

AAGWa Crop Production Forecasts Brief Series Kenya – Beans

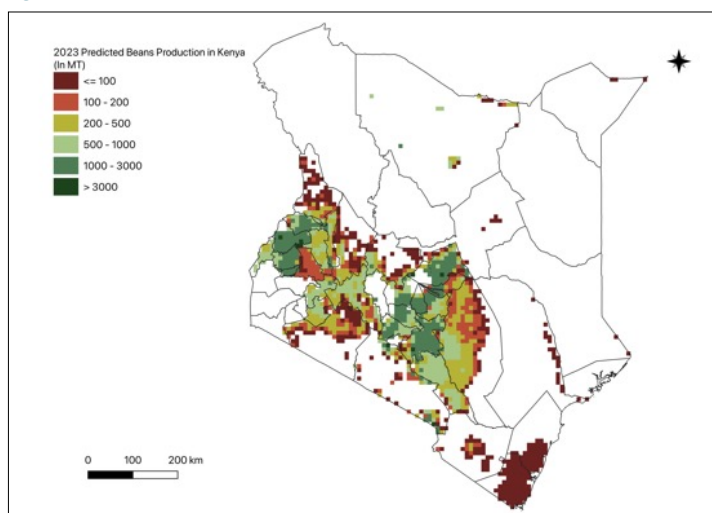
Aissatou Ndoye*, Mansour Dia **, and Khadim Dia***

No. 48, August 2023

The crop production forecast brief series by AKADEMIYA2063's Africa Agriculture Watch (AAGWa) aims to provide more accurate and timely data on harvest and yields for nine major crops across nearly 50 African countries. The timeliness, wide availability, and easy access to this type of data will allow stakeholders across the value chain to better plan and execute policy and business actions more efficiently. The data published in the briefs are generated through the Africa Crop Production (AfCP) model, an Artificial Intelligence (AI-based) model applied to remotely sensed geo- biophysical data to produce estimates at pixel as well as administrative levels as early as the beginning of every growing season. In Brief 48, we provide forecasts on beans production in Kenya.

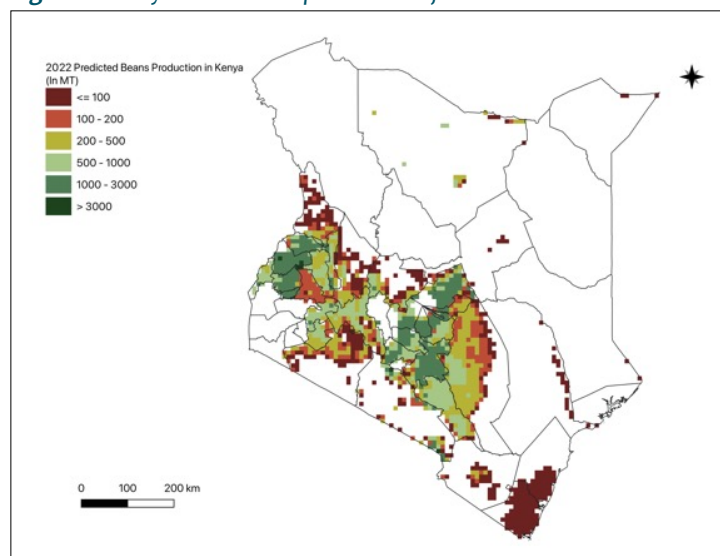
In 2023, beans production in Kenya is projected to reach 804,359 metrics tons (MT), indicating a 1% increase over 2022 production levels. The most significant beans production levels are expected in the Southeastern districts, particularly in Masinga (Machakos), Mwala (Machakos), Kajiado South (Kajiado), Yatta (Machakos), and Machakos Town (Machakos), with production volumes estimated at 20,674 MT, 20,497 MT, 18,408 MT, 15,398, and 14,946 MT, respectively. In comparison, lower produc-

Figure 1. Kenya 2023 beans production forecast.



Data Source: Africa Agriculture Watch (www.aagwa.org).

Figure 2. Kenya 2022 beans production forecast.



Data Source: Africa Agriculture Watch (www.aagwa.org).

tion values are observed in Lafey (Mandera), Mandera North (Mandera), Ijara (Garissa), and Wajir North (Wajir), with production of, 31 MT, 38 MT, 46 MT, and 54 MT, respectively.

Moreover, the most significant beans production increases in 2023 are expected to occur in Mwala, Yatta, Masinga, Mwea (Kirinyaga), and Kajiado South, with differences of, 1,298 MT, 1,090 MT, 1,051 MT, 976 MT, and 949 MT, respectively. These correspond to changes of, respectively, 7%, 8%, 5%, 7%, and 5%.

