Unnatural Disasters: Famine as a Military Tactic in Ethiopian and Yemeni Civil Wars

Table of Contents

Abstract **3**

Keywords: **4**

Introduction **4**

Weaponized Famine as a Framework: Why Famine is an Effective Military Strategy 8

Prelude to the Famine in Tigray 9

Prelude to the Famine in Yemen 11

Data Retrieval 13

Tigray Famine **13**

Destruction and Looting 14

Restriction of Aid 17

Shutdown of Tigray Economic Activity 19

Yemen Famine **23**

Coalition Targeting of Agricultural, Economic Assets 23

Economics of Aid Distribution 25

Houthi Denial of Aid 27

Comparative Analysis and Theoretical Implications **29**

Centralized Authority and Speed of Starvation 30

Economic Foundations and Famine Recoverability 30

State versus Non-State Use of Famine 31

Implications for Famine Theory 32

Legal and Policy Connections 33

References **34**

Figures **52**

Abstract

This article highlights the tactical enactment of famine as a method of war in two contemporary civil conflicts: Ethiopia's war in the Tigray Region and the ongoing conflict in Yemen. While early famine scholarship emphasized environmental and climatic underpinnings, the prevalence of famine despite rising global food production have shifted scholarly focus to governance, access, and political intent. Building on Amartya Sen's entitlement theory and the work of Stephen Devereux and Alex de Waal, this article argues that modern famine is not merely a consequence of war or state collapse, but a deliberate mechanism of control. Such a view is increasingly supported through international legal frameworks yet remains overlooked in much of the public, media, and scholarly discourse surrounding armed conflicts. Through comparative analysis of humanitarian journalism, international reports, and secondary literature, the study identifies key parallels in how state and non-state actors manipulate food access for civil suppression and extraction of international concessions. Findings suggest that in Ethiopia and Yemen, famine operates as an integral part of modern warfare and should be regarded as such, not merely a humanitarian failure. The article concludes that peace, democratic accountability, and political stability are necessary for establishing and maintaining food security in conflict-prone regions.

Keywords:

Famine as a weapon of war, Tigray conflict, Yemen civil war, humanitarian crisis, food security in conflict, international humanitarian law

Introduction

Over 2.3 billion people globally lack reliable access to food (FAO UN 2021). At its most extreme, food deprivation results in famine, defined by the UN Refugee Agency as a crisis where a "substantial proportion of the population of a country or region are unable to access adequate food, resulting in widespread acute malnutrition and loss of life by starvation and disease" (USA for UNHCR 2024).The Integrated Food Security Phase Classification (as seen in Figure 1) quantifies famines on a five point scale, where a five indicates at least 20% of the population faces extreme food shortages, acute malnutrition rates exceed 30%, and two out of 1,000 people die from starvation per day (IPC 2023).

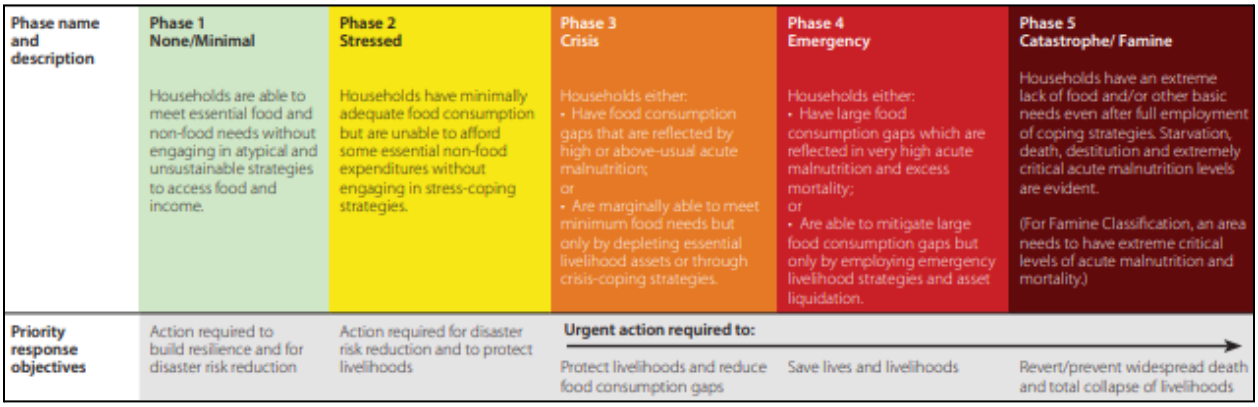

Figure 1: Classifications of famines according to the Integrated Food Security Phase Classification (IPC 2023).

Neither of these definitions, however, indicates that recent famines are often manmade. 70% of all 100 million famine deaths over the last 150 years were deliberately human-caused (Wheeler 2018).

Historically, famine has been employed to suppress populations, often during warfare, as recognized by the International Criminal Court in 1977 (Green 2020). Still, relatively few modern studies treat famine as a distinctly military strategy, instead preferring to attribute it to a

combination of environmental shocks and politicized access and distribution (Davis 2001). But as global food production continues to rise dramatically (as seen in Figure 2), the enduring presence of famine suggests environmental and logistical explanations are insufficient.

In the late 1960s, Johan Galtung proposed the idea of structural violence, where "social structures or institutions harm people by preventing them from meeting their basic needs" (Galtung 1969). Though structural violence was initially proposed as an explanation for poverty and discrimination, famines can be seen through the lens of structural violence to indicate state complicity in starvation. In the early 1980s, Amartya Sen's Entitlement Theory of Famine expanded upon this idea by proposing that starvation is a result of people's inability to access it through production, trade, or social transfers (Sen 1983). It is access, not availability that characterizes modern hunger.

Continuing in this lineage, Stephen Devereux and de Waal have reformulated famines as principally political and economic constructs (Devereux 2000; de Waal 1997). Famine is designed, not accidental. That is, government neglect, impedance, or active harm are societal bounds that restrain and constrain individuals into hunger, and ultimately submission. De Waal's concept of "famine crimes" emphasizes this point: hunger can be strategically manufactured to punish, displace, weaken, or politically reengineer populations. De Waal's initial definition was based primarily on investigations of African famines, making the Tigray famine apropos.

Importantly, De Waal's theory scrutinizes famine through legal standards. Though starvation has increasingly been recognized as internationally illegal in warfare, perpetrating countries have never been formally prosecuted. This is despite Article 8(2)(b)(xxv) of the Rome Statute of the International Criminal Court classifying civilians starvation as a war crime: "Intentionally using starvation of civilians as a method of warfare by depriving them of objects

indispensable to their survival, including wilfully impeding relief supplies as provided for under the Geneva Conventions" (United Nations 1998).

