

THE CORONAVIRUS PANDEMIC: A CRITICAL REFLECTION ON CORPORATE FOOD PATTERNS

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[FIAN Colombia](#) is a section of FIAN International, founded in 2013. One of their main activities is training communities whose human right to adequate food and nutrition has been violated. To this end, they coordinate empowerment processes as well as meetings, exchange programs, and other events that enable communities to share their experiences. FIAN Colombia is a leader in advocacy in various international human rights bodies, and supports processes related to food policies and governance of natural resources across Colombia.

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¹ We prefer to refer to ‘food processes’, when understood comprehensively, and to ‘food systems’ when referring to industrial food chains. The notion of food systems has been built around the idea that food is a phenomenon which must take multiple variables into consideration. These are understood through general systems theory, to achieve interventions that modify the obstacles to their functioning. This

This year so far, and undoubtedly in times to come, an overwhelming amount of literature is being published about SARS-CoV-2, the virus behind the current pandemic. The food debate is also making the headlines, but more so as a problem of conventional food security, in terms of food supply during lockdown measures, than as the object of a structural analysis. In this article we wish to share a different perspective on the link between the health crisis and food.

CORONAVIRUS AND ‘FOOD PROCESSES’¹: LESSONS LEARNED

An article published in March in renowned medical magazine *The Lancet*² makes two statements that provide insights into the current health emergency. Firstly, the authors establish a link between “food systems of animal origin” and the pandemic. Secondly, they affirm that the corona virus in question (SARS Cov-2) – the infectious agent behind this pandemic – is transmitted from animals to humans through a zoonotic process.³ These statements challenge conspiracy theories on the origins of the virus, such as its creation in a laboratory, and underscore the importance of structural factors linked to the right to adequate food and nutrition.

The article interrogates the mainstream factors that have so far been argued as the cause of the pandemic, since it puts discussions on industrial food systems at the heart of the debate. Nonetheless, it is worth noting that the article views the problem through the mainstream lens of hygiene. Its departure point therefore, is that the current situation is the result of contagion by an external microbial agent, which infects its carriers within a circuit of adverse proximity relations between wild animals and human beings.

The prestigious research team affirms – based on the proven mode of transmission by zoonosis detected over the last two decades – that the chain of contagion can be avoided if effective measures are put in place, such as regulating practices around food of animal origin in wet markets (such as the Wuhan market, where the pandemic supposedly started). These markets are informal open spaces, typical of cultures whose food patterns are strongly rooted in tradition, and where water is used to keep clean the produce on sale, whilst sometimes being used to sustain living species.

The article resorts to the microbial theory of disease discovered in the 19th Century, and as such, it is true to the linear and causal models of positivist science: It seeks to find the cause of spread of the disease in the close mingling of species, originating in the interactions occurring in these markets. In the following section, we demonstrate that existing food systems have been generating disease and dysfunction since the rise of the industrial era, and are deeply linked to the current pandemic. We therefore propose a non-positivist assessment of this moment in history, shifting instead toward an analytical and holistic approach to ‘food processes’.

THE TRANSMISSION OF INFECTIOUS DISEASES BETWEEN SPECIES: INSIGHTS FROM BIODIVERSITY⁴

It is vital to understand that the relationship between carriers in the transmission of infectious diseases is usually limited to one specific species. In other words, cross-species transmission is unusual and occurs only under certain conditions, to which we wish to draw attention. The main question is: in what type of situation does a virus jump from one species to another?

From a scientific perspective, the unusual proximity between species in wet markets is considered a risk factor. These types of assertions, backed by official science, legitimize the stigma attached to – as well as the discriminatory, racist and prejudiced view of – traditional practices in open markets. It is usually traditional food producers that sell their produce there. For them, the market not only is a clean space, but the fact that they can sell whole animals, both living and dead, is of added value, because it is a ‘natural’, unprocessed source of food. From this point of view, the problem is far from being an issue of standard hygiene.

