

Annex A. Agroclimatic indicators

Table A.1 Jan - Apr 2021 agroclimatic indicators by global Mapping and Reporting Unit (MRU)

| 65 Global MRUs | | RAIN Current (mm) | RAIN 15YA dep. (%) | TEMP Current (°C) | TEMP 15YA dep. (°C) | RADPAR Current(MJ/m ²) | RADPAR 15YA dep. (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA dep. (%) |
|----------------|------------------------------------|-------------------------|-----------------------------|-------------------------|------------------------------|---------------------------------------|----------------------------|--|---------------------------|
| C01 | Equatorial central Africa | 637 | -19 | 23.2 | -0.2 | 1173 | -2 | 1089 | -8 |
| C02 | East African highlands | 227 | -15 | 19.5 | -0.4 | 1307 | -3 | 479 | -15 |
| C03 | Gulf of Guinea | 103 | -27 | 27.3 | 0.0 | 1301 | -1 | 391 | -18 |
| C04 | Horn of Africa | 460 | -2 | 21.1 | -0.5 | 1268 | -1 | 815 | -6 |
| C05 | Madagascar (main) | 1013 | -13 | 22.5 | 0.2 | 1210 | 3 | 1415 | 0 |
| C06 | Southwest Madagascar | 414 | -23 | 25.8 | 0.7 | 1239 | 0 | 955 | -10 |
| C07 | North Africa-Mediterranean | 208 | -1 | 11.1 | 0.4 | 945 | -2 | 463 | -5 |
| C08 | Sahel | 21 | 1 | 27.6 | 0.0 | 1343 | -3 | 81 | -28 |
| C09 | Southern Africa | 577 | -3 | 21.6 | -0.3 | 1203 | -1 | 976 | -7 |
| C10 | Western Cape (South Africa) | 105 | -12 | 19.1 | -0.1 | 1211 | -5 | 532 | -10 |
| C11 | British Columbia to Colorado | 321 | -13 | -2.4 | 0.0 | 722 | 3 | 310 | -1 |
| C12 | Northern Great Plains | 224 | -2 | 0.5 | 0.1 | 721 | -2 | 404 | 4 |
| C13 | Corn Belt | 368 | -13 | 0.9 | 0.5 | 647 | -2 | 423 | 3 |
| C14 | Cotton Belt to Mexican Nordeste | 399 | 3 | 11.0 | -0.6 | 838 | -4 | 694 | 0 |
| C15 | Sub-boreal America | 207 | -4 | -6.2 | 1.7 | 513 | -3 | 235 | 9 |
| C16 | West Coast (North America) | 373 | -27 | 7.1 | -0.1 | 824 | 8 | 450 | -16 |
| C17 | Sierra Madre | 50 | -41 | 16.7 | 0.0 | 1312 | 2 | 233 | -27 |
| C18 | SW U.S. and N. Mexican highlands | 94 | -25 | 9.0 | -0.2 | 1073 | 1 | 303 | -10 |
| C19 | Northern South and Central America | 441 | 6 | 23.2 | -0.2 | 1150 | -1 | 743 | 1 |
| C20 | Caribbean | 129 | -37 | 23.7 | 0.3 | 1166 | 2 | 631 | -15 |
| C21 | Central-northern Andes | 975 | -1 | 14.9 | -0.4 | 1007 | -3 | 778 | -9 |
| C22 | Nordeste (Brazil) | 183 | -57 | 26.1 | 0.7 | 1262 | 0 | 737 | -28 |
| C23 | Central eastern Brazil | 458 | -52 | 24.6 | 1.1 | 1184 | 0 | 993 | -28 |
| C24 | Amazon | 1082 | -17 | 24.2 | 0.0 | 1053 | -1 | 1406 | -4 |
| C25 | Central-north Argentina | 556 | 7 | 22.5 | -0.8 | 1052 | -9 | 1047 | 1 |
| C26 | Pampas | 451 | -6 | 22.0 | -0.3 | 1133 | -4 | 952 | -4 |
| C27 | Western Patagonia | 196 | -26 | 13.4 | -0.2 | 1186 | -1 | 492 | -10 |
| C28 | Semi-arid Southern Cone | 181 | -5 | 17.9 | -0.5 | 1230 | -5 | 537 | 1 |
| C29 | Caucasus | 296 | -13 | 3.8 | 0.8 | 811 | 2 | 453 | -4 |
| C30 | Pamir area | 342 | -17 | 3.7 | 0.5 | 930 | 3 | 408 | -10 |

