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## **THE IMPACT OF NATIONAL AND INTERNATIONAL WAR ON AGRICULTURE IN ETHIOPIA: A REVIEW**

**Yonas Muleta Gejea**

Senior Officer of Cooperative and Agricultural Banking Business development at Cooperative Bank of Oromia, Addis Ababa, **Ethiopia**.

&

**Shibeshi Fekadu Tolesa**

Department of Agricultural Economics, College of Natural Resource Management and Agricultural Economics, Mattu University, Bedele Campus, Bedele, **Ethiopia**.

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### **ABSTRACT**

Back ground and objective: Ethiopian Smallholder farming accounts for approximately 95 percent of agricultural production however, its crop agriculture is complex, involving substantial variation in crops grown across the country's different regions and ecologies. Ethiopia has a long and complex history of civil wars and border conflicts that have significantly impacted the country's political, social, and economic development. Some of the most significant include Ethio-Eritrea War and Tigray War. Ethiopia has also had longstanding border conflicts with Sudan, which have impacted the agricultural sector and cross-border trade. Also, experienced significant internal conflicts and civil wars between different ethnic groups, which have had a major impact on the country's agricultural sector. The extent and nature of these impacts is crucial for guiding policymakers and stakeholders in developing effective strategies to mitigate the adverse effects and promote sustainable agricultural growth. Therefore, the objectives of this literature review are to: systematically examine the impacts of civil war, border conflicts, and international wars on Ethiopia's agricultural sector.

**Materials and Methods:** It covers research results published in international publications and others which have DOI and link. **Conclusion:** A review used as a resource for policymakers and development programs to help the country's economic growth by identifying the primary elements that influence unemployment. It will also serve as a source of data for similar future investigations and identify the key pathways through which different types of wars have affected agricultural production, productivity, marketing, and related outcomes; and provide evidence-based recommendations for policymakers and stakeholders on strategies to build resilience and mitigate the adverse impacts of various types of war on Ethiopia's agricultural sector, including its production, marketing, and trade capabilities.

**Keywords:** National, International, War, Agriculture, Ethiopia.

### **1. INTRODUCTION**

Ethiopia is a land locked country with about 123.4 million people in 2023 with agriculture major economic sector in national economy accounting for 40 percent of the gross domestic product (GDP)<sup>1</sup>, 80 percent of exports, and an estimated 75 percent of the country's workforce<sup>2</sup>. Smallholder farming accounts for approximately 95 percent of agricultural production<sup>3</sup>. Crop and livestock production account for roughly 65% and 25% of agricultural GDP<sup>4</sup>.

Ethiopia's crop agriculture is complex, involving substantial variation in crops grown across the country's different regions and ecologies. Coffee, pulses (e.g. beans), oilseeds, cereals, potatoes, sugarcane, and vegetables are principal crops produced in the country. Five major cereals (teff, wheat, maize, sorghum and barley) are the core of Ethiopia's agriculture and food economy 5-6. Ethiopia has also a long tradition of producing fruits; like banana, pineapple, mango for home consumption and neighboring countries export<sup>3</sup>. Ethiopia has also the largest livestock population in Africa, with 65 million cattle, 40 million sheep, 51 million goats, 8 million camels and 49 million chickens in 2020<sup>7</sup>.

The country is exporter of Coffee, Fresh-cut flowers, Fresh vegetables, Sesame seeds and Pulses. The country also exports Meat, live animal, leather and leather products. The country is the importer of Agricultural inputs, Palm oil, Cane sugar, Rice and Sunflower seed oil <sup>4</sup>. The country exports live animals, Leather and leather products, Meat and meat products and others.

Ethiopia has significant potential in agriculture due to its proximity to lucrative markets, agro-climatic suitability and rich water resources for diversified irrigated agriculture, the growth and rise in demand for horticultural crops, particularly in urban areas, diversified agro-climatic conditions that facilitate the diversification of crops, the high productivity of horticultural crops as compared to cereals, the encouraging export possibilities of these crops, and the potential for these highly remunerative crops to improve the standard of living of small-scale, resource-poor farmers if fully exploited<sup>8</sup>. Ethiopia has immense potential for livestock production due to its vast grazing lands and abundant feed resources, favorable agro-climatic conditions, genetic diversity of indigenous livestock breeds, growing domestic and export demand for livestock products.