Cross-species transmission of infectious diseases is linked to evolutionary changes resulting from the growing fragility of ecosystems and the loss of biodiversity. The risk of infectious diseases is an indicator of declining biodiversity,⁵ given that the higher the biodiversity, the lower the transmission rate of zoonotic infections.⁶ This is known as the ‘dilution effect’; an “ecosystem service that regulates diseases”.⁷ Climate collapse is a major contributor to the massive loss of biodiversity, just as the destruction of ecosystems is a key factor of global warming.

Notwithstanding the above, it is worth noting that right now biodiversity is most impacted by agribusiness practices, the use of pesticides, the proliferation of extensive monocultures (which is concomitant to the aforementioned activities), and the expansion and intensification of industrial livestock farming.⁸ In the case of industrial farming, animals of one single species live in close proximity, as they are concentrated in overcrowded conditions. This practice leads to an imbalance in the relationship with the environment and with wild species. In other words, agribusiness barns and coops are just as prone to infection as wet markets.

vision can be criticized from a complexity perspective, whereby these variables should not be simply taken as parts of an ensemble affected by those who ‘enter’ or ‘leave’ it, but must be seen as an integral and complex process.

² Kock, Richard A. *et al.* “2019-nCoV in context: lessons learned?” 4 (2020). Available at: [www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(20\)30035-8/fulltext#%20](http://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(20)30035-8/fulltext#%20).

³ Zoonosis is the transmission of diseases, usually infectious, from an animal species to the human species. Some have also spoken of reverse zoonosis, when transmission occurs from humans to animals. We shall come back to the ‘inversion’ terminology later.

⁴ Shuo, Su *et al.* “Epidemiology, Genetic Recombination, and Pathogenesis of Coronaviruses”. *Trends in Microbiology*, 24, 6 (2016).

⁵ Morand, Serge. “Biodiversité, élevage et maladies infectieuses”. *Biodiv* 2050, 19 (2019).

⁶ Morand. *Supra* Note 5.

⁷ Morand. *Supra* Note 5.

⁸ For more information, please see: Wallace, Rob. *Big Farms Make Big Flu: Dispatches on Infectious Disease, Agribusiness, and the Nature of Science*. NYU Press, 2016. Available at: monthlyreview.org/2020/04/01/covid-19-and-circuits-of-capital; and the a relevant interview with the author. Available at: monthlyreview.org/press/who-should-we-blame-for-coronavirus-rob-wallace-has-some-answers.

⁹ In its 2017 (No.12) report, the High Level Panel of Experts (HLPE) of the UN Committee on World Food Security (CFS) established a conceptual model of food systems. It distinguished the so-called 'modern food system', and found it to be closely related to agribusiness and the food industry. Available at: www.fao.org/fileadmin/user_upload/hlpe/hlpe_documents/HLPE_Reports/HLPE-Report-12_ES.pdf.

¹⁰ We prefer to use this category proposed by FIAN Colombia instead of 'modern food system', as we are specifically referring to the dominant pattern determined by the 'edible foods' industry.

¹¹ The Lancet Commissions. "Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems". *The Lancet* 393 (2019). This publication contains the result of a multidisciplinary and international analysis, carried out by a group of experts convened by medical journal *The Lancet*.

¹² At FIAN Colombia we have been working on a definition that differentiates 'real food' from 'edible products'. 'Edible products' are industrially manufactured and have a high content of crucial nutrients such as sugar, salt, fat and additives. 'Real food' has not or barely been processed, and preserve their natural dietary matrix. We view this food as being beyond the concept of 'diet' (a medicalized and prescriptive term), linked to the regeneration of ecosystems, and within local, family, seasonal production perspectives, such as agroecology.

¹³ WHO. *Report of the Commission on Ending Child Obesity*. Geneva: WHO, 2016. Available at: www.who.int/end-childhood-obesity/final-report/en/.

¹⁴ WHO. *Supra Note 13*.

