

**The Need for a New Agricultural Paradigm: Hunger, Climate Change, and Global
Agribusiness**

Jade Cameron

As of 2018, persistent and growing global hunger has afflicted 821 million people worldwide and is only increasing due to the effects of the global COVID-19 pandemic¹. Centuries of imperialism, colonialism, and uneven development have entrenched global inequalities to the extreme, resulting in the unequal distribution of food resources worldwide. Because of this, the expansion of agriculture is often touted as a necessary and benevolent global goal. However, within the dominant agricultural paradigm of industrial multinational agribusiness², in which corporate control over intensive production for profit is the norm, the expansion of this model has severe, often invisibilized consequences^{3 4 5}.

The premise of agricultural expansion rests on several critical faulty assumptions about agricultural production that will be examined in this paper. First, it presumes that hunger derives from a lack of access to food⁶. Second, it assumes that capitalistic market-led intensive agriculture will increase the production of food⁷. Finally, and most faultily, it assumes and that this paradigm will be tenable in the immediate and distant futures of drastic climatic change⁸. These assumptions and the paradigm they uphold have critical consequences for the social, ecological, and political futurity of food production. This paper will deconstruct these myths and their effects, exposing the lies and destruction of current global agricultural practices to propose a complete paradigm shift that centres local, sustainable food production for a more just and tenable global future.

¹ UNICEF Canada, “Global hunger continues to rise, new UN report says,” UNICEF

² Pablo Lapegna, *Soybeans and power: Genetically modified crops, environmental politics, and social movements in Argentina* (New York NY: Oxford University Press, 2016).

³ Stefano Liberti, *Land Grabbing: Journeys in the New Colonialism* (London UK: Verso, 2014).

⁴ John Weis, *The Ecological Hoofprint: The Global Burden of Industrial Livestock* (London UK: Zed Books, 2013).

⁵ Bill Winders, *Grains* (Cambridge UK: Polity Press, 2017).

⁶ Amartya Sen, *Poverty and Famines: An Essay on Entitlement and Deprivation* (Oxford UK: Oxford University Press, 1981).

⁷ Gerardo Otero, *The Neoliberal Diet* (Austin TX: University of Texas Press, 2018).

⁸ Weis, *The Ecological Hoofprint*.

The Current Agricultural Paradigm: Industrial Multinational Agribusiness

The current agricultural model not only fails to address issues of global hunger and climate change, but is explicitly implicated in their exacerbation. If the global community intends to eliminate hunger and curtail climate change, as expressed in the UN 2030 Agenda for Sustainable Development⁹, world leaders must disrupt the current agricultural model and embrace a new paradigm that shirks big agribusiness and instead centres localized, small-scale, ecologically-sustainable food production¹⁰.

Modern agriculture is currently characterized by economies of scale, with input-intensive industrial production guided by a rationale of efficiency, ever-increasing output and maximized profits¹¹. It generally entails mono-cropping; a “technological package” of transgenic/genetically-modified (GMO) seeds; agrochemical fertilizers, pesticides, and herbicides; and labour-displacing machinery¹². Furthermore, it is dominated by an increasingly consolidated oligopoly of multinational corporations with tremendous economic and political power exercised through intensive lobbying over state and international regulations¹³.

The modern agricultural paradigm is also deeply embedded in a hegemonic cultural narrative of technological progress that venerates a dichotomy between ‘man’ and ‘nature,’ whereby technology is the vital tool for the former to conquer and control the latter, with the development of sedentary agriculture seen as a key development of civilization¹⁴. Here, the

⁹ United Nations, “Transforming Our World: The 2030 Sustainable Development Agenda,” <https://sustainabledevelopment.un.org/post2015/transformingourworld>

¹⁰ Jeffrey Ayres & Michael J. Bosia, "Food Sovereignty as Localized Resistance to Globalisation." in *Globalizations*, 2011, 8(1), 47-63.

¹¹ Otero, *The Neoliberal Diet*.

¹² Norma Giarracca & Miguel Teubal, "Argentina: Extractivist Dynamics of Soy Production and Open-Pit Mining," in *The New Extractivism: A Post-Neoliberal Development Model or Imperialism of the Twenty-First Century?*, Ed. H. Veltmeyer & J. Petras (London UK: Zed Books, 2014), 50.

