

CHAPTER ONE

Environment, Food, Culture and Identity: A Global Perspective, An Introduction

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Abstract

This book addresses the contemporary issues at the intersection of environment, food, culture and identity in global perspectives. Food is an essential human need that ensures continued existence. But food consumption has implications on the environment, culture and individual identity. Food is used as a tool to project power, to subjugate, marginalize and oppress people. Ironically, food is used to project individual identity and belongingness. However, the current consumption pattern pose considerably treat to the environment through accelerating climate change, future pandemics, and eventually affecting human existence. These are the main issues this book addresses. This introductory chapter provides the background of the topic by discussing the various concepts, including environment, food, culture, and identity. The chapter concludes by summarizing the various chapters of the book.

Keywords: Environment, Food Culture, Identity, Racialized Communities, Homogenization, Global Food Cultures.

Introduction

Food is an essential human need that ensures continued existence. However, continued production of food cannot continue without environmental sustainability. Despite its significant role in human life, food production, consumption and disposal of food waste were previously limited to a few academic disciplines, including agriculture, food science, food and nutrition, home economics and management, etcetera. Traditionally, academics showed limited interest in broaching issues around food production and consumption. School authorities in some African countries punish recalcitrant students by allocating and commanding them to weed a plot of land for atonement of their misbehaviour. This practice makes an indelible imprint on the minds of students that farming or agriculture is a punishment or occupation for unsuccessful members of society. Consequently, the decisions about what to produce, how to produce and when to produce were dedicated to farmers and market forces - demand and supply. Until recently, food production and consumption decisions were conspicuously missing in social justice discussions. However, food is fundamental to understanding social stratification, colonization and oppression (Fielding-Singh & Oleschuk, 2023). Social classification, domination and oppression started when humans began living in clusters due to the shift from hunter-gathering to farming. Those who produced

more food gained power and began to rule and enact laws governing those who produced less. This phenomenon instigated the fight for resources such as land, water, forest and human resources, which later culminated in exploitation and colonization. In contemporary times, the process of acquiring food has broader social, political, cultural, environmental, spiritual and health implications, which this book intends to tease out. As the old saying goes, “We are what we eat”; therefore, we must pay attention to our food choices. More significantly, our food choices have a significant impact on the environment and the survival of the “wretched of the earth” (Fanon, 1963).

The emergence of the COVID-19 pandemic has taught us bitter-sweet lessons. On one hand, the world was ravaged by the pandemic, resulting in an unprecedented number of deaths; on the other hand, the environment was restored with a significant reduction in greenhouse gas emissions across the globe because of the restrictions on human activities (Kumara, 2021; Ukhurebor, 2022). This proves the fact that human beings are the most environmentally destructive organisms on the surface of the earth. Another lesson we learned from COVID-19 is the fact that it amplified social inequities bedevilling our societies. The disproportionate effects of the COVID-19 pandemic on racial minorities in North America and beyond, in terms of death rates, heightened levels of food and nutritional insecurity, loss of employment and human capital, changed the discussion about inequality from assumption to reality. The disparity of COVID-19 death rates between racial minority and dominant groups was associated with predisposing conditions, including high cases of chronic non-communicable diseases such as cardiovascular diseases, obesity, diabetes and cancers among racialized communities (Magesh et al., 2021; Manderson & Jewett, 2023). The factors contributing to high cases of chronic non-communicable diseases in marginalized communities are living in a poor environment and unhealthy eating habits (Odoms-Young et al., 2024). Many racialized people are compelled to live in communities considered as food deserts due to a lack of healthy, fresh fruits and vegetables and the proliferation of fast-food joints. Apart from the fact that most conventional foods lack adequate nutrients to support healthy growth and well-being, their way of production has serious consequences on the environment. The conventional food production practices contribute immensely to greenhouse gases responsible for accelerating climate change (Higuita, LaRocque & McGushind, 2023; Lynch, Cain, Frame & Pierrehumbert, 2021).

Ironically, climate change poses a serious challenge to food and nutritional security across the globe, especially in tropical regions experiencing rising temperatures and high sea levels. For instance, environmental research has increasingly linked industrial agriculture to freshwater depletion, placing particular emphasis on the water demands of animal-based agriculture (Hess et al., 2014). Studies have estimated that agriculture accounts for approximately 70% of global freshwater depletion, underscoring its role in exacerbating global water scarcity (Hess et al., 2014) although water use varies by crop type, climate, and agricultural practices.

A study by Li Ye and Zheng (2025) found that despite China possessing only 26% of the global average per capita, it allocates 70% of its water supply to agriculture, making it a highly water-stressed country. Similarly, in the United States of America, 80% of freshwater use supports food production, the highest among economic sectors (Espinosa-Marron et al., 2022). These statistics reinforce the urgency of adopting water-efficient strategies in food production, especially Indigenous and sustainable food production practices for water conservation. Due to scarcity of water, some farmers have resorted to using contaminated water for irrigation purposes, posing life-threatening challenges to fruit and vegetable consumers. It is therefore not far-fetched to argue that

the next pandemic the world will witness may come from food contamination. Already, there is a whole debate as to the origin of COVID-19, with some pointing fingers at the live animal market in China (Hao et al., 2022).

Evidence emanating from some countries, including Bangladesh (Islam et al., 2018), Iran (Maleksaeidi et al., 2018) and urban agriculture in Ghana (Amuah, Amanin-Ennin, & Antwi, 2021) suggest that vegetable farmers use untreated water for irrigation purposes. A study in Bangladesh found that the use of untreated water for irrigation contributed to decreases in groundwater quality (Islam et al., 2018). In rural Ghana, the destruction of water bodies by illegal miners, popularly known as “galamsey,” poses a significant threat to life and livelihood in farming communities (Asare *et al.*, 2024; Awewomom et al., 2024). The high concentrations of cyanide in streams and rivers make the water from these sources unwholesome for drinking, doing house chores or irrigation purposes. The fight against illegal mining in Ghana has resulted in loss of lives, including prominent people in government, such as the Minister of Defence, Dr. Omane Boamah; Minister of Environment, Science, Technology and Innovation, Dr. Ibrahim Murtala Muhammed, and six others who had a helicopter crash on their way to launch a rehabilitation program for illegal miners. Some current studies have increasingly recognized the dual economic and environmental benefits of sustainable food production practices, particularly concerning water conservation and efficient water use (Demi, 2019b; Li et al., 2023).