However, Ethiopia's agriculture and food system is not well equipped to support for its rapidly growing and urbanizing population and to stimulate broad-based economic transformation. The major constraints on Ethiopia's agricultural sector include low productivity, smallholder dominance, underdeveloped infrastructure, fragmented markets, environmental degradation, climate vulnerability, limited access to finance and credit, weak value chain integration, policy challenges, and land tenure issues further exacerbated by the lack of a domestic sea port and the ongoing war, which have severely impeded the country's ability to effectively export products and import necessary inputs, increasing logistical complexities, costs, and uncertainties, and ultimately undermining the competitiveness and development of the agricultural industry <sup>9-10</sup>.

The global COVID-19 pandemic has also had significant impacts on Ethiopia's agricultural sector. Disruptions to supply chains, restrictions on movement, and economic slowdown have affected the availability and accessibility of agricultural inputs, as well as the ability of farmers to transport and sell their products. The pandemic has also led to a reduction in foreign investment and development assistance for the agricultural sector, further constraining the sector's growth and resilience.

Ethiopia has a long and complex history of civil wars and border conflicts that have significantly impacted the country's political, social, and economic development. Some of the most significant include Ethio-Eritrea War and Tigray War. Ethiopia has also had longstanding border conflicts with Sudan, which have impacted the agricultural sector and cross-border trade. The country has also faced long-running conflicts with various ethnic-based insurgent and militia groups, including the Oromo Liberation Front (OLF), Amhara Fano militias and others. These groups have engaged in armed struggle against the central government at different times, leading to repeated cycles of violence. Ethiopia has also experienced significant internal conflicts and civil wars between different ethnic groups, which have had a major impact on the country's agricultural sector.

In addition to the border conflicts the ongoing war in Ukraine has also had a significant impact on the country's agricultural sector. The war has disrupted the supply of fertilizers, many of which are produced in Russia, further impacting agricultural productivity in Ethiopia. In addition, the war in Ukraine has led to a global increase in fuel and energy prices, which has had a direct impact on the cost of agricultural production, transportation, and processing in Ethiopia. The war has also disrupted global trade and supply chains, which has affected the availability and prices of a wide range of agricultural inputs and equipment used in Ethiopia's farming sector. Furthermore, the tensions and geopolitical dynamics surrounding the Red Sea region have also had significant impacts on Ethiopia's agricultural sector.

Understanding the extent and nature of these impacts is crucial for guiding policymakers and stakeholders in developing effective strategies to mitigate the adverse effects and promote sustainable agricultural growth. Therefore, the objectives of this literature review are to: systematically examine the impacts of civil war, border conflicts, and international wars on Ethiopia's agricultural sector; identify the key pathways through which different types of wars have affected agricultural production, productivity, marketing, and related outcomes; and provide evidence-based recommendations for policymakers and stakeholders on strategies to build resilience and mitigate the adverse impacts of various types of war on Ethiopia's agricultural sector, including its production, marketing, and trade capabilities.

## **2. THE IMPACT OF NATIONAL AND INTERNATIONAL WAR ON AGRICULTURE IN ETHIOPIA**

Ethiopia is a nation grappling with persistent conflicts, shaped by a complex web of ideological, religious, regional, ethno-linguistic and sociological divisions. The consequences of these conflicts have been devastating, resulting in the tragic loss of life, the destruction of critical infrastructure, and a significant drag on the country's economic growth and development. Conflict stands out as a major driving force behind Ethiopia's persistent poverty<sup>11</sup>. This is particularly evident in the agricultural sector, a crucial pillar of the Ethiopian economy. Recurring cycles of violence, instability, and disruption have severely undermined the productivity and development of the country's agricultural systems.

