL for technical backstopping:***

|  |  |
| --- | --- |
| **Districs** |  |
| Bhiwani |  |
| Fatehabad |  |
| Hisar |  |
| Mahendergarh |  |
| Sirsa |  |

**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.

**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.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districs** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Gurgram | **-** | Low in OC, Soil deficient in N & P |  |  |
| Jhajjar | Waterlogged | Low in OC, Soil deficient in N & P |  |  |
| Jind | **-** | Low in OC, Soil deficient in N & P |  |  |
| Kaithal | **-** | Low in OC, Soil deficient in N & P |  |  |
| Karnal | **-** | Low in OC, Soil deficient in N & P |  |  |
| Kurukshetra | **-** | Low in OC, Soil deficient in N & P |  |  |
| Panipat | **-** | Low in OC, Soil deficient in N & P |  |  |
| Palwal | **-** | Low in OC, Soil deficient in N & P |  |  |
| Rewari | **-** | Low in OC, Soil deficient in K & P |  |  |
| Rohtak | **-** | Low in OC, Soil deficient in N & P |  |  |
| Sonipat | **-** | Low in OC, Soil deficient in N & P |  |  |
| Faridabad | **-** | Low in OC, Soil deficient in N, K & P |  |  |
| Mewat | **-** | Low in OC, Soil deficient in N & P |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districs** | **Major technological Interventions** |
| Gurgaon |  |
| Jhajjar |  |
| Jind |  |
| Kaithal |  |
| Karnal |  |
| Kurukshetra |  |
| Panipat |  |
| Palwal |  |
| Rewari |  |
| Rohtak |  |
| Sonipat |  |
| Faridabad |  |
| Mewat |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districs** | **Relevant Developmental Schemes** |
| Gurgaon |  |
| Jhajjar |  |
| Jind |  |
| Kaithal |  |
| Karnal |  |
| Kurukshetra |  |
| Panipat |  |
| Palwal |  |
| Rewari |  |
| Rohtak |  |
| Sonipat |  |
| Faridabad |  |
| Mewat |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districs** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Gurgaon |  |  |
| Jhajjar |  |  |
| Jind |  |  |
| Kaithal |  |  |
| Karnal |  |  |
| Kurukshetra |  |  |
| Panipat |  |  |
| Palwal |  |  |
| Rewari |  |  |
| Rohtak |  |  |
| Sonipat |  |  |
| Faridabad |  |  |
| Mewat |  |  |

**Important Links :**

*District Soil nutrient status:*

*District Contingency Plan:*

*District Irrigation Plan:*

*District ground water status:*

*District Vulnerability status:*

***Relevant Research Institutes/SAUs/KVKs/STL for technical backstopping:***

|  |  |
| --- | --- |
| **Districs** |  |
| Gurgaon |  |
| Jhajjar |  |
| Jind |  |
| Kaithal |  |
| Karnal |  |
| Kurukshetra |  |
| Panipat |  |
| Palwal |  |
| Rewari |  |
| Rohtak |  |
| Sonipat |  |
| Faridabad |  |
| Mewat |  |

**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.

**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.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districs** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Ambala | **-** | Low in OC, Soil deficient in N, K & P |  |  |
| Panchkula | Exclusively water erosion | Low in OC, Soil deficient in N & P |  |  |
| Yamunanagar | Waterlogged | Low in OC, Soil deficient in N, K & P |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districs** | **Major technological Interventions** |
| Ambala |  |
| Panchkula |  |
| Yamunanagar |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districs** | **Relevant Developmental Schemes** |
| Ambala |  |
| Panchkula |  |
| Yamunanagar |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districs** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Ambala |  |  |
| Panchkula |  |  |
| Yamunanagar |  |  |

**Important Links :**

*District Soil nutrient status:*

*District Contingency Plan:*

*District Irrigation Plan:*

*District ground water status:*

*District Vulnerability status:*

***Relevant Research Institutes/SAUs/KVKs/STL for technical backstopping:***

|  |  |
| --- | --- |
| **Districs** |  |
| Ambala |  |
| Panchkula |  |
| Yamunanagar |  |

**Himachal Pradesh**

Himachal Pradesh comprises of two Agro Ecological Regions (AER) namely 14.

**Agro-Eco Region 14 :**

AER 14 in Himachal Pradesh comprises of Bilaspur, Chamba,Hamirpur ,Kangra,Kinnaur, Kullu , Lahul&Spiti,Mandi,Shimla,Sirmaur,Solan and Una districts of Western Himalayas under Agro Ecological Sub Regions (AESR) 14.1,14.2 and 14.3.