*Associate Scientist, Department of Data Management, Digital Products, and Technology, AKADEMIYA2063

** Associate Scientist, Department of Data Management, Digital Products, and Technology, AKADEMIYA2063

***Senior Associate Scientist, Department of Data Management, Digital Products, and Technology, AKADEMIYA2063




Annex – 2023 Kenya Beans Production Forecast at District level

Counties	Districts	2023 Production (MT)	2022 Production (MT)	Difference (MT)	Change (%)
Baringo	805	539	506	33	6%
Baringo	Baringo Central	2064	2259	-195	-9%
Baringo	Baringo North	2430	2539	-109	-4%
Baringo	Baringo South	1508	1295	213	16%
Baringo	Eldama Ravine	2815	3096	-281	-9%
Baringo	Mogotio	1834	1710	124	7%
Baringo	Tiaty	654	499	155	31%
Bomet	Bomet Central	1895	1974	-79	-4%
Bomet	Bomet East	1571	1598	-28	-2%
Bomet	Chepalungu	2362	2369	-6	0%
Bomet	Konoin	4867	5203	-337	-6%
Bomet	Sotik	2673	2787	-114	-4%
Bungoma	Bumula	3653	3767	-114	-3%
Bungoma	Kabuchai	2972	3031	-59	-2%
Bungoma	Kanduyi	6409	6595	-186	-3%
Bungoma	Kimilili	4183	4268	-85	-2%
Bungoma	Likuyani	6941	6839	102	1%
Bungoma	Lugari	6990	6894	96	1%
Bungoma	Mt. Elgon	10115	10053	61	1%
Bungoma	Sirisia	5936	5780	156	3%
Bungoma	Tongaren	6134	6216	-82	-1%
Bungoma	Webute West	4068	4175	-107	-3%
Bungoma	Webuye East	2875	2941	-66	-2%
Busia	Budalangi	651	666	-15	-2%
Busia	Butula	2429	2554	-125	-5%
Busia	Funyula	2515	2618	-103	-4%
Busia	Matayos	1421	1500	-79	-5%
Busia	Nambale	1949	2066	-118	-6%
Busia	Teso North	905	975	-70	-7%
Busia	Teso South	1228	1342	-114	-8%
Elgeyo-Marakwet	Keiyo North	2701	2831	-130	-5%
Elgeyo-Marakwet	Keiyo South	4653	4893	-240	-5%
Elgeyo-Marakwet	Marakwet East	3872	4012	-140	-3%
Elgeyo-Marakwet	Marakwet West	4437	4557	-120	-3%
Embu	Manyatta	6877	6456	422	7%
Embu	Mbeere North	4683	4727	-44	-1%
Embu	Mbeere South	9615	9403	211	2%
Embu	Runyenjes	6445	6114	331	5%
Garissa	Ijara	46	73	-27	-37%
Isiolo	Isiolo North	799	845	-47	-6%
Isiolo	Isiolo South	368	350	18	5%

Kajiado	Kajiado Central	855	946	-92	-10%
Kajiado	Kajiado East	9970	9776	195	2%
Kajiado	Kajiado North	4033	3892	142	4%
Kajiado	Kajiado South	18408	17460	949	5%
Kajiado	Kajiado West	10040	9770	270	3%
Kakamega	Butere	2979	3101	-121	-4%
Kakamega	Ikolomani	1297	1335	-38	-3%
Kakamega	Khwisero	1437	1472	-35	-2%
Kakamega	Lugari	4223	4065	158	4%
Kakamega	Lurambi	4283	4390	-107	-2%
Kakamega	Malava	5446	5602	-156	-3%
Kakamega	Matungu	3879	4042	-163	-4%
Kakamega	Mumias East	2388	2464	-76	-3%
Kakamega	Mumias West	976	1016	-40	-4%
Kakamega	Navakholo	4050	4160	-110	-3%
Kakamega	Shinyalu	4311	4507	-195	-4%
Kericho	Ainamoi	808	850	-41	-5%
Kericho	Belgut	4160	4399	-239	-5%
Kericho	Bureti	2692	2799	-107	-4%
Kericho	Kipkelion East	4982	5278	-296	-6%
Kericho	Kipkelion West	3030	3161	-131	-4%
Kericho	Sigowet/Soin	2197	2330	-133	-6%
Kiambu	Gatundu North	2940	2936	4	0%
Kiambu	Gatundu South	1119	1108	12	1%
Kiambu	Githunguri	4538	4494	45	1%
Kiambu	Juja	2778	2781	-3	0%
Kiambu	Kabete	1077	1065	12	1%
Kiambu	Kiambu	1935	1911	24	1%
Kiambu	Kikuyu	1530	1522	8	0%
Kiambu	Lari	2485	2462	23	1%
Kiambu	Limuru	3283	3250	33	1%
Kiambu	Ruiru	879	896	-17	-2%
Kiambu	Thika Town	1713	1741	-28	-2%
Kilifi	Ganze	917	574	343	60%
Kilifi	Kaloleni	536	329	207	63%
Kilifi	Kilifi North	279	218	60	28%
Kilifi	Kilifi South	285	159	125	79%
Kilifi	Rabai	57	32	25	79%
Kirinyaga	Gichugu	2991	2882	109	4%
Kirinyaga	Kirinyaga Central	3510	3376	134	4%
Kirinyaga	Mwea	14478	13501	976	7%
Kirinyaga	Ndia	5258	5052	205	4%
Kisumu	Muhoroni	260	303	-43	-14%
Kitui	Kitui Central	2809	2761	47	2%
Kitui	Kitui East	9204	9572	-367	-4%
Kitui	Kitui Rural	10922	10745	177	2%
Kitui	Kitui South	13032	13406	-375	-3%