Ethiopia is a country which does not have direct access to the sea. Ethiopia is in conflict with its Horn of Africa neighbors, particularly Eritrea and Somalia, over its aggressive efforts to gain access to the sea, which is increasing the risk of a regional conflict. The conflicts and tensions in the Red Sea region have had significant indirect impacts on Ethiopia, particularly in relation to its agricultural exports. The region has been plagued by various conflicts, including the ongoing tensions between Saudi Arabia, the United Arab Emirates, and Iran, as well as the civil war in Yemen<sup>12</sup>. The ongoing Russia-Ukraine war has further exacerbated Ethiopia's challenges, as it has disrupted global supply chains and contributed to a significant rise in the prices of essential agricultural inputs, such as fertilizers and fuel. The gas crisis triggered by the war has also had a ripple effect, leading to higher energy costs and further straining the already fragile agricultural sector. The combination of domestic conflicts, border conflicts, and the global shockwaves from the Russia-Ukraine war has been particularly devastating for Ethiopia's economy.

### **Domestic Conflict**

#### **Tigray war**

Political disagreements between the Ethiopian federal government and the Tigray regional state ensued into full-scale war on November 4, 2020, with the armed forces of the Tigray region on one side and the federal army and its allied forces from Amhara region and neighboring Eritrea on the

other. The conflict played out in most parts of Tigray while also spilling over into parts of Amhara and Afar regions. The outbreak of the civil war has increased food insecurity by 38 percentage points seven months into the conflict. The conflict has reduced households' access to food through supply chain disruptions while also curtailing non-farm livelihood activities. Non-farm and wage-related activities have been the most affected by the conflict, while farming activities have been relatively more resilient <sup>13</sup>.

The war in Ethiopia has complex roots stemming from longstanding political tensions between the federal government and the Tigray region, disputes over the balance of power and resource allocation, and the role of ethnic nationalism and identity politics. The war has primarily affected the Tigray region but has also spilled over into other regions such as Afar, Oromia and Amhara. These areas are integral to Ethiopia's export economy. This conflict has resulted in extensive damage to infrastructure and a devastating loss of life<sup>7</sup>. The conflict has had also profound consequences on agricultural production, manufacturing, and overall trade dynamics <sup>14</sup>.

Reported the Ethiopian People's Revolutionary Democratic Front Party's demise, the constitutional crisis, election delay, and the Amhara region's ambition to annex Tigray Region land to regain the lost territories are the causes of conflict, the Tigray People's Liberation Front attack on the Ethiopian northern military base was the immediate cause of the conflict <sup>15</sup>.

The war in northern Ethiopia's Tigray region had reshaped agriculture across the borderlands of Ethiopia, Sudan, and Eritrea. Sesame was a crop that thrived in Western Tigray and Al Fashaga in Eastern Sudan, and this fertile region grew almost a third of Ethiopian sesame exports, given Ethiopia's status as the world's third-largest oilseed producer after India and Sudan, with sesame accounting for 30% of its oilseed production. The crop is the second foreign currency earning crop after coffee and produced mostly for export. The outbreak of the conflict in Tigray had significantly impacted sesame production and trade across the agricultural value chain. Sesame farmers had been killed, displaced, or forced to flee, while farms had been looted or destroyed at the height of the harvest season, further exacerbating food insecurity for the local population. The players involved in the sesame trade, and the cash from this lucrative crop was used to support various factions in the conflict. With Ethiopia distracted by the conflict in Tigray, Sudan moved its troops into Al Fashaga and expelled thousands of Ethiopian farmers. The Sudanese armed forces themselves managed the harvest of crops planted by Ethiopians in Al Fashaga, including sesame. These were then sold on the market in Gedaref in eastern Sudan, and the profits flowed to Sudan's military. Moreover, the war has resulted in illegal sesame trading with sesame from Tigray winding its way to the markets of neighboring Eritrea without passing through customs authorities <sup>16</sup>.

The war resulted in widespread destruction of croplands, livestock, and agricultural infrastructure in the Tigray region, while also disrupting input supply chains and marketing channels for the regions agricultural produce. The conflict has also created severe transportation and logistical challenges. Moreover, key transport routes have become unsafe or blocked, affecting the movement of goods from production sites to export hubs. The port of Djibouti, which handles the majority of Ethiopia's trade, has experienced disruptions due to the instability in these regions <sup>17</sup>.

The civil war has disrupted farming activities, leading to a decline in coffee production, farmers displacement, and the destruction of infrastructure hindering the harvesting and transportation of coffee in Oromia. As a result, export volumes have decreased, impacting the livelihoods of millions of farmers and agricultural workers in the region. The Amhara region, known for its diverse agricultural sector, has also been severely affected by the civil war. Amhara's agricultural exports, including teff, sesame seeds, and livestock, have faced significant disruptions due to the conflict <sup>14</sup>.