¹⁵ Salcedo Fidalgo, Hernando. «Comment sortir du système agro-industriel? Un enjeu de santé publique face à la protection de la biodiversité», *Biodiv 50*, No. 19, December 2019.

It is evident that today's societies, and their current food practices, have contributed – through so-called 'modern food systems' ⁹ – to the biodiversity crisis and to the increased risk of existing and new zoonotic diseases, such as the COVID-19 pandemic. Ecosystem fragility has facilitated the transmission of infections across animal species, as well as of zoonoses from animal species to human beings and vice-versa. Below we share an example of evolutionary adaptation, throwing light on a model devised by FIAN Colombia that seeks to explain how current disease types are linked to and determined by corporate-led food patterns.¹⁰

FROM CHRONIC NON-COMMUNICABLE DISEASES TO ZOOSES AND INFECTIOUS EPIDEMICS: HISTORY REPEATS ITSELF

For more than two years, FIAN Colombia has been developing a model that aims to build a generative relationship between dysfunctional ecosystems impacted by current food systems, and disease profiles and ways of dying of large sections of populations in countries across the world. According to this model, chronic non-communicable diseases (CNCD) are the most likely cause of morbidity and mortality, not only in industrial countries, but also in the Global South, where traditional eating habits are increasingly replaced by industrial foods, and women are the most impacted.

In February 2019, The Lancet Commission¹¹ published an article that suggested a linkage between chronic diseases, deteriorated ecosystems, and industrial food consumption. Obesity, one of several forms of malnutrition that is particularly prevalent amongst children and adolescents, is a clear indicator of the double burden of malnutrition (DBM). The latter combines a lack of intake of some nutrients (undernutrition) with excess in others (overnutrition), due to the high consumption of ultra-processed foods,¹² commonly known as junk food. Obesity is the main risk factor for developing CNCDs, as reported by the World Health Organization (WHO) in recent years.¹³ Women are amongst the most affected by both obesity and the double burden of malnutrition, as well as by the gendered division of labor, as they live for longer in worse health conditions linked to food.¹⁴

Industrial food production is responsible both for the disease patterns common to most contemporary societies (i.e. CNCDs), as well as for the increasing fragility of ecosystems resulting from its harm inflicted on the planet. It has therefore created a favorable environment for the current pandemic to emerge. In the face of uncertainty, the scientific and political community has returned to the old rationale of self-isolation. Infectious diseases – which were thought to have been overcome – now take the lead amongst the present mix of CNCDs and communicable diseases.

In an article published last year in the *Biodiv 50* journal,¹⁵ we proposed a holistic analysis of the 'food process', whereby ecosystemic and nutritional impacts on the prevalence of CNCDs were defined in terms of 'negative' or 'inverse' resilience, i.e. an adaptation process that tends to favor disease and death over the preservation of health and life. We are trapped in a double burden of disease, and as by-gone patterns re-emerge, we find ourselves facing confinement as the only option.

TOWARDS A HOLISTIC PROPOSAL FOR FOOD AGENCY¹⁶

We concur with feminist theorists and philosophers Judith Butler, Donna Haraway¹⁷ and Karen Barad¹⁸ that we are at a turning point. In a relatively short period of time (in planetary history terms) the planet's reserves have been ravaged. For a few to accumulate capital, poverty and exclusion have been exacerbated by exploitation and consumption of carbon-burning energy, feeding an economic system premised on unlimited growth. The current era – characterized by the predatory influence of both human beings and capital – has been defined respectively as the Anthropocene and the Capitalocene, alluding to geological eras (through the '-cene' suffix) to denounce a phenomenon, that would either have taken thousands of years or followed a natural disaster to occur, were it not for human intervention.¹⁹

Corporate food models are in the eye of the storm, as they are both the cause and the result of the dysfunctionality of living systems and collective disease of the human species. Women are the main victims of this patriarchal process, but, as the “progenitors of our food chains”,²⁰ women are also a source of resistance and regeneration. For all the above reasons, in order to deepen our understanding of ‘positive’ resilience – which is a proposal for the defense of life that includes all life forms, known as biota – we need to widen our scope of vision beyond the exclusively human dimension. In this regard, scales are tilted toward a diverse biosis,²¹ through human and non-human agency. The recurrence of zoonoses is alarming because it shows that we are on the brink of an irreversible trend toward ‘negative resilience’ and abiosis.²²

