



## Controversial Demographic Projections Under Climate Collapse in 2050 - South and Mesoamerica in a Global Context

*Agri-food production, consumerism, waste and food waste*

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### Abstract

**T**he corporate sector is building another aggressive re-engineering of global agrifood systems in South America and Mesoamerica. The region represents a pillar for global food security, warns the UN in the New Mission. Capitalist euphoria assumes 10 billion inhabitants by 2050. This is forging higher agricultural productivity, innovation, digitalisation and the expansion of standardised agriculture. Thus, they produce and market food destined for populations with some or enough consumption capacity, overconsumption and waste of food with equivalent carbon footprints.



Image by [Alex Block](#) on [Unsplash](#)

In contrast, global overpopulation predictions based on empirical data analysis by Vienna Applied Systems analysts have declined over the last decade. From this perspective, the UN replicates another unsustainable pressure on fertile land in productive decline, under unreturnable alterations of soil properties, following ecological fractures in the Earth's biogeochemical and hydrological cycles. Among the consequences, meteorological collapse spreads through fires, high temperatures, droughts and water shortages. From the South, internal displacement, border crossings and migration to the North of thousands of people are escalating, driven by hunger, undernourishment, loss of food security

and family livelihoods. At the same time, from different parts of the world, a variety of livelihood solutions are being developed outside of consumerism, with other political options for change and transformation.

## Hegemonic Demography at the Service of Catastrophic Capitalism

According to UN estimates (2023), South and Central America account for 14% of world food production, 45% of net international trade in products and their agri-food systems, and 30 and 40% of the gross domestic economic product.<sup>1</sup> Through the FAO, capitalist

*Capitalist imperialism is assigning South and Central America another new mission: to promote the necessary transformation of agri-food systems to feed 10 billion people by 2050.*

imperialism is assigning the region another new mission: to promote the necessary transformation of agri-food systems to feed 10 billion people by 2050.<sup>2</sup> This new mission in the midst of a climate emergency seems more like a tragicomic science fiction parody. It ignores the economic setback imposed by Covid-19 and more than a million deaths (Pan American Health Organisation). The endless accumulation of financialised capital under the politics of hunger and the gradual rise of global food insecurity in the South is attributed to the substitution of local food by exporting commodities reserved for animal feed and processed food production. Approximately one billion people globally suffer from hunger and chronic undernourishment linked to other well-known multidimensional factors, such as deliberate state neglect, structural poverty, and social and gender-based violence. The persistence of these problems and conflicts throws a large part of the vulnerable population into forced internal displacement or the void of migration to the USA.

The reports of the international organisations attached to the UN, especially the FAO, give a glimpse of some of the causes of conflicts generated by the irruption of corporate avalanches and investment funds over land, water, forests and the relentless replacement of native seeds with genetically modified ones, processed in multilateral WTO or bilateral agreements under asymmetrical economic conditions where there is only one winner. In the international sphere, according to Stanziani,<sup>3</sup> only 2% of transactions in commodity markets correspond to exchanges of real products. For the remaining 98%, financial transactions concern "imaginary" products, merely virtual products, transacted by new investors of globalised capital under the speculative rule and fictitious scarcity of products.<sup>4</sup> On the other hand,

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<sup>1</sup> [ONU-Colombia. América Latina y el Caribe es clave para alimentar a 10.000 millones de personas en 2050.](#) Abril 16 de 2021.

<sup>2</sup> Projections of global population growth differ from one another. Ignorance of environmental and political variables and indicators is evident. These data are mathematical projections that go in the opposite direction to the changes and disruptions of nature regulated by its own laws.

<sup>3</sup> Alessandro Stanziani. El trigo como arma. Revista Nueva Sociedad. Nuso N° 303/enero/febrero 2023. <https://nuso.org/articulo/303-trigo-como-arma/>

<sup>4</sup> GRAIN. [¿Los nuevos fondos soberanos nos llevan a una menor soberanía alimentaria?](#) 11 de abril de 2023.

