

Annex A. Agroclimatic indicators and BIOMSS

Tables in this Annex provide additional information about the agroclimatic indicators—RAIN, TEMP, and RADPAR—and BIOMSS for the Monitoring and Reporting Units (MRU) (table A.1), thirty-one main producing and exporting countries (A.2), regions or provinces within large countries—Argentina, Australia, Brazil, Canada, India, Kazakhstan, Russia, and the United States (tables A.3 through A.10), and China (table A.11).

Table A.1. July to October 2014 agroclimatic indicators and biomass by global Monitoring and Reporting Unit, current value and departure from average

65 Global MRUs	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA dep. (%)	Current (°C)	13YA dep. (°C)	Current (MJ/m ²)	13YA dep. (%)	Current (gDM/m ²)	5YA dep. (%)
Equatorial Central Africa	439	-3	25.3	1.3	1152	5	1208	0
East African Highlands	585	-5	19.7	0.6	1127	0	1560	-1
Gulf of Guinea	893	6	26.6	0.6	981	1	2034	4
Horn of Africa	137	2	24.1	0.9	1245	0	448	6
Madagascar(main)	162	37	22.3	0.8	1110	0	494	33
SW Madagascar	52	-17	22.3	0.1	1173	-2	222	3
North Africa Mediterranean	108	16	24.8	1.1	1298	0	398	6
Sahel	636	20	29.5	1.3	1251	2	1665	13
Southern Africa	48	-25	21.9	0.9	1193	2	191	-17
S. Africa Western Cape	70	-58	13.4	1.4	942	0	319	-42
British Columbia To Colorado	264	45	12.9	1.4	1100	-4	914	34
America northern great plains	422	61	17.9	0.4	1065	-3	1151	27
America corn belt	423	4	17.5	-0.1	982	-3	1357	0
America cotton belt Mexican coastal plain	431	-2	24.4	0.5	1134	1	1293	5
Sub boreal north America	310	14	12.7	0.8	857	-1	1122	3
America West Coast	95	12	18.7	2.6	1233	-4	321	14
Sierra Madre	613	-4	20.3	0.7	1213	1	1607	3
SW Mexico and N. Mexico highlands	211	18	22.1	1.4	1259	-3	788	32
Northern South and Central America	955	1	27.5	0.9	1083	3	2080	1
Caribbean	856	10	27.6	0.5	1256	3	1994	0
Central Northern Andes	324	-13	16.6	1.6	1122	3	836	5
Brazil Nordeste	44	-23	27.4	2.4	1217	-1	184	-28
Central Eastern Brazil	221	10	26.0	2.0	1134	1	718	3
Amazon	355	-11	28.6	0.8	1146	2	1124	-5
Central north Argentina	109	18	20.9	2.1	963	-2	437	32
SE Brazil Concepcion Bahia Blanca	522	24	18.2	2.2	899	-1	1311	15
SW southern cone	329	-16	7.6	0.2	713	-5	826	5
Semi-arid southern cone	95	45	11.7	1.2	918	-4	376	76
Caucasus	162	-7	19.5	0.3	1115	-1	623	-1
Central Asia Pamir mountains	235	55	18.5	1.1	1221	-2	712	41
Western Asia	66	17	23.9	1.0	1228	-1	255	8
China Gansu Xinjiang	317	198	16.7	0.3	1106	-2	922	120
China Hainan	1135	-3	28.0	1.3	1102	5	1900	-12
China Huanghuaihai	439	-6	23.0	0.5	1009	0	1398	8
China Inner Mongolia	365	39	15.9	0.3	1050	-1	1279	25
China Loess region	397	10	18.0	0.6	1017	0	1378	10
China Lower Yangtze	626	28	25.1	0.5	988	-5	1559	13
North East China	369	-3	16.2	0.1	980	3	1248	-3
China Qinghai Tibet	850	29	12.2	0.9	1008	0	1299	8
Southern China	704	-3	25.0	1.2	1014	1	1703	0
South West China	658	21	21.2	0.8	905	-1	1732	14
Taiwan	641	-36	26.2	1.5	1128	4	1325	-20
East Asia	470	-26	17.5	0.3	927	3	1337	-16
Southern Himalayas	1145	15	25.8	1.1	944	1	1853	0