Still, though, famine is almost always interpreted — through the public, media, and most scholarly lenses — as merely a tragic consequence of fighting. Thus, despite a burgeoning framework to legally prohibit and prosecute weaponized famine, perpetrating countries and armed groups slip through the cracks. This article challenges the current framing around famine. Using the 2020-2022 famine in Ethiopia's Tigray Region (IPC 4-5) and the ongoing famine in Yemen (IPC 3-4), it is demonstrated that famine operates as an indispensable mechanism of modern warfare (International Rescue Committee 2024) In both conflicts, armed actors dismantled food systems, restricted aid, sabotaged water and agricultural infrastructure, collapsed local economies, and weaponized humanitarian blockades for the express purpose of governing through starvation.

Ethiopia and Yemen reveal important differences in famine, too. Ethiopia, as a centralized state, was able to execute starvation with totality and speed, resulting in a temporary yet brutal famine. Yemen's famine, however, was undertaken by a constellation of state and non-state actors, resulting in a less uniform but far more enduring famine, ensnaring millions in a shifting, decade-long cycle of hunger.

Through analyzing the two famines, this paper shows how famine is integral to modern military strategy. Furthermore, the paper underscores the gap between existing legal frameworks (which already classify civilian starvation as a war crime), and the complete lack of accountability for actors deliberately deploying famine. Specifically, the paper demonstrates how the recent conflicts' deliberate deployment of starvation violates international protocol and constitutes an "atrocity crime." Atrocity crimes, as defined by the United Nations, is a failure of

a state to protect its population from genocide, war crimes, crimes against humanity, and ethnic cleansing (Global Centre for the Responsibility to Protect 2018). Since every nation has signed the "Responsibility to Protect" commitment against "atrocity crimes" at the 2005 UN World Summit, both Ethiopia and Yemen — but more broadly any nation engaged in coercive famine — can be held internationally responsible for the deliberate starvation of a population.

Thus, the concepts of "famine crimes" and "atrocity crimes" will guide the analysis of the Tigray and Yemen famines as not just examples of political and structural violence, but intentionally criminal violence.

Weaponized Famine as a Framework: Why Famine is an Effective Military Strategy

It is imperative to understand the logic that underpins starvation as an instrument of war before the situations in Ethiopia and Yemen are discussed. Across the two countries, five basic elements of weaponized famine persist.

Famine collapses civilian autonomy (Keen 1994). With every parcel of farmland destroyed, animal slaughtered, bank shuttered, and border established, actors hinder a population's ability to meet basic needs. This necessarily pushes civilians into dependency on the actor with the access to calories, stripping freedom and self-determination from a group swiftly.

Famine erodes support for opposition groups while sparing combatants (Duffield 2001). Armed groups rarely are affected by famines, in part due to their deep supply lines and control over the local population. Thus, famine's effects are shoved onto civilians alone, and disproportionately the elderly and children.

Famine reshapes territorial control without direct combat (de Waal 2017). Starvation is a

remarkable tool for displacing populations, allowing armed groups to take control of large swathes of land without fighting difficult battles. People move (however unwillingly) to where the food is, leaving behind their old territory without a fight.

Famine serves as a bargaining tool in international negotiations (Barnett 2011). Famine is a key tool for which actors (especially non-state ones) gain legitimacy and leverage on the world stage. Through restricting food or humanitarian aid, international parties have to negotiate or concede; starvation allows actors to use millions of civilians as pawns, holding them hostage for far longer than they could through weapons alone (Amnesty International 2022).

Famine obscures responsibility (Fassin 2011). Unlike direct violence, where there is often a clear aggressor and victim, starvation develops gradually and often silently. By allowing months or years for famine to take hold, accountability is gradually lost, and excuses like “logistical challenges” and “aid distribution issues” become more attractive for state and non-state actors, skirting condemnation both internally and abroad.

These five principles illustrate the attractiveness of famine as a modern military weapon, explaining its overt and continual usage in Tigray and Yemen.

Prelude to the Famine in Tigray

The civil war in Ethiopia's northernmost region Tigray had ethnic, diplomatic, and political roots. In 1991, the Tigray Liberation People’s Front, a paramilitary and political party, ousted the Ethiopian federal military junta and instituted an ethnic-based coalition (BBC 2021). The TLPF dominated the coalition for 30 years until President Abiy dissolved it in 2019 to consolidate federal power; this decision angered TLPF leaders.

Abiy then re-established relations with Ethiopia's northern neighbor Eritrea shortly after a 20-year long border war. Tigrayans felt betrayed because most of the thousands of Ethiopian soldiers who died fighting Eritrea were Tigray (International Crisis Group 2020). To protest, Tigray Region held regional governmental elections in June 2020 despite Abiy's previous suspension of all provincial elections due to COVID-19 (International Crisis Group 2021). Abiy responded by cutting almost all funding to the Tigray Region and placing Ethiopian troops in Eritrea along the Tigray-Eritrea border. As the conflict turned violent, Abiy authorized the Eritrean Defense Forces, Somali troops, and the military forces of the Amhara, a rival neighboring ethnic group in Ethiopia to conduct war against the Tigray Special Forces (BBC 2021). Ultimately, the Ethiopian government – hence referred to as a state actor – defeated the TLPF and retook control of the region; weaponized famine was a central component of the government's military strategy.[11]

Prelude to the Famine in Yemen

The Yemen conflict has similarly complex religious, regional, economic, and diplomatic factors. Modern-day Yemen formed when South and North Yemen unified in 1990. In 2014, Houthi rebels (Iran-backed Shiites who historically have rebelled against the predominantly Sunni government) protested high fuel prices and demanded a new government (Center for Preventive Action). Negotiations broke down, and Houthi rebels quickly overpowered the Yemeni government, took control of the capital Sanaa, and forced President Hadi to resign. In 2015, other Middle Eastern Sunni governments, led by Saudi Arabia, started economic blockades and air raids against the Houthis. The situation continued to deteriorate as al-Qaeda in the Arabian Peninsula gained southeastern territory. The Southern Transitional Council (backed by

United Arab Emirates), once a part of the Saudi Arabia-led coalition, drew on decades-long southern discontent after unification to take control of the port of Aden and threaten secession (Al Jazeera 2019). Eight years of fighting have resulted in a stalemate with periodic unsuccessful peace attempts by the UN (as seen in Figure 3). Enforced famine, a tactic used by every major warring faction pervades the conflict. Thus, in contrast to the Ethiopian federal government's centralized command over Tigray, the Yemeni political landscape is far more fragmented. No Yemeni authority — the Houthis, the STC, the Coalition, or even the internationally recognized government — possesses full sovereign legitimacy, even if they exercise control over patches of territory. For the purposes of this paper, they are referred to as non-state actors.

Data Retrieval

Famine measurements are inherently uncertain, seeing as underrepresented populations are most affected, and data can only be taken as estimates. A further challenge of analyzing famines in active war zones is that unbiased reporting is difficult to find. The analysis of the Ethiopian and Yemeni famines presented in this paper uses the most recent data from 2022-2023 and the most accurate United Nations estimates wherever possible.