Experts are exploring strategies to introduce sustainable practices in global food production, such as algae cultivation and advanced osmotic dehydration (OD) promise to offer substantive benefits (Ullmann & Grimm, 2021). Algae farming, feasible with seawater and minimal freshwater, offers a sustainable solution for arid areas (Ullmann & Grimm, 2021). Furthermore, other scientific measures, such as osmotic dehydration, combined with ultrasound, have been proposed to enhance food preservation by reducing water activity and moisture content. According to the proponents of these measures (OD, ultrasound-assisted OD) increased water loss by 28.73% and reduced moisture content by 76.46% in litchi, showing strong potential for scalable water saving in food preservation (Pandiselvam et al., 2022). These scientific methods may have immediate benefits; however, they could also pose unknown serious future challenges to smallholder resource-poor farmers with limited capacity to practice and sustain the scientific approaches. According to Orr (2004), the arrogance of Western science is demonstrated in its attempt to have a solution for every problem. Orr (2004) argued, in an attempt to solve one problem, Western science creates two or more problems in return. Sometimes, the problems created in attempting to solve a single problem end up producing unintended consequences, resulting in worse outcomes. Consequently, there is a need to explore Indigenous approaches, especially related to sustainable food and environmental practices, which are embedded in local cultures.

Food possesses cultural and health significance. For many diasporic communities, traditional or indigenous food practices offer continuity in unfamiliar environments. Migrants often navigate dual identities, forcing them to choose, combine, or oscillate between traditional and host-country foodways. Feldman et al (2024) note that “a transnational must decide from a pastiche of food choices from ‘here’ or from ‘home’ that will mark family and self-identity (Feldman et al., 2024). Raman (2011) illustrates that preparing and consuming traditional foods

helps migrants maintain a connection to their roots, even in foreign lands, stating, “food provided ‘frameworks of memory’ as it mediated between our present selves and our pre-migrant lives” (Raman, 2011, p.166). The quote highlights that food consumption extends beyond nutritional attainment into the realm of identity, social cohesion and belongingness.

Food as culture and identity is exemplified in most African communities, either at home or in the diaspora. For instance, some foods are associated with specific ethnic groups or a region, but are generally consumed by those exposed to the food (Demi, 2014; Demi, 2019a). As stated, decades ago, Africans were not only forcefully brought to the Americas, but they also brought their fauna and flora (Carney, 2013). The statement by Carney shows that even in chains, enslaved Africans managed to bring their food crops to America, which demonstrates how food is central to African identity. The enslaved Africans grew their Indigenous foods on plantation farms and later formed the basis for soul food in the United States. Gasparetti (2012) demonstrated how the Senegalese migrants in Italy consumed their *tie bou jenn* to actively maintain their social and cultural ties. In most urban and diverse cities in the West, from London, Hamburg, Toronto, to New York City, various African grocery stores and restaurants are serving migrant communities, bridging the gap between home and abroad. This connection is crucial for migrants as they navigate the complexities of their new environments while striving to retain their cultural distinctiveness. The trend of foreign cuisine in the West is spreading fast, patronized by people of different races and food enthusiasts. For example, Palat's (2015) work shows how Indian restaurants in the United Kingdom grew from only 300 in 1960 to 9,000 in early 2000s. This exemplifies the resistance and resiliency of Indian Cuisine in the United Kingdom. This exponential increase reflects not only the demand for traditional food but also how communities assert the preservation of their identity through culinary expression. By refusing to abandon their culinary traditions, migrants resist homogenization, colonization and assert their unique cultural narratives (Demi, 2019a; Fanon, 1963).

Furthermore, the Haitian diaspora in New York City demonstrates how food and medicinal plants serve as a tool of cultural resistance and identity preservation. Despite access to a dominant biomedical healthcare system, 83% of Haitian women continued to use medicinal plants after migration (Vardeman, Kennelly & Vandebroek, 2024). Their persistent use of herbal medicine reflects an embedded, deeply rooted cultural value system that resists assimilation. The findings of Vandeman et al. (2024) suggest only a 14% drop in medicinal plant use by Haitians after migration from 97% usage in Haiti to 83% usage in NYC, which the authors attribute to logistical barriers rather than cultural abandonment. It is worth noting that most traditional communities do not differentiate between food and medicine. The same plant can be consumed as food or medicine depending on the time of consumption, how and when it was consumed, the part of the plant consumed and the physiological need of the consumer. Elsewhere, Demi (2014), recounted how his grandmother used to combine “nunum” (*Ocimum basilicum*) with Indigenous African spices to prepare a special dish for newborn aunts for faster healing of wounds sustained during childbirth and to accelerate milk production. So, food is more complex, and its consumption goes beyond meeting nutritional needs but possesses other intrinsic values that communicate or demonstrate resistance, show belongingness and resiliency.

Cultural Hybridization and Transnational Food Identities

Cultural hybridity is a phenomenon where different cultures interface, merge, interact and create a new culture (Tuncer, 2023). It allows a mosaic of cultures to function in diverse and multicultural cities or societies. Cultural hybridity is fueled by globalization. Globalization facilitates the adaptation of culinary practices, leading to hybrid identities that reflect both tradition and contemporary influences. This process often provides the theoretical lens of deterritorialization and reterritorialization, wherein food becomes dislocated from its cultural origins and re-embedded within new meanings (Gee, 2015). For instance, Chinese-Americans may enjoy a holiday turkey stuffed with sticky rice (Gee, 2015), illustrating generational cultural differentiation. According to Gee, while first-generation immigrants largely adhere to the traditional Chinese diet, their children born in the United States tend to deviate. One of Gee's participants noted, "we rarely have breakfast. Dinner is a lot of pasta because it's fast and fresh" (Gee, 2015, p.79), demonstrating how convenience and foreign cultural exposure dictate evolving food identity.