| 65 Global MRUs | | RAIN Current (mm) | RAIN 15YA dep. (%) | TEMP Current (°C) | TEMP 15YA dep. (°C) | RADPAR Current(MJ/m ²) | RADPAR 15YA dep. (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA dep. (%) |
|----------------|------------------------------------|-------------------------|-----------------------------|-------------------------|------------------------------|---------------------------------------|----------------------------|--|---------------------------|
| C31 | Western Asia | 135 | -31 | 7.9 | 1.0 | 916 | 2 | 327 | -23 |
| C32 | Gansu-Xinjiang (China) | 126 | 27 | -2.2 | 0.1 | 853 | -4 | 254 | 14 |
| C33 | Hainan (China) | 227 | -19 | 21.2 | -0.1 | 1052 | 11 | 708 | -8 |
| C34 | Huanghuaihai (China) | 137 | 46 | 6.7 | 0.8 | 845 | -8 | 389 | 25 |
| C35 | Inner Mongolia (China) | 71 | 32 | -4.0 | 0.8 | 859 | -5 | 234 | 20 |
| C36 | Loess region (China) | 114 | 31 | 2.9 | 0.8 | 905 | -8 | 329 | 12 |
| C37 | Lower Yangtze (China) | 390 | -23 | 11.6 | 1.3 | 716 | 1 | 767 | 0 |
| C38 | Northeast China | 123 | 26 | -5.7 | 0.9 | 749 | -5 | 280 | 24 |
| C39 | Qinghai-Tibet (China) | 206 | -45 | 0.5 | 0.0 | 1072 | 2 | 296 | -11 |
| C40 | Southern China | 288 | -24 | 16.2 | 1.1 | 913 | 11 | 681 | -9 |
| C41 | Southwest China | 336 | 12 | 9.0 | 0.6 | 718 | -10 | 619 | 4 |
| C42 | Taiwan (China) | 131 | -57 | 19.7 | 0.4 | 1067 | 10 | 529 | -24 |
| C43 | East Asia | 334 | 16 | -1.2 | 0.9 | 757 | -2 | 376 | 15 |
| C44 | Southern Himalayas | 103 | -39 | 19.0 | 0.4 | 1138 | 1 | 295 | -29 |
| C45 | Southern Asia | 92 | 7 | 25.7 | 0.1 | 1274 | -1 | 301 | -11 |
| C46 | Southern Japan and Korea | 481 | -3 | 7.8 | 1.5 | 825 | 2 | 704 | 10 |
| C47 | Southern Mongolia | 56 | -10 | -11.4 | 0.9 | 807 | -2 | 130 | -6 |
| C48 | Punjab to Gujarat | 42 | -33 | 23.6 | 1.0 | 1187 | -1 | 192 | -20 |
| C49 | Maritime Southeast Asia | 1204 | -9 | 24.2 | 0.0 | 1116 | 1 | 1392 | -1 |
| C50 | Mainland Southeast Asia | 254 | 7 | 24.6 | -0.1 | 1201 | 1 | 591 | -7 |
| C51 | Eastern Siberia | 229 | 9 | -10.3 | -0.3 | 530 | -6 | 179 | -6 |
| C52 | Eastern Central Asia | 130 | 51 | -11.8 | 0.8 | 671 | -5 | 170 | 4 |
| C53 | Northern Australia | 1121 | 9 | 25.6 | -0.1 | 1212 | -2 | 1353 | -1 |
| C54 | Queensland to Victoria | 267 | 18 | 19.9 | -1.1 | 1141 | -5 | 700 | 3 |
| C55 | Nullarbor to Darling | 154 | 47 | 21.0 | 0.0 | 1191 | -4 | 609 | 12 |
| C56 | New Zealand | 251 | -17 | 14.5 | 0.0 | 1034 | 3 | 679 | -10 |
| C57 | Boreal Eurasia | 284 | -7 | -4.9 | -0.5 | 376 | -3 | 239 | -7 |
| C58 | Ukraine to Ural mountains | 288 | 12 | -2.5 | -0.6 | 395 | -11 | 319 | -8 |
| C59 | Mediterranean Europe and Turkey | 340 | -6 | 7.1 | 0.0 | 778 | -1 | 580 | -2 |
| C60 | W. Europe (non Mediterranean) | 314 | -5 | 3.6 | -0.6 | 575 | 1 | 488 | -6 |
| C61 | Boreal America | 315 | 2 | -7.5 | 0.4 | 416 | -5 | 186 | -2 |
| C62 | Ural to Altai mountains | 200 | 7 | -6.8 | -0.1 | 530 | -4 | 243 | -7 |
| C63 | Australian desert | 107 | -4 | 21.6 | -0.8 | 1234 | -3 | 527 | -4 |
| C64 | Sahara to Afghan deserts | 36 | -53 | 17.5 | 0.7 | 1150 | 0 | 196 | -35 |
| C65 | Sub-arctic America | 83 | 3 | -21.5 | 1.2 | 311 | -3 | 42 | 9 |

