**Karnataka**

Karnataka comprises of four Agro Ecological Regions (AER) 3,6,8 & 19.

**Agro-Eco Region 3:**

AER 3 in Karnataka comprises of Bagalkot, Ballari, Koppal and Chitradurga districts of Deccan Plateau under Agro Ecological Sub Region (AESR)3.

**AESR 3 :** The region is hot arid ESR with deep loamy and clayey mixed Red and Black soils, low to medium AWC and LGP 60-90 days in a year.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Bagalkot | Exclusively water erosion | Soil deficient in P |  |  |
| Ballari | Exclusively water erosion | Soil deficient in N |  |  |
| Koppal | Exclusively water erosion | Soil deficient in N & Low in OC |  |  |
| Chitradurga | Exclusively water erosion | Soil deficient in N & Low in OC |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Bagalkot |  |
| Ballari |  |
| Koppal |  |
| Chitradurga |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Bagalkot |  |
| Ballari |  |
| Koppal |  |
| Chitradurga |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Bagalkot |  |  |
| Ballari |  |  |
| Koppal |  |  |
| Chitradurga |  |  |

**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** |  |
| Bagalkot |  |
| Ballari |  |
| Koppal |  |
| Chitradurga |  |

**Agro-Eco Region 6:**

AER 6 in Karnataka comprises of Vijayapura, Raichur,Bidar,Kalaburagi, Yadgir, Uttar Kannada, Belagavi, Davangere, Dharwad and Gadag districts of Deccan Plateau under Agro Ecological Sub Regions (AESR) 6.1, 6.2 & 6.4.

**AESR 6.1:** The region is hot dry semi-arid ESR with shallow and medium loamy Black soils (deep clayey Black soils as inclusion), medium to high AWC and LGP 90-120 days in a year.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Vijayapura | Exclusively water erosion | **-** |  |  |
| Raichur | Exclusively water erosion | Soil deficient in N,P &K |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Vijayapura |  |
| Raichur |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Vijayapura |  |
| Raichur |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Vijayapura |  |  |
| Raichur |  |  |

**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** |  |
| Vijayapura |  |
| Raichur |  |

**AESR 6.2:** The region is 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*** |
| Bidar | Exclusively water erosion | Soil deficient in P |  |  |
| Kalaburagi | Exclusively water erosion |  |  |  |
| Yadgir | Exclusively water erosion | Soil deficient in N& Low in OC |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Bidar |  |
| Kalaburagi |  |
| Yadgir |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Bidar |  |
| Kalaburagi |  |
| Yadgir |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Bidar |  |  |
| Kalaburagi |  |  |
| Yadgir |  |  |

**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** |  |
| Bidar |  |
| Kalaburagi |  |
| Yadgir |  |

**AESR 6.4:** The region is hot dry subhumid ESR.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Uttar Kannada | Waterlogged | Soil deficient in N,P &K |  |  |
| Belagavi | Exclusively water erosion | Soil deficient in P |  |  |
| Davangere | Exclusively water erosion | Soil deficient in N |  |  |
| Dharwad | Exclusively water erosion | Soil deficient in N,P & Low in OC |  |  |
| Gadag | Exclusively water erosion | Soil deficient in N,P & Low in OC |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Uttar Kannada |  |
| Belagavi |  |
| Davangere |  |
| Dharwad |  |
| Gadag |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Uttar Kannada |  |
| Belagavi |  |
| Davangere |  |
| Dharwad |  |
| Gadag |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Uttar Kannada |  |  |
| Belagavi |  |  |
| Davangere |  |  |
| Dharwad |  |  |
| Gadag |  |  |

**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** |  |
| Uttar Kannada |  |
| Belagavi |  |
| Davangere |  |
| Dharwad |  |
| Gadag |  |

**Agro-Eco Region 8:**

AER 8 in Karnataka comprises of Haveri, Chikkamagaluru, Bengaluru Rural, Bengaluru Urban, Chamarajanagar,Chikballapur, Chitradurga, Hassan, Kolar, Mandhya, Mysuru and Ramnagar districts of Deccan Plateau under Agro Ecological Sub Regions (AESR) 6.1, 6.2 & 6.4.