This planet-wide emergency manifests in the lack of natural refuges for living species, pointing toward the urgent need to take actions that regenerate life and habitats – without increasing the number of refugees. Neoliberal states have cut out a role for themselves as ‘managers of return on capital’, whereby economic growth indicators stem from a notion of progress undergirded by extractivist developmentalism, through the exploitation and appropriation of nature. Feminist authors such as Braidotti, Haraway, Butler, as well as Cabnal critique these types of power relations, where a ‘masculinized subject’ human being has power over other forms of life on the planet.

The time has come to learn the lesson that human and non-human agents can promote life, by leaving behind the Capitalocene, and going beyond a logic centered on the appropriation, domination, and exploitation of nature, underpinned by patriarchal and class relations.

Successfully placing the right to adequate food and nutrition at the center of collective action, through human agency, will allow us to conceive of ways to intervene on ‘food processes’ in their entirety. This proposal allows us to reaffirm the crucial interrelationship between food and nutrition on the one hand, and between food and health on the other. Healthy ecosystems are vital for good and healthy nutrition, which in turn contributes to building adequate immunology for living beings. This point of view goes beyond the narrow actions of positivist science, which only focus on finding medication and/or vaccines against pathogens, which in themselves are problematic and sufficiently criticized.²³ A more holistic proposal builds on ancestral knowledge, and on the participation of communities that preserve biodiversity and protect seeds,²⁴ so as to aspire to enable the emergence of other forms of defending biosis.

¹⁶ In what follows, we refer to ‘agency’ as a collective exercise that recognizes individuals immersed in their identities, as co-responsible for the permanent construction of reality. This is an ongoing process, not a predetermined one. Agents are cooperative and recognized as subjects, and when acting they are immersed without hierarchy with non-human agents on the planet.

¹⁷ See Haraway, Donna. “Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin”. *Environmental Humanities*, 6 (2015).

¹⁸ Karen Barad is a pioneer of the concept of “agential realism”. As members of faculty in the History of Consciousness department at the University of California, Santa Cruz, she and Donna Haraway have drawn on the philosophy of Judith Butler to take a step towards “performativity”. That is, highlighting where phenomena occur, and where exclusion dynamics are evidenced.

¹⁹ The Anthropocene and Capitalocene categories were coined by Noboru Ishikawa, Anna Tsing, Donna Haraway, Scott F. Gilbert, Nils Bubandt, and Kenneth Olwig in a publication for the *Ethnos* journal in 2014. Though the term ‘anthropocene’ had previously been used by Nils Bubandt, this publication integrated it definitively within the social sciences.

²⁰ This term was used by Donna Andrews, Kiah Smith and M. Alejandra Morena in: “Enraged: Women and Nature”, *Right to Food and Nutrition Watch*. “Women’s Power in Food Struggles” (2019): 8.

²¹ According to Donna Haraway, biota and biosis should be understood as the force of the living.

²² In opposition to biota, the term “abiosis” has also been used to designate the suppression of life forces. “Abiosis” has also been used in the two cases following proposals by the authors mentioned in footnotes 19 and 21.

²³ See Salcedo Fidalgo, Hernando. “La vacunación es un experimento”, *El Espectador*. November 27, 2014. Available in Spanish at: www.elespectador.com/noticias/nacional/vacunacion-un-experimento-articulo-530130.

²⁴ Among these we have not only the people who produce from family and community farming, particularly women, but also those who have organized, as in Colombia, with the explicit purpose of protecting seeds and who call themselves ‘guardians’.