Table A.2 Jan - Apr 2021 agroclimatic indicators by country

| Country code | Country name | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure(°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|--------------|----------------|-------------------|-------------------------|-------------------|-------------------------|-------------------------------------|---------------------------|--------------------------------------|--------------------------|
| ARG | Argentina | 449 | 16 | 21.6 | -0.5 | 1107 | -7 | 667 | -7 |
| AUS | Australia | 308 | 14 | 20.7 | -0.8 | 1151 | -4 | 468 | -26 |
| BGD | Bangladesh | 5 | -97 | 24.0 | 0.7 | 1224 | 3 | 486 | -26 |
| BRA | Brazil | 625 | -39 | 24.4 | 0.8 | 1165 | 0 | 769 | -6 |
| KHM | Cambodia | 229 | -29 | 26.5 | -0.2 | 1221 | 4 | 678 | -7 |
| CAN | Canada | 264 | -13 | -4.4 | 1.3 | 547 | -2 | 70 | -2 |
| CHN | China | 263 | -11 | 7.3 | 0.9 | 799 | -3 | 211 | -5 |
| EGY | Egypt | 38 | -27 | 15.8 | 0.3 | 1017 | 0 | 270 | -26 |
| ETH | Ethiopia | 151 | -16 | 20.1 | -0.4 | 1332 | -2 | 451 | -17 |
| FRA | France | 300 | -19 | 5.6 | -0.1 | 644 | 6 | 153 | -1 |
| DEU | Germany | 300 | 0 | 2.6 | -0.9 | 522 | 1 | 120 | -15 |
| IND | India | 49 | -45 | 23.7 | 0.3 | 1238 | 0 | 364 | -20 |
| IDN | Indonesia | 1265 | -11 | 24.3 | 0.0 | 1120 | 2 | 740 | 0 |
| IRN | Iran | 111 | -49 | 9.3 | 1.7 | 1042 | 5 | 283 | 0 |
| KAZ | Kazakhstan | 198 | 13 | -4.7 | 0.1 | 620 | -4 | 106 | -7 |
| MEX | Mexico | 86 | -29 | 19.0 | 0.0 | 1240 | 0 | 405 | -15 |
| MMR | Myanmar | 102 | -22 | 21.5 | 0.3 | 1223 | -2 | 414 | -10 |
| NGA | Nigeria | 64 | -51 | 26.9 | -0.1 | 1342 | 1 | 363 | -27 |
| PAK | Pakistan | 238 | -22 | 13.5 | 0.6 | 1056 | 2 | 308 | -12 |
| PHL | Philippines | 829 | 32 | 24.6 | -0.1 | 1125 | -2 | 765 | -3 |
| POL | Poland | 268 | 4 | 1.2 | -1.1 | 443 | -7 | 106 | -21 |
| ROU | Romania | 292 | 11 | 2.6 | -0.6 | 632 | -2 | 151 | -16 |
| RUS | Russia | 251 | 13 | -5.5 | -0.2 | 449 | -8 | 78 | -15 |
| ZAF | South Africa | 240 | 0 | 19.2 | -0.3 | 1222 | -2 | 662 | -14 |
| THA | Thailand | 386 | 43 | 25.1 | -0.3 | 1195 | 1 | 634 | -13 |
| TUR | Turkey | 347 | -7 | 4.3 | 0.2 | 814 | 0 | 196 | -7 |
| GBR | United Kingdom | 375 | -2 | 4.6 | -0.7 | 462 | 8 | 101 | 0 |
| UKR | Ukraine | 270 | 13 | 0.6 | -0.9 | 484 | -9 | 119 | -23 |
| USA | United States | 338 | -5 | 5.0 | -0.2 | 770 | -2 | 190 | -3 |
| UZB | Uzbekistan | 197 | -20 | 6.6 | 0.3 | 871 | 4 | 228 | 6 |
| VNM | Vietnam | 314 | 4 | 20.6 | -0.2 | 993 | 3 | 543 | -5 |
| AFG | Afghanistan | 178 | -43 | 6.7 | 1.4 | 1010 | 5 | 256 | 1 |
| AGO | Angola | 591 | -28 | 21.9 | -0.2 | 1177 | 1 | 713 | -12 |
| BLR | Belarus | 284 | 11 | -1.0 | -0.9 | 368 | -12 | 85 | -25 |
| HUN | Hungary | 206 | -11 | 3.7 | -0.9 | 623 | -1 | 161 | -17 |
| ITA | Italy | 321 | -17 | 6.0 | -0.6 | 735 | 1 | 208 | -12 |
| KEN | Kenya | 362 | -20 | 20.7 | -0.4 | 1290 | -3 | 686 | -12 |
| LKA | Sri_Lanka | 698 | 26 | 25.3 | 0.0 | 1217 | -2 | 826 | 0 |
| MAR | Morocco | 292 | 36 | 10.9 | 0.0 | 975 | -4 | 302 | -5 |
| MNG | Mongolia | 121 | 83 | -10.9 | 1.4 | 747 | -6 | 86 | -8 |
| MOZ | Mozambique | 743 | -3 | 23.4 | -0.1 | 1206 | 1 | 799 | -6 |
| ZMB | Zambia | 906 | -7 | 20.4 | -0.4 | 1121 | -4 | 727 | -21 |