sovereign wealth funds destroy real food sovereignty by taking resources away from local communities and imposing a capitalist and industrialist food system - whether green or not. For example, the investment fund ADQ has a 45% stake in the Louis Dreyfus Company, which owns large tracts of land in Latin America dedicated to growing sugar cane, citrus, rice and coffee. It has a majority stake in Unifrutti, with 15,000 hectares of fruit orchards in Chile, Ecuador, Argentina, the Philippines, Spain, Italy and South Africa. By contrast, in Bolivia, the sovereign wealth fund FINPRO (2015) has 0.4 (in billions of US dollars) under management invested in agricultural land/food production/agriculture (2023). In short, if investment funds are sovereign funds, they are citizen-driven, democratically organised and controlled and have a genuine public welfare mandate. In Bolivia, unlike neoliberal policy, public funds guarantee access to the rights to health, housing, education, transport, healthy food and retirement. Otherwise, the funds should be dismantled, as GRAIN argues.

## A Problem: UN Demographic Projections, 10 Billion Inhabitants in 2050

The UN predicts 9.8 billion in 2050,<sup>5</sup> a figure contradicted by dissenting demographers. Japan, Germany and South Korea<sup>6</sup> are countries with very old populations. In the United States, The Wall Street Journal survey (2023), only 30% of young people consider parenting important. In 2030, the UK, Singapore, France and South Korea could reach the same status. Once considered the world's most populous country, China entered an era of negative growth seven years after the one-child policy. Demographers have noted a global population stagnation and fertility decline.<sup>7</sup> From Poland to Cuba to Japan,<sup>8</sup> almost two dozen countries are getting smaller, and, each year, they have lost almost 450,000 people (2018) due to the weakening of life expectancy in the face of the loss of rights of the once welfare states, the bidding between powers for global hegemony and runaway inflation. Even Jürgen Randers himself - quoted by the UN in its latest projections - after warning of a possible global catastrophe caused by overpopulation, now acknowledges: *The world population will never reach nine billion people (...). It will peak at 8 billion in 2040 and then decline. In the same trend, Professor Wolfgang Lutz and his demographer colleagues at the International Institute for Applied Systems Analysis in Vienna predict that the human population will stabilise by mid-century and then decline.* For Deutsche Bank, the planetary population will peak at 8.7 billion in 2050 and then decline to 8 billion by the end of the century. In contrast, unlike the UN and dystopian visions of the future of our overpopulated planet, they insist that accelerating fertility decline and education have allowed urban women more control over their bodies and more autonomy in deciding on fewer children.<sup>9</sup> Although Africa has been the cradle of overpopulation, women are now improving their quality of life through new empowerment processes, which translates into fewer children.

## Population Growth, Production, Waste and Food Waste in High and Middle-Income Countries

Since 1950 in the West as well as in emerging countries in Asia, the agri-food industry has been invading the well-lit and strategically placed shelves of large shopping centres with processed products. The feeling of wealth, abundance of resources, and well-being is radiated, and the lure of low prices attracts thousands of consumers. The abundance is so great that supermarkets and retailers reduce the expiry dates of their products, which are quickly replaced by more

<sup>5</sup> Also 11,2 million in 2100. We do not consider this figure, as it exceeds the limits of population growth due to the uncertainty of long-term projections in view of the climate crisis and the future rise of environmental, political and social conflicts.

<sup>6</sup> Emiko Josuka, Jessie Yung, Jake Know. [La tasa de natalidad de Japón alcanza otro mínimo histórico en 2019](#). Diciembre 26 2019.

<sup>7</sup> Javier Jiménez. [El mundo vacío: cada vez hay más expertos convencidos de que el crecimiento de la población mundial está a punto de hundirse \(xataka.com\)](#)

<sup>8</sup> Darrell Briker y John Ibbotson. [Lo que sube: ¿son erróneas las predicciones de una crisis demográfica? | Población | El Guardián \(theguardian.com\)](#)

<sup>9</sup> Ibid.



