



An overview of wheat productivity, import value and consumption in Ethiopia

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Abstract: Wheat is one of the major cereal crops in the Ethiopian highlands it grown on 1.8 million ha with an estimated 4.5 million farming household's dependent on the crop and serves as both a food crop and an important source of income for Ethiopian small-holders. Given the importance of this crop, it is important to examine the production volumes, productivity and consumption trends. Secondary data from the Central statistical Authority, FAOSTAT and USDA were used for the study. The result shows wheat productivity increase from 2.4 tones (t) to about 3 tones (t) between 2014 and 2021. Interims of area coverage an overall increase from 1,605,654- 1,897,405 ha from 2013/2014-2020/2021 regarding the production percentage Oromia took the lion share (57%) of wheat production in the country, followed by Amhara (32%), Southern nation (7%) and Tigray (4%) of the total production. The result also reveals wheat consumption in Ethiopia has grown from 5.2 to 6.7 million tons, but the country only produces about 5.7 million tons per year to fill this gap government of Ethiopia import 1.7 million tones and pay 453,483(1000 US\$). Therefore, the Government of Ethiopia has high initiative on increasing irrigation-based wheat production to fill demand and supply gap and should continue this initiatives and supporting in generating improved agricultural technologies and recommendations such as crop variety, agronomic practices, crop protection measures as well as other technical advices and practices

Keywords: Wheat; production; productivity; consumption; Import; Ethiopia

Introduction

Wheat is one of the major cereal crops in the Ethiopian highlands, which is a cool-weather grain grown at elevations ranging from 1,500 to 3,200 meters above sea level in the southern (i.e., Arsi and Bale) and central (i.e., Shewa and Gojam) highlands. According to [1] wheat is the second most important cereal crops in terms of total production makes up about 19% of the country's total cereal production and is a key crop for food security. Wheat is grown on 1.8 million ha with

an estimated 4.5 million farming household's dependent on the crop [1] and serves as both a food crop and an important source of income for Ethiopian small-holders. According to [1] the productivity of wheat reach 3ton/ha such increasing rate of wheat production is due to the implementation of several government programs and initiatives which drive agricultural growth and food security in the country [4].

Even though there is productivity increment demand for wheat is growing rapidly in Ethiopia, reflecting population growth and shifting dietary patterns linked to urbanization that are mirrored across other eastern and southern African countries[5]. Due to this. Ethiopia remains a net importer of wheat, meeting just over 70% of demand from domestic production [7]. However, there are signs that the wheat sector in Ethiopia is undergoing a significant transformation and productivity is increasing rapidly. Despite these recent productivity gains, shortfalls remain and drastically narrowing the gap between supply and demand to enhance (and possibly achieve) self-sufficiency in wheat production is a high national priority. Food security issues and the need to reduce spending of scarce foreign currency reserves on costly wheat imports are both of paramount importance to the Government of Ethiopia.

To narrow down the gap between supply and demand governments recently has allocated \$6 million to create better irrigation, input supply and machinery rental services.

Therefore the objective of this study was to analyze the trend of wheat production, productivity, import volume and consumption.

Methodology

The study was used review of secondary data from CSA 2014-2021; FAOSTAT 2020 and USDA, 2021. Results of analysis were summarized and presented in the form of line graphs to show trends and Pie chart to show proportions.

Results and Discussion

Contribution of wheat in cereal production and area coverage

In Ethiopia, cereals covered about 88% of the total grain produced and 81 % cultivated area of about 10 million hectares in 2020/21 production season [1]. Measured in terms of contributions to total cereal production, wheat (19%) highest next to maize (35%), however, the relative

importance of the crops changes slightly when compared in terms of their contribution to total cereal area covered due to differences in productivity (Table 1).

