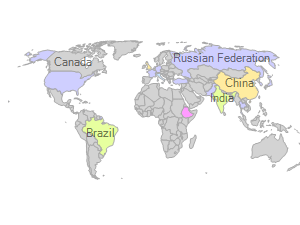
**Transitioning from Agrarian to Commodity-Driven Community: Challenges and Opportunities for Ethiopia's Agricultural Sector.**

**Map showing Tractor Supplying Markets for Ethiopia in 2021**

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Abstract

Transforming self-sufficiency and transitioning to a commodity-driven community can be a key strategy for Ethiopia to increase its agricultural productivity and generate higher incomes for farmers. By producing crops for sale on the global commodity market, farmers can generate a surplus of products that can be sold for profit, increasing their income, and improving their livelihoods. This transition requires investment in modern production techniques, infrastructure, and market linkages, as well as addressing the challenges associated with market fluctuations and price volatility.

**Source: Trade Map, ITC,** [**Trade Map - Trade statistics for international business development**](https://www.trademap.org/Index.aspx)**.**

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Executive Summary:

This paper explores the opportunities and limitations of the agrarian community in Ethiopia, drawing on works in the field. The limitations facing smallholder farmers in Ethiopia include access to inputs and markets. The changes currently taking place in the agricultural sector present both challenges and opportunities. The potential of agricultural cooperatives to promote rural development is also examined, as are the drivers of agricultural growth and the impact of market imperfections on land productivity. The paper concludes that while the agrarian community in Ethiopia faces significant challenges, there are also opportunities to promote economic growth, diversification, and technology transfer by transitioning towards a commodity-driven community. This transition will require investment in modern production techniques, infrastructure, and market linkages, as well as addressing the challenges associated with market fluctuations and price volatility.

**Introduction:**

There is a co-dependency between how communities produce, exchange, consume and the political, social, economic, and cultural organizations they establish. The institutions and organization that are set up has to support and facilitate the smooth operation and maintenance of all those inter-related activities. However, institution like economic, political, and social set ups have constrained the production, exchange, and consumption in Ethiopia. For instance, within the agrarian community, the predominant economic activity is limited to subsistence and those are reflected in the economic, social, and political organizations.

For communities to escape from substance and grow and prosper, one avenue is to move into producing beyond ones need and join the commodity exchange. Commodity driven communities produce beyond their need to where they can sell agricultural produce and buy non agricultural produce to meet all their needs.

The concept of commodity-driven communities has been gaining footing as a way of increasing the income and economic stability of communities. Many agrarian communities, including Ethiopia, are struggling to produce enough food to meet their needs, let alone generate surplus for sale. Hence, the transition to commodity production and exchange can help them to increase their output and generate a sustainable income.

As was communicated in the 2020-21 annual report of Ethiopian Agricultural Transformation Agency (EATA) ([Agricultural Transformation Agency - ATA](https://www.ata.gov.et/)), the government of Ethiopia through its homegrown economic reform Agenda has set its priorities in 10 thematic areas around agriculture including “land; technology & input; finance; irrigation & water use; output marketing; infrastructure; enhanced sector contribution to the balance of payments; rural entrepreneurship; private sector participation; and implementation capacity”.

If all or most of these initiatives are implemented, it can help to facilitate the transition from predominantly agrarian communities to predominantly commodity driven communities.

In first section of this paper, we asses the current situation of the agrarian community in Ethiopia, including the main characteristics of the agrarian communities in Ethiopia. In the second section, we will discuss the development of a commodity driven production and transition plan. we examine the key activities that need to take place to transition into the commodity driven community. We will investigate some of the early indicator of the transition process that is underway in Ethiopia.

In the fourth section, we explore opportunities for strengthening community organization and capacity building. In the fifth and final section we delve into the ways and means of developing market linkages and access to trade

**Assessing the current situation of the agrarian community in Ethiopia:**

The agricultural sector in Ethiopia, as the mainstay of most of the population, has been the focus of academic attention. Empirical and theoretical studies have been conducted to assess the current situation of the agrarian community in Ethiopia. Christiaensen and Demery (2011) reviewed the drivers of agricultural growth in Ethiopia, including increased public investment, improved market access, and technology adoption.

Similarly, Udry, Fantu and Minten (2017) examined the challenges facing smallholder farmers and the structural changes taking place in the agricultural sector. Gebremedhin and Berhanu (2013) studied the potential of agricultural cooperatives to promote rural development, while Bernard and Dercon (2016) investigated market imperfections and their impact on land productivity.

These and other studies highlight the limitations and opportunities facing the agrarian community in Ethiopia, including drivers of agricultural growth, limited access to inputs and markets, the potential of agricultural cooperatives, and the impact of market imperfections on land productivity.

**Characteristics of an Agrarian Community**.

Before discussing transition from agrarian to commodity driven community, first, what is an agrarian community? An agrarian community is a community that relies primarily on agriculture for its livelihood. This type of community is characterized by a focus on subsistence farming, with most of the crops produced being used for seed and to feed the community, rather than being sold for profit.