The population in northern Ethiopia relied on agriculture as their primary source of food and income. As conflict has constrained agricultural production, households faced extreme food insecurity, partially due to missed harvests and crop destruction. Additionally, the conflict has resulted in market supply and access constraints that are contributing to rising food prices, making basic food commodities inaccessible or unaffordable for many households. This leaves households reliant on humanitarian aid; however, roadblocks, movement restrictions, blockages, and theft make it difficult to deliver the necessary aid to households in need <sup>18</sup>.

Since the onset of conflict in Tigray region in November 2020, the agricultural sector has been targeted by various parties involved in the conflict as the majority of the region is dependent on agriculture and livestock production for their basic food and income needs. High displacement levels have resulted in field abandonment, and those left in rural villages face numerous obstacles to carrying out agricultural activities, including restricted field access as well as limited availability and decreased affordability of agricultural inputs. This has drastically increased the number of people dependent on market supply or humanitarian aid (GEOGLAM Crop Monitor, 2022). In addition, farmers have been prevented from ploughing or harvesting, seeds for planting have been stolen, farm equipment has been looted, and livestock has been killed <sup>9</sup>. The crops that were sown have pillaged and burned before they able to be harvested<sup>4</sup>.

The conflict in Tigray has resulted in a decline in agricultural production in 2021 and 2022, leading to an increase in land abandonment<sup>19</sup>. Outbreak of the civil war has increased food insecurity by 38 percentage points. The conflict has reduced households' access to food through supply chain disruptions while also curtailing non-farm livelihood activities. Non-farm and wage-related activities have been the most affected by the conflict, while farming activities have been relatively more resilient<sup>13</sup>.

The conflict in northern Ethiopia's Tigray region has had a lasting effect on agriculture in the borderlands of Ethiopia, Sudan and Eritrea, as sesame farming revenues have become a money-making venture for armed groups. Before November 2020, Tigray was a powerhouse in global sesame production, contributing almost a third of Ethiopia's sesame exports, amounting to \$350M annually<sup>20</sup>. The conflict has had a devastating impact on the country's sesame production, with over 500,000 hectares of sesame farmland - around 70% of Ethiopia's annual sesame cultivation - left uncultivated as farmers have fled the war-torn areas of Tigray and Gondar. The loss of this major sesame-producing region has severely disrupted Ethiopia's sesame exports, a major cash crop and export commodity. Large-scale sesame farmers who received loans from the Development Bank of Ethiopia are also at risk of defaulting, as they have been displaced from their lands<sup>21</sup>. The conflict has also led to the Sudanese military occupying fertile sesame-growing areas in Gondar, further depleting Ethiopia's sesame production. With the disruption of sesame farming in the north, Ethiopia is facing shortages, rising prices, and broader economic impacts from the loss of this crucial agricultural export <sup>21</sup>.

Coffee makes up between 30-35% of Ethiopia's exports, and around 25% of the population is directly or indirectly dependent on the coffee industry. However, the dollar generated from coffee export was used for war. In response, some major coffee roasters have decided to stop buying Ethiopian coffee altogether, which could force the government's hand but also risks severely harming Ethiopian coffee farmers by causing currency devaluation, inflation, loan defaults, and unemployment. Restricting Ethiopian coffee trade could even lead to the market being filled by other producers, eroding Ethiopia's position in the global coffee trade <sup>22</sup>.

The Tigray War has had significant repercussions for Ethiopia, particularly regarding its international trade status with the U.S. In November 2021, USA removed Ethiopia from the African

Growth and Opportunity Act (AGOA) which had provided duty-free access to the U.S. market for certain Ethiopian exports due to escalating conflict and human rights violations. This decision resulted in many foreign companies withdrawing from Ethiopia's industrial sectors, impacting over 200,000 low-income families, especially women<sup>23-24</sup>. Significant negative impacts on the country's agricultural sector. The suspension of Ethiopia's AGOA trade benefits has reduced the competitiveness of its agricultural exports in the U.S. market, while disruptions in accessing international markets have affected key exports like coffee, flowers, fruits, and vegetables. The sanctions have also impacted Ethiopia's ability to import crucial agricultural inputs, leading to shortages and higher prices that have reduced farmer productivity and yields. Additionally, the sanctions have made it more difficult for Ethiopian agricultural traders and exporters to access trade finance, further constraining their ability to engage in international trade. The suspension of World Bank and IMF loans and aid has compounded these challenges, contributing to broader economic instability that indirectly affects the agricultural sector.