Note: Departures are expressed in relative terms (percentage) for all variables, except for temperature, for which absolute departure in degrees Celsius is given. Zero means no change from the average value; relative departures are calculated as $(C-R)/R*100$, with C=current value and R=reference value, which is the fifteen-year average (15YA) for the same period between January and April.

Table A.3 Argentina, Jan - Apr 2021 agroclimatic indicators (by province)

| | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure(°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|----------------------------|-------------------------|----------------------------------|-------------------------|----------------------------|---|------------------------------------|--|-----------------------------------|
| Buenos Aires | 239 | -1 | 20.8 | 0.0 | 1130 | -7 | 726 | -2 |
| Chaco | 561 | 14 | 24.3 | -0.6 | 1085 | -5 | 1145 | 9 |
| Cordoba | 342 | 26 | 21.6 | -0.7 | 1123 | -8 | 850 | 5 |
| Corrientes | 596 | 20 | 23.5 | -0.6 | 1123 | -5 | 1129 | 8 |
| Entre Rios | 490 | 33 | 22.6 | -0.3 | 1105 | -7 | 995 | 11 |
| La Pampa | 183 | 6 | 21.8 | -0.1 | 1188 | -5 | 660 | -1 |
| Misiones | 598 | -7 | 22.4 | -0.6 | 1174 | -2 | 1087 | -12 |
| Santiago Del Estero | 557 | 20 | 23.0 | -1.1 | 1027 | -9 | 1113 | 10 |
| San Luis | 248 | 26 | 20.8 | -0.7 | 1171 | -6 | 806 | 11 |
| Salta | 1073 | 19 | 19.4 | -0.9 | 979 | -10 | 1214 | 2 |
| Santa Fe | 492 | 38 | 23.1 | -0.7 | 1101 | -7 | 980 | 11 |
| Tucuman | 662 | 8 | 18.5 | -0.8 | 1008 | -12 | 1017 | -4 |