Ethiopia is a predominantly agrarian community. Agriculture is the backbone of the economy, with over 80% of the population engaged in agricultural activities. Most farmers are smallholders. who rely on subsistence farming to meet their needs.

Furthermore, Ethiopia's agricultural sector is characterized by low productivity, limited access to inputs and technology, and vulnerability to climate and market fluctuations. While this has been the condition of agriculture in Ethiopia, there are early indication that there are efforts underway to transform the agricultural sector.

As was indicated in Table 1, at least crop production is on the rise, even if the arable land per person is getting smaller. for example, using 2014-2016 as a base year, the crop production in 2020 rose by 17.1 (from 100 in 2914-16 to 117.1 in 2020) percentage points. What is interesting is that while the arable land per person declined, the crop production went up indicating some gains in productivity as indicated in Cereal yield per hector in Table 1. While this is a positive indicator, there is still a lot more to be done.

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 1: Arable Land, Crop Production & Yield** | | | |
| Year | **Arable land (hectares per person)** | **Crop production index (2014-2016 = 100)** | **Cereal yield (kg per hectare)** |
|  |  |  |  |
| **2010** | **0.1632** | **72.6** | **1767** |
| **2011** | **0.1655** | **76.5** | **1877** |
| **2012** | **0.1625** | **80.6** | **1963** |
| **2013** | **0.1594** | **88.9** | **2102** |
| **2014** | **0.1564** | **96.0** | **2235** |
| **2015** | **0.1534** | **101.0** | **2345** |
| **2016** | **0.1505** | **103.0** | **2352** |
| **2017** | **0.1476** | **106.6** | **2539** |
| **2018** | **0.1457** | **105.9** | **2730** |
| **2019** | **0.1419** | **108.0** | **2832** |
| **2020** | **0.1382** | **117.1** | **2861** |

Source: World Bank Database, Trade Map, ITC, [Trade Map - Trade statistics for international business development](https://www.trademap.org/Index.aspx)

**Main characteristics of an agrarian community:**

Generally, what distinguishes the agrarian community is purpose of production ,what is produced, how it is produced, and what interaction, if there is, takes place during all the activities.

Based on the general parameters, the agrarian community, including the Ethiopian agricultural community, is characterized by several distinguishing features. Here are some of the main characteristics:

**Subsistence farming:**

Agrarian communities primarily focus on producing crops and livestock for their own consumption rather than for sale on the market. This then leaves them within a vicious circle of producing hand to mouth, with no surplus to exchange and invest into improvements.

Although it is difficult to clearly establish what causes or creates dependence on subsistence farming. Several factors are at play over the century. Here are some key contributing factors to subsistence farming in Ethiopia:

**Low crop yields:** Due to several factors, farmers in subsistence agriculture experience low crop yields. For instance, farmers may not use modern farming techniques or have access to high-quality inputs such as fertilizers and improved seeds, leading to low crop yields. Presented below are three tables that compares yield per hector for the main crops of Ethiopia like wheat, maize, and sesame seed to best producing countries.

Due to lack of international comparators, Teff is not included in yield comparative tables. Teff is a major cereal crop in Ethiopia which represents about a quarter (24.3 percent) of cereal’s total area in hectares and 17.2 percent of total Production in Quintals. Relatively Teff is one of the low yield crops which makes it a poster child of subsistence farming.



In terms of wheat yield, in 2010 Ethiopia was the second last out of nine countries. Interestingly in 2010, Ethiopia’s wheat yield is better than Australia which was the last among the nine countries. However, the yield per hector of wheat in 2021 have improved significantly and was better than Australia and Canada who are the major wheat producing countries in the world. However, there is a long way to go to improve the lives of farmers.



As to Maize’s yield per hector, in 2010 Ethiopia was dead last among nine high producing countries. In fact, except for India, that is close to the yield level in Ethiopia, maize yield in Ethiopia was less than half of the yield in the other 8 counties. Fast forward to 2021, Ethiopia not only has leap frogged ahead of India, but also closed the gap with the other countries as well.



Finally, we looked at the sesame yield. We compared the top 10 sesame producing and exporting countries in the world. Again in 2010, Ethiopia was second after China in terms of yield per hector. Except China where yield more consistently grew, other countries experienced significant swings in yield. Especially Ethiopia has experienced a downward trend between 2011 and 2014. Ethiopia’s sesame seed yield eventually started a gradual up swing since 2018. Overall, the sesame seed yield in Ethiopia is sitting in the fourth place after China, Nigeria, and Tanzania.

**Small farm size:** Many farmers in Ethiopia have small plots of land, which they use to grow crops for their own consumption. The average size of land per holding (or per farm) in Ethiopia was 0.95 hectares in 2018 (Ethiopian Statistical Agency, Agricultural Sample Survey. 2018). Please note that the size could vary by region depending on the population density and availability of arable land. See also Table 1 for arable land per person. Please also note that arable land per person is not the same as average land per holding or per farm.