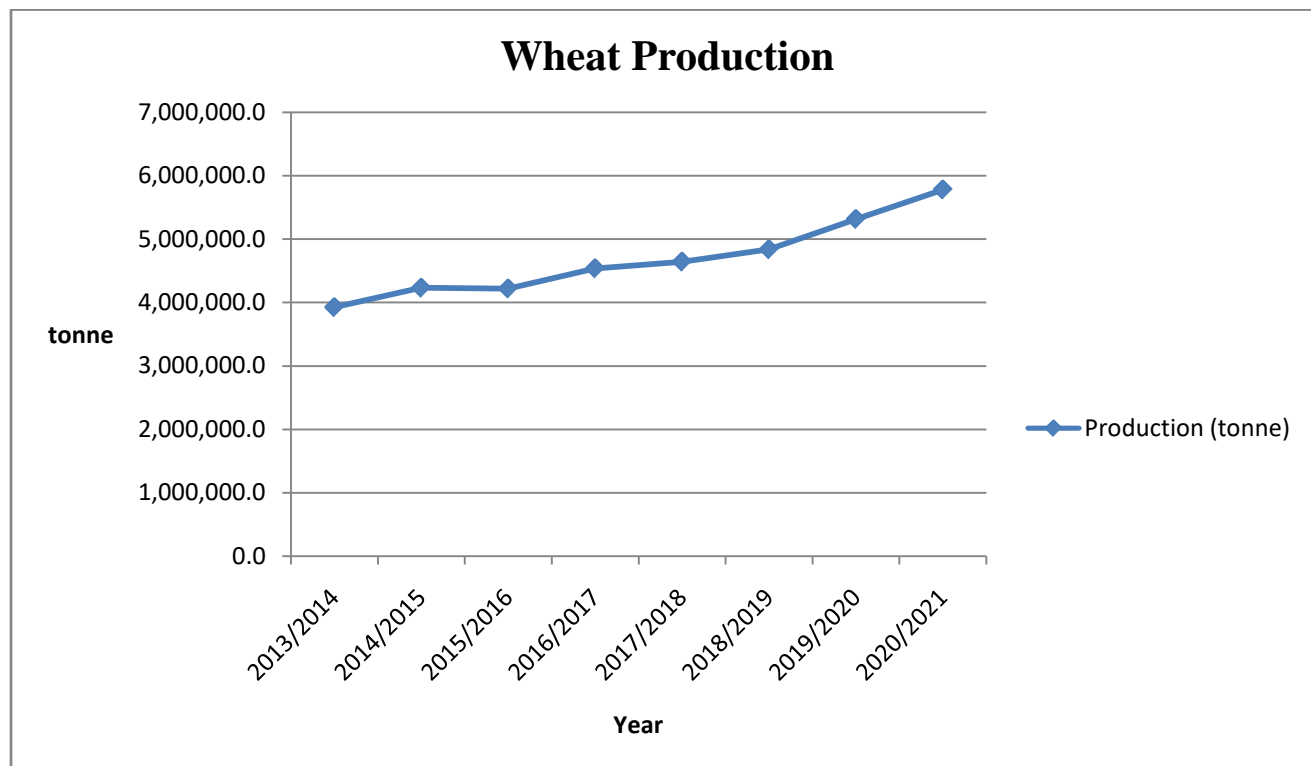
Table 1. Contribution of wheat in total cereal production and area in 2020/21

Crop	Proportion of total production (%)	Proportion of total Area (%)
Teff	18.2	27.8
Barley	7.7	8.8
Wheat	19.1	18.0
Maize.	35	24.0
Sorghum	15	15.9
Finger millet	4	4.6
Others	1	0.9