**AESR 14.1 :** The region cold and warm by dry semi-arid/dry subhumid ESR with shallow to medium deep loamy Brown Forest and Podzolic soils, low to medium AWC and LGP 90-120 days in a year.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districs** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Chamba | **-** | **-** |  |  |
| Hamirpur | - | **-** |  |  |
| Kinnaur | **-** | Soil deficient in N |  |  |
| Kullu | **-** | Soil deficient in N |  |  |
| Lahul&Spiti | **-** | Soil deficient in N |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districs** | **Major technological Interventions** |
| Chamba |  |
| Hamirpur |  |
| Kinnaur |  |
| Kullu |  |
| Lahul&Spiti |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districs** | **Relevant Developmental Schemes** |
| Chamba |  |
| Hamirpur |  |
| Kinnaur |  |
| Kullu |  |
| Lahul&Spiti |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districs** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Chamba |  |  |
| Hamirpur |  |  |
| Kinnaur |  |  |
| Kullu |  |  |
| Lahul&Spiti |  |  |

**Important Links :**

*District Soil nutrient status:*

*District Contingency Plan:*

*District Irrigation Plan:*

*District ground water status:*

*District Vulnerability status*

***Relevant Research Institutes/SAUs/KVKs/STL for technical backstopping:***

|  |  |
| --- | --- |
| **Districs** |  |
| Chamba |  |
| Hamirpur |  |
| Kinnaur |  |
| Kullu |  |
| Lahul&Spiti |  |

**AESR 14.1 :** The region cold and warm by dry semi-arid/dry subhumid ESR with shallow to medium deep loamy Brown Forest and Podzolic soils, low to medium AWC and LGP 90-120 days in a year.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districs** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Chamba | **-** | **-** |  |  |
| Hamirpur | - | **-** |  |  |
| Kinnaur | **-** | **-** |  |  |
| Kullu | **-** | Soil deficient in N |  |  |
| Lahul&Spiti | **-** | Soil deficient in N |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districs** | **Major technological Interventions** |
| Chamba |  |
| Hamirpur |  |
| Kinnaur |  |
| Kullu |  |
| Lahul&Spiti |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districs** | **Relevant Developmental Schemes** |
| Chamba |  |
| Hamirpur |  |
| Kinnaur |  |
| Kullu |  |
| Lahul&Spiti |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districs** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Chamba |  |  |
| Hamirpur |  |  |
| Kinnaur |  |  |
| Kullu |  |  |
| Lahul&Spiti |  |  |

**Important Links :**

*District Soil nutrient status:*

*District Contingency Plan:*

*District Irrigation Plan:*

*District ground water status:*

*District Vulnerability status*

***Relevant Research Institutes/SAUs/KVKs/STL for technical backstopping:***

|  |  |
| --- | --- |
| **Districs** |  |
| Chamba |  |
| Hamirpur |  |
| Kinnaur |  |
| Kullu |  |
| Lahul&Spiti |  |

**AESR 14.2 :** The region warm moist to dry subhumid transitional ESR with medium to deep loamy to clayey Brown Forest and Podzolic soils, medium AWC and LGP 150-210 days in a year.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districs** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Bilaspur | **-** | **-** |  |  |
| Chamba | - | **-** |  |  |
| Hamirpur | **-** | **-** |  |  |
| Kullu | **-** | Soil deficient in N |  |  |
| Shimla | **-** | **-** |  |  |
| Sirmaur | **-** | Soil deficient in N |  |  |
| Solan | **-** | **-** |  |  |
| Una | Waterlogged | **-** |  |  |
| Lahul & Spiti | **-** | Soil deficient in N |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districs** | **Major technological Interventions** |
| Bilaspur |  |
| Chamba |  |
| Hamirpur |  |
| Kullu |  |
| Shimla |  |
| Sirmaur |  |
| Solan |  |
| Una |  |
| Lahul&Spiti |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districs** | **Relevant Developmental Schemes** |
| Bilaspur |  |
| Chamba |  |
| Hamirpur |  |
| Kullu |  |
| Shimla |  |
| Sirmaur |  |
| Solan |  |
| Una |  |
| Lahul&Spiti |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districs** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Bilaspur |  |  |
| Chamba |  |  |
| Hamirpur |  |  |
| Kullu |  |  |
| Shimla |  |  |
| Sirmaur |  |  |
| Solan |  |  |
| Una |  |  |
| Lahul&Spiti |  |  |

**Important Links :**

*District Soil nutrient status:*

*District Contingency Plan:*

*District Irrigation Plan:*

*District ground water status:*

*District Vulnerability status*

***Relevant Research Institutes/SAUs/KVKs/STL for technical backstopping:***

|  |  |
| --- | --- |
| **Districs** |  |
| Bilaspur |  |
| Chamba |  |
| Hamirpur |  |
| Kullu |  |
| Shimla |  |
| Sirmaur |  |
| Solan |  |
| Una |  |
| Lahul&Spiti |  |

**AESR 14.3 :** The region warm humid to perhumid transitional ESR with shallow to medium deep loamy brown forest and podzolic soils, low to medium AWC and LGP 270-300+ days in a year.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districs** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Hamirpur | **-** | **-** |  |  |
| Kangra | Waterlogged | **-** |  |  |
| Mandi | **-** | Soil deficient in N |  |  |
| Shimla | **-** | **-** |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districs** | **Major technological Interventions** |
| Hamirpur |  |
| Kangra |  |
| Mandi |  |
| Shimla |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districs** | **Relevant Developmental Schemes** |
| Hamirpur |  |
| Kangra |  |
| Mandi |  |
| Shimla |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districs** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Hamirpur |  |  |
| Kangra |  |  |
| Mandi |  |  |
| Shimla |  |  |

**Important Links :**

*District Soil nutrient status:*

*District Contingency Plan:*

*District Irrigation Plan:*

*District ground water status:*

*District Vulnerability status*

***Relevant Research Institutes/SAUs/KVKs/STL for technical backstopping:***

|  |  |
| --- | --- |
| **Districs** |  |
| Hamirpur |  |
| Kangra |  |
| Mandi |  |
| Shimla |  |