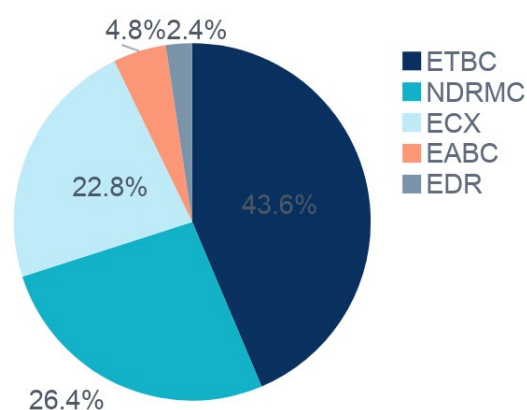


17. Warehousing and Warehousing Systems

The warehouse system in Ethiopia is decentralised across many organisations, both public and private. Warehouses in Ethiopia are used for the storage of various types of products, including industrial goods, consumer goods, pharmaceutical supplies, or cold stores. However, Ethiopia being an agrarian country, most warehouses are used for storing agricultural commodities such as grains, oilseeds, coffee, and other non-perishable agricultural products.

Key public entities involved in warehouse management include the Ethiopian Trading Businesses Corporation (ETBC), the National Disaster Risk Management Commission (NDRMC), the Ethiopia Commodity Exchange (ECX), the Ethiopian Agricultural Businesses Corporation (EABC), and the Ethio-Djibouti Railway (EDR). Accurately accounting for the total number and capacity of warehouses, especially the private ones, can be challenging because of the many warehouse owners. However, the combined warehouse capacity of the main public entities is estimated to be around 1,685,784 tons. As shown in Figure 17.1, ETBC takes the largest share.

Figure 17.1: Share of Ethiopian Warehouse Capacity among the Main Public Entities



The availability of warehouses in Ethiopia is currently limited because most warehouses are already used by the main entities mentioned above. The few available options often come with high costs. Additionally, most of the warehouses are independent scattered facilities.

There is a notable lack of coordination and integration among entities involved in the warehouse system, resulting in inadequate stock management and ineffective price control. This issue is further compounded by the seasonality of many stored products, particularly agricultural commodities such as wheat, leading to periods of under-utilisation in warehouses during certain months of the year.

Most warehouses in Ethiopia typically lack value-added services and often operate with limited personnel. The available workforce is often characterised by low qualifications and strong unionisation, resulting in low productivity rates.

Warehousing in Ethiopia is, in general, inefficient which is caused by a lack of qualified personnel and long loading/unloading and shifting times. Warehouses are not specialised and are almost always at an advanced stage of their useful life. Their overall security is fair, and their management systems are still manual in most cases, without IT systems. This leads to serious planning issues, resulting in poor stock management and long storage, dwell, and turnaround times. It can also lead to the contamination of stock, such as grain, stored for long periods of time. The general lack of

coordination and integration between all procurement bodies makes it difficult to find available warehouses and leads to poor control of warehouses prices.

Table 17.1 highlights the key features of the Ethiopian warehouse system. While the overall condition of the warehouses is generally satisfactory according to the data collected for the Masterplan Diagnostic by the team from the University of Addis Ababa, many of them are at an advanced stage of their useful life. In most cases, management systems are still manual, without the support of IT systems. Notably, the warehouses operated by the ETBC have minimal machinery and rely heavily on manual operations. As a consequence of all these factors, the dwell and turnaround times tend to be very long, with, for example, 24 hours of average truck turnaround time according to the ECX. This leads to prolonged storage times, which increases the risk of potential product contamination because of humidity and high temperatures.

Table 17.1: Key Features of the Ethiopian Warehouse System

Entity	Total warehouse capacity (tons)	Number of warehouses	Volume dispatched in 2021-22 (tons)	Main products	Warehouse management system	Overall security
ETBC	735,677	235	205,895	Coffee, wheat, teff and maize	Manual	Fair
NDRMC	445,000	60	445,000	Food (wheat) and non-food (basic commodities)	Manual, computerised in progress	Fair
ECX	383,827	64	187,345	Coffee and sesame	Computerised	Good
EABC	81,100	19	44,560	Fertiliser	Computerised	Fair
EDR	40,180	7	N/A	Grain	Manual	Good

The distribution of warehouses in Ethiopia is geographically uneven, as depicted in **Figure 17.2**. Warehouses are primarily concentrated in the central and northern regions of the country, with a notable concentration around the city of Addis Ababa. This distribution pattern aligns with the population density and agricultural production centres in those areas.