Currently there is an initiative in Ethiopia where farmers are encouraged to join their plots of farmland and farm in a cluster. This seems to be successful especially with irrigated wheat production. Using a large farm household survey of about 4000 smallholder farmers growing cereals like teff, maize, wheat, malt barley and sesame, a study examined the relationship between agro-clusters and smallholder welfare and poverty. The study found “a positive association between agro-clusters, household income and per capita income”. It also established that agro-clusters are shown to reduce poverty and poverty gaps (.**Tabe-Ojong, and Dureti, 2023)**

**Limited market participation:** For subsistence farmers, most of the produce is consumed by the household or used as seed for the next planting season. Hence, their participation in the market is limited. Even when Farmers are willing to sell a small portion of their crops on local markets, the markets are not organized to encourage and benefit the farmers.

Market participation could take a different form. First and foremost is the physical trip to a marketplace. Even to sale whatever extra farmers have, usually markets are far, unfriendly and traders or the middlemen are not offering a fair price for their produce. Hence, in general the market set up leaves farmers vulnerable and discouraged. Some of this situation is changing through the establishment of farmers cooperatives.

The other challenge is to get information about the markets. For example, to protect themselves, farmers would like, however, unable to know the price of their produce before they head to the market. The market condition and prices are not communicated through radio or other channels. In a paper which examined the impact of mobile phones on farmers’ marketing decisions and prices they receive, they found out that “the number of farmers who use mobile phones for information searching is very small. The reason for such low use of mobile phones for information searching seems to be lack of relevant information that can be accessed through mobile phones.” (Tadesse, and Bahiigwa, 2014).

**Dependence on rainfed agriculture**: Many farmers in Ethiopia rely on rainfed agriculture, which makes them vulnerable to climate fluctuations and droughts. As indicated in Table 5, the consequence of drought and flooding on the lives of farmers has been horrendous.

To put it in perspective, between 1964 and 2019 in span of 44 years, in Ethiopia alone, there were 14 major droughts reported affecting about 77,000,000 people. Similarly, during the same period, 25 flooding incidents were reported impacting about 3,300,000 people. This are the ones that have been internationally reported. There were small incidents that go unreported.

Especially, the impact is severe on subsistence farmers and its effect is not limited to the year or years the drought and flooding occurred, however, extends beyond those years as often they must re-build their lives from scratch. This is difficult when drought and flooding re-occurs so frequently to escape from rain fed agriculture and subsistence farming.

Table 5: Number of people affected by Drought and Flooding in The Horn of Africa from 1964 to 2019



The recurring drought and flooding not only leaves a physical devastation, but also create a lot of weather-related psychological uncertainty and risk aversion. Besides new varities of seed that withstand drought, different approaches are currently considered to mitigate farmers risk aversion. Recently, a framed field experiment was conducted in rural Ethiopia to test the groundbreaking hypothesis that insurance provision induces farmers to take greater, yet profitable, risks. In this experiment, farmers participated in a game protocol in which they were asked to make a simple decision: whether to purchase fertilizer, and if so, how many bags. “Insurance was found to have some positive effect on fertilizer purchases. Purchases were also found to depend on the realization of the weather in the previous round.” What this indicates is even in the rain dependent agriculture, a change in perception is required to indue investment and change. (IFPRI Discussion Paper 00974, May 2010)

**Low level of mechanization:** Subsistence farmers in Ethiopia do not have access to modern farming equipment or technology, which can limit their productivity and efficiency. According to the World Bank, only about 5% of the total area under cultivation in Ethiopia is currently being farmed using tractors and other modern machinery. This low level of mechanization is a major challenge for the sector, as it limits productivity, efficiency, and scale of production. However, there are ongoing efforts to increase mechanization in the country, including through government policies and programs, private sector investments, and partnerships with development partners.

**Limited crop diversity:** Farmers may focus on growing only one or two crops, which are mainly for household consumption rather than for sale on the market.

Ethiopian small farm agriculture is characterized by a relatively low level of crop diversity. Smallholder farmers in Ethiopia tend to focus on staple crops such as maize, teff, wheat, sorghum, and barley, which are primarily grown for household consumption and as a source of income through market sales. However, there have been efforts to promote crop diversification in recent years through various government and development partner initiatives.

One such initiative is the Agricultural Growth Program (AGP), which aims to increase agricultural productivity and commercialization in Ethiopia by promoting the production of high-value crops such as fruits, vegetables, and oilseeds. Another initiative is the Comprehensive Africa Agriculture Development Programme (CAADP), which emphasizes the importance of diversifying crops and promoting sustainable agriculture practices.

Despite these efforts, crop diversity remains relatively low in Ethiopian small farm agriculture, and more work is needed to promote the adoption of diverse cropping systems and to increase access to markets for a wider range of crops.

**Degraded and eroded land and soil**: Land degradation and soil erosion are significant challenges in Ethiopia, particularly in areas where subsistence farming is prevalent. Poor land management practices, such as overgrazing and deforestation, have lead to soil erosion and reduced soil fertility, making it difficult to sustain productivity.

Land degradation and erosion are major challenges facing small farm agriculture in Ethiopia. According to a study by the Food and Agriculture Organization (FAO), about 2.2 million hectares of land in Ethiopia are affected by severe erosion, and an additional 8.6 million hectares are moderately affected. The study also found that soil erosion rates in Ethiopia are among the highest in the world, with an estimated average soil loss of 30 to 40 tons per hectare per year.