recent dates. And, as they are not consumed within a very short time, they are thrown away, especially in private households. For Álvaro de Regil,<sup>10</sup> most of the world's economic activity [USA, China and other emerging countries in Asia], in this case, consumption, resides in the OECD countries. This author relies on the Malm/Hornborg hypothesis, in which the industrial capitalists of the rich countries, and not humanity as a whole, are primarily responsible for the Anthropocene, observed in the patterns of the Great Acceleration and confirmed in the data. According to the FAO, global agricultural production will increase by 60% between now and 2050 in response to global demand.<sup>11</sup> However, agri-food production only caters to consumers with purchasing power. The supply of meat, especially from the mega-farms in the Brazilian Amazon, followed by Colombia and other Pan-Amazonian producer countries, competes with the consumption of cereals and partly sustains the industrialised model. At the same time, it includes food wastage and large amounts of food waste for every little thing, be it the quality of the product, the size, without stopping at fast-food chains, etc. From this point of view, millions of trees surrounded by ecosystems and thousands of creatures living in tropical forests have disappeared under fire, with serious consequences for emissions. For Tim Jackson, *the economy depends on consumption growth for its stability. Governments that preside over instability soon find themselves out of power. The iron cage of consumerism is a system in which no one is free.*<sup>12</sup> Annie Leonard cites consumer behaviour as a result of advertising seduction, planned obsolescence, easy credit traps, ignorance about the harmful content of many products, community breakdown, indifference to the future and political corruption.<sup>13</sup>

The consumption of artificial things creates a false perception of material wealth, abundance, expressions, and cultural codes linked to social status. It leaves little room for understanding and valuing the individual's contribution to the carbon footprint in relation to the social collective in the climate crisis. That is, it makes it difficult to connect it to seasonal heat waves or the suffering of human and material losses in their own countries, let alone in distant cities or continents. Undoubtedly for Álvaro De Regil,<sup>14</sup> *societies are now totally dominated by the logic of the market, with the advance and consolidation of capitalism (...). Thus, instead of living in so-called 'democracies', as politicians from practically the entire political spectrum would have us believe, we live in marketocracies or the dictatorship of the market (...).* In a timely manner, when food is lost or spoiled in the food chain in supermarkets, restaurants, public places, offices, schools, and homes, it amounts to about 1.6 billion tonnes.<sup>15</sup> Total edible food waste of fruits, vegetables, meat, seafood, dairy, and grains equals 1.3 billion tonnes. More than 1 billion people are overfed. In the South, waste occurs mainly during production and storage, whereas in rich countries, waste occurs more during retail trade and consumption.

In Europe, the big suppliers and hypermarket chains have joined forces and bought up four large buying and selling service centres costing millions of euros, *Coopernic International, CWT, AGR Core and Horizon*. Each group owns brands and thousands of shops and imposes aggressive purchasing conditions on their suppliers, subjecting them to price wars and making the primary producers, the first links in the supply chain, invisible. On the other hand, secrecy prevails in negotiations, to the extent that no one knows what is going on, what is being sold and at what price, or what happens to the money.

*The key to the business is the concentration of food products, sustained by low price wars and labour exploitation in its facilities.*

<sup>10</sup> Álvaro J. de Regil: [The Deceptive Delusions of Green Capitalism – Appendix D: Core Components of a Planetary Sustainable Ecology](#) — The Jus Semper Global Alliance, March 2022. Y en: [Is Population Crucial for Degrowth?](#) The Jus Semper Global Alliance, September 2022.

<sup>11</sup> Food Wastage Footprint. Huella del despilfarro de alimentos. [Sustainability Pathways: Despilfarro de alimentos \(fao.org\)](#)

<sup>12</sup> Tim Jackson. [Paradise Lost? — The iron cage of consumerism](#) The Jus Semper Global Alliance, December 2022. P. 3.

<sup>13</sup> Leonard Annie y Conrad Ariane. *La Historia de las Cosas*. Colombia: Fondo de Cultura Económica. 2010. P. 215.

<sup>14</sup> Álvaro J. de Regil. [Is Population Crucial for Degrowth?](#) Op. Cit. Pp. 3-4

<sup>15</sup> Informe FAO. [Huella del despilfarro de alimentos](#). 2021.