¹³ Otero, *The Neoliberal Diet*, 12.

¹⁴ Weis, *The Ecological Hoofprint*, 61.

“chronic biophysical contradictions” of natural environmental production limits, such as natural cycles of soil fallowing and limited local watersheds, are treated as problems to be solved through a “treadmill” of “biophysical overrides,” rather than fundamental ecological constraints on future sustainability¹⁵. While this narrative wields tremendous legitimacy on its own, the modern agricultural paradigm depends on several parallel assumptions to be positioned as a solution to global hunger.

The Assumptions Upholding the Current Paradigm

The understanding that hunger can be solved by producing more food still holds influence in popular thought, despite over forty years since Amartya Sen’s Nobel Prize-winning research on famines concluded that it is not a lack of food, but rather a lack of *entitlements* to food that determines whether people go hungry [emphasis added]¹⁶. Encompassed in this is a Malthusian framing of population growth as a core cause of hunger, and even further, poverty and environmental destruction¹⁷. However, mounting critical evidence shows that current global food production is more than adequate to meet the needs of the growing global population¹⁸. Moreover, even in times of famine, the industrialization of agriculture and corresponding commodification of its products perpetuates a system wherein “[food] commodities flow in the direction of profits rather than need” resulting in tremendous waste in the Global North in parallel with hunger in the Global South¹⁹.

This leads into a second assumption: that market-led industrial agriculture increases food production²⁰. The idea that industrialized agriculture produces more food than traditional small-

¹⁵ Ibid, 8, 104.

¹⁶ Sen, *Poverty and Famines*.

¹⁷ Weis, *The Ecological Hoofprint*, 34-35.

¹⁸ Lapegna, *Soybeans and Power*, 8.

¹⁹ Winders, *Grains*, 84.

²⁰ Weis, *The Ecological Hoofprint*

scale farming is representative of the “Jevon’s paradox,” wherein “overall volume increases in resource use tend to accompany efficiency gains”²⁰. Here, the purported productivity advances of transgenic crops, industrial methods, and massive-scale operations obscure their increased consumption of water, soil, and energy inputs, not to mention their depletion or complete destruction of the renewability of these resources²¹. In this way, productivity is measured by sheer output without consideration of the extreme additional inputs necessary to reach these output levels.

Simultaneously, an orientation toward profit favours high-return agricultural investments, which are not in fact direct food crops, but rather grains such as wheat, soy, and maize²². These are highly subsidized in US-oriented global markets, and largely funnelled into feed for similarly high-return animal products²³, diverted towards lucrative “biofuel” production²⁴, or processed into nutritionally-deficient, commercially marketable “psuedo-foods” that are detrimental to global health outcomes²⁵. The “financialization” of agriculture, in the form of an influx of speculative investment capital following the 2008 global financial and food crises²⁶, represents an even deeper subjugation of food production to capital accumulation as a core goal of agribusiness²⁷.

Social, Ecological, and Political Consequences of the Current Paradigm

The idea that this paradigm provides a tenable solution to world food needs in the context of global climate change ignores the ways that it directly contributes to environmental

²⁰ Weis, *The Ecological Hoofprint*, 115.

²¹ Ibid

²² Winders, *Grains*, 105.

²³ Weis, *The Ecological Hoofprint*.

²⁴ Winders, *Grains*, 78.

²⁵ Otero, *The Neoliberal Diet*, 172.

²⁶ Ibid, 30.

²⁷ Giarracca & Teubal, “Argentina”, 52.

destruction and undermines long-term agricultural sustainability²⁸. Globally, agribusiness is implicated in the deforestation of crucial carbon sinks, the widespread misuse and contamination of water resources, the depletion and desertification of soils, the proliferation of greenhouse gas emissions and the destruction of biodiversity^{29 30 31}.

These environmental impacts are also compounded by myriad negative social effects. For example, the agribusiness model perpetuates the dispossession of Indigenous and rural communities by widespread “land grabbing” schemes wherein large corporation and foreign governments purchase or indefinitely lease productive land in the Global South, relegating it inaccessible to local populations^{32 33}. This results in the displacement of subsistence practices as well as labour prospects by an “agriculture without farmers”³⁴. Furthermore, it entrenches inequalities and uneven entitlements as communities are eroded and entire livelihoods are rendered impossible³⁵. The result is ongoing colonial and imperial violence against Indigenous peoples, the rural poor, peasants, and their lands for the benefit of multinational corporations.