Migrants often adapt their traditional recipes and cooking methods to incorporate local ingredients and taste. This blending often results in what Höglund & Salmose (2024) describe as a "speculative food future". South Asians navigate the culinary landscape of Hong Kong by blending flavours, techniques and cultural meanings to meet local sensibilities (Shum, 2022). Shum (2022) quotes a South Asian restaurant manager who remarked, "if I make it too spicy, no one's going to eat it properly. So, we give them options" (Shum, 2022, p.617). This adaptability not only facilitates the survival of their cuisine in a globalized market but also fosters connections with the local community, illustrating the fluid nature of cultural identity. Nevertheless, these options still allow for the preservation of culture, as "spices are the soul of South Asian cuisine" (Shum, 2022, p.613).

Höglund & Salmose (2024, p.311) project that up to 1 billion people may be forced to migrate due to climate change by 2050, leading to the emergence of culinary diasporas. In this context, food becomes a site of negotiation where identity is actively constructed, reconstructed and redefined through both historical memory and present-day realities. A study in Chile shows that over 500,000 Palestinians who settled in the country are transforming the Chilean foodways (Bascuñan-Wiley, 2019), illustrating that their cuisine is not a static artifact of their homeland but a fluid, evolving identity marker. The hybrid culinary practice observed in Chile reflects "a symbolic connection to Palestinian nationalism and identity" despite its evolving forms (Bascuñan-Wiley, 2019). As demonstrated, food is not merely a marker of identity but a social bridge connecting one to their heritage. Bailey (2017)'s study highlighted how one participant expressed conceptualizing "cooking... is like meditation" (Bailey, 2017, p.55), fostering social ties and reinforcing cultural identity among migrant communities, or establishing connections with their local landscape. For example, the diaspora population of Indians stood around 25 million people due to globalization, and this has occasioned the increased interactions among Indian migrants, particularly through food-related events and gatherings (Bailey, 2017, p.5). Cooking together or individually and then sharing facilitates this connection, where "food prepared by family could be preserved over a longer period... helped participants to conjure a sense of home" (Bailey, 2017, p.54). Going back to history, enslaved Africans who were forcibly transported to the Americas came with various varieties of food crops, which later became soul food (see Crosby,

2003). The African foodstuff and food habits not only influenced American cuisine but also served as a form of resistance against colonization and forced integration (Demi, 2019a; Tawiah & Aryee, 2026). The colonizers further appropriated and infused African food culture into American cuisine.

Globalization versus Cultural Sovereignty

According to Held et al (1999, p.2), globalization involves “widening, deepening and speeding up of worldwide connectedness”. Globalization of food and agricultural practices advocates for cultural assimilation through the promotion of sameness in terms of food habits (Akinola et al., 2020, Demi, 2017; 2019b). The global food systems often undermine local food practices and promote a universal food system for the global market. The promotion of the global food system by capitalist organizations at the expense of local food culture in the Global South significantly contributes to the extinction of African indigenous foods in many African countries (Demi, 2014, 2017; 2019b). The deliberate promotion of conventional or western foods and their subsequent consumption in rural Africa by urban dwellers as signs of wealth and richness forces many households to aspire for conventional foods. For example, Demi’s (2021; 2019b) study in Ghana showed how rural households associate the consumption of fast food with wealth through the influence of urban returnees. Although these farming communities prefer their indigenous foods, their association with poverty force them to reduce the frequency of consumption despite the health benefits.

Similarly, Leahy and Brown’s (2016) study in rural Zambia demonstrates how indigenes aspire to a modern identity that equates success with cash-based food systems. They note that, “villagers expect that inputs for production... will be provided through the cash economy” (Leahy and Brown, 2016, p.493). This expectation reflects a broader trend where local practices are increasingly overshadowed by globalized agricultural norms that prioritize efficiency and profitability over cultural relevance. Consequently, these communities adopt the “very codes of modernity that have framed them as its other” (Leahy & Brown, 2016, p.493). These codes of modernity encompass various cultural practices and aspirations tied to agricultural production and lifestyle choices, such as ‘cash economy integration’. This suggests that Western agriculture’s success is predominantly linked to financial resources rather than traditional practices (Leahy & Brown, 2016, p.493). For instance, a preference for Maize as a primary staple rather than millet or sorghum was mainly to meet the external demands of the global market. It is worth noting that maize was initially classified as a vegetable, but later modified into a grain cereal to feed enslaved Africans on board the slave ships (Carney, 2013; Demi, 2014). The consequence is the sidelining of African Indigenous food and on farm cultural practices, for ‘Western agricultural practices’ like the use of chemicals, hybrid seeds to distinguish themselves as “good farmers” or “modern farmers” (Leahy & Brown, 2016, p. 492). African farmers who had a bad experience with the Western form of agriculture have devised a practice of listening and praising “modern” agriculture, but revert to their Indigenous farming practices when the Western gaze is removed (Demi, 2019).

This performance of “modernity” not only indicates a struggle for cultural identity amid external pressures but also risks the loss of traditional knowledge and practices, leaving communities vulnerable to a volatile external market. The vulnerabilities of global food systems were particularly evident during the COVID-19 pandemic, when urban consumers increasingly

turned to local producers rather than globally sourced food. Boratyńska (2025) observes that, “during the pandemic, consumers became interested in local food... the belief in its higher quality compared to ‘mass’ food and its beneficial impact on the environment” (Boratynska, 2025, p.4). While this shift represents a critical moment for urban cultural sovereignty against globalization, it also signifies a loss for those ‘good modern farmers’ in rural areas who had adapted their local agricultural practices to meet global demands. More critically, those rural households and their surrounding communities, reliant on culturally appropriate food, faced heightened risk during the pandemic’s cultural sovereignty reassertion. Moreover, the COVID-19 pandemic revealed that global market dynamic “increasingly affects the safety and quality of food,” shaped by the “growing inequalities” of its suppliers (Boratyńska, 2025, p. 2). As Boratyńska (2025) argues, Western food systems prioritize efficiency and scale over cultural specificity, leading to “food fraud”, as local farmers shift away from culturally grounded, transparent food systems toward commodified and often misleading representations of food (Boratyńska, 2025, p. 3).