There is no control. They are cautious about making press releases. Some don't even have a website. It is worth noting that, in Europe, supermarkets, and retail chains have controlled 70% of the market, representing an important part of the world economy. Carrefour, behind Walmart, is the second largest retailer in the world. They seemed invincible until Amazon, the leader in artificial intelligence, bought Whole Foods, revolutionised the whole market and then dealt a knockout blow to the big supermarkets, beginning to dominate the global food sector. The key to the business is the concentration of food products, sustained by low price wars and labour exploitation in its facilities. And in this way, it is shaking up small businesses and other suppliers at every link in the chain.<sup>16</sup>

Amazon, primary producers pay them rent for the space occupied, display on the website, packaging, labelling, plus the price of the product, if it rots on the shelf. They do not donate them, nor do they reuse them. It is exempt from environmental liabilities for the emission of tons of waste and pollution from the disposal of clothing, perishable food and processed everyday consumer goods. Amazon Prime consumers have the advantage of being able to return products if they wish to do so. However, it is not free, it is paid for by the environment and primary producers. Slovakia, the geographical centre of Europe, pays the lowest wages in the EU. The European Returns Centre receives returned goods from all over the continent. GPS research tracked the journey of a jar of coffee, fit for human consumption with a best-before date of one year. It left Paris, went through Strasbourg, Germany, Czechoslovakia, travelled 1700 km and after two days ended up in the trash. Amazon argues that for health safety reasons it cannot use it. According to Amazon's annual sustainability report,<sup>17</sup> in 2021 its operations emitted 71.54 million metric tons of carbon dioxide. This is an 18% increase from 2020 when Amazon began publishing its carbon impact.<sup>18</sup>

In grandiose terms, for example, the headquarters of the big tech firms are Menlo Park bubble castles and Jeff Bezos' Googleplex, an extreme variant of the artificial spaces that reproduce the conditions of terrestrial nature but are consumed elsewhere and at three times the speed.<sup>19</sup> China is also making unprecedented progress in artificial intelligence. In Peirano's view, for the wealthiest 1%, the climate crisis is not the problem but the context of continuing to enjoy a disproportionate amount of resources without paying the consequences. Thus, Amazon's ultra-concentrated

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model strengthened through artificial intelligence throws primary producers into the economic abyss and the loss of resources and lifestyles closer to the care of nature. This obstacle stands in the way of the goals of programmed economic degrowth and paralyses action on climate

mitigation. Moreover, it delays the awareness of citizens trapped in the illusion of the comfort of the low price fair plus the privilege of receiving the product in record time without leaving home. And, if necessary, to return the discarded product. And, of course, an increase in emissions for which no one is directly responsible.

## Synthetic Food, the Carbon Footprint, Solid Waste and Waste Costs

A key food security issue is the total volume of water used each year in food production, equivalent to 250 km<sup>3</sup>.<sup>20</sup> *The loss or waste, according to the FAO, represents more than a third of the food produced today, and could be a lost opportunity to improve food security and a high cost to the environment.* It is estimated at 3.3 billion tonnes of CO<sub>2</sub>

<sup>16</sup> [El declive de los supermercados. Reportaje DW. Periodismo de investigación.](#) Vídeo de Youtube. Publicado en abril de 2023.

<sup>17</sup> Diario Ti Substack. [Para hacer frente al aumento de la demanda resultante de la pandemia, Amazon amplió su red de transporte, impactando así sustancialmente su huella de carbono.](#) Agosto 2 de 2022.

<sup>18</sup> El declive de los supermercados. Op. Cit.

<sup>19</sup> Peirano, Martha. *Contra el futuro.* Colombia: Penguin Random House Grupo Editorial. 2022. P. 49

<sup>20</sup> FAO. [Huella del despilfarro de alimentos.](#) 2021.

emissions released into the atmosphere per year. *The total global costs of food waste amount to about USD 2.6 trillion per year, including USD 700 billion in environmental costs and USD 900 billion in social costs.*<sup>21</sup>

Intensive agriculture removes macronutrients (nitrogen, phosphorus, potassium, calcium and magnesium) as well as micronutrients (zinc, boron, molybdenum, copper) from the soil. When large quantities of polluting synthetic inputs replace organic fertiliser, and once consumed, chronic and environmental diseases arise, depending on the consumer's medical history. Cereals, milk and meat, are the biggest contributors to the water footprint. Agriculture uses 70% of freshwater withdrawn from the soil, a rate linked to increased agricultural production and its consequences in droughts or floods. Among the environmental breakdowns: Solid wastes such as animal manure and other agricultural residues are highly toxic and pollute soil and groundwater under chemical and biological toxic release reactions. Methane is produced naturally during the decomposition process of organic matter. In landfills, the main environmental problem encountered is groundwater contamination by lixiviation. Topsoil and soil receive direct damage with distortions in plant fertility, in addition to destroying the adjacent soil and land area when toxic chemicals spread over time.<sup>22</sup> Consequently,

*Through the application of hormones, they endure physical deformations, great suffering and disastrous impacts on animal health under outrageous conditions.*

the profit motive does not stop under the wasteful use of food, apart from the eco-environmental consequences of agricultural and economic decline. This will also threaten food security in rich countries. The availability of water, biodiversity, soil and land are not only finite resources and key to global security, but their natural

limitations will make the development of life on Earth impossible.