### 3. CLASHES BETWEEN OROMIA AND SOMALI REGIONS

Somali- Oromo clash Pastoralists make up most of Ethiopia's total land area along the borders of Somalia, Kenya and Sudan. In Ethiopia, they are mainly found in its four neighboring regions: Afar, Somali, Oromia and the Southern Nations, Nationalities and People's (SNNP). Nonetheless, pastoralists are under pressure from many factors, both natural and man-made<sup>25</sup>.

The shrinking of natural resources, such as grazing lands and water, due to the impacts of drought, land degradation, and changes in land use between crop cultivation and livestock production relying on communal grazing lands, can be a significant factor of conflict between pastoralist and agro-pastoralist communities<sup>26</sup>. As these natural resources become scarce, competition for access and control of the remaining land and water sources can escalate tensions and lead to conflicts between the different livelihood groups. The conflicts between the Oromo and Somali pastoralist and agro-pastoralist groups are driven by similar underlying causes related to the shrinking of natural resources.

Thousands of people have fled Ethiopia's Somali region following deadly clashes between ethnic Somalis and Oromos. The conflict has resulted in dozens of deaths. The clashes have displaced at least 55,000 people. The root cause of the conflict lies in the longstanding territorial competition and disputes over resources, such as wells and grazing land, between the predominantly pastoralist Somali community and the farming and pastoralist Oromo community<sup>27</sup>.

The town of Moyale in southern Ethiopia is split between the Oromia and Somali regional states, with the road dividing the town marking the contested border. However, Moyale has segregated administration, schools, court systems, and security forces, reflecting the persistent tensions between the Borana Oromo and Garri Somali communities. Violent clashes have flared up periodically, including deadly incidents in 2012 and early 2017. The tensions are part of a wider conflict along the Oromia-Somali border region, which saw a major outbreak of violence in late 2016 and early 2017 involving heavily armed militia on both sides. Dozens were reported killed and thousands displaced<sup>28</sup>.

The clashes between the Somali and Oromia regions in Ethiopia are a series of conflicts that have ebbed and flowed for over 25 years. The Oromia and Somali regions share Ethiopia's longest interior border and the two ethnic groups have experienced intermittent conflicts over resources, including land and water<sup>29</sup>.

### 4. WAR IN OROMIA AND AMHARA REGIONS

Recurring conflicts in Amhara and Oromia have had a significant impact on Ethiopia's agricultural sector. Six key conflict theaters in Ethiopia's Amhara region are driven by identity movements, territorial disputes, political realignments, and economic challenges. Significant issues include the ongoing Wolqayt-Tsegede dispute between the Amhara and Tigray regions, the disbandment of the Amhara Special Forces leading to resistance and clashes, the Qimant ethnic group's struggle for self-administration, violence in the Oromo Special Zone, and tensions over the Ethiopian-Sudanese border. The report emphasizes competing identity claims and economic woes as major drivers of conflict while forecasting continued violence and calls for a new political settlement amid persistent instability and militancy. The Economic challenges, including the cost-of-living crisis across the country and the fertilizer and seed crisis in the region, have added to discontent and conflict<sup>30</sup>.

The ongoing armed conflict in Oromia involves the Oromo Liberation Army opposing regional and federal forces, with key political actors including the Prosperity Party, Oromo Federalist Congress, and Oromo Liberation Front. The conflict features guerrilla-style insurgency by the Oromo Liberation Army, often targeting government officials, while federal troops increase their presence. The government's response includes monitoring and crackdowns, leading to arbitrary detentions and extrajudicial killings, particularly affecting those suspected of connections to the Oromo Liberation Army. Ethnic violence between Oromos and Amharas has escalated due to political and cultural tensions, resulting in significant casualties. The Oromo Liberation Army claims to fight against political exclusion and cultural marginalization, with civilian casualties rising from government drone strikes<sup>3</sup>.