Structural Inequalities and Economic Disparities

The argument that access to food is deeply influenced by structural inequalities related to race, gender, and class is well articulated by Richardson et al. (2021), who assert that in the United States of America, such structural inequalities shape access to food. Their research indicates that in low-density urban areas (largely suburban settings), high-poverty and high-minority neighbourhoods exhibit significantly reduced access to grocery stores and supermarkets, which provide them with fresh, healthy foods. Specifically, there are 1.91 fewer grocery/ supermarket outlets per 100km of roadway in these neighbourhoods compared to low-poverty, low-minority areas (Richardson et al., 2021). According to Richardson et al. (2021), convenience stores also show a deficit, while fast-food restaurants are 4.87 outlets more per 100km of roadway in these disadvantaged areas. The lack of fresh and healthy foods in neighbourhoods populated by marginalized people creates a food desert in the midst of abundance. The replacement of fresh healthy foods with the prevalence of fast-food joints in these neighbourhoods contributes to the rising cases of obesity (Canadian Medical Association, 2015; Elias et al., 2025; Pineda et al., 2024), a precursor to other chronic conditions such as hypertension, cancers and cardiovascular diseases (Bahadoran, Mirmiran & Azizi, 2015; Lestari, 2023). According to Lestari (2023), countries that have stringent nutritional regulations, including taxation on unhealthy food and advertising restrictions, have lower dependence on fast food and better health outcomes. These stark differences reveal that the food system in the United States, Canada and other Western countries structurally favours commercial density in more affluent, less racially diverse neighbourhoods, reinforcing a geography of nutritional inequality described as nutritional apartheid (Brones, 2018; Gripper et al., 2022). Food/ nutritional apartheid describes a situation where the racist structures, systems and institutions create inadequate, inequitable and unjust food environments for racial minorities and the poor in society (Brones, 2018). The work of Richardson et al (2021) challenged the prevailing assumptions that food access disparities are most severe in dense urban centres. Instead, low-density suburban areas in the United States of America exhibit the strongest patterns of inequality, highlighting the need to consider how suburbanization intersects with racial and economic stratification.

Food insecurity spiked during the COVID-19 pandemic, with rates doubling overall and tripling among households with children (Bowen et al., 2021). Glaros et al. (2021) echoed this sentiment, explaining how the COVID-19 pandemic exposed and exacerbated the deep structural inequalities embedded within global food systems. They cited a Statistics Canada survey, which found that “nearly one in seven Canadians indicated that they lived in a household experiencing food insecurity over the past 30 days” during COVID-19 pandemic (Glaros et al., 2021). This statistic underscores how economic disparities, amplified by job losses, underemployment, and pandemic-related closures, directly translate into reduced access to food. These and other issues informed the basis for the book. The book broached these issues from multiple and divergent lenses, relying on the expertise and experiences of incredible authors across the globe, hence the subsequent paragraphs provide an overview of the various chapters, starting with Suleyman Demi’s critical examination of environmental education through the pedagogy of indigenous food cultures.

In the chapter, Suleyman Demi explores how recent global climatic events, such as severe flooding in Asia, extreme drought and water shortages in parts of Africa, and rampant wildfires in the Americas and in Europe, have caused even intransigent critics to recognize the reality of climate change. While the food sector in particular will experience the devastating effects of climate change, industrial agriculture ironically has been identified as one of the leading causes of climate change on a global scale. This chapter responds to such environmental concerns by exploring the potential of Indigenous food cultures as a pedagogical tool to augment Western scientific approaches to climate change. Using document analysis as its methodology, the chapter traces three knowledge traditions -Indigenous knowledge, Islamic science, and Western science- and argues for the validity of each within its own cultural context. The chapter identifies four areas—spirituality, food diversity, harvesting regulations/restrictions, and reliance on local material—through which Indigenous knowledges related to food production can enhance Western science in addressing environmental challenges.

Still at the intersection of food and environment, Dorothy Anthony Nzenwati interrogates food and environmental policies in Canada in light of persistent inequalities. This chapter delves into the intertwined issues of food and environmental justice, emphasizing their critical importance in the quest for equitable and sustainable development. This chapter examines the societal barriers that restrict the availability of nutritious and environmentally friendly food choices, in addition to the environmental effects of agricultural production on disadvantaged communities with low incomes and minority populations. The chapter further discusses the impact of technology and the use of genetically modified crops, and the importance of community-led initiatives in creating equitable food systems and sustainable environmental practices. In broaching these issues, the chapter explores how environmental pollutants frequently cause adverse health effects in these communities. Furthermore, the chapter examined the principles of environmental justice, focusing on the right to a healthy environment for all, regardless of race, income, or geography. The chapter concludes with a call for a holistic approach to addressing food and environmental justice, advocating for integrated policies that address the root causes of inequality and environmental harm.

Broaching the issues from an environmental activism perspective, Mphaheleni Makaulule and colleagues engage in a metalogue on the topic “healing the land and heeding the call of 'Dzomo la Mupo’”, the voice of the earth. The authors reflect on Indigenous custodians of sacred rivers and forests in the Vhembe district in Venda, South Africa, in terms of heeding the call of the “voice of the earth” (the spirit of Mupo). The authors discuss the expansion of the Dzomo la Mupo organizational network, which involves organic farmers, trainers from an international organic farmers organization, and community-engaged university-aligned researchers, who have all made a difference to food security in Venda by inspiring one another. They aim to initiate and continue to widen a community of practice which expands on Indigenous knowledge networks. In achieving this, the authors show how an agroecology approach resonates with Indigenous ways of knowing, and indicate mutually enriching learning through using a metalogue approach to enable systemic praxis where people in their thinking and practice recognize their connectedness with one another and with the more-than-human world using the United Nations Sustainable Goal benchmarks of zero hunger and poverty, and the importance of water and soil security. The chapter joins up the dots on the many social, cultural, political and economic factors which shape wellbeing relating to climate change and food security. Finally, authors indicate how our way of language in relation to “the world” is performative in the sense that it performs the function of *shaping* it – hence we consider carefully how we speak with one another and with the spirit of nature to support regenerative relationships.