## Synthetic Biology, Technologies, Human and Animal Health

Synthetic biology, under the promise of *increased food options*, delivers to the market a variety of standardised foods and cosmetics prepared with flavourings and fragrances to the consumer's liking.<sup>23</sup> It also replaces mass-consumer products such as coffee, cocoa, tea and bananas with synthetic counterparts. Failing that, it eliminates or replaces the diversity of species produced in nature by technological editing. GRAIN denounces genetic selection for high milk

*In forty years, agribusiness has changed the natural food nutrition habits promoted by public health policies and created in their place an ultra-processed consumption of synthetic foods at low prices.*

production without measuring changes in the health of dairy cows.<sup>24</sup> The term "lifespan" extends to genetic selection for dairy production, cattle and poultry. Through the application of hormones, they endure physical deformations, great suffering and disastrous impacts on animal health under outrageous conditions. This type of feeding negatively disturbs human health due to profound changes in

natural processes brought about by cloning, gene therapy and the application of transgenics with capital technology.

Prefabricated foods for human consumption are made with light food recipes and are addictive and palatable. They abound in supermarkets and retail shops as bread, cakes, pastries, sausage foods, artificial drinks, etc. Industrial cereals have replaced fat with sugar content, which is responsible for the obesity epidemics that have become a global collective tragedy. In forty years, agribusiness has changed the natural food nutrition habits promoted by public health policies and created in their place an ultra-processed consumption of synthetic foods at low prices. The WHO warns of

<sup>21</sup> Data presented by FAO at the FAO Regional Conference for Europe. AFP en español. Abril de 2014.

<sup>22</sup> Decología.info. Vertederos, definición, causas, efectos, tipos, reducción y más. <https://decologia.info/medio-ambiente/vertederos/>

<sup>23</sup> ↪ Pat Mooney, Grupo ETC. *La insostenible agricultura 4.0. Digitalización y poder corporativo en la cadena alimentaria*. México. Edición Zoe Goldstein. 2018. [www.rosalux.org](http://www.rosalux.org). P. 21.

<sup>24</sup> ↪ GRAIN. *Emisiones Imposibles: Cómo están calentando el planeta las grandes empresas de carne y lácteos*. Agosto 2018. P. 16

the dangers of being overweight, diabetes, cardiovascular disease, and colorectal cancer, approaching a remarkable upsurge in planetary undernourishment.

Agri-food capitalism has eaten away at the historical diversity of regional diets through the selection of grains such as GM rice, maize, wheat and soya imported under the impositions of free trade agreements (FTAs). They account for 60% of the region's less diverse food calories. The consequences are manifested in lower daily consumption of vegetables and fruits. Capitalism<sup>25</sup> has specialised in generating patterns of behaviour that favour the compulsive consumption of its products, competing dishonestly with alternatives and hijacking the consumer's decision. In contradiction with consumerist degrowth, the FAO<sup>26</sup> promotes raising livestock for the consumption of meat and milk, in addition to eggs, under the varied and indisputable content of macronutrients (proteins, fats and carbohydrates) and micronutrients. It erroneously claims that these nutritional components are absent in foods of plant origin. There seems to be little knowledge about the properties and benefits of plants, i.e. little dissemination of the results of hundreds of research studies in this field of knowledge. These limitations lead to the exclusion or undervaluation of rural production of fruits, vegetables and legumes in diverse and multicultural populations, as well as cultural consumer tastes and preferences.