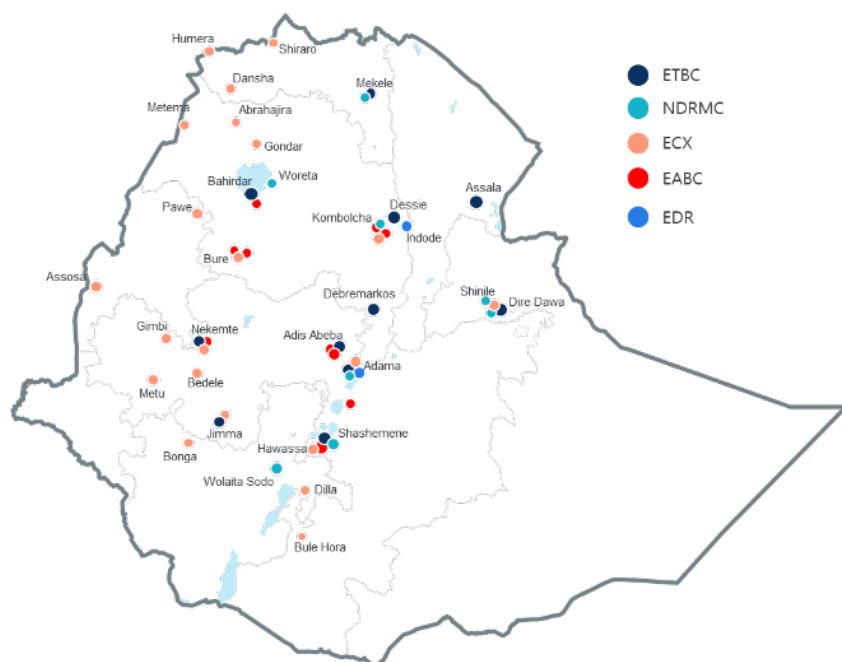
Most of these warehouses enjoy good accessibility, as they are located close to major road networks that traverse the country. Additionally, some warehouses have the added advantage of being accessible via the Ethio-Djibouti railway line, which further facilitates the transportation and movement of goods.

17.1 Ethiopian Trading Businesses Corporation (ETBC)

The Ethiopian Trading Businesses Corporation (ETBC) is a federal government public enterprise established through amalgamation of the Ethiopian Grain Trade Enterprise, the Ethiopian Fruits and Vegetable Marketing S.C., the Ethiopian Trading Enterprise and the Procurement Services Enterprise.

The ETBC has a multi-faceted objective that includes maintaining a stable domestic market by procuring and selling agricultural and industrial products, as well as basic consumer commodities from both local and foreign markets at prevailing market prices. In addition to this, the ETBC aims to offer support and encouragement to farmers, introduce new trading systems, develop a skilled workforce, and provide consultancy services related to procurement, among other initiatives.

Figure 17.2: Geographic Distribution of Warehouses in Ethiopia



The ETBC possesses the highest quantity of warehouses in Ethiopia, although many of them are relatively small. These warehouses are occasionally lent to other entities like the World Food Programme (WFP) or the National Disaster Risk Management Commission (NDRMC). On average, ETBC's warehouses have been in operation for around 30 years, with some of them in need of urgent renovation or refurbishment. It is important to mention that while ETBC warehouses store grain and coffee, the storage of wheat has been stopped recently in adherence to the government's policy of ceasing wheat imports.

The 235 warehouses of ETBC are segmented into thirteen business centres as shown in Table 17.2.

Table 17.2: Characteristics of ETBC warehouses

Business Centers	Number of warehouses	Business Centers	Number of warehouses
Addis Ababa	19	Bahirdar	35
Nekemte	25	Debreworkos	29
Adama	30	Dessie	8
Shashemene	15	Jimma	6
Dire Dawa	15	Addis Ababa for cereals	26
Assala	13	Addis Ababa for coffee	7
Mekelle	7	Total	235 (735,677 Tons)

17.2 National Disaster Risk Management Commission (NDRMC)

The National Disaster Risk Management Commission (NDRMC), also known as Ethiopian Disaster Risk Management Commission (EDRMC), is an autonomous Federal Government office responsible for disaster prevention and response coordination. The commission plays a crucial role in distributing substantial amounts of food and non-food items each year.

Table 17.3: Characteristics of NDRMC Warehouses

Logistics plants	Number of warehouses	Capacity in Tons
Adama	20	120,000
Kombolcha	15	100,000
Diredawa	3	22,000
Welaita sodo	5	55,000
Shashemene	3	23,000
Mekele	5	47,000
Shinile	5	35,000
Woreta	4	43,000
Total	60	445,000

Figure 17.3: NDRMC Warehouses for non-food products



Figure 3.16: NDRMC Warehouses for Grain



By facilitating the flow and storage of goods and materials, the NDRMC aims to alleviate the suffering of vulnerable individuals across the country. Its wide-ranging functions encompass preparedness, planning, procurement, transportation, tracing, and last-mile delivery.