## **Regional war**

### **Ethio-Sudan Boarder conflict**

Ethiopia and Sudan share a long border characterized by extensive cross-border trade. A longstanding border dispute has seen intermittent clashes among local militias. The boundary claimed by the two countries was never definitively demarcated. The borderland dispute has been used internally as a trump card by the Sudanese military leadership to quell the protests and inflame nationalist feelings<sup>30</sup>.

The contested border between Ethiopia and Sudan, especially over the fertile Al Fashaga territory, has been a source of tension for over a century, rooted in disagreements over border delineation. This agricultural region lies between Sudan's Gedaref state and Ethiopia's Tigray and Amhara regions. Since late 2020, the 740-kilometre border has experienced overlapping conflicts exacerbated by the Tigray war, leading to Sudanese incursions into Al Fashaga and the forced displacement of thousands of Ethiopian farmers. As a result, relations between the two countries have rapidly deteriorated, culminating in the closure of the border. In such a competitive context, important economic resources like land and cash crops have become contested. High-value white sesame is produced largely in the borderland area between Sudan and Ethiopia, and is economically important to both countries. These resources are part of economic processes that connect Ethiopia and Sudan to the broader region, including the Arabian Gulf and beyond<sup>29, 31-32</sup>.

Trade along the Ethiopia–Sudan border has suffered due to the war in northern Ethiopia and the concurrent takeover of Al Fashaga by the Sudan Armed Force. These events caused the sporadic closure of the main overland transport and trade route between the two countries – the Metema–Gallabat border crossing – for nearly two years between late 2020 and 2022<sup>29</sup>.

The conflict between the Ethiopian government and the Tigray regional forces, as well as tensions between Ethiopia and the Oromo Liberation Front (OLF), has had a significant impact on Ethiopia's



sesame industry. As a result of these regional conflicts, the total area in which sesame was harvested in Ethiopia declined from 375,120 hectares in 2019 to 270,000 hectares in 2021, a substantial decrease in sesame cultivation. Moreover, the instability and insecurity caused by these conflicts, combined with the border disputes between Ethiopia and Sudan, have severely disrupted sesame trade and exports. Ethiopia's actual exports of sesame more than halved, dropping from 247,501 metric tons in 2020 to only 107,719 metric tons in 2022<sup>32</sup>.

### **Ethio- Eritrea war**

These protracted conflicts, both between Ethiopia and its neighbors as well as internal armed struggles, have had devastating impacts on the country's stability, economy, and civilian populations over the decades.

Ethiopia-Eritrea border war severely disrupted agricultural activities in the disputed border regions. The presence of landmines left behind by the retreating Eritrean army and the ongoing conflict prevented farmers from returning to their traditional scrubland farms and grazing lands, disrupting the livelihoods of local farmers. Additionally, the war led to the displacement of hundreds of thousands of Ethiopians and Eritreans, further disrupting the agricultural workforce and livelihoods in the affected regions. The fighting and military presence also caused significant ecological damage, polluting the fragile, semi-arid ecosystem and potentially impacting long-term agricultural productivity. Moreover, the long-term presence of landmines continued to pose a threat to farmers and disrupt agricultural activities for years to come. Finally, the diversion of resources towards the war effort, rather than investment in agriculture and rural development, likely had a negative impact on the overall agricultural productivity and economic development in the affected regions<sup>33</sup>.

The war severed economic and trade linkages between the two countries disrupted the cross-border movement of agricultural goods, inputs, and labor, hampering trade and productivity. Additionally, the loss of access to the Port of Assab, a critical gateway for Ethiopia's agricultural exports, further undermined the country's ability to market its produce<sup>34</sup>. Ethiopia has a comparative advantage in agriculture over Eritrea and has potential of exporting agricultural goods to Eritrea<sup>35</sup>.

In 2018 Ethiopia announced initial preparations to resume cooperation on the Assab Port in Eritrea and 2019 Ethiopia had begun repair work on the road to the port, and Eritrea was undertaking similar efforts. As a result of the war started by TPLF, progress toward linking the Eritrean port of Assab to markets in Ethiopia was temporarily paused<sup>36</sup>.