The next chapter, authored by Isaac Darko and Suleyman Demi, discusses the commercialization of religious sacred places, which play a significant role in stabilizing the micro-environment in Ghana. They contend that there is a direct link between modern religious organizations in Ghana and emerging trends of commercialization and commodification of religious practices. This chapter discusses the extent to which religious practices and rituals, especially within African spirituality, have been commodified among local communities in Ghana and the environmental consequences. This qualitative study, which started in 2016 and subsequent follow-up visits involved interviews with 70 local community members and formed part of a broader study that examined Indigenous healing practices in Ghana. The study revealed a clear change in the practices, processes, and ceremonies of African spirituality groupings in Ghana. The shift to modern capitalist democracy in Ghana and the influence of foreign religions, especially Christianity and Islam, have reduced the power of traditional leaders and, subsequently, their effectiveness. A gradual focus on using sacred sites for tourism has affected the potency of these sacred spaces, reducing them to objects of pleasure and adventure. The chapter concludes that there has been a shift in Indigenous spirituality and associated practices as leaders of African spirituality seek to compete with other religions for followers, adopting competitive strategies targeting new and old generations.

In their chapter, Suleyman Demi, Anisatu Alhassan and Rahama Adam investigated the effects of decentralization on environmental sustainability and Indigenous food systems in Ghana. They state that the government of Ghana introduced decentralization in the 1980s and subsequently revised it in the 2000s to ensure the governance is closer to the doorsteps of the populace. Even though decentralization brought several advantages, including giving the local authorities the power to decide and initiate developmental projects, decentralization is not without challenges and unintended consequences, as in the case of most emerging economies. As a result, the study examines how decentralization in Ghana is influencing environmental sustainability policies in

Ghana. Using an anti-colonial theoretical framework, this qualitative study interviewed 15 participants, ranging from experts from the Ministry of Food and Agriculture, the Food and Agriculture Organization, university professors and students and representatives of the Peasant Farmers Association of Ghana. The study discovered that the decentralized system has resulted detachment of the District Department of Agriculture (DDA) from the Ministry of Food and Agriculture and placed them under the Metropolitan, Municipal, and District Assemblies (MMDAs). Consequently, budgetary allocations to DDAs go into the account of MMDAs before being forwarded to the DDA. This causes a significant delay to DDAs in receiving funds to implement environmentally sustainable policies, resulting severe impact on traditional food crops, which are growing with less resistance to the worsening climate. The study recommends that the government should prioritize environmental sustainability in Ghana to save the indigenous food system from extinction.

The next paragraphs present chapters captured under the Part II section of the book, dedicated to topics that capture the discussion on Food, Identity and Culture. The section starts with a chapter by Paul B. Adjei titled “food (in)security: the ‘ragging war’ of Jollof Rice in West Africa”. Paul B. Adjei discusses identity politics in food culture, highlighting the polarity of food in creating friends and foes. Using the popular parlance “jollof wars, Paul shows how West African countries fight for supremacy in jollof battle. Paul B Adjei argues Jollof rice is not just food; it is also ‘a war,’ and a ragging war to be precise, among West African neighbours. It carries a similar food sentiment among West Africans in the same way paella is to Spanish, risotto to Italians, biryani to South Asian diaspora and fried rice to East Asian and South Asian. According to Paul B. Adjei, no African dish has created rivalries, friendships, and “enmity” among West Africans — particularly, Nigerians and Ghanaians and occasionally, Senegal, Gambia, Sierra Leone, Liberia, Cameroon — than jollof rice. The food critic Eden Hagos describes the conflict over jollof rice as “one of the most interesting and heated food debates amongst the diasporas.” In this chapter, Paul B. Adjei draws on online publications and other literature sources to push the discussion of jollof rice beyond canonization of food to raise critical awareness of food's significance as a marker of cultural identity, especially its epistemic power to bring people together to nurture communal relations. The arguments presented in the chapter provide a valuable model for understanding the importance of food as a progressive genre in understanding Black identity politics. Paul B. Adjei asserts that through food, one can claim a sense of subjectivity and agency and prescribe meanings to others based on their dietary habits. Suggesting, our mouths, tongues, and stomachs are targets of teaching and learning about ourselves and others. Thus, the war over jollof rice is also a war linked to the heritagization of food and the building of national identity and a sense of belonging. Thus, a plate of jollof signifies something more profound than satisfying one’s hunger or cravings. It is a mode of communication to invoke deep attachment, sentiments, and memories of people and places they call home.

Following the Jollof war, or Jollof Deby of the West African States between Ghana and Nigeria, we turned our attention to the Eastern part of Africa, where Njoki Wane argues that before the advent of British colonial rule, the Bantu-speaking communities of Kenya had developed highly sophisticated food preparation and processing systems, deeply embedded in their ecological understanding, cultural identity, and social organization. Colonial policies and enforcement have disrupted indigenous ways of knowing, including sophisticated knowledge of food preparation and

processing and replaced them with Western technologies. Consequently, this chapter interrogates how an Indigenous knowledge framework explores how Bantu communities prepared and processed food before colonization. The chapter also highlights the intersection of practical skill, ecological intelligence, cultural meaning and knowledge production. Drawing from ethnographic records, oral traditions, and contemporary knowledge systems, as well as her research in Kenya, to prove the enduring value of Indigenous food knowledge in addressing current challenges associated with food scarcity and environmental sustainability. The chapter aims to capture the tension inherent between Western science and Indigenous knowledge and fluidity between the past and present, recognizing that the former cannot be quarantined from the latter. Njoki Wane ask a key question: how can the engagement of Indigenous Knowledge transform pedagogical approaches taken up by Western-educated scholars, planners, and development agents in their imagination for world food security? To address this question, the author examines the concept of knowledge production: who controls knowledge and whose knowledge is valid.

At the intersection of food, identity and culture, Cindy Sinclair and her team, consisting of a group of foreign-trained physicians, dedicated their chapter to discuss their experiences with food and identity. They argue food embodies a unique and powerful connection to human health, survival and happiness. Food fosters a sense of belonging within families and communities while unintentionally nurturing care and strengthening bonds, often in ways not consciously recognized at the onset. Drawing on their personal narratives, the chapter explores the meanings and satisfaction derived from consuming culturally appropriate foods and traditional practices. Their chapter examines the connection between food and cultural identity through the consumption of traditional foods. The chapter further emphasizes the notion that food is a vessel for nurturing joy, compassion, social bonds and overall health across diverse populations in a global world. Despite the overshadowing effects of processed foods in Western society and the impact of globalization and migration, the powerful connections to cultural food and dietary practices persist within us as individuals. They conclude their arguments by emphasizing that the inner desire to pass down food practices and traditions to children and future generations continues to resonate within them, especially in women and mothers.

