



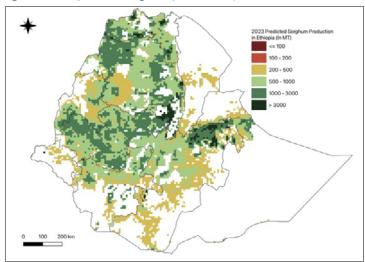
AAgWa Crop Production Forecasts Brief Series Ethiopia - Sorghum

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

No. 63, September 2023

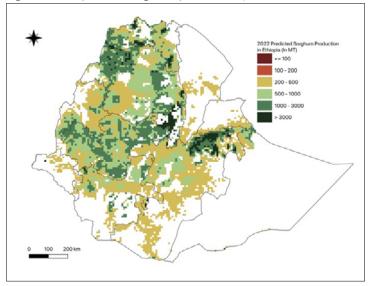
he crop production forecast brief series by AKADEMIYA2063's Africa Agriculture Watch (AAgWa) aims to provide more accurate and timely data on harvest and yields for nine major crops across nearly 50 African countries. The timeliness, wide availability, and easy access to this type of data will allow 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

Figure 1. Ethiopia 2023 sorghum production forecast.



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

Figure 2. Ethiopia 2023 sorghum production forecast.



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

geo-biophysical data to produce estimates at pixel as well as administrative levels as early as the beginning of every growing season. In Brief 63, we provide forecasts on maize production in Ethiopia.

In 2023, sorghum production in Ethiopia is expected to reach 5,781,899 metric tons (MT), which corresponds to a 5% increase over 2022 production levels. The highest sorghum producers are expected to be the Northern and Central zones, particularly in Semen Gondar (Amhara), Misraq Harerge (Oromia), Mirab Hararghe (Oromia), North Shewa (Oromia), Jimma (Oromia), and Mirab Shewa (Oromia), with production estimates reaching respectively, 537,263 MT, 370,804 MT, 292,645 MT, 284,800 MT, 215,174 MT, and 195,159 MT.

In contrast, there production is projected to be lowest in areas such as Jarar (Somali), Afar Zone 4 (Afar), Burji (Southern Nations, Nationalities and Peoples), Afder (Somali), Basketo (Southern Nations, Nationalities and Peoples), and Liben (Somali) with levels of respectively, 383 MT, 399 MT, 404 MT, 819 MT, 1,227 MT, and 2,713 MT.

Compared to 2022, the most significant sorghum production increases are expected to occur in zones such as Bale (Oromia), Borena (Oromia), Metekel (Benshangul-Gumaz), Arsi (Oromia), Mirab Gojjam (Amhara), and Debub Gondar (Amhara). These areas are expected to have differences of respectively, 44,251 MT, 33,594 MT, 30,282 MT, 29,565 MT, 27,387 MT, and 21,581 MT, respectively. These changes represent significant percentage shifts, of respectively, 41%, 46%, 29%, 25%, 61%, and 21%.

^{*}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 Ethiopia Sorghum Production Forecast at District level