At this point, the economic growth goals of the global agri-food sector had successfully controlled value chains from the South to food distribution in emerging countries and the North. The Covid-19 pandemic<sup>27</sup> exposed unexpected shortcomings in the application of standardised technologies, the system's vulnerability and unsustainability after the collapse of many centralised chains under Amazon's 'just-in-time' motto. Rural farmers adapted this slogan from the South and Mesoamerica to the time invested in constructing short value chains between the rural sector and the nearest populations. Thus, Mexico,<sup>28</sup> Colombia, and Cuba promoted the renewal of agroecological experiences adapted to climate change. In contrast, FTAs are not only in biophysical contradiction with rural agriculture and its food supply but, in addition to the deterioration of fertile soil, they also push their limits with unexpected repercussions on food production.

In Mexico, the eradication of hazardous pesticides such as glyphosate and genetically modified corn seeds has become a legal battle between President Manuel López Obrador, the National Agricultural Council and the agribusiness corporations Bayer-Monsanto of the USA (2020), contrary to the principles governing the T-MEC.<sup>29</sup> In this particular case, the government is promoting the use of alternative agrochemicals and non-GM corn seeds used in the production of tortillas, an essential food in the Mexican diet. In addition, it is advancing in the application of the right *to reject any product that is harmful to health and outside the Constitution*. Despite this policy, imports of (GM) yellow maize for animal feed and industrial use continue.<sup>30</sup> Colombia has a similar dispute with glyphosate and has not yet rejected GM maize for human consumption, which is also produced in the USA. Gustavo Petro's government is resisting the perverse

<sup>25</sup> Peirano, Marta. *Contra el futuro*. Colombia: Penguin Random House Grupo Editorial, 2022. Pp. 71-72

<sup>26</sup> Contribution of terrestrial animal source food to healthy diets for improved nutrition and health outcome. Food and Agriculture Organization of the United Nations Rome, 2023. ISBN 978-92-5-137536-5. <https://doi.org/10.4060/cc3912en>

<sup>27</sup> Ben M. McKay, Alberto Alonso-Fradejas y Arturo Ezquerro-Cañete. *Extractivismo Agrario en América Latina*. Ciudad Autónoma de Buenos Aires: CLACSO; Canadá: University of Calgary. Libro digital, PDF. ISBN 978-987-813-264-8. 2022.

<sup>28</sup> Nubia Barrera Silva: [Spiral of contradictions between financialised capitalism and rural smallholdings in South and Mesoamerica](#) – The Jus Semper Global Alliance, October 2022. Pp. 10-11

<sup>29</sup> Ariel Noyola Rodríguez. [Monsanto impone su ley. EE.UU. escala la disputa con México por el maíz transgénico](#). 20 de marzo de 2023.

<sup>30</sup> The treaty is in the process of renegotiation. It is at the stage of 'formal consultations'.



fascist opposition. It is progressing in replacing the neoliberal model with one focused on the territory through the reactivation of rural economies and the strengthening of grassroots organisations,<sup>31</sup> the only support for food security. In Mexico and Colombia, the FTAs approved by corrupt and mafia governments have been adapted to the demands of foreign corporations. After all, imperialism's priorities do not include human health or the health of other species, not only in their own country but in the rest of the world. In short, agribusiness-driven FTAs are *tailor-made for big businesses* and against the region.

## Chiribiteque Natural and Archaeological Park in the Amazon Rainforest. The Footprint of the Cattle

In the humid jungle of the Colombian Amazon lies the Natural and Archaeological Park of the Serranía de Chiribiteque, also known as "The Sistine Chapel". It has been declared a UNESCO World Heritage Site, one of the oldest archaeological sites in the Amazon basin and one of the planet's most important rock art sites.

*Its majestic landscape shelters indigenous communities in voluntary isolation. It has 4,268,095 hectares protected. It provides 60% of surface water, 30% of the ecosystems and flora, and thousands of endemic, endangered and threatened species. Among the most researched are the tapir, giant otter and anteater. Its tepuis are home to complex rock art more than 20.000 years old. More than 600.000 traces of 75.000 petroglyphs and pictographs have been discovered on the walls of 60 rock shelters. The oldest may date back as far as 20.000 BC. Rock art was produced until the 16th century. It is the only protected area in the world that simultaneously connects the Orinoquia, the Andes, the Guiana Shield and the Amazonian forest, resulting in high levels of biodiversity and endemism (WWF). It is a strategic site for understanding human settlements in South America.*