Using anticolonial lens, Morris D. C Komakech and Chantal Nyirakanani, critique the marginalization of African Indigenous Food Crops by the neoliberal model of agriculture. The authors are concerned with the threat of extinction of Indigenous foods in various Indigenous communities. They argue that marginalization, undervaluation and subsequent exclusion of Indigenous crops, seeds, and food systems from the dominant discourses of neoliberal food security measures account for the exclusion of Indigenous foods from the markets. They assert that the loss of Indigenous foods highlights the intricate link between neoliberalism and entrenched colonial legacies of marginalization of indigeneity, leading to food insecurity. The authors illuminate the enduring influences of colonial practices of subjugating indigeneity as a pathway to the relegation of Indigenous food crops to the “orphaned crops” regimes. Orphaned crops have become manifest as the destructive impact of colonization on Indigenous food cultures and traditions. Through the materialist/structuralist political economy approach, they expose the politics and practices of commercial actors and institutions that have amassed power and gained control over the global food system through financialization, market shaping, and seed controls. They further argue that neoliberalism as an ideology systematically enforces the exclusion and marginalization of “Indigenous” from the “exotic” as a reincarnation of racist colonial practices of subordinating Indigenous food crop production, as non-commercial, non-productive. Therefore, Indigenous foods are consigned as having lesser market value. Thus, colonial large-scale cash

crops (export or commercial) agriculture was designed to obliterate Indigenous farming practices and food crop production. The chapter concludes by arguing that the loss of Indigenous food autonomy/sovereignty and the systematic exclusion from the dominant market are issues central to social justice requiring urgent redress.

The next chapter by Isaac Darko and Suleyman Demi discusses African indigenous health practices to health beyond the body. They argued that Indigenous health practices in Africa form an integral part of the cultures, reflecting attitudes, beliefs, and approaches to life. These various systems support most Indigenous communities' ontological perspective, which teaches the presence of the spirit and the body, forming the whole human being. According to these systems, any physical infirmity shows a disconnection between the spirit and the body. Furthermore, these healing practices aim at restoring connections, ensuring both physical and spiritual well-being. African Indigenous healing practitioners regard their profession as the totality of knowledge and practices about health and wellness passed down from one generation to another. Healing is achieved through diagnosis, prevention, and elimination of physical, mental, or social imbalance, through the observational and practical experiences of practitioners. The authors use qualitative interviews of 15 Indigenous healers in the Eastern Region of Ghana to examine Indigenous beliefs about the causes of diseases, healing processes, and how they work to make the body well. The study discovered that most Indigenous healers believe that the underlying cause of disease is disharmony, imbalance, or lack of peace between the spirit world, composed of the Supreme Being, ancestors, deities, and gods, and the physical world, comprising the human body and its environment. Hence, to heal the sick requires spiritual cleansing to connect the spirit of a person with their environment.

The final chapter of this book elevates the discussion to the next level by examining people whose contributions to the food chain have been neglected for centuries. Using a quantitative research approach, Mark Arhin and Michael M. A Antwi explore factors influencing the income stability of farmers with disability (FWD) in Ghana. The study sampled 62 agricultural extension officers and 386 farmers with disabilities in each of Ghana's sixteen regions. Mark Arhin and Michael M. A Antwi recruited skilled enumerators and sign language translators to form part of the research team that collected the data across all sixteen regions of Ghana. The study used multiple linear regression models to analyze the data. The findings of the study reveal that non-farm income (which is an income gain from FWDs outside the scope of farming) generating activities have a significant negative impact on agricultural income, while the proportion of products sold positively correlates with income. Conversely, larger farm size and higher proportions of purchased inputs are associated with reduced income, diverging from traditional expectations of these variables. These results suggest that higher farm sizes may dilute resource efficiency, and increased input costs can diminish profitability. The study underscores the need for targeted interventions, including optimizing land use, reducing input costs, and promoting non-farm income diversification. Additionally, enhancing market access and providing financial support and technological assistance are crucial for improving the economic stability of farmers with disabilities. These findings offer valuable insights for policymakers and stakeholders aiming to bolster the livelihoods of this vulnerable group and foster greater economic equity within the agricultural sector.