Table A.4 Australia, Jan - Apr 2021 agroclimatic indicators (by state)

| | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure(°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|------------------------|-------------------------|----------------------------------|-------------------------|----------------------------|---|------------------------------------|--|-----------------------------------|
| New South Wales | 310 | 39 | 20.3 | -1.5 | 1191 | -3 | 733 | 9 |
| South Australia | 98 | -14 | 19.4 | -1.1 | 1129 | -5 | 514 | -8 |
| Victoria | 192 | 5 | 17.3 | -1.3 | 1041 | -8 | 609 | -4 |
| W. Australia | 197 | 13 | 21.8 | 0.0 | 1203 | -3 | 634 | 8 |

Table A.5 Brazil, Jan - Apr 2021 agroclimatic indicators (by state)

| | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure (°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|---------------------------|-------------------------|----------------------------------|-------------------------|-----------------------------|---|------------------------------------|--|-----------------------------------|
| Ceara | 248 | -61 | 26.8 | 0.8 | 1257 | 2 | 876 | -30 |
| Goiás | 216 | -80 | 25.3 | 2.5 | 1208 | -1 | 721 | -52 |
| Mato Grosso Do Sul | 269 | -69 | 26.1 | 1.7 | 1166 | -3 | 781 | -45 |
| Mato Grosso | 826 | -36 | 24.8 | 0.8 | 1088 | -3 | 1242 | -19 |
| Minas Gerais | 419 | -55 | 22.7 | 1.0 | 1269 | 6 | 937 | -30 |
| Parana | 462 | -46 | 21.8 | 0.3 | 1181 | 1 | 958 | -29 |
| Rio Grande Do Sul | 483 | -9 | 21.6 | -0.2 | 1148 | -3 | 1024 | -8 |
| Santa Catarina | 710 | -4 | 19.3 | -0.4 | 1091 | -3 | 1134 | -9 |
| Sao Paulo | 280 | -74 | 24.2 | 2.0 | 1210 | 6 | 745 | -48 |

Table A.6 Canada, Jan - Apr 2021 agroclimatic indicators (by province)

| | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure (°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|--------------|-------------------|-------------------------|-------------------|--------------------------|-------------------------------------|---------------------------|--------------------------------------|--------------------------|
| Alberta | 147 | -20 | -4.8 | 0.5 | 587 | 6 | 263 | -1 |
| Manitoba | 206 | 8 | -5.2 | 1.9 | 522 | -10 | 266 | 10 |
| Saskatchewan | 157 | -10 | -4.8 | 1.4 | 567 | -1 | 273 | 5 |

Table A.7 India, Jan - Apr 2021 agroclimatic indicators (by state)

| | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure (°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|------------------|-------------------|-------------------------|-------------------|--------------------------|-------------------------------------|---------------------------|--------------------------------------|--------------------------|
| Andhra Pradesh | 17 | -65 | 26.5 | -0.3 | 1307 | 0 | 457 | -41 |
| Assam | 55 | -87 | 19.4 | 0.7 | 1123 | 8 | 211 | -23 |
| Bihar | 1 | -98 | 22.9 | 0.2 | 1237 | 3 | 359 | -50 |
| Chhattisgarh | 3 | -92 | 23.9 | -0.4 | 1285 | 2 | 64 | -79 |
| Daman and Diu | 2 | 43 | 27.2 | 0.9 | 1341 | -3 | 265 | -31 |
| Delhi | 26 | -54 | 21.3 | 0.7 | 1129 | -1 | 101 | -61 |
| Gujarat | 2 | -46 | 26.9 | 0.8 | 1299 | -2 | 34 | -49 |
| Goa | 43 | 290 | 27.2 | 0.5 | 1329 | -5 | 261 | -18 |
| Himachal Pradesh | 237 | -27 | 10.7 | 0.3 | 1066 | 2 | 116 | 28 |
| Haryana | 23 | -67 | 21.2 | 0.8 | 1120 | 0 | 48 | -44 |
| Jharkhand | 1 | -97 | 23.1 | 0.2 | 1250 | 3 | 290 | 100 |
| Kerala | 512 | 80 | 25.8 | -0.2 | 1291 | -1 | 420 | -10 |
| Karnataka | 76 | 22 | 26.0 | 0.0 | 1305 | -2 | 252 | -22 |
| Meghalaya | 32 | -90 | 20.0 | 1.0 | 1164 | 7 | 77 | -72 |
| Maharashtra | 31 | 131 | 27.0 | 0.4 | 1280 | -4 | 942 | 25 |
| Manipur | 42 | -84 | 15.9 | 0.3 | 1185 | 2 | 335 | 10 |
| Madhya Pradesh | 9 | -58 | 24.6 | 0.6 | 1230 | -1 | 277 | -56 |
| Mizoram | 12 | -93 | 18.4 | -0.1 | 1238 | 1 | 211 | 19 |
| Nagaland | 98 | -78 | 15.0 | 0.3 | 1122 | 4 | 284 | -53 |
| Orissa | 3 | -93 | 24.2 | -0.3 | 1271 | 2 | 130 | -37 |
| Puducherry | 166 | 40 | 27.0 | -0.1 | 1351 | -2 | 216 | -58 |
| Punjab | 87 | -38 | 20.0 | 0.9 | 1054 | 0 | 417 | -45 |
| Rajasthan | 7 | -62 | 24.2 | 1.2 | 1196 | -2 | 112 | -61 |
| Sikkim | 15 | -81 | 10.2 | 0.2 | 1297 | 3 | 643 | 23 |
| Tamil Nadu | 363 | 73 | 25.5 | -0.4 | 1293 | -2 | 380 | -15 |
| Tripura | 9 | -96 | 22.6 | 0.6 | 1189 | 2 | 143 | -24 |
| Uttarakhand | 59 | -54 | 13.4 | 0.0 | 1155 | 2 | 124 | -51 |
| Uttar Pradesh | 9 | -80 | 22.7 | 0.7 | 1184 | 1 | 713 | 17 |
| West Bengal | 2 | -97 | 24.1 | 0.4 | 1238 | 3 | 230 | -60 |

Table A.8 Kazakhstan, Jan - Apr 2021 agroclimatic indicators (by oblast)

| | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure (°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|---------------------------|-------------------|-------------------------|-------------------|--------------------------|-------------------------------------|---------------------------|--------------------------------------|--------------------------|
| Akmolinskaya | 167 | 15 | -6.4 | 0.2 | 567 | -7 | 252 | -8 |
| Karagandinskaya | 130 | 5 | -6.2 | 0.3 | 667 | -4 | 266 | -5 |
| Kustanayskaya | 177 | 9 | -6.0 | 0.4 | 530 | -5 | 262 | -5 |
| Pavlodarskaya | 134 | 12 | -7.0 | -0.1 | 575 | -3 | 250 | -8 |
| Severo kazachstanskaya | 166 | 4 | -7.3 | -0.1 | 498 | -4 | 234 | -8 |
| Vostochno kazachstanskaya | 190 | 5 | -6.2 | -0.1 | 704 | -1 | 255 | -6 |
| Zapadno kazachstanskaya | 250 | 26 | -2.6 | 0.3 | 523 | -9 | 343 | -3 |

Table A.9 Russia, Jan - Apr 2021 agroclimatic indicators (by oblast, kray and republic)

| | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure (°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|-----------------------|-------------------|-------------------------|-------------------|--------------------------|-------------------------------------|---------------------------|--------------------------------------|--------------------------|
| Bashkortostan Rep. | 240 | -3 | -6.3 | 0.1 | 446 | -2 | 240 | -4 |
| Chelyabinskaya Oblast | 166 | -6 | -7.1 | -0.1 | 482 | -2 | 234 | -6 |
| Gorodovikovsk | 323 | 41 | 2.4 | -0.3 | 502 | -17 | 466 | -5 |
| Krasnodarskiy Krai | 300 | 18 | -2.8 | -0.5 | 513 | -9 | 318 | -7 |
| Kurganskaya Oblast | 155 | -13 | -7.4 | -0.3 | 428 | -4 | 228 | -6 |
| Kirovskaya Oblast | 294 | 3 | -7.0 | -1.0 | 324 | -5 | 218 | -8 |
| Kurskaya Oblast | 318 | 23 | -1.8 | -0.7 | 402 | -10 | 327 | -11 |
| Lipetskaya Oblast | 305 | 22 | -2.5 | -0.2 | 407 | -9 | 317 | -7 |
| Mordoviya Rep. | 297 | 14 | -4.3 | -0.4 | 362 | -14 | 277 | -7 |
| Novosibirskaya Oblast | 210 | 11 | -8.8 | -0.4 | 423 | -7 | 201 | -12 |
| Nizhegorodskaya O. | 307 | 16 | -5.2 | -0.8 | 345 | -10 | 255 | -9 |
| Orenburgskaya Oblast | 237 | 3 | -5.0 | 0.3 | 495 | -7 | 273 | -6 |
| Omskaya Oblast | 192 | 3 | -8.3 | -0.2 | 409 | -5 | 212 | -8 |
| Permskaya Oblast | 266 | -4 | -7.3 | -0.3 | 337 | -4 | 216 | -4 |
| Penzenskaya Oblast | 313 | 19 | -3.8 | -0.1 | 379 | -14 | 289 | -5 |
| Rostovskaya Oblast | 318 | 31 | 1.2 | 0.0 | 495 | -13 | 426 | -6 |
| Ryazanskaya Oblast | 358 | 38 | -3.4 | -0.4 | 359 | -13 | 296 | -8 |
| Stavropolskiy Krai | 292 | 14 | 2.5 | -0.1 | 570 | -10 | 473 | -3 |
| Sverdlovskaya Oblast | 187 | -13 | -8.1 | -0.8 | 390 | 2 | 216 | -4 |
| Samarskaya Oblast | 271 | 9 | -4.6 | 0.1 | 432 | -8 | 283 | -3 |
| Saratovskaya | 311 | 30 | -2.9 | 0.1 | 446 | -12 | 321 | -4 |

| | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure (°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|-----------------------------|-------------------|-------------------------|-------------------|--------------------------|-------------------------------------|---------------------------|--------------------------------------|--------------------------|
| Oblast | | | | | | | | |
| Tambovskaya Oblast | 312 | 20 | -2.6 | 0.0 | 412 | -10 | 320 | -4 |
| Tyumenskaya Oblast | 166 | -16 | -8.1 | -0.4 | 383 | -3 | 214 | -5 |
| Tatarstan Rep. | 277 | 8 | -5.7 | -0.3 | 368 | -8 | 248 | -6 |
| Ulyanovskaya Oblast | 290 | 20 | -4.9 | -0.4 | 383 | -13 | 268 | -7 |
| Udmurtiya Rep. | 276 | -2 | -6.8 | -0.5 | 340 | -4 | 224 | -5 |
| Volgogradskaya O. | 300 | 36 | -0.9 | 0.3 | 483 | -12 | 374 | -4 |
| Voronezhskaya Oblast | 269 | 6 | -1.5 | 0.1 | 472 | -7 | 353 | -5 |

Table A.10 United States, Jan - Apr 2021 agroclimatic indicators (by state)

| | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure (°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|---------------------|-------------------|-------------------------|-------------------|--------------------------|-------------------------------------|---------------------------|--------------------------------------|--------------------------|
| Arkansas | 516 | -2 | 8.4 | -0.9 | 757 | -3 | 764 | -3 |
| California | 230 | -41 | 8.9 | 0.0 | 968 | 8 | 397 | -23 |
| Idaho | 296 | -20 | -0.7 | 0.0 | 743 | 4 | 367 | -1 |
| Indiana | 357 | -24 | 3.3 | -0.1 | 706 | 3 | 543 | 0 |
| Illinois | 387 | -8 | 3.1 | -0.2 | 704 | 0 | 545 | 0 |
| Iowa | 303 | -2 | 0.5 | 0.1 | 652 | -7 | 455 | 2 |
| Kansas | 256 | 22 | 5.3 | -0.8 | 851 | -2 | 527 | 9 |
| Michigan | 261 | -28 | -0.6 | 0.8 | 610 | 0 | 378 | 6 |
| Minnesota | 263 | 3 | -2.7 | 1.1 | 566 | -10 | 338 | 6 |
| Missouri | 431 | 10 | 4.8 | -0.6 | 745 | -1 | 616 | 0 |
| Montana | 186 | -23 | -1.8 | 0.0 | 724 | 2 | 336 | -5 |
| Nebraska | 254 | 24 | 2.0 | -0.6 | 799 | -2 | 500 | 9 |
| North Dakota | 129 | -32 | -2.3 | 1.2 | 638 | -4 | 349 | 7 |
| Ohio | 335 | -26 | 2.9 | 0.1 | 691 | 3 | 518 | 1 |
| Oklahoma | 316 | 8 | 8.2 | -1.2 | 846 | -3 | 618 | 5 |
| Oregon | 407 | -19 | 3.4 | -0.1 | 716 | 9 | 466 | -1 |
| South Dakota | 185 | -14 | -0.2 | 0.3 | 723 | -2 | 412 | 4 |
| Texas | 244 | -4 | 12.5 | -1.3 | 866 | -7 | 561 | -1 |
| Washington | 447 | -12 | 3.0 | 0.1 | 621 | 7 | 450 | -2 |
| Wisconsin | 274 | -11 | -1.7 | 1.0 | 605 | -5 | 364 | 8 |

