



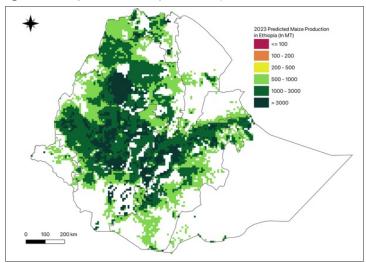
AAgWa Crop Production Forecasts Brief Series Ethiopia – Maize

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

No. 62, September 2023

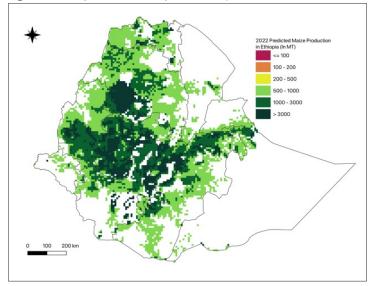
he crop production forecast brief series by AKADEMIYA2063's Africa Agriculture Watch (AAgWa) aims to provide more accurate and timely data on harvest and yields for nine major crops across nearly 50 African countries. The timeliness, wide availability, and easy access to this type of data will allow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



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

Figure 2. Ethiopia 2022 maize 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 62, we provide forecasts on maize production in Ethiopia.

In 2023, maize production in Ethiopia is expected to reach 10,480,513 metric tons (MT), which corresponds to a 9% increase over 2022 production levels. However, the production landscape is not uniform across all regions. The major producers are expected to be the northern and western zones, particularly in Mirab Gojjam (Amhara), Jimma (Oromia), Arsi (Oromia), Misraq Wellega (Oromia), Semen Gondar (Amhara), and Mirab Shewa (Oromia), with production estimates reaching respectively, 741,310 MT, 635,042 MT, 567,562 MT, 447,926 MT, 444,953 MT, and 438,245 MT.

In contrast, there are regions where maize production is projected to be notably lower. These areas include Afar Zone 4 (Afar), Jarar (Somali), Oromia (Amhara), Afar Zone 5 (Afar), Argoba (Amhara), and Hareri (Harari People). The expected production levels in these regions are comparatively modest, with levels of respectively, 789 MT, 800 MT, 1,574 MT, 2,373 MT, 2,374 MT, and 6,532 MT.

Compared to 2022, the most significant maize production increases are expected to occur in zones such as Semen Gondar, Bale (Oromia), Borena (Oromia), Metekel (Benshangul-Gumaz), Debub Wollo (Amhara), Misraq Harerge (Oromia), and Mi'irabawi (Tigray). These areas are expected to see notable boosts in their maize output, with differences of 81,429 MT, 75,686 MT, 59,072 MT, 42,750 MT, 32,246 MT, 32,052 MT, and 26,606 MT, respectively. These changes represent significant percentage shifts, of respectively, 22%, 31%, 32%, 24%, 25%, 10%, and 26%.

^{*}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 Maize Production Forecast at District level

Regions	Zones	2023 Production (MT)	2022 Production (MT)	Difference (MT)	Change (%)
Afar	Afar Zone 1	79928	60038	19890	33%
Afar	Afar Zone 3	45561	33350	12211	37%
Afar	Afar Zone 4	789	559	230	41%
Afar	Afar Zone 5	2373	1765	609	34%
Amhara	Agew Awi	264802	272452	-7651	-3%
Amhara	Argoba	2374	1821	553	30%
Amhara	Debub Gondar	223147	197798	25349	13%
Amhara	Debub Wollo	163372	131126	32246	25%
Amhara	Mirab Gojjam	741310	775933	-34623	-4%
Amhara	Misraq Gojjam	256491	266517	-10026	-4%
Amhara	North Shewa	94632	78548	16084	20%
Amhara	Oromia	1574	1220	354	29%
Amhara	Semen Gondar	444953	363524	81429	22%
Amhara	Semen Wello	119896	97099	22797	23%
Amhara	Wag Himra	10909	9488	1421	15%
Benshangul-Gumaz	Asosa	143000	121867	21133	17%
Benshangul-Gumaz	Kemashi	104303	87851	16452	19%
Benshangul-Gumaz	Metekel	217327	174577	42750	24%
Dire Dawa	Dire Dawa	9392	6935	2457	35%
Gambela Peoples	Agnuak	51996	40740	11256	28%
Gambela Peoples	Majang	18731	15750	2981	19%
Gambela Peoples	Nuer	13132	12391	741	6%
Harari People	Hareri	6532	6357	175	3%
Oromia	Arsi	567562	568123	-562	0%
Oromia	Bale	317102	241416	75686	31%
Oromia	Borena	243027	183956	59072	32%
Oromia	Debub Mirab Shewa	95400	89889	5511	6%
Oromia	Guji	174752	156143	18609	12%
Oromia	Horo Guduru	256352	259733	-3381	-1%
Oromia	Ilubabor	419559	419195	365	0%
Oromia	Jimma	635042	650969	-15926	-2%
Oromia	Kelem Wellega	156581	155261	1319	1%
Oromia	Mirab Arsi	243333	236278	7055	3%
Oromia	Mirab Hararghe	311891	296236	15655	5%
Oromia	Mirab Shewa	438245	447377	-9132	-2%
Oromia	Mirab Welega	385546	398690	-13144	-3%
Oromia	Misraq Harerge	364909	332857	32052	10%
Oromia	Misraq Shewa	278447	276443	2004	1%
Oromia	Misraq Wellega	447926	460311	-12384	-3%
Oromia	North Shewa	105468	84070	21397	25%