In this way, industrial agribusiness paradoxically exacerbates the very issues it is purported to solve, as it diverts agriculture away from accessible food crops and embodies an “extractivist” mode of production for capital accumulation that represents “an inherent unsustainability in terms of economic and social development”³⁶. Furthermore, global agribusiness can be seen as an acute manifestation of the “capitalist world-ecology” that is at the

²⁸ Weis, *The Ecological Hoofprint*.

²⁹ Otero, *The Neoliberal Diet*.

³⁰ Giarracca & Teubal, “Argentina”.

³¹ Weis, *The Ecological Hoofprint*.

³² Grain (2013) Collating and dispersing: GRAIN's strategies and methods, in *The Journal of Peasant Studies*, 40:3, 531-536.

³³ Liberti, *Land Grabbing*.

³⁴ Giarracca & Teubal, “Argentina,” 56.

³⁵ Lapegna, *Soybeans and Power*.

³⁶ Giarracca & Teubal, “Argentina,” 48.

root of global climate change, wherein corporeal Earthly realities are subjugated to the constructed reality of capital³⁷.

The current framework in which the agribusiness paradigm thrives is one of “neoregulation,” as termed by Gerardo Otero, wherein a discourse of free market trade and benevolent investment obscures the “uneven” implementation of neoliberal policies³⁸. Such policies privilege the interests of industrialized states and their multinational agribusiness corporations at the expense of developing states and their populations³⁸. This is exemplified by the World Trade Organization’s stance on reforming agriculture to “increase market access *and* improve the livelihoods of farmers” through targeting export subsidies (WTO, emphasis added). In practice, this is likely to be implemented by developed states against developing states, without addressing the entrenched protectionisms that advantage US-based grain producers, nor examining how or if these two goals are compatible³⁹. While the UN Food and Agriculture Organization (FAO) explicitly recognizes that the global agricultural industry is “highly concentrated, integrated and globalized” and identifies several progressive policy objectives, it maintains the rhetoric of productivity and efficiency that favours industrialization⁴⁰. Ultimately, the multilateral regulation of agriculture remains all but confined to issues of trade rather than addressing global hunger and the myriad negative impacts of the current paradigm.

Conclusion: A New Paradigm of Local, Sustainable Food Production

In this context, a new agricultural paradigm must challenge the techno-productivist discourse of industrial economies of scale to revalue localized, small-scale farming and reframe

³⁷ Weis, *The Ecological Hoofprint*. 38.

³⁸ *Ibid*, 38.

³⁹ Winders, *Grains*.

⁴⁰ Food and Agricultural Organization of the United Nations, “What We Do,” United Nations 2019, <http://www.fao.org/about/what-we-do/en/>

natural ecological limits as crucial to future sustainability^{41 42 43}. This requires a policy framework at the national and international levels that confronts the power consortium of multinational agribusiness oligopolies, safeguards the rights of agricultural communities worldwide, and protects the environment^{44 45}.

The benefits of this new approach include the revitalization of rural communities, the absorption of surplus labour, the prevention of further colonial dislocation, and the provision of meaningful livelihoods to multitudes of people⁴⁶. In addition, better environmental practices and protections would contribute to the mitigation of climate change and amelioration of its immediate effects on food resources⁴⁷. Furthermore, this paradigm would reorient agriculture towards food production in the interests of abolishing world hunger, protecting environmental sustainability, and ensuring inclusive social and economic development⁴⁸. In the face of increasing hunger and impending climate crises, confronting these issues requires nothing less than a complete agricultural paradigm shift.

⁴¹ Ayres & Bosia, *Beyond Global Summitry*.

⁴² Otero, *The Neoliberal Diet*.

⁴³ Weis, *The Ecological Hoofprint*.

⁴⁴ Otero, *The Neoliberal Diet*.

⁴⁵ La Via Campesina, *What Are We Fighting For?* n.d.
<https://viacampesina.org/en/what-are-we-fighting-for/>

⁴⁶ Otero, *The Neoliberal Diet*.

⁴⁷ Weis, *The Ecological Hoofprint*.

⁴⁸ La Via Campesina, *What Are We Fighting For?*.

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