Table A.11 China, Jan - Apr 2021 agroclimatic indicators (by province)

| | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure (°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|------------------|-------------------|-------------------------|-------------------|--------------------------|-------------------------------------|---------------------------|--------------------------------------|--------------------------|
| Anhui | 318 | -4 | 9.6 | 1.2 | 735 | -9 | 663 | 6 |
| Chongqing | 431 | 25 | 9.6 | 0.5 | 627 | -14 | 711 | 10 |
| Fujian | 317 | -49 | 13.3 | 1.4 | 821 | 17 | 770 | -10 |
| Gansu | 147 | 14 | 1.0 | 0.6 | 890 | -9 | 767 | -15 |
| Guangdong | 332 | -40 | 17.6 | 1.8 | 881 | 26 | 331 | 6 |
| Guangxi | 403 | -11 | 15.5 | 1.3 | 666 | 8 | 790 | -4 |

| | RAIN Current (mm) | RAIN 15YA Departure (%) | TEMP Current (°C) | TEMP 15YA Departure (°C) | RADPAR Current (MJ/m ²) | RADPAR 15YA Departure (%) | BIOMSS Current (gDM/m ²) | BIOMSS 5YA Departure (%) |
|---------------------------|-------------------------|----------------------------------|-------------------------|-----------------------------|---|------------------------------------|--|-----------------------------------|
| Guizhou | 426 | 7 | 9.8 | 0.5 | 515 | -18 | 746 | 4 |
| Hebei | 66 | 33 | 1.3 | 0.5 | 874 | -6 | 254 | 21 |
| Heilongjiang | 130 | 27 | -7.5 | 0.9 | 708 | -5 | 497 | 24 |
| Henan | 200 | 44 | 8.3 | 0.9 | 819 | -9 | 271 | 21 |
| Hubei | 388 | 16 | 9.0 | 0.8 | 686 | -14 | 697 | 9 |
| Hunan | 469 | -11 | 10.9 | 1.1 | 609 | -6 | 783 | 0 |
| Jiangsu | 218 | -6 | 9.1 | 1.3 | 789 | -8 | 292 | 22 |
| Jiangxi | 458 | -26 | 12.3 | 1.5 | 714 | 6 | 585 | 5 |
| Jilin | 111 | 6 | -4.4 | 1.3 | 785 | -5 | 833 | -1 |
| Liaoning | 102 | 32 | -1.5 | 0.4 | 829 | -5 | 309 | 31 |
| Inner Mongolia | 83 | 46 | -6.0 | 0.9 | 824 | -5 | 226 | 22 |
| Ningxia | 86 | 32 | 1.0 | 0.5 | 935 | -7 | 294 | 19 |
| Shaanxi | 180 | 36 | 4.9 | 0.8 | 840 | -10 | 557 | 3 |
| Shandong | 134 | 62 | 6.5 | 0.9 | 860 | -8 | 393 | 30 |
| Shanxi | 78 | 21 | 1.8 | 1.1 | 900 | -6 | 398 | 15 |
| Sichuan | 312 | 10 | 7.4 | 0.6 | 806 | -7 | 276 | 9 |
| Yunnan | 207 | -5 | 11.6 | 0.3 | 1023 | -1 | 539 | -1 |
| Zhejiang | 411 | -21 | 10.5 | 1.5 | 736 | -1 | 811 | 5 |