References

- Afrad, M. S., Monir, M. B., Haque, M. E., Barau, A. A., & Haque, M. M. (2020). Impact of industrial effluent on water, soil and rice production in Bangladesh: a case of Turag River Ban. *Journal of Environmental Health Science and Engineering*, 18, 825-834.
- Akinola, R., Pereira, L. M., Madhaudhi, T., de Bruin, F-M, & Rusch, L. (2020). A review of indigenous food crops in Africa and the implications for more sustainable and healthy food systems. *Sustainability*, 12(8), 3493; <https://doi.org/10.3390/su12083493>
- Amuah, E. E. Y. Amanin-Ennin, P., & Antwi, K. (2021). Irrigation water quality in Ghana and associated implications on vegetables and public health. A systematic review. *Journal of Hydrology Vol.* 604. <https://doi.org/10.1016/j.jhydrol.2021.127211>
- Asare, A. A., Baddoo, N. A., & Calys-Tagoe, B. N. L. (2024). Vulnerability to infectious diseases and risk reduction measures among galamsey gold mining communities in Ghana: A narrative review. *HSI Journal Vol.* 5 (2),735-739. <https://doi.org/10.46829/hsijournal.2024.6.5.2.735-739>
- Awewomom, J., Benjamin, B.K., Osei, F.E., Azanu, D., Opoku, F., Sackey, L.N. & Akoto, O. (2024). A review of health hazards associated with exposure to galamsey-related pollutants. *HSI Journal Vol.* 5 (2),726-734. <https://doi.org/10.46829/hsijournal.2024.6.5.2.726-734>
- Bahadoran, Z., Mirmiran, P., Azizi, F. (2015). Fast Food Pattern and Cardiometabolic Disorders: A Review of Current Studies. *Health Promotion Perspectives*, 2015, 5(4), 231-240 doi:10.15171/hpp.2015.028
- Bailey, A. (2017). The migrant suitcase: Food, belonging and commensality among Indian migrants in The Netherlands. *Appetite*, 110, 51-60.
- Bascuñan-Wiley, N. (2019). Sumud and Food: Remembering Palestine Through Cuisine in Chile. *Mashriq & Mahjar*, 6 (2), 100-129.
- Boratyńska, K. (2025). Risk Challenges and Their Impact on the Sustainable Food Security System: Lessons Learned from the COVID-19 Pandemic. *Sustainability*, 17(226), 1-20.DOI:10.3390/su17010226
- Bowen, S., Hardison-Moody, A., Eshleman, K., Hossfeld, C., Maaita, M., Muhammad, N., . . . Solorzano, G. (2021). The Impact of COVID-19 on Experiences of Food Insecurity Across Place: A Qualitative Research Protocol. *International Journal of Qualitative Methods*, 20(1-9). <https://doi.org/10.1177/16094069211062416>
- Brones A. (2018, May 15). Food Apartheid: The Root of the Problem with America's Groceries. The Guardian. Retrieved online on December 10, 2025, <http://www.theguardian.com/society/2018/may/15/food-apartheid-food-deserts-racism-inequality-america-karen-washington-interview>.
- Canadian Medical Association (2015). Obesity in Canada: Causes, Consequences and the Way Forward. A Report submitted to the Senate Standing Committee on Social Affairs, Science and Technology. Retrieved online on July 6, 2026, on <https://www.cma.ca/sites/default/files/2018-11/BR2015-12.pdf>
- Carney, J. (2000). Seeds of Memory: Botanical Legacies of the African Diaspora. In R. Voeks and J. Rashford (eds.), *African Ethnobotany in the Americas*, DOI 10.1007/978-1-4614-0836-9_9.
- Crosby, A. W. (2003). The Columbian Exchange: Biological and Cultural Consequences of 1492. 30th Anniversary Edition. Praeger Publishers, United States.

- Demi, S. M. (2019a). Reclaiming cultural identity through decolonization of food habits. In Wane, N, Todorova, M. & Todd, K. L. (Eds), *Decolonizing the spirit in education and beyond: Resistance Solidarity Indigenous pedagogies and cultural resistance in education* (Pp.. 117-136). Cham, Switzerland: Palgrave Macmillan.
- Demi, S. M. (2019b). *Assessing indigenous food systems and cultural knowledges among smallholder farmers in Ghana towards environmental sustainability education and development*. Ph.D. Thesis submitted to the Department of Social Justice Education and the School of the Environment of the University of Toronto, Canada.
- Elias, C., Abraham, A., Asrat, C., Yakob, T & Girma, D. (2025). Prevalence of overweight /obesity and its association with fast food consumption among adolescents in Southern Ethiopia, 2022: a community-based cross-sectional study. *Front. Nutr.* 11 (1475116), 1 -. doi:0.3389/fnut.2024.1475116
- Espinosa-Marron, A., Adams, K., Sinno, L., Cantu-Aldana, A., Tamez, M., Marrero, A., . . . Mattei, J. (2022). Environmental Impact of Animal-Based Food Production and the Feasibility of a Shift Toward Sustainable Plant-Based Diets in the United States. *Frontier in Sustainability*, 3, 1-9.
- Fanon, F (1963). *The wretched of the earth*. Grove Press, New York
- Feldman, C., Vedwan, N., Sanariya, M. B., & Wunderlich, S. (2024). Negotiating a traditional food space for the Gujarati diaspora in New Jersey: Prohibitions, linkages, and acceptances. *Appetite*, 197, 1-12. <https://doi.org/10.1016/j.appet.2024.107342>
- Gasparetti, F. (2012). Eating tie bou jenn in Turin: Negotiating Differences and Building Community Among Senegalese Migrants in Italy. *Food and Foodways*, 20(3-4), 257–278. <https://doi.org/10.1080/07409710.2012.715976>
- Gee, M. (2015). Chinese-American constructions of food and health: The impact of culture, migration, and intergenerational differences. (H. Pinderhughes, Ed.) *University of California, Peer reviewed Thesis/dissertation*.
- Glaros, A., Alexander, C., Koberinski, J., Scott, S., Quilley, S., & Si, Z. (2021). A systems approach to navigating food security during COVID-19: Gaps, opportunities, and policy supports. *Journal of Agriculture, Food Systems, and Community Development*, 10(2), 211-223. DOI: <https://doi.org/10.5304/jafscd.2021.102.051>
- Gripper, A. B., Nethery, R., Cowger, T. L., White, M., Kawachi, I., & Adamkiewicz, G. (2022). Community solutions to food apartheid: A spatial analysis of community food-growing spaces and neighbourhood demographics in Philadelphia. *Social Science & Medicine* 310, 115221. <https://doi.org/10.1016/j.socscimed.2022.115221>
- Hao, Y.J., Wang, Y.L., Wang, M., Zhou, L., Shi, J.Y., Cao, J. M., Wang, D. P. (2022). The origins of the COVID-19 pandemic: A brief overview. *Transbound Emerg Dis*, 69 (6), 3181 -3197. doi: 10.1111/tbed.14732
- Hess, T., Aldaya, M., Fawell, J., Franceschini, H., Ober, E., Schaube, R., & Schulze-Aurichf, J. (2014). Understanding the impact of crop and food production on the water environment – using sugar as a model. *Journal of the Science of Food and Agriculture*, 94(1), 2-8. DOI: 10.1002/jsfa.6369
- Held, D., McGrew, A., Goldblatt, D., & Perraton, J. (1999). *Global transformations: Politics, economics, and culture*. Stanford University Press
- Higuita, N. I. A., LaRocque, R. & McGushind, A. (2023). Climate change, industrial animal agriculture, and the role of physicians – Time to act. *The Journal of Climate Change and Health* 13 (2023) 100260. <https://doi.org/10.1016/j.joclim.2023.100260>