The livestock footprint illustrates the extent of the damage to the Earth in the Colombian Amazon: According to the FCDS, the increase in cattle in 2019 amounted to 2'021.829. In 1974, Nestlé identified great advantages for milk supply in the Amazon Arc region: *more than one million hectares of grasslands with native pastures, banks and cattle funds that favour milk production (...)* The multinational points out that it only buys from farms certified by the Colombian Agricultural Institute (ICA), a certificate that does not guarantee that the areas have not been previously deforested.<sup>32</sup> According to Tropical Forest Alliance, the milk consumed in Colombia has not been traced. On the other hand, the meat chain of large buyers - deliberately - is difficult to trace locally and internationally. They are businesses operated by intermediaries between producers and marketing networks. Moreover, transnational capital easily deals with drug traffickers and criminal groups, with no borders or limits on the devastation of ecosystems and native primary forests in the tropical rainforest.

*The direct supplier has a sales capacity: of 2000 head of cattle per month grazed on owned and leased farms. The indirect supplier has a commercial partner in charge of fattening cattle on 800 hectares in Chiribiteque Park. This ever-expanding project is protected by a criminal organisation that demands the payment of a protection tax from the actors involved.*

<sup>31</sup> The reconstruction of the rural economy and the organisational scaffolding of peasant cooperatives involves the purchase of fertile land from landowners and the construction of tertiary roads, etc. This is a basis for building food sovereignty in response to uncontrolled climate variability. It is also a titanic but possible task. It is part of the reconstruction of the country, dominated by a voracious and unproductive oligarchy for more than 200 years. The dispossession of agricultural land and Amazonian territory in collusion with mafias and corruption has prevailed. All the changes are part of the search for total peace.

<sup>32</sup> Santiago Valenzuela. [La huella de la ganadería en la selva amazónica](#). Abril 6 de 2021.

*Land occupation:* The national cattle population (28,2 million head) occupies about 39,2 million hectares. On average, there is 0,6 head of cattle on each hectare, "which makes this sector unproductive and uncompetitive".

*The value chain* involves different actors in the production, marketing, processing and consumption activities. Once the movement of cattle enters the market, the market cannot differentiate between cattle associated with deforestation either by the activity per se or by land grabbing linked to money laundering (National Wildlife Federation and the University of Wisconsin).

*Direct suppliers:* (1) The Éxito Group belongs to the French Casino Group. It comprises the following companies: Ley, Cadenalco, Carulla, Vivero, La Candelaria and POMONA. (2). Colsubsidio belongs to the Sistema del Subsidio Familiar and the Colombian Social Security and Protection System. The slaughterhouse in Villavicencio (department of Meta) processes part of the meat for both supermarket chains.

*The consumer or buyer is unwittingly supporting the destruction of protected forests and extortion by armed groups and paramilitary organisations* responsible for multiple human rights violations in Colombia. The information kernel is encrypted in the State, referring the Environmental Investigation Agency (EIA) to the mine of accumulated traceability and monitoring data the ICA holds. EIA discovered the falsification of ICA movement guides, the sale of fine timber taken from protected areas, and poor coordination between entities, among other issues. According to the ICA, its function is sanitary, with no responsibility for preventing deforestation, as well as the [feared] Colombian Federation of Cattle Ranchers (Fedegan) [represented in the Congress of the Republic by the extreme right-wing Democratic Centre party led by former president Álvaro Uribe Vélez. Responsible for the violent expropriation of ethnic-peasant lands throughout Colombia].

The Amazonian departments of Caquetá, Guaviare and Meta are home to almost 5 million cattle registered in the entire national territory. To cite a few examples, the ICA has identified 86.900 cattle in the villages in the protected areas of La Macarena, Los Picachos, La Paya and Reserva Nukak parks. According to the Monitoring Project of the Andean Amazon (MAAP) report, in the last four years, after the signing of the peace agreement between the government and the FARC insurgency, deforestation amounted to 444.000 hectares by 2021. A similar phenomenon is occurring in La Macarena natural park. Between 2016 and 2020, the ICA reported the movement of 10.002 heads of cattle from inside the protected area to other destinations in six villages. Eighty-seven per cent of the movements (8,787 animals) originated in the village of Caño Indio.

