**Goa**

Goa comprises of one Agro Ecological Region (AER)19.

**Agro-Eco Region 19 :**

AER 19 in Goa comprises of North Goa, South Goa districts of Western Ghats & Coastal Plain under Agro Ecological Sub Regions (AESR) 19.2 and 19.3.

**AESR 19.2 :** 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.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| North Goa | Waterlogged | Soil deficient in N & P |  |  |
| South Goa | Waterlogged | Soil deficient in P |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| North Goa |  |
| South Goa |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| North Goa |  |
| South Goa |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| North Goa |  |  |
| South Goa |  |  |

**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:***

|  |  |
| --- | --- |
| **Districts** |  |
|  |  |
|  |  |

**AESR 19.3 :** The region hot humid to per humid transitional ESR with deep, clayey to loamy acidic coastal alluvium-derived soils, low AWC and LGP 240-270 daysin a year.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| North Goa | Waterlogged | Soil deficient in P |  |  |
| South Goa | Waterlogged | Soil deficient in P |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| North Goa |  |
| South Goa |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| North Goa |  |
| South Goa |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| North Goa |  |  |
| South Goa |  |  |

**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:***

|  |  |
| --- | --- |
| **Districts** |  |
|  |  |
|  |  |

**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, Jamnagar, Patna, Rajkot, Kachchh, Surendranagar, and Porbandar districts of Western Plain. Kachchh and part of Kathia war Peninsula under Agro Ecological Sub Regions (AESR) 2.2,2.3 and 2.4.

**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.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Kachchh | Mining /Industrial waste | Soil deficient in N |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Kachchh |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Kachchh |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Kachchh |  |  |

**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:***

|  |  |
| --- | --- |
| **Districts** |  |
| Kachchh |  |

**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.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Banaskantha | **-** | Low in OC & Soil deficient in P |  |  |
| Patna | Salt affected soils | Soil deficient in N |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Banaskantha |  |
| Patna |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Banaskantha |  |
| Patna |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Banaskantha |  |  |
| Patna |  |  |

**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:***

|  |  |
| --- | --- |
| **Districts** |  |
| Banaskantha |  |
| Patna |  |

**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.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Jamnagar | Mining /Industrial waste | Soil deficient in N & K |  |  |
| Rajkot | Coastal Salinity | Soil deficient in N |  |  |
| Surendranagar | Mining /Industrial waste & Coastal Salinity | Soil deficient in N |  |  |
| Porbandar | - | Soil deficient in N |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Jamnagar |  |
| Rajkot |  |
| Surendranagar |  |
| Porbandar |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Jamnagar |  |
| Rajkot |  |
| Surendranagar |  |
| Porbandar |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Jamnagar |  |  |
| Rajkot |  |  |
| Surendranagar |  |  |
| Porbandar |  |  |

**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:***

|  |  |
| --- | --- |
| **Districts** |  |
| Jamnagar |  |
| Rajkot |  |
| Surendranagar |  |
| Porbandar |  |

**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.

**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.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Ahmadabad | **-** | Low in OC & Soil deficient in N |  |  |
| Gandhinagar | **-** | Low in OC & Soil deficient in N |  |  |
| Khera | **-** | Low in OC & Soil deficient in N |  |  |
| Mahesana | **-** | Low in OC & Soil deficient in N |  |  |
| Sabar Kantha | **-** | Low in OC & Soil deficient in N |  |  |
| Surendranagar | Mining /Industrial waste | Low in OC & Soil deficient in N |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Ahmadabad |  |
| Gandhinagar |  |
| Khera |  |
| Mahesana |  |
| Sabar Kantha |  |
| Surendranagar |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Ahmadabad |  |
| Gandhinagar |  |
| Khera |  |
| Mahesana |  |
| Sabar Kantha |  |
| Surendranagar |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Ahmadabad |  |  |
| Gandhinagar |  |  |
| Khera |  |  |
| Mahesana |  |  |
| Sabar Kantha |  |  |
| Surendranagar |  |  |

**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:***

|  |  |
| --- | --- |
| **Districts** |  |
| Ahmadabad |  |
| Gandhinagar |  |
| Khera |  |
| Mahesana |  |
| Sabar Kantha |  |
| Surendranagar |  |

**Agro-Eco Region 5:**

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

**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.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Rajkot | **-** | Soil deficient in N |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Rajkot |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Rajkot |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Rajkot |  |  |

**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:***

|  |  |
| --- | --- |
| **Districts** |  |
| Rajkot |  |

**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.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Khera | **-** | Soil deficient in N |  |  |
| Anand | **-** | Soil deficient in N |  |  |
| Bharuch | Mining /Industrial waste | Soil deficient in N |  |  |
| Dahod | **-** | Soil deficient in N |  |  |
| Panchmahal | **-** | Soil deficient in N |  |  |
| Narmada | **-** | Low in OC & Soil deficient in N |  |  |
| Surat | Mining /Industrial waste | **-** |  |  |
| Tapi | **-** | Soil deficient in N |  |  |
| Vadodara | **-** | Low in OC & Soil deficient in N |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Khera |  |
| Anand |  |
| Bharuch |  |
| Dahod |  |
| Panchmahal |  |
| Narmada |  |
| Surat |  |
| Tapi |  |
| Vadodara |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Khera |  |
| Anand |  |
| Bharuch |  |
| Dahod |  |
| Panchmahal |  |
| Narmada |  |
| Surat |  |
| Tapi |  |
| Vadodara |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Khera |  |  |
| Anand |  |  |
| Bharuch |  |  |
| Dahod |  |  |
| Panchmahal |  |  |
| Narmada |  |  |
| Surat |  |  |
| Tapi |  |  |
| Vadodara |  |  |

**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:***

|  |  |
| --- | --- |
| **Districts** |  |
| Khera |  |
| Anand |  |
| Bharuch |  |
| Dahod |  |
| Panchmahal |  |
| Narmada |  |
| Surat |  |
| Tapi |  |
| Vadodara |  |

**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.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Bhavnagar | - | Soil deficient in N |  |  |
| Junagarh | - | Soil deficient in N |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Bhavnagar |  |
| Junagarh |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Bhavnagar |  |
| Junagarh |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Bhavnagar |  |  |
| Junagarh |  |  |

**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:***

|  |  |
| --- | --- |
| **Districts** |  |
| Bhavnagar |  |
| Junagarh |  |

**Agro-Eco Region 6:**

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

**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.

**Major NRM issues :**

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

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Dangs |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Dangs |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Dangs |  |  |

**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:***

|  |  |
| --- | --- |
| **Districts** |  |
| Dangs |  |