65 Global MRUs	RAIN		TEMP		RADPAR		BIOMSS	
	Current	13YA	Current	13YA	Current	13YA	Current	5YA dep.
	(mm)	dep. (%)	(°C)	dep. (°C)	(MJ/m ²)	dep. (%)	(gDM/m ²)	(%)
Southern Asia	1141	20	27.8	1.2	926	0	1839	0
Southern Japan and Korea	787	1	22.2	-0.4	900	-6	1759	-1
Mongolia region	417	255	15.7	0.8	1121	0	1179	142
S. Asia Punjab to Gujarat	598	14	30.3	1.3	1055	0	1063	-10
SE Asia islands	728	-15	26.3	0.9	1057	2	1694	-15
SE Asia mainland	1212	0	27.8	1.1	976	4	2262	0
Eastern Siberia	245	-17	10.9	-0.5	836	3	1030	-12
Eastern Central Asia	233	-4	9.4	-0.7	943	3	943	-5
North Australia	45	-56	24.2	0.5	1226	2	212	-51
Australia Queensland to Victoria	98	-43	13.3	0.8	971	2	433	-40
Australia Nullarbor Darling	198	-8	14.3	1.9	900	-2	749	2
New Zealand	113	-65	8.0	-0.6	719	-3	425	-59
Boreal Eurasia	312	-5	11.0	0.2	724	3	1099	-7
Ukraine to URAL Mountains	177	-28	14.5	-0.4	847	5	764	-23
Mediterranean Europe and Turkey	157	-5	19.5	-0.5	1147	-4	588	4
W. Europe (non Mediterranean)	319	7	16.8	0.8	868	-3	1193	11
Boreal north America	419	15	7.9	0.5	660	5	1165	6
URAL to Altai Mountains	253	33	12.2	-1.2	828	-4	998	29
Australian Desert	86	1	15.3	1.4	1015	1	399	1
Old World Deserts	42	60	30.4	1.1	1357	-1	159	19
Sub-Arctic America	230	195	-3.2	-4.3	275	-1	849	374

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 five-year (5YA) or thirteen-year average (13YA) for the same period between July and October.

Table A.2. July-October 2014 agroclimatic indicators and biomass by country, current value and departure from average

31 Countries	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA Departure (%)	Current (°C)	13YA Departure (°C)	Current (MJ/m ²)	13YA Departure (%)	Current (gDM/m ²)	5YA Departure (%)
Argentina	263	12	17.0	1.9	893	-4	796	14
Australia	107	-37	14.3	0.9	984	1	476	-31
Bangladesh	1717	23	29.1	1.1	908	2	2263	4
Brazil	272	4	26.1	1.7	1132	1	798	1
Cambodia	1429	26	28.8	1.3	1030	4	2520	8
Canada	306	6	13.3	1.0	896	-2	1099	6
China	578	14	21.5	0.7	984	-1	1429	12
Egypt	4	-17	26.7	0.0	1324	-1	18	0
Ethiopia	689	-2	20.7	0.7	1117	0	1762	2
France	285	-3	17.7	1.1	911	-5	1099	6
Germany	347	18	16.5	1.1	802	-2	1370	17
India	1077	18	27.8	1.2	950	0	1681	-3
Indonesia	647	-20	26.3	0.8	1079	4	1493	-21
Iran	51	37	24.0	1.0	1285	-1	170	30
Kazakhstan	194	40	14.3	-0.7	919	-2	778	33
Mexico	705	-1	24.4	0.8	1195	1	1574	8
Myanmar	1155	-8	26.7	1.2	880	5	2169	-5
Nigeria	853	8	27.3	0.7	1055	0	1997	6
Pakistan	263	1	27.5	1.3	1188	-1	601	-15
Philippines	1215	5	26.6	0.6	1031	0	2250	-3
Poland	280	10	16.3	1.0	830	4	1154	10
Romania	266	-9	17.3	0.4	957	0	1040	13
Russia	204	-17	13.1	-0.8	839	2	884	-10
South Africa	77	-39	15.7	0.9	1091	2	324	-24
Thailand	1046	7	27.7	0.9	1004	5	2210	1
Turkey	168	35	20.3	1.1	1177	-3	597	19
United Kingdom	342	4	14.3	0.9	742	3	1228	-6

31 Countries	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA Departure (%)	Current (°C)	13YA Departure (°C)	Current (MJ/m ²)	13YA Departure (%)	Current (gDM/m ²)	5YA Departure (%)
Ukraine	164	-29	16.8	0.1	939	7	698	-22
United States	402	16	20.1	0.4	1094	-2	1137	14
Uzbekistan	74	175	21.4	-0.2	1237	-1	292	175
Vietnam	1122	1	26.9	1.1	999	1	2159	2

See note table A.1.