SIX PROPOSALS TO BE IMPLEMENTED IMMEDIATELY

Given the urgency to act collectively, and in line with the right to food and nutrition, we wish to conclude this analysis with a series of proposals that reclaim our agency within the food world order:

- Collectively block the advance of so-called modern food systems, by means of a collective political action that demands of states to unquestionably leave behind the corporate food model. This is only possible through peasant, Indigenous, family and community agriculture, and agroecology led by women, who have demonstrated their capacity to feed the world.²⁵
- Decentralize the exclusive gaze on the human species and on the economic and social patriarchal model, promoting instead our individual and collective influence towards a ‘kinship’²⁶ that incorporates the forces of all genders, all forms of life, and of biosis.
- Replace the consumption of goods by the generation of inputs that promote biotic strength and positive resilience in all areas – environmental/ecological, social, spiritual, economic and cultural – by means of policies of care as a collective imperative, centered on a social reproduction that builds on the role of women.
- Defend our commons, such as ‘real’ food,²⁷ water, space, and biota, to ensure they are exchanged and shared, outside market interests.
- Resort to a form of governance based on equity and polycentric governance that offers adequate food and nutrition to everyone, at any point of the life cycle, recognizing food sovereignty as a goal through coordinated forms of power between diverse centers and spatial levels.
- Reshape an international alliance for biosis, an alliance that prevents the United Nations system from collapsing, before giving way to a new pillar of unity between peoples for planetary life, and where the right to adequate food and nutrition prevails as a guiding axis for the defense of biosis.

In this moment of history during which we must reconsider our current lifestyles, it has become imperative to take these actions (among others), lest we definitely stop life from prevailing over short-lived material interests and over a mirage of civilization.

²⁵ This argument was strengthened by the following article: Muller, Adrian, et.al, “Strategies for feeding the world more sustainably with organic agriculture”. *Nature Communications*, 8 (2017).

²⁶ Haraway. Supra note 17. We refer by this term to the idea of “making kin” coined by Donna Haraway. It refers to the bond to build with other living beings, to make humans part of the whole biota, with a sense of kinship.

²⁷ Supra note 12.



IN BRIEF

The SARS-CoV-2 virus pandemic declared by the World Health Organization in January 2020 has sparked a critical debate about its relationship to ‘food processes’ in the era of capitalism. On the one hand, the pandemic sheds light on the transmission of infectious agents caused by so-called ‘modern food systems’, which have made biodiversity more fragile and promoted cross-species transmission from animals to humans. On the other hand, it demonstrates that the ‘corporate food process’ has already created a favorable environment – in the form of non-communicable chronic diseases – for a fatal outbreak of disease. Beyond the mainstream scientific response that centers on medication and vaccines, the article puts forward an exit strategy to the crisis via six proposals that build on the notion of food agency. This includes doing away with the patriarchal, developmentalist model that underpins corporate food patterns, thereby prioritizing collective care led by women through family and community agroecology, and promoting planetary life in the wider framework of food sovereignty.



KEY CONCEPTS

- The cross-species transmission of infectious agents, as seems to be the case with the virus responsible for this pandemic, is known as zoonosis and is related to ecosystem fragility.
- Research led by a panel of experts at the UN Committee on World Food Security have devised a systemic model in order to explain food processes – defined as food systems – which is comprehensive but insufficient.
- ‘Food process’ is a more comprehensive and holistic concept that allows for a distinction between the dominant corporate food pattern, based on agribusiness, and partly responsible for non-communicable chronic diseases, and the collapse of nature.
- The current need of living species to adapt to human aggression seems to privilege ‘inverse resilience’, i.e. a negative form of adapting that takes the shape of disease.
- Contemporary researchers and authors have suggested the terms Anthropocene and Capitalocene to denote the planetary consequences of harm caused by humans to the planet through an extractivist and patriarchal system that limitlessly exploits nature.



KEY WORDS

- SARS-CoV-2
- COVID-19
- Anthropocene
- Capitalocene
- Food systems
- Corporate food pattern
- Biosis
- Agency
- Extractivism
- Climate collapse
- Biodiversity
- Pandemic