The main causes of land degradation and erosion in small farm agriculture in Ethiopia include deforestation, overgrazing, inappropriate land use practices, and climate change. These factors contribute to the loss of soil fertility, reduced agricultural productivity, and increased vulnerability to drought and other environmental stresses.

Efforts have been made by the Ethiopian government and development partners to address the issue of land degradation and erosion in small farm agriculture. These efforts include promoting sustainable land use practices, such as terracing, agroforestry, and conservation agriculture, as well as providing support for reforestation and land rehabilitation through the green legacy programs. However, much more needs to be done to ensure the long-term sustainability of agriculture in Ethiopia.

**Vulnerable to climate variability and natural disasters**: Ethiopia is vulnerable to climate variability and natural disasters such as droughts, insect infestation and floods, which can have a significant impact on agricultural productivity and the livelihoods of subsistence farmers. See table 5 for the impact of drought and flooding in Ethiopia in particular, and the Horn of Africa in general. The impact is not limited to Ethiopia, usually is far and wide in the Horn of Africa.

Small farm agriculture is highly vulnerable to climate variability and natural disasters, such as droughts, floods, and storms. Farmers who rely on rain-fed agriculture are particularly vulnerable to droughts and irregular rainfall patterns, which can cause crop failures and food shortages. In addition, floods and storms can destroy crops, infrastructure, and homes, leading to significant economic losses and displacement.

Moreover, small farmers in Ethiopia often lack the resources and technology to adapt to climate variability and mitigate the impact of natural disasters. They may not have access to drought-resistant seeds, irrigation systems, or weather information, which can help them cope with droughts and floods. Furthermore, natural disasters can exacerbate existing social and economic inequalities, as the most vulnerable households are often the hardest hit by the impacts of climate change and natural disasters.

**Reliance on traditional farming methods**:

Ethiopian farmers traditionally rely on a variety of farming methods that have been passed down through generations. While these farming methods are appropriate for the landscape and climatic zone of the area, it has not improved for many generations. Here are some of the farming methods that are commonly practiced in Ethiopia for over a century or more:

a). **Hand cultivation**: Many farmers in Ethiopia still rely on manual labor, using hand-held tools such hoes and sickles to till and harvest their crops.

b) **Animal power**: Majority of the farmers use animal power, such as oxen, to plow and prepare their fields.while this is a blessing in disguise, where the farmers can avoid dependence on fossil fuel which is expensive to acquire, it also slows down productivity growth and the transformation from heavily substant farming to surplus for market farming.

Based on a joint survey of IFPRI and Central Statistics Agency in 2015, “only 9% of farmers in Ethiopia use machine power to plow their land, harvest their output, or thresh their crops”( IFPRI and Ethiopia's Central Statistical Agency, 2015)  Some innovative approaches are taking place in some areas of the country. For instance, as reported in Africa Agribusiness on mechanization, “a new small-scale agricultural machinery leasing scheme is being rolled out in the Amhara region, Ethiopia. This new scheme that offers farmers and groups of farmers the opportunity to buy agricultural machineries with only 15-20 percent down and the rest to be paid during a three-year period, could change farming.

c) **Crop rotation**: Farmers often rotate their crops to improve soil fertility and reduce pests and diseases.

d) **Agroforestry:** Agroforestry, which involves planting trees alongside crops, is a common practice in Ethiopia and helps to conserve soil moisture and improve fertility.

e) **Terracing:** Terracing is a common practice in Ethiopia's highland regions, where steep slopes make farming difficult. Terraces help to prevent soil erosion and retain moisture, allowing crops to grow more successfully.

While sustainable and well-suited to the local environment, these traditional farming methods, can also limit productivity and efficiency. Hence, there is a growing need to introduce modern agricultural technologies and practices to improve yields and reduce poverty in rural areas.

**Limited access to inputs and technology**: When farmers are living hand to mouth, there is no opportunity to buy input and technology. What is further limiting is that, even if they want to from the future and invest to change their circumstances, there are no credit facilities to access and buy on credit. Hence, in general, agrarian communities may not only lack access to modern inputs such as fertilizers and irrigation systems, as well as technologies such as tractors and other machinery, but also credit facility to purchase those inputs and technology.

**Vulnerability to climate and market fluctuations**: Ethiopian agriculture is extremely rain dependent, despite the fact there are all year running rivers and a body of freshwater lakes. In fact, each locality can very easily dig ponds and lakes to retain water from the rain season to meet the need during the summer time where there is little or no rain.

Similarly, Ethiopian farmers are also exposed to fluctuation to market prices due to lack of storage as well as market stabilizing facilities where agricultural produce are bought during harvest and sold evenly through out the year. A market mechanism to even out the peak and trough is not established yet.