Kitui	Kitui West	6488	6267	221	4%
Kitui	Mwingi Central	6494	7075	-582	-8%
Kitui	Mwingi North	7973	8322	-350	-4%
Kitui	Mwingi West	2121	2230	-109	-5%
Kwale	Kinango	1156	1287	-131	-10%
Kwale	Lungalunga	1168	1099	69	6%
Kwale	Matuga	461	433	27	6%
Kwale	Msambweni	298	405	-107	-26%
Laikipia	Laikipia East	2823	2829	-6	0%
Laikipia	Laikipia North	2108	2394	-285	-12%
Laikipia	Laikipia West	11340	11137	203	2%
Machakos	Kangundo	2656	2529	127	5%
Machakos	Kathiani	3313	3131	182	6%
Machakos	Machakos Town	14946	14105	841	6%
Machakos	Masinga	20674	19623	1051	5%
Machakos	Matungulu	8037	7714	323	4%
Machakos	Mavoko	2135	2241	-106	-5%
Machakos	Mwala	20497	19199	1298	7%
Machakos	unknown 7	479	500	-20	-4%
Machakos	Yatta	15398	14308	1090	8%
Makueni	Kaiti	3121	3137	-16	-1%
Makueni	Kibwezi East	8638	8638	0	0%
Makueni	Kibwezi West	9956	9936	21	0%
Makueni	Kilome	7803	7648	155	2%
Makueni	Makueni	11397	11253	144	1%
Makueni	Mbooni	7285	7267	18	0%
Mandera	Lafey	31	21	11	52%
Mandera	Mandera East	78	57	20	36%
Mandera	Mandera North	38	28	10	37%
Marsabit	Laisamis	1079	990	89	9%
Marsabit	Moyale	1526	1465	60	4%
Marsabit	North Horr	2171	1985	186	9%
Marsabit	Saku	3334	3201	133	4%
Meru	Buuri	11948	11385	563	5%
Meru	Central Imenti	10831	10251	580	6%
Meru	Igembe Central	10516	9963	553	6%
Meru	Igembe North	11219	10526	693	7%
Meru	Igembe South	6800	6462	338	5%
Meru	North Imenti	8048	7627	421	6%
Meru	South Imenti	6666	6386	280	4%
Meru	Tigania East	7992	7737	255	3%
Meru	Tigania West	6024	5778	246	4%
Meru	unknown 5	2796	2631	165	6%
Migori	Suna East	211	208	3	1%
Murang'a	Gatanga	5179	5154	25	0%
Murang'a	Kandara	4514	4475	39	1%
Murang'a	Kangema	1405	1390	15	1%
Murang'a	Kigumo	2438	2420	18	1%