The NDRMC oversees a network of 8 logistics plants, comprising a total of 60 warehouses. These warehouses are primarily owned by the Ministry of Finance. The distribution of goods is demand-driven, and the allocation is carried out on a zonal basis, ensuring efficient and effective distribution. The warehouses are strategically located in major cities and are well-connected to the country's main road networks. Among the logistics plants, the Adama plant boasts the highest warehouse capacity.

17.3 Ethiopia Commodity Exchanges (ECX)

The Ethiopia Commodity Exchange (ECX) is a centralised marketplace in Ethiopia for trading agricultural commodities. It was established in 2008 with the aim of providing a transparent and efficient platform for buying and selling various agricultural products. The ECX facilitates trade in commodities such as coffee, sesame seeds, maize, wheat, and other agricultural products.

The exchange operates through a trading system that allows registered market participants, including farmers, cooperatives, traders, and exporters, to engage in buying and selling commodities. It provides standardised grading, quality certification, warehousing, and settlement services to ensure fair and transparent trading practices.

The ECX plays a significant role in promoting fair pricing, reducing transaction costs, improving market efficiency, and ensuring quality standards in Ethiopia's agricultural commodity trade. It has contributed to the growth and development of the agricultural sector by providing a reliable and transparent market platform for market participants.

ECX warehouses have a computerised management system and provide several value-add-services such as the issuing of an Electronic Goods Received Note of each product. Moreover, they have a recording system for incoming and outgoing commodities to ensure the control of daily stock, as well

as exchange of information between ECX and the area warehouses. ECX maintains the quality of received products through continuous quality control procedures. The ECX Inventory Management system guarantees the quality and quantity of the commodity throughout the pre-determined period of storage. Further, ECX warehouses are insured at maximum coverage to protect against loss and damage of deposits.

The ECX is operating 64 warehouses located in 23 delivery locations in the country. These warehouses cover an area of 142,000 square metres with a capacity of storing about 400,000 metric tons of commodities at a time. All warehouses are operated by ECX, which owns some of the warehouses and leases out others. All warehouses are electronically connected to the main office system to manage day-to-day operation and to exchange information instantly, efficiently and securely in an automated fashion.

Table 17.4: Characteristics of ECX warehouses

Locations	Capacity in Quintals		Locations	Capacity in Quintals
Abrha jira	186,240		Hawassa	203,700
Adama	80,676		Humera	289,356
Assossa	47,153		Jimma	141,458
Bedelle	94,306		Kombolcha	131,624
Bonga	188,611		Metema	236,741
Bulehora	161,667		Metu	47,153
Bure	470,181		Nekemte	141,458
Dansha	95,282		Pawe	336,806
Dilla	107,993		Saris	282,917
Dire Dawa	54,697		Shiraro	46,560
Gimbi	161,667		Sodo	103,736
Gonder	228,284		Total	3,838,265

17.4 Ethiopian Agricultural Businesses Corporation (EABC)

The Ethiopian Agricultural Businesses Corporation (EABC) is a state-owned enterprise in Ethiopia. It operates as a central procurement entity for various agricultural products and commodities in the country. The EABC plays a crucial role in facilitating the procurement, distribution, and marketing of agricultural goods, ensuring fair prices and market stability.

The corporation supplies agricultural inputs (improved seeds, fertilisers and agrochemicals), agricultural machinery and spare parts, construction equipment and chemical spraying equipment and offers consultancy and technical training services.

The EABC administers a total of 19 warehouses dedicated to storing fertiliser, with a combined capacity of 81,100 Tons. The management system employed by the EABC for these warehouses is computerised, ensuring efficient inventory tracking and logistics management.

17.5 Ethio-Djibouti Railway

The Ethio-Djibouti Railway (EDR) was established through a Bilateral Agreement between Ethiopia and Djibouti to construct and operate a railway connecting Addis Ababa and Djibouti. The railway project was commissioned in 2018, marking an important milestone in enhancing transportation and connectivity between the two countries.

The Ethio-Djibouti Railway manages a total of seven grain warehouses, collectively capable of storing 40,180 tons of grain. The largest warehouse is in Adama, with a capacity of 6,300 tons.