**How to transition from agrarian to commodity driven community**

To address the multifaceted challenges of the agrarian community and transition to commodity driven production and trade, there are several key tasks that need to be tackled. These include:

**Increasing access to inputs and technology:** To help transition to a commodity driven community, a concerted effort is required to increase access to input and technology such as fertilizers and irrigation pumps, as well as technologies like tractors, harvesters, and other machinery.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 6: Tractor, Fertilizer, Irrigation Pump Use in Ethiopia** | | | | |
| Year | **Fertilizer consumption (kilograms per hectare of arable land)** | **Tractors- Imported value** | **Irrigation Pumps import (number)** | **Irrigation Pumps import (Value M US$)** |
| **2010** | **21.85** | **N/A** | **N/A** | **N/A** |
| **2011** | **20.82** | **N/A** | **N/A** | **N/A** |
| **2012** | **30.59** | **N/A** | **N/A** | **N/A** |
| **2013** | **18.26** | **N/A** | **N/A** | **N/A** |
| **2014** | **25.36** | **N/A** | **N/A** | **N/A** |
| **2015** | **28.11** | **N/A** | **10,464** | **$8.20** |
| **2016** | **33.79** | **26,622** | **11,843** | **$8.80** |
| **2017** | **34.51** | **16,880** | **12,469** | **$10.20** |
| **2018** | **36.20** | **25,769** | **13,000** | **$10.40** |
| **2019** | **36.19** | **39,761** | **9,414** | **$7.90** |
| **2020** | **36.20** | **67,131** | **6,503** | **$5.30** |

There are indications that transitioning changes are happening. As indicated in Table 2, for instance, the use of fertilizer has consistently increased from 28. 2 kilograms per hectare of arable land in 2010, to 36.20 kilograms per hectare of arable land in 2020. This is about a 65.7 percent growth over a decade. This represents an average annual growth of about 6.6 percent.

Similar changes are also observed with respect to tractor and irrigation pumps importing. What is particularly important to note is the significant increase in the value of imports of tractors between 2018 and 2020. The value of imports increased by about 161 (160.5) percent between 2018 and 2020. This is the time when the new agricultural reform was implemented.

The main sources of tractor imports to Ethiopia in 2020 were India, China, Turkey, and the United States. Indian-made tractors continued to be popular among Ethiopian farmers due to their affordability and durability. Overall, the demand for tractors in Ethiopia remains strong as the country continues to modernize and mechanize its agriculture sector to increase food production and improve efficiency.

In terms of irrigation system, the number of imported irrigation pumps peaked at 13,000 and has declined in 2019 and 2020. This could be partly due to Covid and other factors. Nevertheless, between 2010 and 2020, there has been a robust growth in the number of irrigation pumps introduced into the Ethiopian agricultural sector, heralding the dawning of a non-rain feed agricultural era in Ethiopia.

It's important to note that the import data only includes the number and value of water pumps that were officially imported and recorded by the customs authorities. It's possible that there were additional pumps that were imported through informal channels and not captured in the data.

**Diversifying crops:** As shown in table 3, Ethiopia is a country of diverse crop types. However, to generate surplus for sale on the market, farmers need to diversify their crops beyond subsistence crops to higher-value crops with greater market demand.

Some of the crops that need to be promoted for diversification include coffee, sesame, oilseeds, pulses, horticultural crops, sugar can, and livestock. Recently there is an indication that a shifts to high value crops are already occurring as shown by crop area coverage and emphasis of some crops.

Although we do not have the most recent statistics on the crop acreage and production reports, the latest available is the 2017/18 and 2018/2019 Meher (main season) acreage and production. This stat does not fully indicate the shifts that are taking place in the last couple of years.

For example, coffee is Ethiopia's largest agricultural export, and the country is known for producing high-quality Arabica coffee. According to agriculture sample survey of 2017/18 and 2018/19, the land cover by coffer grew from 725,961.24 hector to 764,863.16 hector for a 5.36 percent increase. At the same time the production rose 4,945,743.63 from 4,492,298.08 for annual growth of 10.09 percent. This might have continued in past two or three years as coffee is on of the focus areas for the green legacy initiatives.

Sesame is another crop with significant export potential, as Ethiopia is one of the largest producers of sesame in the world. Oilseeds such as soybeans and sunflowers also need to be promoted for their potential as sources of vegetable oil as well as high income. Apart from soya bean which experienced a significant increase both in acreage, and production of sesame, and sunflower recorded a loss of acreage as well as output (See Table 7)

Pulses such as chickpeas, lentils, and beans are important for both domestic consumption and export. Overall pulses acreage and output increased between 2017/18 and 2018/19 despite some ups and downs among different pulse crops.

Similarly, fruit crops and flowers are also being promoted for their potential as cash crops. Between 2017/18 and 2018/18, except pineapple, fruit crops like Avocado, banana, Mango and Oranges recorded a double digit increases both in total acreage and production. (See Table 7)

Table 7 - Estimate of Area, 2018/19 (2011 E.C), Meher Season Ethiopia Production and Yield of Crops for 2017/18 (2010 E.C) and 2018/19, Meher Season



Source: Agricultural Sample Survey, Ethiopian Central Statistical Agency, multiple years

Efforts to diversify crops are aimed at increasing income for farmers, reducing reliance on a single crop, and promoting sustainable agricultural practices. For instance, over the last two to three years, concerted effort in Ethiopia was exerted on promoting Wheat, even though it is the fourth crop in terms of acreage and production following Teff, maize, sorghum.