Primary news sources provide supporting information and anecdotes when available. Many of the resources pertaining to the Tigray Famine are from the Lowenstein International Human Rights Clinic at Yale Law School, which has collected over 700 primary source documents pertaining to the crisis (Schewel 2023). Therefore, the report's appendix is representative but by no means exhaustive.

Tigray Famine

Before the civil war in 2020, most Tigray households were food-secure, but by 2023, 90% of Tigrayans needed emergency food aid (World Food Programme 2023). This drastic shift in three years occurred despite Ethiopia remaining Africa's second-largest wheat producer and despite wheat production actually increasing from 5.5 to 7.0 million metric tonnes from 2021 to 2022 (Senbeta and Worku 2023; US Department of Agriculture 2023). The Yale Law School has suggested that the Ethiopian Government, in collaboration with Ethiopian, Amharan, Eritrean, and Somalian forces, deliberately deprived the Tigray Region of food resources through a coordinated economic attack, indicating the use of starvation as a primary military maneuver (Schewel 2023). To accomplish such a task, the first phase of the famine included restricting journalistic and telecommunications access in the region to obscure famine levels and hinder Tigray's ability to call for economic aid (Brown et al. 2022).

Destruction and Looting

The Ethiopian authorities then destabilized the Tigrayan economic foundation by destroying food reserves, agricultural equipment, irrigation, seeds, and critical medicines. Agriculture provides employment for 80% of Tigrayans, so these measures were particularly effective (Kerner et al. 2024). Armed groups ultimately looted or slaughtered 75.49% of livestock—the source of most Tigray families' wealth and economic security for multiple generations. In one day, the Amhara militia looted "4,000 cattle and 90 camels, 8,000 sheep and goats" from one village (Amnesty International and Human Rights Watch 2022, 107-109). Soldiers went house-to-house wreaking destruction "systematically and on a massive scale,

leaving residents without food or drink" (Bellingcat 2021). To reduce the region's ability to earn outside income, the federal government transferred export-bound harvests onto trucks heading southward (Bellingcat 2021). Furthermore, the armed groups occupying Tigray restricted farmers' access to fields, preventing even a subsistence level of agricultural production (Biadgilgn 2022) The looting destroyed 90% of the 2020 Tigray harvest and reduced the 2021 harvest to ⅓ of pre-war levels (UN FAO 2022). Only 6.28% of crops, livestock, and farm tools were undamaged by the end of the war (as seen in Figure 4). Thus, the Ethiopian government used the conflict to economically destabilize civilian security in the region and make starvation a prerequisite to peace.

Government groups also ravaged water supplies, like home water pumps from residential areas (UN Human Rights Council 2022). These machines were destroyed despite serving no military purpose. Eritrean forces injected sand into water pumps to disable economic agricultural output and looted jerrycans so households could no longer obtain access to even small amounts of water. At a larger scale, water management offices were ruined, with computer databases burnt to prevent regional irrigation initiatives (UN Office for the Coordination of Humanitarian Affairs 2021). Chemicals necessary for irrigated water treatment were also stolen (Government of Ethiopia 2021). In Central Tigray, water resource authorities were dissolved through violence, making a return to economic productivity nearly impossible (Oxfam et al. 2021). Everywhere in Tigray, the state-enforced two year blackout made electric water pumps non-functional (UN Office for the Coordination of Humanitarian Affairs 2021). The percentage of non-functional water points in Tigray increased from 7.1% pre-war to 54% by January 2022 (UN Office for the Coordination of Humanitarian Affairs 2022). In Adigrat, the percentage of households with reliable access to safe water decreased from 75% to nearly 0%, with even the hospital lacking

clean water (Médecins Sans Frontières 2021). These efforts intensified the famine by exploiting the inherent vulnerability of Tigray households to water shortages and their dependence on pumped water for drinking and crop irrigation.

The extent, selectivity, and totality of destruction in Tigray indicates economic devastation was not secondary to combat but rather central to the Ethiopian government's strategy. Livestock, irrigation systems, seeds, farming tools—none of which have intrinsic military value—were all razed, revealing an intent to subvert civilian survival, not conquer armed opponents. Furthermore, by targeting the economic foundations of Tigray life, federal forces turned hunger into a way to govern. The Tigray destruction reveals a deep understanding of food insecurity for political subjugation, aligning with famine-as-weapon frameworks, collapsing civilian autonomy completely.

Restriction of Aid

The Ethiopian government recognized early that economic looting caused extensive food insecurity yet continued to restrict humanitarian aid to the Tigray Region to starve the TPLF, despite extensive damage to the civilian population (UN Human Rights Council 2022; The Economist 2021). Due to the state-sponsored efforts, 80% of Tigray was unreachable for economic humanitarian assistance months after the war started, with the UN calling the situation a "de facto blockade," as 14 of the 15 overland routes into Tigray were shut down by the Ethiopian government (Walsh 2021). Less than 10% of necessary humanitarian aid entered Tigray between July 2021 and March 2022 (Anna 2021). The Head of the Regional Government of Afar (a neighboring Ethiopian region) explained that this was purposeful: "The road is their

oxygen…There is no way we will allow aid to get to Tigray" (UN Human Rights Council 2022, para 83).

Children experienced the worst effects of this aid shortage. Before the war, 1.3% of Tigray children had severe acute malnutrition (Gebremichael 2014). By January 2022, the rates of malnutrition were as high as 40% (Byaruhanga 2022). According to the UN, life-saving, calorie-dense therapeutic food never arrived in the Tigray Region due to looting of aid convoys by state-allied armed groups (UN Office for the Coordination of Humanitarian Affairs 2021).

International humanitarian workers were also targeted (Kleijer 2021). The federal government dissolved the boards of the NGOs Tigray Development Association and Relief Society of Tigray, two key aid organizations (UN Office for the Coordination of Humanitarian Affairs 2021). Additionally, international economic relief was almost nonexistent due to the federal government's insistence that all aid money be cleared ahead of time and transported in person in cash. America, the largest humanitarian donor to Ethiopia, paused food aid to Tigray entirely after state-affiliated armed groups diverted all aid to the black market, where prices skyrocketed and made food unaffordable for many (U.S. Agency for International Development 2023). The efficacy of Ethiopian government tactics is apparent because only 8% of the aid money needed for Tigray was supplied by April 2022, two years after the outbreak of war (UN Office for the Coordination of Humanitarian Affairs 2022).

Systematic obstruction of humanitarian assistance in Tigray demonstrates another key facet of hunger as a military maneuver: aid as a tool to indirectly manage famines. Rather than risk direct violence, Federal and allied forces extended the severity and death toll through bureaucratic and logistical control. Food aid was transmuted from neutral relief to a coercive bargaining chip, enhancing dependence while maintaining plausible deniability. Thus, the Tigray

famine demonstrates an increasingly abstract execution of famine through policy than direct force.