Source: CSA 2021

Wheat production trend in Ethiopia

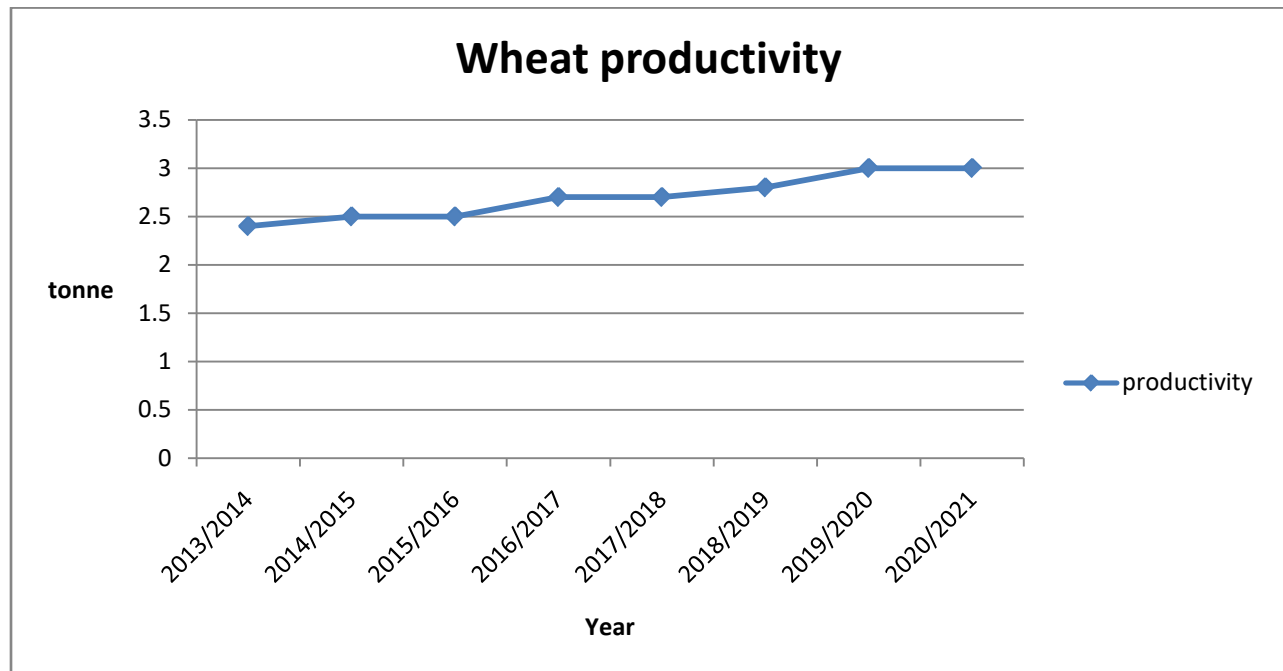
The result reveals an overall increase in wheat production from 3,925,174 tones (t) to about 5,780,130 tones (t) between 2014 and 2021. There was 9.8% production increment from 4,838,074 tonnes (t) in 2019 to about 5,315,270 tonnes (t) in 2020. The overall increment of volume of production resulted from numerous collaborative research work done so far. According to [6] production has been increasing during 2004 to 2011 average annual growth rate of 13.2 %.