Table A.3. Argentina, July-October 2014 agroclimatic indicators and biomass (by province), current value and departure from average

	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA Departure (%)	Current (°C)	13YA Departure (°C)	Current (MJ/m ²)	13YA Departure (%)	Current (gDM/m ²)	5YA Departure (%)
Buenos Aires	323	16	13.4	1.4	817	-5	1010	13
Chaco	159	-19	21.6	2.7	905	-6	630	1
Cordoba	128	-15	16.1	2.1	941	-3	506	-10
Corrientes	491	20	19.9	2.5	898	-3	1378	20
Entre Rios	370	8	16.9	2.3	882	-3	1211	16
La Pampa	262	30	13.6	1.3	838	-7	913	41
Misiones	906	41	20.6	2.7	927	1	1913	13
Santiago Del Estero	117	20	20.2	2.4	949	-5	471	44
San Luis	114	-13	15.1	2.8	947	-2	464	-13
Salta	129	156	20.3	1.0	1010	-3	456	224
Santa Fe	224	0	18.1	2.6	907	-4	804	8
Tucuman	-	-	-	-	-	-	-	-

See note table A.1.

Table A.4. Australia, July-October 2014 agroclimatic indicators and biomass (by state), current value and departure from average

	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA Departure (%)	Current (°C)	13YA Departure (°C)	Current (MJ/m ²)	13YA Departure (%)	Current (gDM/m ²)	5YA Departure (%)
New South Wales	110	-29	13.0	0.9	991	1	463	-28
South Australia	91	-48	12.9	0.8	906	5	424	-45
Victoria	84	-65	11.1	0.8	834	4	405	-58
Western Australia	188	-8	15.0	1.5	928	-2	721	2

See note table A.1.

Table A.5. Brazil, July-October 2014 agroclimatic indicators and biomass (by state), current value and departure from average

	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA Departure (%)	Current (°C)	13YA Departure (°C)	Current (MJ/m ²)	13YA Departure (%)	Current (gDM/m ²)	5YA Departure (%)
Ceara	22	-26	28.6	1.9	1341	-1	112	-41
Goias	162	-8	26.6	2.0	1191	1	556	-14
Mato Grosso Do Sul	398	50	25.7	2.7	1087	1	1175	25
Mato Grosso	213	-12	28.9	1.8	1162	0	761	-1
Minas Gerais	137	-12	23.9	2.0	1157	3	473	-17
Parana	663	28	21.5	2.8	1015	4	1708	18
Rio Grande Do Sul	845	27	17.9	2.2	870	-1	1952	21
Santa Catarina	672	2	17.8	2.5	904	4	1698	7
Sao Paulo	285	3	23.2	2.0	1092	2	935	-4

See note table A.1.

Table A.6. Canada, July-October 2014 agroclimatic indicators and biomass (by province), current value and departure from average

	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA Departure (%)	Current (°C)	13YA Departure (°C)	Current (MJ/m ²)	13YA Departure (%)	Current (gDM/m ²)	5YA Departure (%)
Alberta	234	19	13.2	1.4	935	1	904	4
Manitoba	265	8	14.3	0.0	918	-2	1072	-3
Saskatchewan	230	15	13.7	1.1	939	-1	933	8

See note table A.1.

Table A.7. India, July-October 2014 agroclimatic indicators and biomass (by state), current value and departure from average