17.6 World Food Programme (WFP)

The World Food Programme (WFP) provides unconditional food and cash transfers to the most vulnerable families across Ethiopia, including refugees. Ethiopia hosts one of WFP's largest supply chain operations, managing the movement of over 600,000 tons of food per year to 3,000 distribution points and 27 refugee camps.

The WFP operates 10 leased warehouses in Ethiopia to store both food, primarily wheat, and non-food items. While these warehouses are not specifically designed for grain storage, they serve as crucial storage facilities for WFP's operations.

Additionally, the WFP operates a logistics plant in Djibouti that serves as a buffer for their operations. This facility includes four silos with a combined capacity of 40,000 tons, which are primarily used for storing food items. Moreover, there are closed warehouses available within the logistics plant specifically designated for non-food products.

The WFP possesses a significant fleet of trucks that enables them to conduct a maximum of 2.7 roundtrips per month between Djibouti and Ethiopia.

17.7 Other Warehouses Facilities

- The Strategic Grain Reserve Agency (SGRA) is an organisation dedicated to ensuring food security and addressing food price hikes by maintaining strategic grain reserves. SGRA manages seven grain warehouses in Sodo, Shashemene, Shenele, Adama, Wereta, Kombolcha and Meqelle.
- The Ethiopian Grain Trade Enterprise (EGTE) purchases grain, oilseeds, coffee, and pulses both for local wholesale and export. Its head office is in Addis Ababa, but it has 10 branch offices and 91 trade centres throughout the country. Moreover, it has two warehouses at Adama, each with a storage capacity of 5,000 Tons.
- The Ethiopian Sugar Industry Group (ESIG) (previously known as Ethiopian Sugar Corporation (ESC)) serves as the centralized entity responsible for all sugar development activities in Ethiopia. It manages eight producing factories and multiple warehouses across the country. Notably, the Addis Ababa warehouse holds a carrying capacity of 6,000 Tons, while other notable warehouses are in Wonji Shoa, Kessem and Metehara.
- The Ethiopian Pharmaceutical Supply Agency (EPSA) owns 20 warehouses with a combined capacity of over 34,125 pallets, specially designed to handle pharmaceutical products, with a sophisticated computerised information system to facilitate efficient inventory management.
- The Adigrat Catholic Secretariat has 8 warehouses in Tigray with storage capacity of 4,818 tons.
- The Catholic Relief Services has 15 warehouses in Dire Dawa with carrying capacity of 6,000 Tons, 6 warehouses in Amhara with carrying capacity of 2,000 Tons; and 12 warehouses in Oromia with carrying capacity of 13,437 Tons.
- Save the Children has 2 warehouses in Amhara with carrying capacity of 1,800 Tons.

- The Industrial Inputs Corporation has a 5,240 ton warehouse in the Amhara region.

17.8 National Warehouse Receipt System (WRS),

The Warehouse Receipt System Proclamation was legislated in 2003 but it took until November 2021 for the Ministry of Trade and Regional Integration (MTRI) to launch the National Warehouse Receipt System (WRS), a legal regulatory framework for licensing and overseeing of warehouses. Five cooperatives were selected from Amhara and Oromia regions for the pilot project and two agricultural producers participated in the pilot. The system became fully operational in 2022.

The regulatory body, which is established under the MTRI, issues a certificate of competence to warehouse operators, inspectors, and agricultural product certifiers. The regulator will also have an advisory board, comprised of representatives from the Ministries of Trade and Industry and Agriculture, National Bank of Ethiopia (NBE), the Ethiopian Standards Agency, the Federal Cooperatives Agency, the Ethiopian Bankers Association, the Association of Microfinance Institutions and the Ethiopian Chamber of Commerce and Sectoral Association.

The International Financial Corporation (IFC) has been supporting the Ministry to implement the system through a partnership known as the Collateralised Commodity Finance (CCF) Project since 2017. Other stakeholders have also been involved in implementing supportive regulations, collaborated with the Ethiopian Standards Agency to establish a national agricultural warehouse standard, liberalised the warehousing sector in collaboration with the Ethiopian Investment Commission to attract Foreign Direct Investment, and conducted capacity-building initiatives for farmers, cooperatives, agro-processors, and financial institutions along the value chain.

Through the scheme, farmers and other depositors can preserve their produce from post-harvest loss and by accessing bank credit secured against the stored commodity collateral, can avoid selling immediately after harvest when prices tend to be lowest.

As part of this work the stakeholders have put in place enabling regulations, established a national agricultural warehouse standard with the Ethiopian Standards Agency, liberalized the warehousing sector in partnership with the Ethiopian Investment Commission to enable Foreign Direct Investment, and performed capacity building with farmers and their cooperatives, other value chain actors such as agro-processors, and financial institutions.