Price increases for inputs like fertilizers (+70%) and petroleum fuels (+50%) because of The Russia-Ukraine war heavily impact agricultural production costs. This resulted in a contraction of nominal GDP by about 4% and real GDP by around 0.6% due to the compounded effect of these rising prices. Different agricultural activities face varying effects; fuel-dependent activities, such as transport and electricity generation from diesel, are severely affected. Rising prices and declining incomes affect household consumption, particularly among urban households who are more impacted by fuel and wheat price changes<sup>15</sup>.

### **International war**

#### **Russia- Ukraine war**

Russia-Ukraine War began on February 24, 2022, when Russia launched a full-scale invasion of Ukraine. The Russia-Ukraine war has become a major geopolitical crisis, drawing widespread international condemnation of Russia's actions<sup>37</sup>. The Russia-Ukraine war has severely disrupted grain exports, spiked agricultural commodity prices, triggered fertilizer shortages, reduced crop

production, created logistical challenges, and heightened food security risks around the world, especially in vulnerable, food-importing countries that rely on supplies from the Black Sea region.

Historically, Ethiopia has maintained important trading relationships with Russia and Ukraine—both for agricultural inputs such as fertilizer and commodities like wheat and sunflower oil. The war between these two nations has impacted the supply of both fertilizer and commodities like wheat and sunflower oil, leading to severe productivity and food security disruptions. The war in Ukraine has caused a fertilizer price increase of as much as 200%. In 2022, Ethiopian Agricultural Trading Corporation, the state-owned enterprise responsible for purchasing fertilizer, failed to purchase enough fertilizer for the 2023 planting season, importing 11% less than the previous year and 30% less than the expected demand. Historically, Ethiopia has relied on wheat and sunflower oil from Ukraine and Russia. The Russia-Ukraine conflict has driven up prices. Immediately after the Russian invasion, domestic wheat prices surged by 50% while the price of sunflower oil almost doubled<sup>38</sup>.

The war in Ukraine has had significant repercussions for Ethiopia and the broader Horn of Africa, highlighting vulnerabilities in food security due to reliance on imports. The war has significantly impacted Ethiopia by exposing its heavy reliance on food imports, particularly wheat, as both Russia and Ukraine are major suppliers. Due to the conflict, Ethiopia faces rising food prices and reduced access to essential food supplies, leading to increased food insecurity. The conflict has led to skyrocketing food prices globally. For Ethiopia, food prices were reported to be 34% higher than the previous year, contributing to a dire food insecurity situation for millions<sup>39</sup>.

The ongoing war in Ukraine has significant adverse effects on Ethiopia's agriculture, primarily through rising global prices for key imports such as fertilizers and petroleum. Ethiopia's real GDP is projected to decline by approximately 0.65%, driven largely by increases in fertilizer and fuel prices, which directly impact agricultural production costs and consumer prices. Higher fertilizer prices lead to decreased demand and application of fertilizers, impacting productivity in crop farming. The contraction in crop production is notably seen in key crops like oilseeds, wheat, and maize, which could decrease by up to 5.4%, 3.8%, and 3.2% respectively due to increased costs<sup>40</sup>.

The Russian-Ukrainian war has disrupted global grain supplies, particularly wheat, leading to higher prices for imported grain in Ethiopia, exacerbating food insecurity and affecting local agricultural production and availability<sup>41</sup>.

Russia's war in Ukraine has affected wheat supplies in Ethiopia that depend on those two nations for commercial wheat purchases due to their low prices and transportation costs compared to other countries including the United States. Ethiopia has planned to stop importing wheat in 2023, but this is an unrealistic and unachievable target within such a short period of time and with limited resources to adopt necessary technologies<sup>9</sup>.

Moreover, notes those disruptions in supplies of fertilizers and other agricultural inputs from Ukraine and Russia impacted Ethiopian farmers' ability to produce crops effectively, leading to lower yields and increased vulnerability to food shortages. The war has also diverted international attention and aid away from Ethiopia, making it harder for farmers to recover and adapt, while reducing funds for agricultural development and humanitarian assistance crucial for supporting farmers and rural communities<sup>39</sup>.