This focus already introduce wheat production to areas not known to produce wheat as well as expanded the season of growing wheat from only Meher to summer season by introducing extensive use of irrigation, improved seeds, farming in clusters and mechanization. The result so far is encouraging.

**Strengthening value chains:** To increase profitability, farmers need to be integrated into value chains that provide access to markets, processing facilities, and other services that add value to their products.

Strengthening value chains is a crucial component of transforming the agricultural sector from subsistence farming to commodity production and trade. It involves integrating farmers into value chains that provide access to markets, processing facilities, and other services that add value to their products. To achieve this, several actions can be taken, such as:

i) **Building market linkages:** Linking farmers with processors, wholesalers, and exporters can create a seamless supply chain that ensures that farmers have access to markets and receive a fair price for their products. This is very crucial as the market in Ethiopia is traditional, unstructured excessively inefficient. Although there are few studies that quantified how inefficient the local market are, it is possible to postulate that the inefficient local markets are the bottle necks for the transformation of the subsistence framing.

ii) **Improving quality standards**: Quality control measures such as certification and grading can increase the value of agricultural products and make them more attractive to buyers. This is another area that creates a challenge for farmers to get a fair return for their product. If the good quality and bad quality produce are not differentiated and compensated accordingly, there is no incentive to produce a good quality product. This is another bottleneck to deal with.

There are some examples of commencement of certification of quality in Ethiopia. For instance, Hunda’ol Vegetable and Fruit producing farmers’ cooperative received Good Agricultural Practices (GAP) certificate. (Agricultural Transformation Agency (ATA) (2022)

iii) **Providing technical assistance**: Farmers need technical assistance to help them produce high-quality crops that meet market standards. This can include training on best farming practices and access to technology and inputs.

iv) **Establishing processing facilities**: The establishment of processing facilities can add value to agricultural products and create employment opportunities for local communities.

One example of a successful effort to strengthen value chains in Ethiopia is the Ethiopian Commodity Exchange (ECX). The ECX was established in 2008 to provide a market platform for buyers and sellers of agricultural commodities, including coffee, sesame, and maize. The ECX has helped to reduce transaction costs, improve transparency, and increase market efficiency, which has led to better prices for farmers and increased exports. By providing a transparent and efficient market platform, the ECX has helped to integrate farmers into value chains and increase their profitability.

Currently the Ethiopian Commodity Exchange (ECX) facilitates trading of a wide range of agricultural commodities, including coffee, sesame, haricot beans, maize, wheat, and other cereals, among others. These commodities are traded in standardized units, with prices set based on market demand and supply. The ECX aims to improve price discovery, reduce transaction costs, and increase market efficiency for farmers and other participants in the agricultural value chain.

**Improving infrastructure:** To facilitate the transportation and sale of agricultural products, there is a need for investment in transportation infrastructure such as roads and storage facilities. According to world bank report “As of 2021, over 166,000 km have been built and upgraded under the government led [Road Sector Development Program (RSDP)](https://projects.worldbank.org/en/projects-operations/project-detail/P106872) initiated in 1997 ([Ethiopia Overview: Development news, research, data | World Bank](https://www.worldbank.org/en/country/ethiopia/overview#3)). Furthermore, see Ethiopian Road Network and Ministry of transport cold transportation

According to the World Bank, Ethiopia has made significant progress in improving its infrastructure, including roads and storage facilities, over the last decade. For instance, the total length of roads in Ethiopia increased from 92,854 km in 2010 to 119,786 km in 2019, representing a 29% increase over the period. Furthermore, the share of paved roads in Ethiopia increased from 6% in 2010 to 14% in 2019, indicating an improvement in road quality and accessibility.

Ethiopia has also invested in the construction of storage facilities, including warehouses and silos, to improve the storage and preservation of agricultural products. According to the Ethiopian Agricultural Transformation Agency, the country has built over 4,000 warehouses with a total storage capacity of more than 5 million metric tons since 2010.

These investments in infrastructure are expected to facilitate the transportation and sale of agricultural products, enabling farmers to access markets and generate sustainable income. However, there is still a need for further investment in infrastructure to address the existing gaps and meet the growing demand for improved transportation and storage facilities.

Transitioning from an agrarian community to a commodity-driven community in Ethiopia requires addressing the key drivers of productivity, diversification, value chain integration, and infrastructure. By investing in these areas, Ethiopia can increase its agricultural productivity, generate sustainable income, and improve the livelihoods of its farmers.Top of Form

**Characteristics of a commodity driven community:**

A commodity-driven community is characterized by a shift from subsistence farming to commercial agriculture, where farmers produce crops not only for their own consumption but also for sale on the global commodity market. Below is a summary of the main characteristics of a commodity-driven community:

Increased production of cash crops such as coffee, tea, and cotton.

Improved and expanded access to modern production techniques and technology.