Shutdown of Tigray Economic Activity

Other economic factors also increased the famine. High nationwide inflation rates reached 26% in 2021 and 30% in 2022 (France 24 2022). Tigray farmers who had lost all their material wealth were particularly affected, resulting in an increase in the poverty rate in the region from 27% to 45% between 2016-2022 (The New Humanitarian 2023). 3 million additional Tigrayans were plunged into deep poverty. The poverty rate increase in Addis Ababa from 2016-22 (17.8% to 24%), indicates the Tigray Region specifically was financially ruined most by the war.

The deliberate destruction of Tigray banking systems by the Ethiopian government had further effects on the financial base of the Tigray Region (UN Office for the Coordination of Humanitarian Affairs. 2022). All 616 branches of the National Bank of Ethiopia in Tigray were closed in November 2020, and the NBE ordered all Tigray bank accounts frozen (Addis Fortune 2021). This move wiped out any financial reserves Tigrayans could have employed, thus inevitably restricting their ability to purchase food.

The freezing of microfinance accounts and social safety nets were even more catastrophic. Microfinance allows individuals to borrow money without involving large banks; many small businesses rely on microfinance for loans. On November 16, 2020, the Federal Attorney General's office froze 34 subsidiaries of the Endowment Fund for the Rehabilitation of Tigray, including Dededit Microfinance, with more than 450,000 Tigray borrowers (Gebre and Marks 2020). This decision reduced access to small loans for farmers, preventing them from

borrowing for agricultural inputs. Without these funds, crop yields decreased, and regional starvation increased.

Furthermore, the federally sponsored Productive Safety Net Programme, which supported ⅙ of Tigray through food donations and food vouchers, was closed in 2020 to Tigrayans but continued to operate in neighboring regions like Afar and Amhara (Refugees International 2021). This represented a deliberate attempt to isolate and starve the most vulnerable members of Tigray society. These tactics resulted in a much higher rate of acute food insecurity in Tigray than in surrounding regions (as seen in Figure 5).

Rising poverty, high inflation rates, and an inability to withdraw money made the little available food largely inaccessible to Tigrayans. In the Tigray capital Mekelle in September 2021, prices rose 400% for cooking oil, 300% for flour, and 500% for salt in two months (Al Jazeera 2021). This economic blockade resulted in 4.6 million Tigrayans (86% of the population) facing food insecurity and "famine-like" conditions in 2022 (Byaruhanga 2022). By stripping civilians of all economic agency, Ethiopia turned hunger into a persistent facet of daily life, demonstrating how famine increasingly becomes politically intertwined, not a humanitarian failure. In the Tigray Region, about 150,000-200,000 people overall died of starvation during the two-year war (York 2022).

The Ethiopian government ultimately subjugated the Tigrayan people through their intense and deliberate pressure on local food, water, economic, and human resources. After this submission, though, Tigray started to recover. Tigray has improved from an IPC 4-5 (famine) to an IPC 2-3 (stressed) for food insecurity (as seen in Figure 6*).* Tigray's agricultural base is responsible for its resilience. Over 80% of the population are farmers, and 65% of the land is used for agriculture (Kerner et al. 2024). Since nearly the entire population farms, the Ethiopian

government could not completely destroy the food supply or the economic self-sufficiency of the region. Even at the civil war's height, the poverty rate was lower than in other famines, like in Yemen. Aid distribution also resumed, reconnecting Tigray with external resources.

Yemen Famine

The Yemen Famine is an ongoing eight year crisis perpetuated by all parties and labeled "the world's worst humanitarian crisis" by the United Nations (Anadolu Agency 2021). As of 2022, 80% of the 24 million Yemenis needed humanitarian assistance, and 17 million were in danger of starving to death (UN Sustainable Development Group 2021). Regarding children, at least one child died every ten minutes during the famine's worst phase in December 2016 (UNICEF 2021). The Houthis control ⅓ of the area and 70% of the population, whereas the internationally recognized government and the Southern Transitional Council control the other third of the population, ⅔ of the area, and nearly all the famine aid (U.S. Department of State 2022). This has created a situation where most of the population has no access to relief from starvation.

Coalition Targeting of Agricultural, Economic Assets

The Saudi Arabian-led coalition that entered Yemen in 2016 undermined the economic security of the region enough to create a famine to subdue the Houthi population. Saudi Arabia's intensive land, sea, and air blockade of resources have created what the UN calls "a complete disregard for human life" (The Independent 2016). According to an Oxford legal brief, Saudi Arabia's strategies also include "a destructive aerial bombing campaign…the indiscriminate use of landmines near food and water points, the destruction of essential infrastructure (including

water and power infrastructure), agricultural facilities as well as attacks on healthcare facilities" (Sarkar 2022). Saudi Arabia led bombing campaigns of agricultural land, dairy farms, food processing factories, and local markets to destroy all economic capacity of the Houthis. Saudi Arabia's plan was to keep the Houthis from earning money and therefore from buying food. From 2015-2017, there were "356 air raids targeting farms, 174 targeting market places, and 1 air raid targeting food storage sites" (Neal 2016).

Yemeni fisheries and ports have been targeted most. The city of Hudayah was once responsible for importing 80% of Yemeni food aid ("Yemen's lifeline"), life-saving medicine, and fuel (Wintour 2018). Nonetheless, the Saudi-led coalition conducted bombing campaigns on civilian fishing facilities and infrastructure in Hudaydah, thereby violating international treaties against targeting civilians. Fishing outputs decreased after the bombing by 75%, thereby ruining Yemen's second-most productive economic sector (Associated Press 2016). The destruction increased the famine in Yemen twofold by destroying families' nutritional base and their economic base for purchasing food.

Any fishing infrastructure that survived this initial onslaught lay in disuse by fishermen afraid to be targeted by airstrikes despite clearly indicating civilian status (Human Rights Watch 2019). This has resulted in these coastal regions having the highest malnutrition prevalence as reported by the UN. Without fishing, villagers in Hudayah are forced to survive each day on bread and a plate of rice—well below the minimum required caloric intake.

Children have been harmed the most by this campaign, which eliminated fish as a stable nutritional base providing essential nutrients like protein for development. Coastal regions like the Al Hudaydah Governorate have the highest stunting rates among children of around 50% (Global Data Lab 2023). Unlike malnutrition, stunting cannot be reversed and has profound

effects for the child's entire life in terms of lower adult wages, lower cognitive ability, and a higher rate of chronic diseases in adulthood.

Coalition airstrikes against nearly every agricultural asset demonstrates that, like in Tigray, famine can be manufactured through complete destruction of livelihood systems. Rather than focusing on military infrastructure, bombings explicitly targeted the means through which civilians sustained themselves, prolonging famine long after direct attacks. Economic annihilation replaced territorial occupation as a far less cost and manpower-intensive method of population control.