**AESR 6.1:** The region is hot dry semi-arid ESR with shallow and medium loamy Black soils (deep clayey Black soils as inclusion), medium to high AWC and LGP 90-120 days in a year.

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Haveri | Exclusively water erosion | Soil deficient in N & Low in OC |  |  |
| Chikkamagaluru | - | Soil deficient in N & Low in OC |  |  |
| Bengaluru Rural | - | Soil deficient in N & Low in OC |  |  |
| Bengaluru Urban | - | Soil deficient in N & Low in OC |  |  |
| Chamarajanagar | Exclusively water erosion | Low in OC |  |  |
| Chikballapur | - | Soil deficient in N & Low in OC |  |  |
| Chitradurga | Exclusively water erosion | Soil deficient in N & Low in OC |  |  |
| Hassan | Exclusively water erosion | Low in OC |  |  |
| Kolar | Exclusively water erosion | Soil deficient in N & Low in OC |  |  |
| Mandhya | - | Soil deficient in N & Low in OC |  |  |
| Mysuru | - | Soil deficient in N |  |  |
| Ramnagar | Exclusively water erosion | Soil deficient in N,K & Low in OC |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Haveri |  |
| Chikkamagaluru |  |
| Bengaluru Rural |  |
| Bengaluru Urban |  |
| Chamarajanagar |  |
| Chikballapur |  |
| Chitradurga |  |
| Hassan |  |
| Kolar |  |
| Mandhya |  |
| Mysuru |  |
| Ramnagar |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Haveri |  |
| Chikkamagaluru |  |
| Bengaluru Rural |  |
| Bengaluru Urban |  |
| Chamarajanagar |  |
| Chikballapur |  |
| Chitradurga |  |
| Hassan |  |
| Kolar |  |
| Mandhya |  |
| Mysuru |  |
| Ramnagar |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Haveri |  |  |
| Chikkamagaluru |  |  |
| Bengaluru Rural |  |  |
| Bengaluru Urban |  |  |
| Chamarajanagar |  |  |
| Chikballapur |  |  |
| Chitradurga |  |  |
| Hassan |  |  |
| Kolar |  |  |
| Mandhya |  |  |
| Mysuru |  |  |
| Ramnagar |  |  |

**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** |  |
| Haveri |  |
| Chikkamagaluru |  |
| Bengaluru Rural |  |
| Bengaluru Urban |  |
| Chamarajanagar |  |
| Chikballapur |  |
| Chitradurga |  |
| Hassan |  |
| Kolar |  |
| Mandhya |  |
| Mysuru |  |
| Ramnagar |  |

**Agro-Eco Region 19:**

AER 19 in Karnataka comprises of Chikkamagaluru, Dakshin Kannada, Kodagu, Shivamogga, Udupi, Uttar Kannada and Dakshin Kannad districts of Western Ghats & Coastal Plain under Agro Ecological Sub Regions (AESR) 19.2 & 19.3.

**AESR 19.2:** The region is 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*** |
| Chikkamagaluru | **-** | Soil deficient in N & Low in OC |  |  |
| Dakshin Kannada | - | Soil deficient in N,P &K |  |  |
| Kodagu | Exclusively water erosion | Soil deficient in P |  |  |
| Shivamogga | - | Soil deficient in N & K |  |  |
| Udupi | Waterlogged | Soil deficient in N & K |  |  |
| Uttar Kannada | Waterlogged | Soil deficient in N,P& K |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Chikkamagaluru |  |
| Dakshin Kannada |  |
| Kodagu |  |
| Shivamogga |  |
| Udupi |  |
| Uttar Kannada |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Chikkamagaluru |  |
| Dakshin Kannada |  |
| Kodagu |  |
| Shivamogga |  |
| Udupi |  |
| Uttar Kannada |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Chikkamagaluru |  |  |
| Dakshin Kannada |  |  |
| Kodagu |  |  |
| Shivamogga |  |  |
| Udupi |  |  |
| Uttar Kannada |  |  |