## 5. THE CONFLICTS AND TENSIONS IN THE RED SEA REGION

The Red Sea accounts for an estimated 12% of global trade valued at \$1 trillion and about 15% of global shipping traffic. This route typically manages more than 95 percent of maritime traffic

between Asia and Europe, playing a crucial role in facilitating approximately 30 percent of global container traffic. The broader Red Sea region, encompassing African ports in Sudan, Eritrea, Djibouti, and Somaliland, is grappling with challenges stemming from reduced vessel availability and heightened freight costs and insurance premiums<sup>37</sup>.

The Red Sea crisis has involved several key actors. At the center are the Yemen-based Houthi rebels, who have been carrying out attacks on commercial ships entering the Gulf of Aden and transiting through the Red Sea and Suez Canal. These Houthi-led security threats have severely disrupted global maritime trade flows, forcing ships to reroute around Africa's Cape of Good Hope instead of taking the shorter Suez route<sup>42</sup>. This has significantly impacted the African countries and ports, which have seen a surge in shipping traffic and port calls but are often unprepared to efficiently handle the additional vessels and cargo. The global shipping industry has also been heavily affected, facing increased transit times and higher costs for key trade routes. Additionally, Europe, as Africa's largest trading partner, has experienced shortages of containers and perishable goods due to the Suez Canal disruptions. Addressing the Red Sea crisis will require coordinated efforts between the Houthi rebels, African nations, and the broader international shipping community.

The Israel/Palestine war and the consequent solidarity attacks by Yemen-based Houthi Rebels have kept the Red Sea in the global spotlight in recent times. Since November 2023, Houthi Rebels have continued to protest against Israel's killing and displacement of Palestinian civilians by targeting commercial vessels, disrupting international trade in the shortest shipping route between Europe and Asia. The impact of these attacks has continued to reverberate across the globe because of the strategic role of the Red Sea in global trade<sup>37</sup>.

The Red Sea crisis has significant implications for Ethiopia's agricultural sector, which is a critical driver of the country's economy. As a landlocked nation, Ethiopia relies heavily on its access to seaports in neighboring countries, particularly Djibouti and Sudan, for both its agricultural exports and imports of essential farming inputs. The rerouting of ships around the Cape of Good Hope could reduce market access for Ethiopian agricultural exports, such as coffee, flowers, fruits, and vegetables, as they may face longer transit times and higher transportation costs, making them less competitive. Additionally, Ethiopia's access to crucial agricultural inputs, including fertilizers, machinery, and spare parts, could be disrupted if these supplies are delayed or become more expensive due to the changes in shipping routes. Longer transit times for perishable agricultural commodities could also lead to higher post-harvest losses, reducing the quantity and quality of products reaching domestic and export markets. Finally, the broader economic effects of the Red Sea crisis, such as currency fluctuations, inflation, and changes in trade balances, could indirectly affect the profitability and viability of Ethiopian farming operations.

## 5. CONCLUSION

Ethiopia has a long and complex history of civil wars and border conflicts that have significantly impacted the country's political, social, and economic development. Some of the most significant include Ethio-Eritrea War and Tigray War. Ethiopia has also had longstanding border conflicts with Sudan, which have impacted the agricultural sector and cross-border trade. Also, experienced significant internal conflicts and civil wars between different ethnic groups, which have had a major impact on the country's agricultural sector. This review will be used as a resource for policymakers and development programs to help the country's economic growth by identifying the primary elements that influence agriculture. It will also serve as a source of data for similar future investigations. A rigorous empirical literature evaluation identifies both internal and external war that influence agriculture in Ethiopia.

## SIGNIFICANCE STATEMENT

The new study's conclusion is only a synthesis of the outcomes of similar previous research projects that did not reveal the statistical effect of the identified elements on the factors affecting agriculture in Ethiopia. So, future researchers can conduct behavior-related research by including the statistical consequence conclusion of altered features. That means most of the previous studies findings concern the factors affecting agriculture in Ethiopia, the problems are not yet addressed, so the investigator suggested that the old and out-of-date information on unemployment in a country, the country's policy and strategy would be reviewed, enchanting in light of the recent dynamic business environment.

## Ethical

This study follows all ethical practices during writing

## Transparency

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study was reported; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained.

## Conflicts of Interest

The authors declare that they have no conflict of interests.

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