Economics of Aid Distribution

The Yemen famine is a global geopolitical issue. The United States has administered nearly $5.9 billion in humanitarian aid to Yemen since 2014, yet this amount is dwarfed by the $54.6 billion in US military aid given to Saudi Arabia and the United Arab Emirates, the two coalition leaders (U.S. Agency for International Development 2024; U.S. Government Accountability Office 2022). The majority of the bombs in agricultural regions are British, American, and Italian-made, indicating that Western weapons are directly increasing famine despite aid provision (European Center for Constitutional and Human Rights. 2022).

Additionally, an almost non-existent state distribution infrastructure prior to the war meant there was no precedent for funneling humanitarian assistance to Yemen. Current humanitarian aid, much like in Tigray, has been systematically denied and confiscated by both sides. Doctors Without Borders referred to the distribution effort as a "critical gap" in food assistance programs (Médecins Sans Frontières 2021). Even when aid is available, trips to therapeutic feeding centers are costly enough to put families in debt. Still, Yemen has received

“the second best-funded response worldwide,” receiving $26.2 billion in humanitarian assistance (Sana’a Center 2023). According to the UN, Yemen has received about 14% of the global aid budget. However, distribution of these funds—enough to feed 9.4 million families for 5 years—has been unmonitored in Houthi-controlled Yemen, the other principal employer of famine in this war.

Yemen’s paradox of famine despite funding exemplifies how aid is inexorably interwoven into famine politics. Fragmented authority, poor oversight, geopolitical interests—all essential building blocks to turn humanitarian aid into an extension of the conflict economy. As is demonstrated further, aid can ironically reinforce power asymmetry. Famine is no longer about a lack of resources, but access.

Houthi Denial of Aid

Aid workers are scarcely allowed within the Houthi north (Humans Right Watch 2024). Accurate data is almost completely nonexistent, creating an opaque view of aid distribution. However, evidence indicates there is little oversight of aid management (PBS NewsHour 2024). As Sanaa Center states, “[UN] continues to use authorities who are a party to the conflict to directly implement humanitarian aid” (Sana’a Center 2023). In just one instance, the UN paid at least $9.8 million for a school-feeding program directly to the Houthi-controlled north in 2019, violating the UN’s financial neutrality (Shuja al-Deen 2022). And by some estimates, 34% of food distributions are overseen by the Houthi-run Ministry of Education (Sana’a Center 2023). The lack of aid oversight means that millions of dollars in aid and in food are siphoned away from starving Yemeni citizens. In one example, Houthi rebels blocked a World Food Programme food shipment that could have fed 100,000 families (Al Jazeera 2019). Additionally, Houthis

diverted at least $17.5 million in monthly food aid to buy weapons, further destabilizing their population's food security and forcing their citizens to rely fully on Houthi support (Sana'a Center 2023). A Danish Refugee Council suggested that aid given to Houthi-controlled Yemen is deliberately excluded from the most vulnerable, such as women, the disabled, and the poor, which keeps large portions of the population subjugated (Shuja al-Deen 2022).

Beyond mismanaging aid, Houthis keep citizens at the brink of famine by eroding the economic basis of controlled territory. In Taizz, Yemen's third largest city, Houthis conducted a devastating 8 year siege (Human Rights Watch 2024). They cut off all supply routes, isolating Taizz from lifesaving food and medicine (Al Arabiya 2016). At the checkpoints, Houthi soldiers routinely prevented fruit, vegetables, cooking gas, and vaccines from passing through to the besieged city (Human Rights Watch 2024). These soldiers also confiscated some of the food identified, a flagrant violation of international law. Houthi troops' use of landmines in agricultural areas is another tool of economic disruption (AP News 2024). These explosives prevent farmers and herders from accessing lands to raise crops and livestock, thereby exacerbating famine conditions. Farmers are unable to earn a living or grow food to feed their families until mines are cleared, and citizens are plunged deeper into poverty, forcing them to support the Houthi resistance to receive food handouts.

Houthi actions highlight how even non-state actors can use famine to consolidate authority and territorial governance. Hunger was transformed into a mechanism of social discipline through controlling food access, restricting movement, and weaponizing scarcity, ultimately leading to civilian dependence on Houthi distributions at the cost of political and social autonomy. This case underscores that famine as a weapon extends beyond merely state actors; this military framework can be implemented even in fragmented conflicts, too. The

structure of authority—centralized versus fragmented—may alter the duration and severity of weaponized famine (as seen in Yemen's characteristic waxing and waning starvation cycles as different actors gain control), yet the fundamental logic of hunger-as-a-weapon remains.

Over 226,000 people have died of starvation in Yemen, and even in 2024, 17.3 of 40.9 million people had high levels of acute food insecurity at or worse than the peak in late 2016 in Figure 8 (UNHCR 2024) Only 3% of the overall land is truly arable in Yemen, and only 37% of the population farms (USAID 2024). Additionally, over 80% of Yemenis live below the poverty line and cannot afford necessary food (USAID 2024). By occupying the limited productive land, the Coalition and Houthis can effectively disrupt the livelihoods of citizens in occupied territories, making these populations even more vulnerable to starvation. Forces on both sides of the Yemeni Civil War therefore have ample opportunities to use hunger and poverty to increase their military power. As the Yemen Civil War continues today, the famine in Yemen will persist; citizens will not be food secure until they are physically secure.

Conclusion

While famine was a persistent weapon of war in Tigray and Yemen, its form, duration, and severity was determined by political structures, economic foundations, and authoritative frameworks within the conflict.

Centralized Authority and Speed of Starvation

The centralized structure of the Ethiopian state allowed for a rapid and near-complete deployment of famine as a military strategy in Tigray. Federal authorities had the power, resources, and scale to control borders, banking systems, telecommunications, agriculture, and

humanitarian access, ultimately allowing for swift implementation of starvation. Correspondingly, the Tigray famine escalated suddenly, reached peak severity (IPC 5) and resulted in high mortality within a quite small time frame.

In Yemen, the opposite was true. Authority is fragmented among Houthis, the Southern Transitional Council, and the Saudi-led coalition, among others. The lack of full sovereign control limited any one actor's ability to impose starvation comprehensively, however it also resulted in a chronic famine. Instead of one overwhelming collapse, Yemen has witnessed overlapping sieges, blockades, and aid obstructions keeping the majority of the population hovering around famine conditions for years. Decentralization did not prevent famine; it merely prolonged it.

In cases of centralized authority, famine can be devastating but also reversible. Scattered/limited authority results in often uncontrollable, pervasive starvation.

Economic Foundations and Famine Recoverability

It is interesting to note the divergent paths of Tigray and Yemen's recovery reveal the health of a regional economy and the nutritional status of a population are intricately intertwined. Tigray's economy is overwhelmingly agrarian, with the majority of the population involved in subsistence farming. Though agricultural infrastructure was extensively destroyed, latent productive capacity existed in the region, meaning that despite the lack of international relief aid, the Tigray people have recovered through restoring farming in the region.