Regions	Zones	2023 Production (MT)	2022 Production (MT)	Difference (MT)	Change (%)
Afar	Afar Zone 1	37311	24851	12459	50%
Afar	Afar Zone 3	27474	19252	8223	43%
Afar	Afar Zone 4	399	263	136	52%
Afar	Afar Zone 5	2768	2007	761	38%
Amhara	Agew Awi	85827	76815	9013	12%
Amhara	Argoba	6014	6433	-419	-7%
Amhara	Debub Gondar	124547	102966	21581	21%
Amhara	Debub Wollo	178008	168886	9122	5%
Amhara	Mirab Gojjam	72204	44817	27387	61%
Amhara	Misraq Gojjam	91677	77935	13742	18%
Amhara	North Shewa	284800	347515	-62715	-18%
Amhara	Oromia	66775	72005	-5230	-7%
Amhara	Semen Gondar	537263	581898	-44635	-8%
Amhara	Semen Wello	141334	147339	-6004	-4%
Amhara	Wag Himra	101113	94780	6332	7%
Benshangul-Gumaz	Asosa	104442	93991	10451	11%
Benshangul-Gumaz	Kemashi	62364	49145	13218	27%
Benshangul-Gumaz	Metekel	134362	104080	30282	29%
Dire Dawa	Dire Dawa	21837	22983	-1145	-5%
Gambela Peoples	Agnuak	29702	19221	10481	55%
Gambela Peoples	Majang	8901	6068	2833	47%
Gambela Peoples	Nuer	8173	7962	212	3%
Harari People	Hareri	18010	19640	-1630	-8%
Oromia	Arsi	146654	117089	29565	25%
Oromia	Bale	151806	107555	44251	41%
Oromia	Borena	106393	72799	33594	46%
Oromia	Debub Mirab Shewa	35994	27760	8234	30%
Oromia	Guji	14348	9444	4904	52%
Oromia	Horo Guduru	87234	80110	7124	9%
Oromia	Ilubabor	160298	148011	12287	8%
Oromia	Jimma	215174	209020	6154	3%
Oromia	Kelem Wellega	77356	66825	10531	16%
Oromia	Mirab Arsi	64024	49723	14301	29%
Oromia	Mirab Hararghe	292645	328899	-36255	-11%
Oromia	Mirab Shewa	195159	200079	-4920	-2%
Oromia	Mirab Welega	183705	182252	1453	1%
Oromia	Misraq Harerge	370804	395557	-24753	-6%
Oromia	Misraq Shewa	66816	50002	16813	34%

Regions	Zones	2023 Production (MT)	2022 Production (MT)	Difference (MT)	Change (%)
Oromia	Misraq Wellega	152973	136371	16602	12%
Oromia	North Shewa	148133	151443	-3310	-2%
Somali	Afder	819	566	253	45%
Somali	Fafan	79517	68964	10552	15%
Somali	Jarar	383	257	126	49%
Somali	Liben	2713	2301	412	18%
Somali	Siti	37402	28112	9291	33%
Southern Nations, Nationalities and Peoples	Alaba	5045	4866	179	4%
Southern Nations, Nationalities and Peoples	Alle	2960	2987	-28	-1%
Southern Nations, Nationalities and Peoples	Basketo	1227	1193	34	3%
Southern Nations, Nationalities and Peoples	Bench Maji	57213	48438	8775	18%
Southern Nations, Nationalities and Peoples	Burji	404	260	145	56%
Southern Nations, Nationalities and Peoples	Dawro	30116	22552	7564	34%
Southern Nations, Nationalities and Peoples	Debub Omo	45411	38485	6926	18%
Southern Nations, Nationalities and Peoples	Derashe	4038	3970	68	2%
Southern Nations, Nationalities and Peoples	Gamo Gofa	30268	28502	1766	6%
Southern Nations, Nationalities and Peoples	Gedeo	32302	33934	-1632	-5%
Southern Nations, Nationalities and Peoples	Gurage	33123	24793	8329	34%
Southern Nations, Nationalities and Peoples	Hadiya	25344	21597	3747	17%
Southern Nations, Nationalities and Peoples	Keffa	67497	52833	14664	28%
Southern Nations, Nationalities and Peoples	Kembata Tem- baro	10227	8928	1299	15%
Southern Nations, Nationalities and Peoples	Konta	12801	9308	3493	38%
Southern Nations, Nationalities and Peoples	Sheka	25028	25298	-270	-1%
Southern Nations, Nationalities and Peoples	Sidama	22962	15087	7875	52%
Southern Nations, Nationalities and Peoples	Silti	30564	29587	978	3%
Southern Nations, Nationalities and Peoples	Wolayita	25893	18124	7770	43%
Southern Nations, Nationalities and Peoples	Yem	4483	3838	645	17%



Regions	Zones	2023 Production (MT)	2022 Production (MT)	Difference (MT)	Change (%)
Tigray	Debubawi	112612	110108	2504	2%
Tigray	Mehakelegnaw	130716	128700	2016	2%
Tigray	Mi'irabawi	159735	163365	-3629	-2%
Tigray	Misraqawi	6728	7355	-627	-9%
Tigray	Semien Mi'irabaw	169544	191986	-22443	-12%
Total		5781899	5520084	261814	5%

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: Ethiopia –Sorghum. AAgWa Crop Production Forecasts Brief Series, No. 63. Kigali: AKADEMIYA2063. https://doi.org/10.54067/acpf.63