Endowed with well developed infrastructure, including roads and storage facilities, to support agricultural production and transport.

Improved and extensive market linkages with domestic and international buyers.

Implemented market-oriented policies and institutions that support private sector investment in agriculture.

Institutionalized advanced value chains that enhance the quality and competitiveness of agricultural products.

Higher incomes for farmers and improved livelihoods in rural areas.

Overall, a commodity-driven community in Ethiopia aims to promote economic growth, diversification, and technology transfer by transitioning from subsistence farming to commercial agriculture.

**Benefits of Moving from Agrarian to Commodity Driven community**

While the transition from agrarian community to commodity driven community has costs as well as benefits, the benefit outweighs the cost. Moving from an agrarian to a commodity-driven community in Ethiopia can have several benefits, including:

**Increased income:** By producing crops for sale on the global commodity market, farmers in Ethiopia can generate a surplus of products that can be sold for profit, increasing their income, and improving their livelihoods.

**Economic growth:** Developing commodity-driven communities can contribute to economic growth by increasing the country's exports and generating foreign exchange earnings. The foreign exchange earning can be re-invested in improving infrastructure and integrated services to improve the life of the community.

**Diversification:** Commodity-driven communities typically focus on a small number of high-value crops, which can help to diversify the agricultural sector and reduce the reliance on subsistence crops.

**Employment opportunities**: Developing commodity-driven communities can create employment opportunities, particularly in areas such as processing, transportation, and marketing.

**Access to new markets:** By selling crops on the global commodity market, farmers in Ethiopia can access new markets and potentially higher prices, increasing their competitiveness in the global market. Creating new market is usually misunderstood concept. If farmers are encouraged to produce more and if the demand does not keep up, the increase in supply could lead to a drop in prices. The drop in price is a disincentive for farmers to produce more. The demand could be limited not only by the population size, but also by the purchasing power of the local population. Hence, it is important to consider expanding and entering new international market.

**Technology transfer:** transitioning to commodity-driven communities often requires investment in modern production techniques and infrastructure, which can lead to technology transfer and the adoption of more efficient and sustainable farming methods.

Especially in this critical time, the farming technology is growing by leap and bounds. For instance, electric tractors are growing in use including solar powered tractors. In countries like Ethiopia where fossil fuel prices are prohibitive, electric and solar tractors may be the way to the future and moving to the commodity driven community can enable the transfer of these technologies.

Moving from an agrarian to a commodity-driven community in Ethiopia can have significant benefits, including increased income, economic growth, diversification, employment opportunities, access to new markets, and technology transfer. However, this transition requires investment in modern production techniques, infrastructure, and market linkages, as well as addressing the challenges associated with market fluctuations and price volatility.

**Developing a commodity production plan**:

A commodity-driven community is focused on producing crops or products for sale on the global commodity market. This type of community is typically centered on maximizing productivity and efficiency to generate a surplus product for export, rather than just meeting local needs. The main areas to plan for to move to a commodity-driven community are:

**Select Crops or products to specialise on**:Start byPicking few crops or products to specialization in. A commodity-driven community often focuses on producing a small number of crops or products that have high demand and are profitable on the global market. Hence, emphasis should be place on those crops and products.

Another important benefit of focusing on specific crop is to lessen the unnecessary crowding of crop producers where that can put pressure on price due to excess supply in some crop area and shortage in others and hence, results in price fluctuations. Crop specialization not only help to increase international income, but also stabilizes internal market price,

**Adapt modern production techniques:** To maximize productivity and efficiency, commodity-driven communities often adopt modern farming techniques, such as mechanization, irrigation, and the use of fertilizers and pesticides. As it is currently implemented in relation to irrigation base wheat production, clustering small plots of land is supporting mechanization and use of fertilizer and improved seed varieties.

The economies of scale gained through clustering small frames can also help in machine harvesting as well as to pull together efforts and resources to manage post harvest storage issues that affects small holder farmers. Solving the storage problem will also help smooth out price fluctuations at the time of harvest and during lean period.

**Integrate into global supply chains**: Commodity-driven communities are typically integrated into global supply chains, with products being transported and sold to buyers all over the world. As shown on Table 8 below, agricultural product export grew by about 18 percent between 2016 and 2020, for an average annual growth of 3.6 percent. During the same period, food exports peaked at 88.5 percent of merchandize exports of Ethiopia, and dropped significantly in 2019 and rising again in 2020. It is important to link Agricultural products with global markets.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 8: Agricultural External Trade in Ethiopia** | | | | |  |
| Year | **Agricultural raw materials imports (% of merchandise imports)** | **Agricultural products Export in millions of US$** | **Food- Export in millions of US$** | **Food exports (% of merchandise exports)** | **Food as a proportion of the Agricultural export (%)** |
|  |  |  |  |  |  |
| **2010** | **49.1%** | **N/A** | **N/A** | **68.0** | **N/A** |
| **2011** | **55.4%** | **N/A** | **N/A** | **74.7** | **N/A** |
| **2012** | **54.9%** | **N/A** | **N/A** | **76.3** | **N/A** |
| **2013** | **59.2%** | **N/A** | **N/A** | **73.1** | **N/A** |
| **2014** | **56.6%** | **N/A** | **N/A** | **79.4** | **N/A** |
| **2015** | **54.1%** | **N/A** | **N/A** | **77.5** | **N/A** |
| **2016** | **41.0%** | **2265** | **2032** | **83.7** | **89.7%** |
| **2017** | **59.0%** | **2451** | **2199** | **84.9** | **89.7%** |
| **2018** | **48.2%** | **2117** | **1870** | **88.5** | **88.3%** |
| **2019** | **61.0%** | **2329** | **1956** | **73.1** | **84.0%** |
| **2020** | **50.2%** | **2676** | **2209** | **77.6** | **82.5%** |