Yemen lacks this resilience. Yemen is extremely arid, with a heavy dependence on food imports. Thus, despite receiving the best-funded relief responses in the world for eight years,

poverty and hunger are extreme in the country because of the deliberate destruction of fishing and farming operations, completely wiping out the local economy. Therefore, one can see that famine conditions cannot improve until local productivity does.

State versus Non-State Use of Famine

In Tigray, the famine was sponsored by the federal government of Ethiopia against their own civilians to completely annihilate all Tigray resistance. This campaign led to a caloric and economic crisis that was rapid, total, and highly lethal. From a legal perspective, it is far easier to assign responsibility for this famine than for the situation in Yemen, where there is no clear power in the country. The Houthis control ⅓ of the area and 70% of the population, whereas the internationally recognized government and the Southern Transitional Council control the other third of the population, ⅔ of the area, and nearly all the famine aid.[1] Because of the number of actors in Yemen, each can deflect blame while continuing to execute the famine to establish and expand territorial control.

Yemen shows that non-state actors can implement famines just as effectively as states when they control access to food, aid, or territory. Civilians comply out of survival, not assent. Legitimacy is not a prerequisite to using famine as a weapon, challenging traditional assumptions of formal sovereignty in famine theory.

Implications for Famine Theory

Tigray and Yemen cases extend existing famine scholarship in three ways. The two cases add to entitlement-based theories through highlighting that contemporary famines are a result of

[1] U.S. Department of State. (2022). *2022 report on international religious freedom: Yemen*. Retrieved November 15, 2024, from https://www.state.gov/reports/2022-report-on-international-religious-freedom/yemen/

deliberate obstruction of access rather than food scarcity. Ethiopia and Yemen also reinforce the concept of structural violence by demonstrating the very mundane ways starvation is carried out: through policies, bureaucracies, and infrastructure targeting. Thus, actors are able to strip the emotion out of hunger, turning it into another item on a state agenda rather than an overt massacre. Finally, the two cases substantiate de Waal's concept of famine crimes by demonstrating that these acts of starvation violate international frameworks and legal principles, while consciously being employed to achieve political, military, and social objectives.

It is also revealing to analyze the claims made by Ethiopian and Yemeni actors, who repeatedly suggested that famine conditions are a necessary tool of war to starve out rebel leaders, with their effects on civilian populations purely coincidental. However this is clearly not the case, as research indicates that famines fail to target armed groups, who often have deeply ingrained supply lines and international support. The actions of the perpetrators only make civilian populations more vulnerable and weaker, which is a primary objective in the pursuit of total regional control.

Legal and Policy Connections

De Waal's famine crimes have to be taken beyond the academic realm into the world of international legality. The highly deliberate and planned use of starvation in both Tigray and Yemen reveals a gap between recognizing and identifying breaches of humanitarian law and enforcing international standards. Furthermore, it must be recognized that administrative decisions, aid restriction, and economic blockades are intentional, not accidental. The very vehicles that obscure responsibility in famine progression are purposeful.

To remedy the under-prosecution of famines, existing legal frameworks must move beyond isolated events (such as destroying an aid convoy) and instead evaluate patterns and frameworks of deprivation as evidence of intent. Without an international effort, famine will continue to slip under the radar as an effective weapon of war.

Ethical Approval

This research did not involve human participants, interviews, or primary data collection. Ethical approval was not required.

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Data Availability Statement

All data in this study are from publicly available sources, including reports from international organizations, NGOs, and media outlets. No new data were generated or analyzed for this study.

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Figures

Phase name and description	Phase 1 None/Minimal	Phase 2 Stressed	Phase 3 Crisis	Phase 4 Emergency	Phase 5 Catastrophe/ Famine
	Households are able to meet essential food and non-food needs without engaging in atypical and unsustainable strategies to access food and income.	Households have minimally adequate food consumption but are unable to afford some essential non-food expenditures without engaging in stress-coping strategies.	Households either: • Have food consumption gaps that are reflected by high or above-usual acute malnutrition; or • Are marginally able to meet minimum food needs but only by depleting essential livelihood assets or through crisis-coping strategies.	Households either: • Have large food consumption gaps which are reflected in very high acute malnutrition and excess mortality; or • Are able to mitigate large food consumption gaps but only by employing emergency livelihood strategies and asset liquidation.	Households have an extreme lack of food and/or other basic needs even after full employment of coping strategies. Starvation, death, destitution and extremely critical acute malnutrition levels are evident. (For Famine Classification, an area needs to have extreme critical levels of acute malnutrition and mortality.)
Priority response objectives	Action required to build resilience and for disaster risk reduction	Action required for disaster risk reduction and to protect livelihoods	**Urgent action required to:** Protect livelihoods and reduce food consumption gaps	Save lives and livelihoods	Revert/prevent widespread death and total collapse of livelihoods

Figure 1. Classifications of famines (Integrated Food Security Phase Classification 2023).

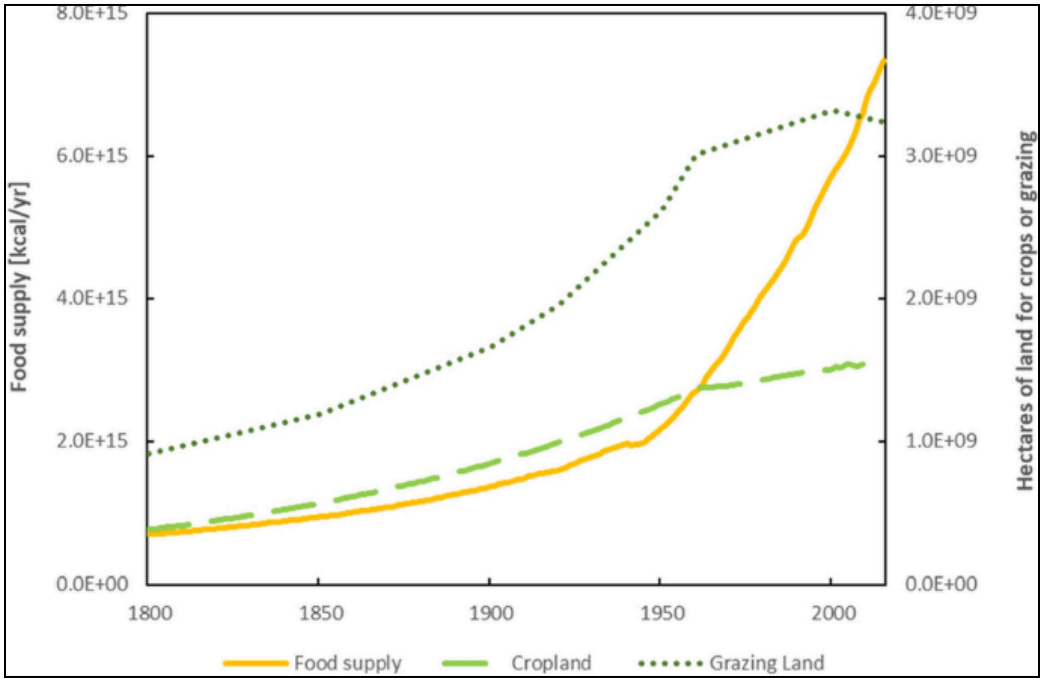

Figure 2. Exponential increase in global food supply since 1800 (Steenwyk et al. 2022).