	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA Departure (%)	Current (°C)	13YA Departure (°C)	Current (MJ/m ²)	13YA Departure (%)	Current (gDM/m ²)	5YA Departure (%)
Arunachal Pradesh	1567	6	23.4	0.6	818	1	2067	-4
Andhra Pradesh	834	11	28.9	1.5	957	0	1720	-4
Assam	1749	29	29.4	1.0	873	3	2325	1
Bihar	1200	29	29.9	0.7	918	-3	1938	4
Chandigarh	-	-	-	-	-	-	-	-
Chhattisgarh	1428	32	27.4	1.1	901	1	2126	2
Daman and Diu	510	-17	29.4	1.6	936	-1	1187	-2
Delhi	320	-34	30.7	1.8	1091	2	1099	-23
Dadra and Nagar Haveli	1635	10	27.7	1.1	828	0	1487	-26
Gujarat	794	2	30.1	1.5	975	0	1165	-18
Goa	1559	-5	27.0	0.4	795	-3	2268	4
Himachal Pradesh	1066	36	15.9	1.4	1076	-2	1518	7
Haryana	397	-14	30.0	1.5	1104	1	1171	-11
Jharkhand	1067	9	28.1	1.2	922	-2	2044	-1
Kerala	1357	-2	26.1	0.4	873	-1	2341	2
Karnataka	1028	19	25.4	1.0	909	1	1801	8
Meghalaya	3074	53	25.5	0.9	846	0	2399	4
Maharashtra	1252	25	27.1	1.3	899	2	1715	-7
Manipur	837	-17	23.9	1.4	906	9	2041	-8
Madhya Pradesh	918	5	28.1	1.4	950	2	1582	-10
Mizoram	1531	8	25.3	1.0	960	9	2388	0
Nagaland	1420	14	24.0	0.5	891	3	2282	0
Orissa	1457	28	27.8	0.9	877	0	2224	3
Puducherry	2013	6	25.7	0.0	853	-5	2548	2
Punjab	407	-11	29.6	0.8	1098	0	986	-22
Rajasthan	580	33	30.5	1.7	1081	0	1111	-7
Sikkim	1560	13	15.8	1.5	915	-7	1640	7
Tamil Nadu	698	17	29.1	1.8	1044	-2	1713	11
Tripura	1988	52	28.3	0.7	938	6	2588	12
Uttarakhand	1414	44	19.1	1.1	999	-1	1727	10
Uttar Pradesh	760	-2	30.1	1.2	1012	2	1596	-8
West Bengal	1265	6	29.4	1.1	896	-2	2128	2

See note table A.1.

Table A.8. Kazakhstan, July-October 2014 agroclimatic indicators and biomass (by province), current value and departure from average

	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA Departure (%)	Current (°C)	13YA Departure (°C)	Current (MJ/m ²)	13YA Departure (%)	Current (gDM/m ²)	5YA Departure (%)
Akmolinskaya	169	16	12.8	-1.1	831	-5	783	24
Karagandinskaya	183	33	12.8	-0.7	918	0	833	45
Kustanayskaya	161	11	13.5	-1.2	818	-5	687	13
Pavlodarskaya	189	20	13.4	-0.4	833	-2	871	34
Severo kazachstanskaya	221	20	11.8	-2.0	746	-7	948	28
Vostochno kazachstanskaya	300	85	12.7	0.0	964	-2	1111	57
Zapadno kazachstanskaya	41	-62	17.1	-0.7	958	3	222	-52

See note table A.1.

Table A.9. Russia, July-October 2014 agroclimatic indicators and biomass (by oblast), current value and departure from average

	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA Departure (%)	Current (°C)	13YA Departure (°C)	Current (MJ/m ²)	13YA Departure (%)	Current (gDM/m ²)	5YA Departure (%)
Bashkortostan Rep.	213	-3	11.7	-2.2	768	-6	913	-3
Chelyabinskaya Oblast	257	19	11.2	-2.3	742	-7	1003	14
Gorodovikovsk	-	-	-	-	-	-	-	-
Krasnodarskiy Krai	230	-14	15.0	-0.3	895	1	1014	-3
Kurganskaya Oblast	288	42	10.9	-2.8	703	-10	1140	49
Kirovskaya Oblast	246	-11	11.3	-2.0	740	2	1081	-5
Kurskaya Oblast	116	-50	15.6	-0.3	904	10	529	-44
Lipetskaya Oblast	88	-62	15.5	-0.1	890	9	433	-53
Mordoviya Rep.	158	-38	13.6	-1.3	841	7	736	-29
Novosibirskaya Oblast	215	-3	11.0	-1.4	786	0	965	2
Nizhegorodskaya Oblast	186	-31	13.1	-1.2	810	7	854	-23
Orenburgskaya Oblast	90	-42	14.1	-1.6	875	0	452	-33
Omskaya Oblast	266	28	10.6	-2.2	726	-5	1099	38
Permskaya Oblast	292	6	9.8	-2.9	695	-5	1237	9
Penzenskaya Oblast	136	-40	14.3	-1.0	870	7	646	-32
Rostovskaya Oblast	111	-37	18.6	-0.7	975	2	528	-22
Ryazanskaya Oblast	107	-59	14.1	-0.9	862	10	512	-52
Stavropolskiy Krai	167	-22	19.9	-0.4	975	0	754	-12
Sverdlovskaya Oblast	299	21	9.5	-3.1	658	-10	1212	30
Samarskaya Oblast	114	-39	14.1	-1.6	868	3	561	-29
Saratovskaya Oblast	75	-52	16.1	-0.9	924	6	377	-43
Tambovskaya Oblast	96	-56	15.2	-0.6	896	9	472	-49
Tyumenskaya Oblast	274	27	10.1	-2.9	695	-7	1166	41
Tatarstan Rep.	207	-9	13.0	-1.8	782	-1	915	0
Ulyanovskaya Oblast	168	-24	13.7	-1.6	838	3	741	-20
Udmurtiya Rep.	262	1	11.1	-2.4	717	-4	1116	5
Volgogradskaya Oblast	90	-35	17.6	-0.7	957	5	432	-26
Voronezhskaya Oblast	90	-50	16.3	-0.5	927	7	444	-42

See note table A.1.