Source: CSA 2013/14 - 2020/21 Crop production data

Wheat productivity trend in Ethiopia

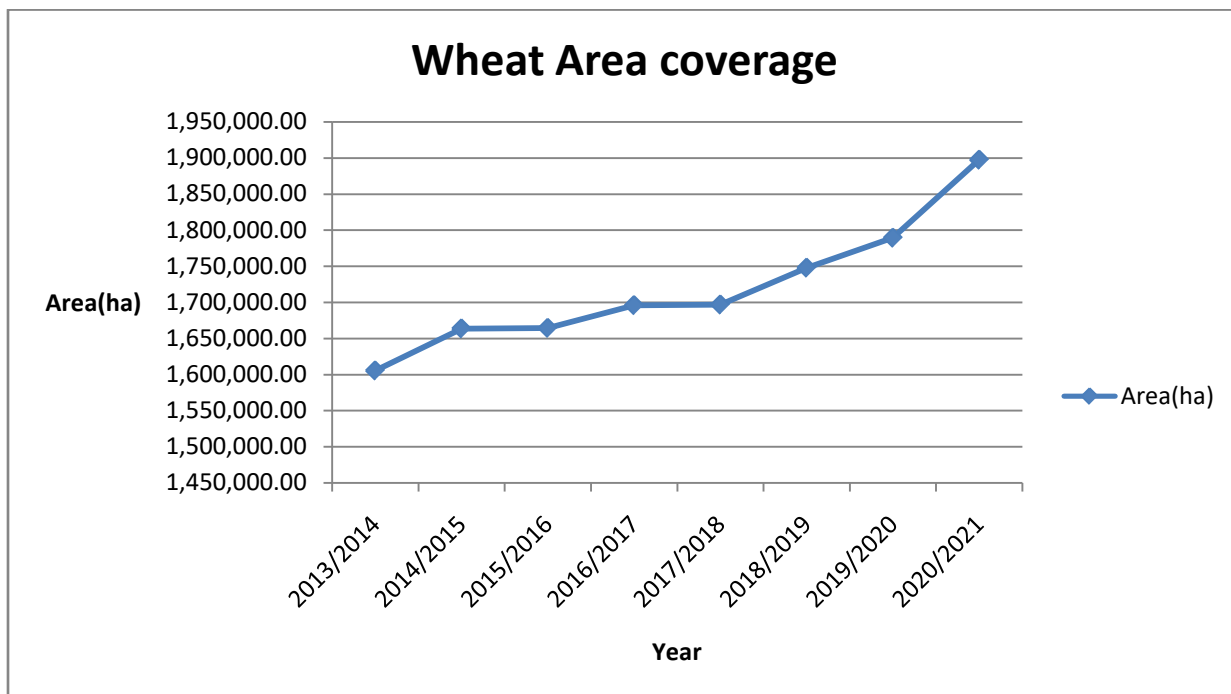
The result shows an overall increase in wheat productivity from 2.4 tones (t) to about 3 tones (t) between 2014 and 2021. The overall increment of productivity of wheat is due to generation and introduction of high yielding and disease tolerant varieties and recommendations such as crop variety, agronomic practices, crop protection measures as well as other technical advices and practices to farmers in collaboration with Ethiopian institute of agricultural research, international organizations and other stakeholder. Even though there is an increment in productivity in response to increased demand for the product at the domestic level efforts were being made to increase productivity to fill supply and demand gap.