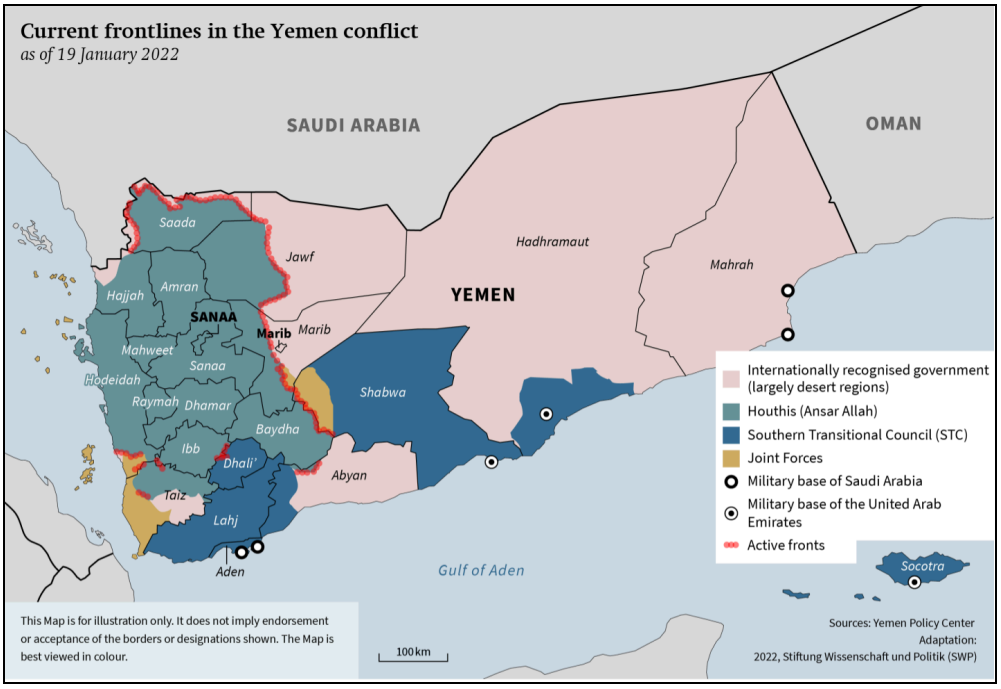

Figure 3. Map of the different territories and regional powers in Yemen as of 2022 (Dashela 2022).

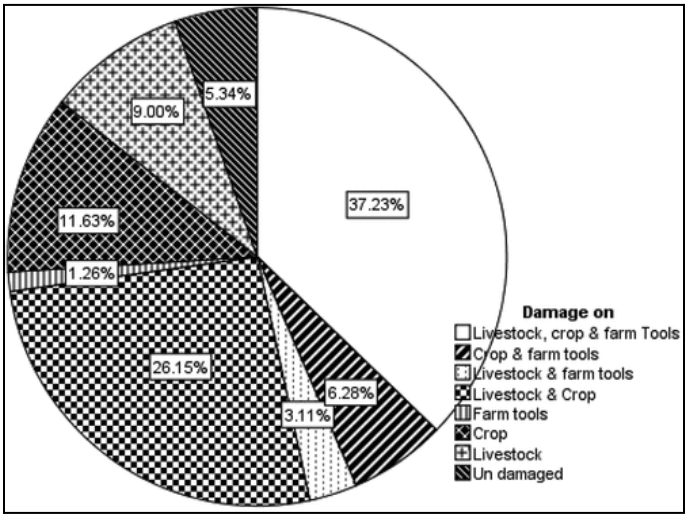

Figure 4. Damage to livestock, crops, and farm tools in the Tigray region over the course of the war (Manaye et al. 2023).

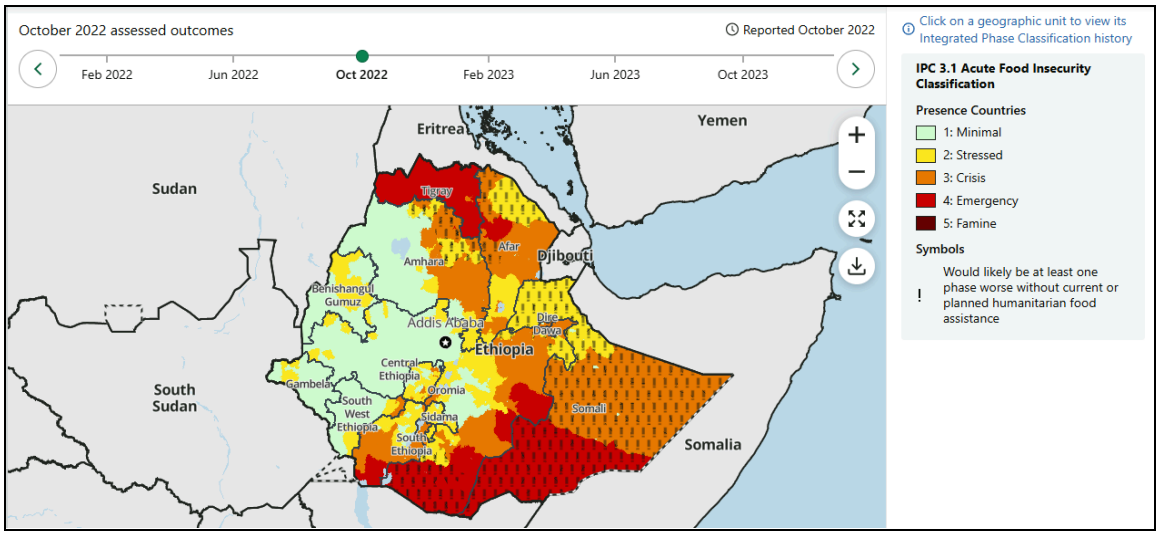

Figure 5. Map of food insecurity in Ethiopia in October 2022. Tigray is in Emergency classification, whereas neighboring Amhara and Afar range from Minimal to areas of Crisis (Famine Early Warning Systems Network 2022).