Murang'a	Kiharu	4638	4575	63	1%
Murang'a	Maragwa	4742	4660	82	2%
Murang'a	Mathioya	2831	2787	45	2%
Nairobi	Kasarani	428	461	-33	-7%
Nairobi	Westlands	1011	999	12	1%
Nakuru	Bahati	4047	4069	-21	-1%
Nakuru	Gilgil	4101	3912	189	5%
Nakuru	Kuresoi North	3837	4102	-265	-6%
Nakuru	Kuresoi South	2304	2477	-173	-7%
Nakuru	Molo	3186	3371	-185	-5%
Nakuru	Naivasha	5829	5696	133	2%
Nakuru	Nakuru Town East	682	680	2	0%
Nakuru	Nakuru Town West	695	685	10	1%
Nakuru	Njoro	4296	4342	-46	-1%
Nakuru	Rongai	6420	6282	138	2%
Nakuru	Subukia	2035	2125	-90	-4%
Nandi	Aldai	2286	2472	-186	-8%
Nandi	Chesumei	825	970	-145	-15%
Nandi	Emgwen	557	737	-180	-24%
Nandi	Mosop	1463	1772	-309	-17%
Nandi	Nandi Hills	949	1114	-165	-15%
Nandi	Tinderet	792	968	-176	-18%
Narok	Emurua Dikirr	1045	1067	-22	-2%
Narok	Kilgoris	2436	2400	36	1%
Narok	Narok East	2208	2118	90	4%
Narok	Narok North	3549	3601	-52	-1%
Narok	Narok South	3934	3795	139	4%
Narok	Narok West	2122	1930	192	10%
Nyandarua	Kipipiri	1869	1814	55	3%
Nyandarua	Ndaragwa	533	519	14	3%
Nyandarua	Oi Jorok	819	811	8	1%
Nyeri	Kieni	8587	8518	69	1%
Nyeri	Mathira	4138	4072	65	2%
Nyeri	Mukurweini	2385	2357	28	1%
Nyeri	Nyeri Town	1137	1122	15	1%
Nyeri	Othaya	2501	2482	19	1%
Nyeri	Tetu	4729	4676	53	1%
Siaya	Gem	1092	1132	-40	-4%
Siaya	Ugenya	809	851	-42	-5%
Taita Taveta	Mwatate	853	962	-109	-11%
Taita Taveta	Taveta	141	168	-28	-16%
Taita Taveta	Voi	1100	1273	-173	-14%
Taita Taveta	Wundanyi	572	597	-25	-4%
Tana River	Bura	76	85	-9	-10%
Tana River	Galole	146	225	-80	-35%
Tana River	Garsen	131	160	-29	-18%
Tharaka-Nithi	Chuka/Igambang'Ombe	10185	9652	533	6%



Tharaka-Nithi	Igembe South	331	362	-30	-8%
Tharaka-Nithi	Maara	5584	5281	303	6%
Tharaka-Nithi	Tharaka	3301	3463	-162	-5%
Trans Nzoia	Cherangany	8768	9108	-340	-4%
Trans Nzoia	Endebess	3983	4186	-203	-5%
Trans Nzoia	Kiminini	4662	4794	-132	-3%
Trans Nzoia	Kwanza	3199	3294	-95	-3%
Trans Nzoia	Saboti	4990	5202	-212	-4%
Trans Nzoia	unknown 4	1071	1110	-39	-4%
Uasin Gishu	Ainabkoi	3983	4158	-175	-4%
Uasin Gishu	Kapseret	1927	2041	-114	-6%
Uasin Gishu	Kesses	3294	3550	-255	-7%
Uasin Gishu	Moiben	3779	3939	-160	-4%
Uasin Gishu	Soy	4449	4685	-237	-5%
Uasin Gishu	Turbo	4810	4804	5	0%
Vihiga	Emuhaya	1900	1918	-18	-1%
Vihiga	Hamisi	2742	2810	-68	-2%
Vihiga	Luanda	1915	1929	-13	-1%
Vihiga	Sabatia	3469	3525	-56	-2%
Vihiga	Vihiga	1827	1848	-21	-1%
Wajir	Wajir North	54	52	2	4%
West Pokot	Kacheliba	1454	1594	-139	-9%
West Pokot	Kapenguria	1248	1267	-19	-1%
West Pokot	Pokot South	4944	5046	-102	-2%
West Pokot	Sigor	1439	1331	109	8%
West Pokot	unknown 3	233	165	67	41%
Total		804359	798221	6138	1%

MT (Metric tons): 1 MT is equivalent to 1,000 kilograms.

Change: refers to the relative difference and is calculated as (2023 prod – 2022 prod) divided by 2022 prod.

Suggested Citation: Ndoye, A., M. Dia, and K. Dia. 2023. AAgWa Crop Production Forecasts Brief Series: Kenya – Beans. AAgWa Crop Production Forecasts Brief Series, No. 48. Kigali: AKADEMIYA2063. <https://doi.org/10.54067/acpf.48>