Source: CSA 2013/14 - 2020/21 Crop production data

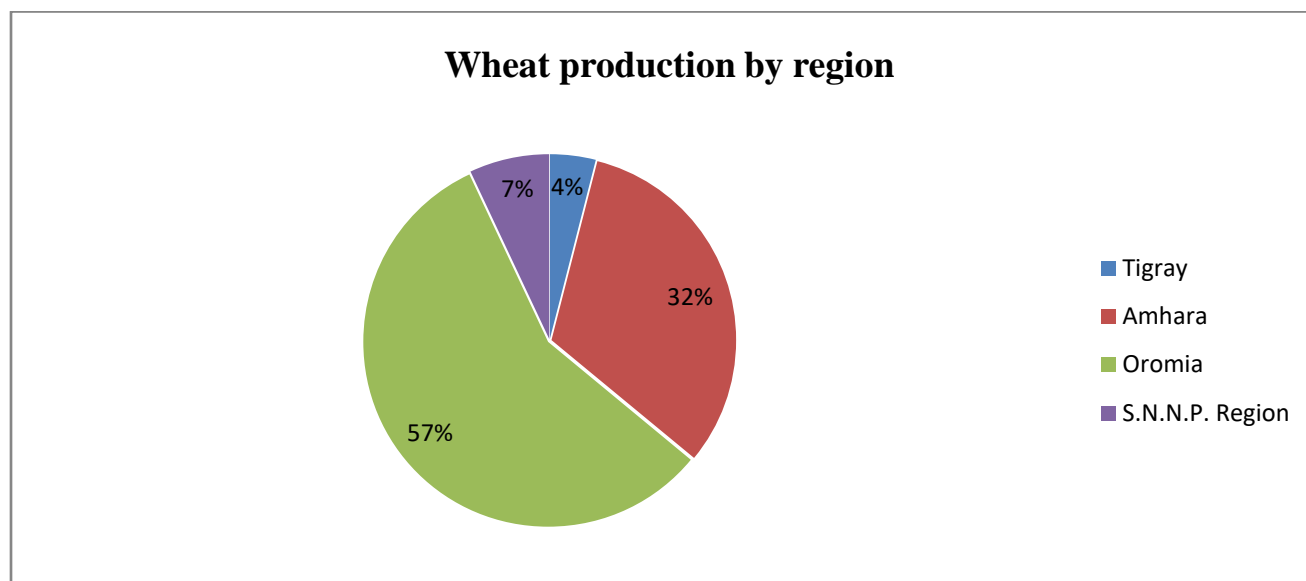
Wheat area coverage in Ethiopia

According to CSA data from 2013/2014-2020/2021 overall increase in area coverage from 1,605,654- 1,897,405 ha. Based on the data there was 18% increment on area coverage in a specified period of time. Exponentially increases from 1,789,372 ha in 2019/2020 to about 1,897,405 ha in 2020/2021.



Wheat Production by region

Wheat is an important commodity in the cropping systems of smallholder producers both for food security and income. The highlands of the central, south-eastern and northwest parts of the country are the main wheat-growing areas of Ethiopia. According to [1] result, Oromia took the lion share (57%) of wheat production in the country, followed by Amhara (32%), Southern nation (7%) and Tigray 4% of total production.



Wheat consumption

Ethiopia has huge potential and a suitable agroecology for growing wheat. However, its agriculture sector, dominated by a traditional farming system, is unable to meet the rising demand for wheat from increasing population and urbanization. According to [8] data wheat consumption in Ethiopia has grown from 5.2 to 6.7 million tons, but the country only produces about 5.7 million tons per year on 1.8 million hectares. According to [6] consumption has been increasing during 2000 to 2014 from 2712-5400 million tons. As a result, of high consumption increments the country pays a huge import bill per year to match supply with demand.

Table 2 Wheat consumption

year	Domestic consumption	Unit of measurement	Growth rate
2014	5250	(1000 MT)	10.04
2015	6800	(1000 MT)	29.52
2016	6000	(1000 MT)	-11.76
2017	6600	(1000 MT)	10
2018	6200	(1000 MT)	-6.06
2019	6650	(1000 MT)	7.26
2020	6800	(1000 MT)	2.26
2021	6700	(1000 MT)	-1.47

Source: USDA, 2021

Wheat import quantity and value

The government of Ethiopia started importing wheat in 2008/9 market year through Ethiopian grain trade enterprise (EGTE) which increased the domestic supply of wheat at a subsidized price and lowered the domestic market prices. According to [3] data there was an overall increment in quantity of wheat import from 1,076(1000 MT) in 2014 to 1,127(1000 MT) in 2020 while in year 2016 imported more wheat 2,514 (1000 MT).According to [3] data interims of import value there was an overall increment from 403,322 (1000 US\$) in 2014 to 453,483(1000 US\$) in 2020 while in year 2016 the country pay a high bill compared to others year specified in the table (see table 3).

Table 3 Wheat import quantity and value

Year	Import quantity(1000 MT)	Import value (1000 US\$)
2014	1076	403,322

2015	1305	457,337
2016	2514	747,877
2017	1112	345,095
2018	1214	432,402
2019	1438	500,267
2020	1127	453,483

Source: FAOSTAT, 2020

Conclusion and Recommendation

Wheat is an important staple food crop in Ethiopia, especially in urban areas. It is a staple food in the diets of several Ethiopian, providing about 15 percent of the caloric intake for the country's over 90 million population [2]. The result of the study shows there is an overall increment in volume of production, productivity and consumption in specified period of time. The result also reveals there is high wheat demand and supply gap to fill this gap the government of Ethiopia spent a lot of foreign currency. In government side to minimize this gap there is a high initiatives and should continue this and invest in modernizing breeding program and the national agricultural research system also should continue their efforts in generating improved agricultural technologies and recommendations such as crop variety, agronomic practices, crop protection measures as well as other technical advices and practices.

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