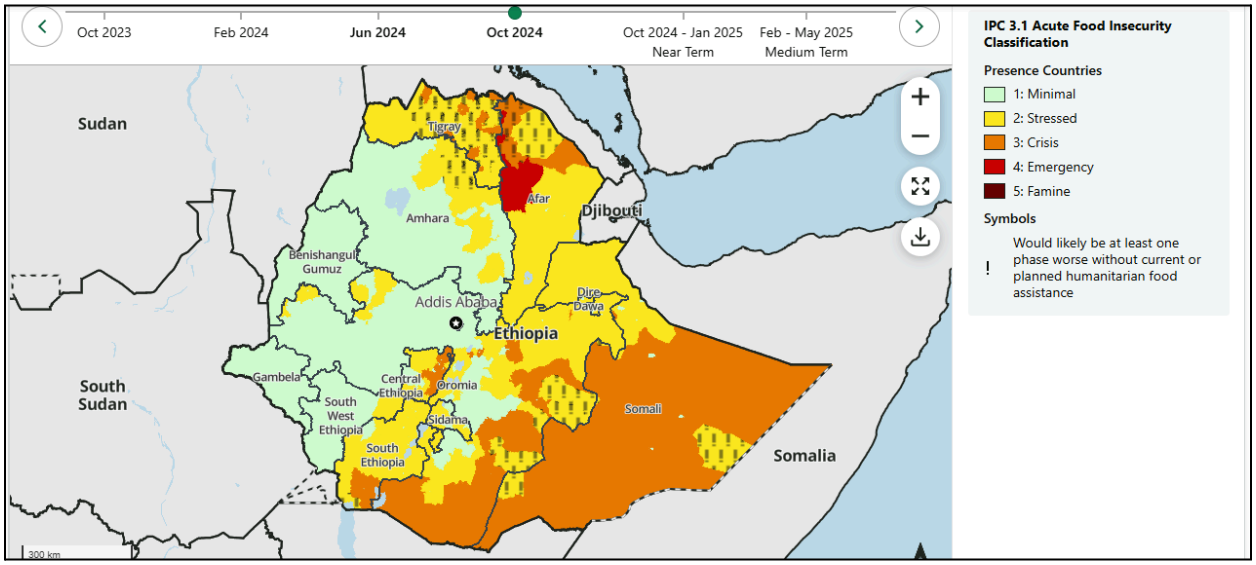

Figure 6. Map of food insecurity in Ethiopia in October 2024. Much of Tigray is in a Stressed or Crisis designation, as opposed to Emergency or Famine as during the Tigray War (Famine Early Warning Systems Network 2024).

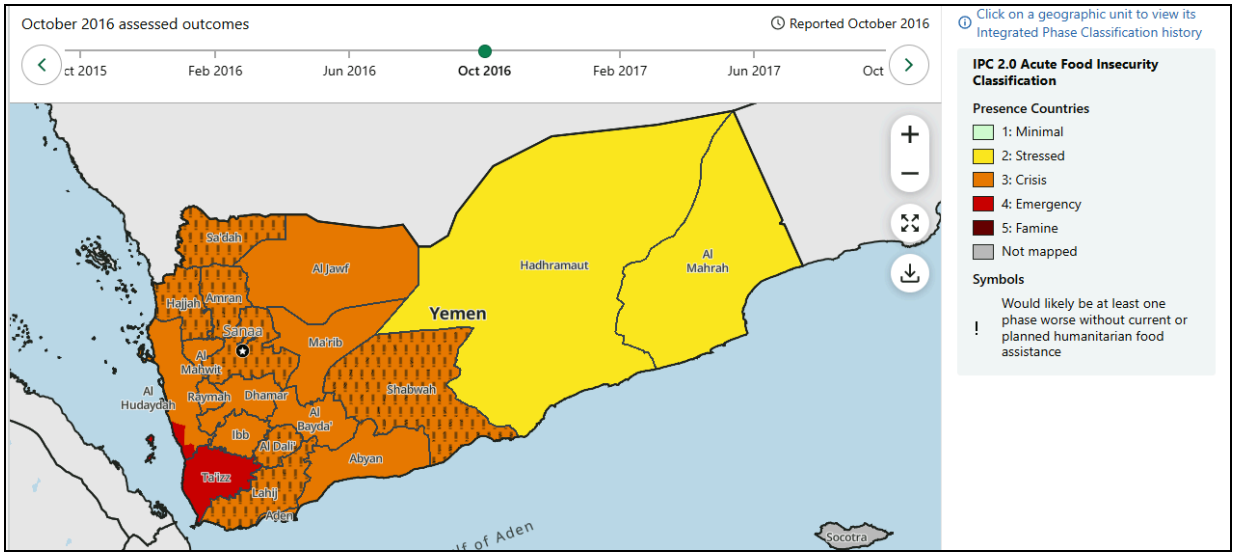

Figure 7. Map of food insecurity in Yemen, October 2016. Most areas were in Crisis, with parts in Emergency. October is the closest date to the December 2016 peak that food insecurity across all of Yemen was calculated (Famine Early Warning Systems Network 2016).

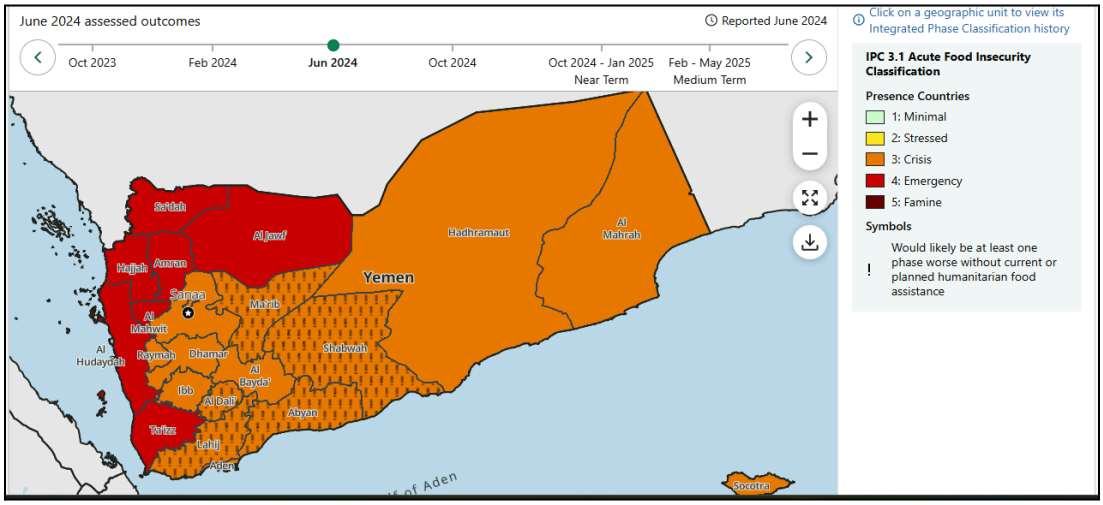

Figure 8. Map of food insecurity in Yemen as of October 2024. All of the region is in Emergency or Crisis (Famine Early Warning Systems Network 2024).