Regions	Zones	2023 Production (MT)	2022 Production (MT)	Difference (MT)	Change (%)
Somali	Fafan	127094	111939	15155	14%
Somali	Jarar	800	557	242	43%
Somali	Liben	31508	22886	8621	38%
Somali	Siti	61435	44871	16564	37%
Southern Nations, Nationalities and Peoples	Alaba	34403	39827	-5424	-14%
Southern Nations, Nationalities and Peoples	Alle	12446	12531	-85	-1%
Southern Nations, Nationalities and Peoples	Amaro	9989	8521	1468	17%
Southern Nations, Nationalities and Peoples	Basketo	7914	7899	14	0%
Southern Nations, Nationalities and Peoples	Bench Maji	83215	71213	12002	17%
Southern Nations, Nationalities and Peoples	Burji	7689	5931	1759	30%
Southern Nations, Nationalities and Peoples	Dawro	55492	45159	10334	23%
Southern Nations, Nationalities and Peoples	Debub Omo	103814	96800	7014	7%
Southern Nations, Nationalities and Peoples	Derashe	23868	26508	-2640	-10%
Southern Nations, Nationalities and Peoples	Gamo Gofa	144530	154920	-10390	-7%
Southern Nations, Nationalities and Peoples	Gedeo	26484	25554	930	4%
Southern Nations, Nationalities and Peoples	Gurage	111328	116261	-4933	-4%
Southern Nations, Nationalities and Peoples	Hadiya	80398	84524	-4126	-5%
Southern Nations, Nationalities and Peoples	Keffa	144323	133202	11121	8%
Southern Nations, Nationalities and Peoples	Kembata Tembaro	16433	14954	1479	10%
Southern Nations, Nationalities and Peoples	Konso	26836	27304	-468	-2%
Southern Nations, Nationalities and Peoples	Konta	22501	19046	3455	18%
Southern Nations, Nationalities and Peoples	Sheka	17395	13229	4165	31%
Southern Nations, Nationalities and Peoples	Sidama	144586	145867	-1281	-1%
Southern Nations, Nationalities and Peoples	Silti	147065	164402	-17337	-11%
Southern Nations, Nationalities and Peoples	Wolayita	77461	72176	5285	7%
Southern Nations, Nationalities and Peoples	Yem	10179	10802	-624	-6%



Regions	Zones	2023 Production (MT)	2022 Production (MT)	Difference (MT)	Change (%)
Tigray	Debubawi	51044	45812	5231	11%
Tigray	Mehakelegnaw	144402	125622	18780	15%
Tigray	Mi'irabawi	127856	101251	26606	26%
Tigray	Misraqawi	25317	27666	-2349	-8%
Tigray	Semien Mi'irabaw	145041	139804	5237	4%
Total		10480513	9931692	548821	6%

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 – Maize. AAgWa Crop Production Forecasts Brief Series, No. 62. Kigali: AKADEMIYA2063. https://doi.org/10.54067/acpf.62