Table A.10. United States, July-October 2014 agroclimatic indicators and biomass (by state), current value and departure from average

	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA Departure (%)	Current (°C)	13YA Departure (°C)	Current (MJ/m ²)	13YA Departure (%)	Current (gDM/m ²)	5YA Departure (%)
Arkansas	545	33	23.4	0.1	1149	1	1540	17
California	52	17	19.9	2.8	1312	-5	204	15
Idaho	188	97	15.2	1.1	1183	-5	785	80
Indiana	517	27	18.9	-0.8	1038	-4	1574	23
Illinois	628	68	19.4	-0.6	1055	-4	1597	33
Iowa	712	91	18.2	-0.4	1022	-7	1759	55
Kansas	536	60	21.9	0.6	1166	-1	1414	32
Michigan	380	11	15.6	-0.9	968	-5	1282	6
Minnesota	358	7	16.1	0.0	950	-7	1215	9
Missouri	710	77	21.1	0.0	1102	-3	1517	21
Montana	209	60	15.6	1.1	1088	-5	856	33
Nebraska	509	90	19.1	0.4	1146	-1	1475	51
North Dakota	254	18	15.7	0.2	1001	-4	934	1
Ohio	337	-15	18.6	-0.3	1006	-3	1220	-10
Oklahoma	429	27	24.0	0.1	1171	-2	1305	20
Oregon	145	38	17.3	2.3	1167	-3	594	45
South Dakota	315	37	17.8	0.0	1067	-5	1130	23
Texas	306	-5	26.3	0.7	1196	-1	984	10
Washington	167	28	17.2	2.3	1084	-3	616	27
Wisconsin	433	13	16.0	-0.5	947	-7	1348	7

See note table A.1.

Table A.11. China, July-October 2014 agroclimatic indicators and biomass (by province), current value and departure from average

	RAIN		TEMP		RADPAR		BIOMSS	
	Current (mm)	13YA Departure (%)	Current (°C)	13YA Departure (°C)	Current (MJ/m ²)	13YA Departure (%)	Current (gDM/m ²)	5YA Departure (%)
Anhui	676	24	24.1	-0.3	923	-8	1762	19
Chongqing	748	36	22.5	0.8	895	-2	1845	19
Fujian	631	21	25.2	1.2	1074	1	1464	4
Gansu	589	-15	27.4	1.4	1101	4	1486	-6
Guangdong	350	12	15.8	0.6	1012	1	1205	18
Guangxi	701	16	26.3	1.1	1029	-1	1733	15
Guizhou	647	40	22.3	1.0	934	1	1707	30
Hebei	404	16	20.1	0.8	1031	-1	1364	12
Heilongjiang	490	4	22.8	0.1	989	0	1583	18
Henan	421	24	15.3	0.0	937	1	1350	8
Hubei	584	15	23.1	0.0	938	-5	1634	10
Hunan	647	46	24.7	0.3	959	-6	1532	21
Jiangsu	316	-20	16.8	0.3	1020	5	1115	-14
Jiangxi	566	3	23.9	-0.6	907	-9	1582	10
Jilin	614	38	26.3	0.8	1033	-4	1451	10
Liaoning	277	-39	19.2	0.7	1064	6	1004	-29
Inner Mongolia	373	49	15.0	0.2	1027	0	1267	29
Ningxia	309	42	17.1	0.8	1067	-2	1127	35
Shaanxi	740	25	20.0	0.6	861	-1	1746	11
Shandong	360	-25	23.0	0.6	1027	2	1233	-5
Shanxi	453	-3	19.3	0.5	966	0	1457	2
Sichuan	439	25	17.3	0.6	1027	-2	1460	15
Yunnan	660	-1	19.8	0.9	923	0	1720	2
Zhejiang	773	38	24.6	0.4	927	-10	1793	18

See note table A.1.