- Höglund, J., & Salmose, N. (2024). Climate diaspora and future food cultures in Snowpiercer (2013) and The Road (2009). *Food, Culture & Society*, 27(2), 310-325. <https://doi.org/10.1080/15528014.2024.2342627>
- Islam, A., Romic, D., Akber, A. & Romic, M. (2018). Trace metals accumulation in soil irrigated with polluted water and assessment of human health risk from vegetable consumption in Bangladesh. *Environ Geochem Health* 40, 59–85. <https://doi.org/10.1007/s10653-017-9907-8>
- Kumara, A., Singha, P., Raizadaa, P., & Hussain, C. M. (2021). Impact of COVID-19 on greenhouse gases emissions: A critical review. *Science of the Total Environment* 806, 1 - 10. <https://doi.org/10.1016/j.scitotenv.2021.150349>.
- Leahy, T., & Brown, D. J. (2016). ‘People are Trying to be Modern’: Food Insecurity and the strategies of the poor. *Forum for Development Studies*, 43(3), 489-510. <https://doi.org/10.1080/08039410.2016.1233136>
- Lestari, A. (2023). Fast food and chronic disease: exploring the link between dietary habits and public health challenges. *Journal of Health Literacy and Qualitative Research* 3(1), 34-45.
- Li, Z., Ye, W., & Zheng, C. (2025). Impact of food imports on water pressure in food production in China: An analysis from the perspective of virtualwater trade. *Agriculture*, 15(549), 1-26. <https://doi.org/10.3390/agriculture15050549>
- Li, Z., Ye, W., Jiang, H., Song, H., & Zheng, C. (2023). Impact of the eco-efficiency of food production on the water–land–food system coordination in China: A discussion of the moderation effect of environmental regulation. *Science of the Total Environment*, 857, 1-15. DOI: 10.1016/j.scitotenv.2022.159641
- Lynch, J., Cain, M., Frame, D. & Pierrehumbert, R. (2021) Agriculture’s contribution to climate change and role in mitigation is distinct from predominantly fossil CO₂ emitting sectors. *Front. Sustain. Food Syst.* 4:518039. doi: 10.3389/fsufs.2020.518039
- Magesh, S., John, D., Li, W. T., Li, Y., Mattingly-app, Jain, S., Chang, E. Y. & Ongkeko, W. M. (2021). Disparities in COVID-19 outcomes by race, ethnicity, and socioeconomic status. *JAMA Netw Open.* 2021;4(11):e2134147. doi:10.1001/jamanetworkopen.2021.34147
- Maleksaeidi, H., Ranjbar, S., Eskandari, F., Jalali, M. & Keshavarz, M. (2018). Vegetable farmers' knowledge, attitude and drivers regarding untreated wastewater irrigation in developing countries: A case study in Iran. *Journal of Cleaner Production* 202. 863e870.
- Manderson, L., & Jewett, S. (2023). Risk, lifestyle and non-communicable diseases of poverty. *Globalization and Health* 19 (13), 1- 9. <https://doi.org/10.1186/s12992-023-00914-z>
- Odoms-Young, A., Brown, A. G. M., Agurs-Collins, T & Glanz, K. (2024). Food Insecurity, Neighbourhood Food Environment, and Health Disparities: State of the Science, Research Gaps and Opportunities. *The American Journal of Clinical Nutrition*, 119 (2024), 850–861. <https://ajcn.nutrition.org/> <https://doi.org/10.1016/j.ajcnut.2023.12.019>
- Orr, D. W. (2004). *Earth in mind: On education, environment, and the human prospect*. Island Press.
- Palat, R. A (2015): Empire, food and the diaspora: Indian restaurants in Britain, South Asia: *Journal of South Asian Studies*, 1 -15. DOI: 10.1080/00856401.2015.1019603
- Pandiselvam, R., Tak, Y., Olum, E., Sujayasree, O. J., Tekgül, Y., Çalışkan Koç, G., . . . Kumar, M. (2022). Advanced osmotic dehydration techniques combined with emerging drying methods for sustainable food production: Impact on bioactive components, texture, color, and sensory properties of food. *Journal of Texture Studies*, 53(6), 737–762.

- Pineda, E., Stockton, J., Scholes, S., Lassale, C., & Mindell, J. S. (2024). Food environment and obesity: a systematic review and meta-analysis. *BMJ Nutrition, Prevention & Health*, 1 - 8. doi:10.1136/ bmjnph-2023-000663
- Raman, P. (2011). “Me in place, and the place in me”: A migrant's tale of food, home and belonging. *Food, culture & society*, 14(2). <https://doi.org/10.2752/175174411X12893984828674>
- Richardson, A. S., Boone-Heinonen, J., Popkin, B. M., & Gordon-Larsen, P. (2021). Are neighbourhood food resources distributed inequitably by income and race in the USA? Epidemiological findings across the urban spectrum. *BMJ Open*, 2, 1-9.
- Shum, T. C. (2022). Performing Culinary Diaspora: Food Practices and Culinary Encounters of South Asians in Hong Kong. *Journal of Intercultural Studies*, 44(4), 604–624. <https://doi.org/10.1080/07256868.2023.2149478>
- Tawiah, N. A & Aryee, A. N. A. (2026). West African Culinary Globalization in Contemporary America. *Encyclopedia* 6(6), 133; <https://doi.org/10.3390/encyclopedia6060133>
- Ukhurebor , K. E., Aigbe, U.O., Onyancha, R.B., Eghonghon, G., U.K., Balogun, V.A., Egielewa, P.E., Ngonso, B. F., Osibote, O.A., Imoisi, S. E., Ndunagu, J.N., Kusuma, H. S & Darmokoesoemo, H (2022). Greenhouse Gas Emission: Perception during the COVID19 Pandemic. *BioMed Research International*, 1 -12. <https://doi.org/10.1155/2022/6166276>
- Ullmann, J., & Grimm, D. (2021). Algae and their potential for a future bioeconomy, landless food production, and the socio-economic impact of an algae industry. *Org. Agr.* , 11, 261-267. DOI:10.1007/s13165-020-00337-9
- Vardeman, E. T., Kennelly, E. J., & Vandebroek, I. (2024). Haitian women in New York City use global food plants for women’s health. *Journal of Ethnobiology and Ethnomedicine*, 20(8), 1-12. DOI: 10.1186/s13002-024-00648-1