**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** |  |
| Chikkamagaluru |  |
| Dakshin Kannada |  |
| Kodagu |  |
| Shivamogga |  |
| Udupi |  |
| Uttar Kannada |  |

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

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Dakshin Kannada | - | Soil deficient in N,P & K |  |  |
| Udupi | Waterlogged | Soil deficient in N & K |  |  |
| Uttar Kannada | Waterlogged | Soil deficient in N,P & K |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Dakshin Kannada |  |
| Udupi |  |
| Uttar Kannada |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Dakshin Kannada |  |
| Udupi |  |
| Uttar Kannada |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Dakshin Kannada |  |  |
| Udupi |  |  |
| Uttar Kannada |  |  |

**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** |  |
| Dakshin Kannada |  |
| Udupi |  |
| Uttar Kannada |  |

**Kerala**

**Agro-Eco Region 19:**

AER 19 in Kerala comprises of Alappuzha, Ernakulam, Idukki, Kannur, Kasargod, Kollam, Kottyam , Kozikod , Malappuram, Palakkad , Pattanamittia , Thiruvananthpuram , Trishur and Wayanad districts of Western Ghats & Coastal Plain under Agro Ecological Sub Regions (AESR) 19.2 & 19.3.

**AESR 19.2:** The region is 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*** |
| ERNAKULAM | Exclusively acid soils & Waterlogged | Soil deficient in N |  |  |
| IDUKKI | Exclusively acid soils | Soil deficient in N & P |  |  |
| KOTTYAM | Exclusively acid soils & Waterlogged | Soil deficient in N & P |  |  |
| MALAPPURAM | Exclusively acid soils & Waterlogged | Soil deficient in N & P |  |  |
| PALAKKAD | Exclusively acid soils |  |  |  |
| PATTANAMITTIA | Waterlogged |  |  |  |
| TRISHUR | Exclusively acid soils & Waterlogged |  |  |  |
| WAYANAD | Exclusively acid soils |  |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| ERNAKULAM |  |
| IDUKKI |  |
| KOTTYAM |  |
| MALAPPURAM |  |
| PALAKKAD |  |
| PATTANAMITTIA |  |
| TRISHUR |  |
| WAYANAD |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| ERNAKULAM |  |
| IDUKKI |  |
| KOTTYAM |  |
| MALAPPURAM |  |
| PALAKKAD |  |
| PATTANAMITTIA |  |
| TRISHUR |  |
| WAYANAD |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| ERNAKULAM |  |  |
| IDUKKI |  |  |
| KOTTYAM |  |  |
| MALAPPURAM |  |  |
| PALAKKAD |  |  |
| PATTANAMITTIA |  |  |
| TRISHUR |  |  |
| WAYANAD |  |  |

**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** |  |
| ERNAKULAM |  |
| IDUKKI |  |
| KOTTYAM |  |
| MALAPPURAM |  |
| PALAKKAD |  |
| PATTANAMITTIA |  |
| TRISHUR |  |
| WAYANAD |  |

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

**Major NRM issues :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Dakshin Kannada |  |  |  |  |
| Udupi |  |  |  |  |
| Uttar Kannada |  |  |  |  |

**Major technological Interventions:**

|  |  |
| --- | --- |
| **Districts** | **Major technological Interventions** |
| Dakshin Kannada |  |
| Udupi |  |
| Uttar Kannada |  |

**Relevant Developmental Schemes:**

|  |  |
| --- | --- |
| **Districts** | **Relevant Developmental Schemes** |
| Dakshin Kannada |  |
| Udupi |  |
| Uttar Kannada |  |

**Crop Planning/Farming System:**

|  |  |  |
| --- | --- | --- |
| **Districts** | **Existing Cropping/farming system** | **Alternate Cropping/farming system** |
| Dakshin Kannada |  |  |
| Udupi |  |  |
| Uttar Kannada |  |  |

**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** |  |
| Dakshin Kannada |  |
| Udupi |  |
| Uttar Kannada |  |