**Source: World Bank Database; Trade Map, (https://www.trademap.org/Index.aspx)**

**Reduce vulnerability to market fluctuations:** Commodity prices are subject to fluctuations due to a range of factors, such as changes in demand, supply, and weather conditions. As a result, commodity-driven communities can be vulnerable to price volatility and instability.

In Ethiopia, there are several opportunities for developing commodity-driven communities. The country has a diverse range of agro-ecological zones that are suitable for growing a wide variety of crops. However, many farmers in Ethiopia still use traditional farming methods and lack access to modern inputs and equipment. To develop commodity-driven communities, there is a need to increase investment in modern farming techniques and infrastructure, such as irrigation systems and transportation networks.

One potential area for commodity production in Ethiopia is coffee, which is the country's most important export crop. Ethiopia has a long history of coffee production and is renowned for producing high-quality, specialty coffee beans. To develop a commodity-driven community around coffee production, there is a need to invest in modern processing techniques, such as wet milling, to improve the quality of the beans. Additionally, there is an opportunity to develop direct trade relationships between coffee farmers and buyers in the global market, which could help to increase profitability for farmers and reduce their vulnerability to market fluctuations.

**Strengthening community organization and capacity building:**

Community organization is essential for successful commodity production and trade. In India, a community was encouraged to form a cooperative to facilitate their production and marketing of their products. The cooperative provided a platform for the community to work together and share resources, such as equipment and storage facilities. They were also provided with training on quality control and post-harvest handling to improve the quality of their products.

Grass root level farmers organization are springing up in Ethiopia as well, with the support local governments and nongovernmental organization like NURU international. One such framer organization the Hidota Union that Supports Farmer Resilience and Food Security. Hidota union is located in the Southern Nations, Nationalities, and Peoples’ Region (SNNPR) of Ethiopia and was established in July 2016 with the support of NURU international, a US based social venture. (Feven, Biruk, and Tacy L., Dec 2022). According to Nuru International, “the union not only creates access to inputs and ensures that farmers have a viable market for their produce, but it contributes to market stabilization on both inputs and food.

In an impact evaluation commissioned by NURU international, it was reported that agricultural farmers business has been successful. For example, the evaluation found that “NE-supported farmer organization businesses achieved an average SCOPE insight score of 4.1 out of 5 demonstrating competitiveness at national, regional, and global levels for agricultural farmer organization businesses”

Also, it was reported that, “88 percent of NE-supported farmer organizations have achieved net profitability from their business operations as of 2021, which exceeded the target of 70 percent of businesses profitable in a given year” (Nuru Ethiopia, 2021 Impact Report, JUNE 2022)

**Developing market linkages and access to trade:**

The final step in Developing a commodity production plan is to develop market linkages and access to trade. One way to create and maintain markets and market linkages is through direct connection with the industrial sector. Creating a value chain can accelerate the market linkages. Towards this goal, Ethiopia has embarked on developing Integrated Agro industrial parks. Below is a map showing the distribution of the Integrated Agro Industrial Parks in Ethiopia.

Diagram

Description automatically generated

Source: Program for Country Partnership (PCP) Ethiopia and United Nation Industrial Development Organization (UNIDO), INTEGRATED AGRO-INDUSTRIAL PARKS IN ETHIOPIA, accessed on February 24, 2023, [Integrated-Agro-Industrial-Parks-in-Ethiopia-Overview-document.pdf (unido.org)](https://www.unido.org/sites/default/files/files/2018-08/Integrated-Agro-Industrial-Parks-in-Ethiopia-Overview-document.pdf).

Conclusion:

Studies have highlighted the limitations and opportunities facing the agrarian community in Ethiopia, including drivers of agricultural growth, limited access to inputs and markets, the potential of agricultural cooperatives, and the impact of market imperfections on land productivity.

Transitioning from an agrarian community to a commodity-driven community in Ethiopia requires addressing the key drivers of productivity, diversification, value chain integration, and infrastructure. By investing in these areas, Ethiopia can increase its agricultural productivity, generate sustainable income, and improve the livelihoods of its farmers.

Transitioning from an agrarian to a commodity-driven community can be a challenging but rewarding process. By assessing the community's needs, developing a commodity production plan, strengthening community organization, and establishing market linkages, communities can generate sustainable income and improve their quality of life. All the transition to commodity driven community needs is good leaders and genuine and committed agents of change.

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