The procedure is repeated over and over again. *First, they log in, then they illegally traffic species and timber, take over the land, set fires, start fires, illegally introduce cattle, and begin the land tenure process.*<sup>33</sup> The natural and archaeological heritage has been unable to stop the advance of chainsaws, roads, cows and human rights violations. The Sabanas del Yarí are home to the most critically deforested areas in the indigenous territories of the Yaguará II people (northwest). *They have worked to conserve their forests adjacent to the Serranía de Chiribiquete Park, where different organisations have reported increased land grabbing and deforestation—one of the reserves most affected by illegal*

<sup>33</sup> Tatiana Pardo. Ibid. Durante 18 meses se realizó una parte de esta investigación en forma encubierta. Empezó en la selva Amazónica colombiana, pasó al matadero y terminó en los refrigeradores de los consumidores en Colombia. Constituye una de las pocas evidencias de trazabilidad en cadenas de suministro. Se realizaron sobrevuelos y análisis satelital por Global Forest Watch acompañados de abundante información en vídeos, imágenes aéreas, mapas, fotografías etc. Tatiana Pardo. [¿A dónde va a parar la carne de res que causa deforestación en el parque Chiribiteque?](#), mayo 27 de 2021.

deforestation, which has been reported with little result.<sup>34</sup> The letter states that official figures from IDEAM (2022) state that 2.538 hectares of virgin forest within the indigenous territory have been deforested.

IDEAM found the expansion of unsustainable cattle ranching practices (...) and the consolidation of informal road infrastructure, including roads inside Chiribiquete. During the years 2020 and 2021, around 2500 hectares were deforested in the jurisdiction of the protected area. In 2018 Chiribiquete accounted for 41% of the forest loss in the last two decades. The EIA recommends *a structural reform to address many of these problems, starting with declaring the principle of transparency and traceability in the livestock sector in the public interest*. In Colombia, pre-modern production relations have concentrated 20 million fertile hectares in the hands of two or three thousand landowners without any productive activity. They are also the owners of the media. The big accumulators of capital in the country do so at the state's expense with its resources. That is why they have put the state at their service, making it undemocratic, disempowering and excluding the population.<sup>35</sup>

## UN Projections, 10 Billion Inhabitants

Overproduction of food does not reach the most vulnerable sectors of the North, let alone the Global South. This modus operandi has been a constant in the history of capitalist exploitation. The imbalance between access to sovereignty is directly proportional to the unquenchable thirst for profit at the expense of the lives of millions of people. Similarly, the

*The larger the population, the greater the plundering of land, soil, and water and the exploitation of small and medium peasant producers in the in the Global South until no single person is left on the planet.*

alignment of the policies of international organisations with capital is not surprising when they raise alarms about the projections of overpopulation in 2050, let alone the mind-boggling projections for 2100. The larger the population, the greater the plundering of land, soil, and water and the exploitation of small and medium peasant producers in the Global South until no single person is left

on the planet.

The UN estimates (2023) that 131 million people in the region could not afford a healthy diet in 2020 because of income levels, poverty, inequality and inflation. It is paradoxical that while the populations of South America and Mesoamerica—under the international division of labour—are targeted to expand the global agrifood system at low prices, a large part of the population in their own countries goes hungry and lacks a healthy diet at low prices, especially the ethnic-peasant populations. In 2021, the number of hungry people reached a total of 56,5 million people. Between 2019 and 2021, hunger had a prevalence of 7,9% in South America, 8,4% in Mesoamerica and 16,4% in the Caribbean.<sup>36</sup> *Some 670 million people are projected to remain hungry in 2030, or 8 per cent of the world's population, the same as in 2015, when the 2030 Agenda was launched.*<sup>37</sup> After a sharp increase in 2020, the global prevalence of severe food insecurity (...) reached higher levels. This reflects an increase in poverty among people who already brought great hardship. Some 2,3 billion people in the world were moderately or severely food insecure in 2021, with 11,7 per cent of the world's population facing alarming levels of food insecurity.

<sup>34</sup> [Comunicado del Resguardo Indígena Llanos del Yarí Yaguara II es víctima del desplazamiento forzado](#). Septiembre 20 de 2021.

<sup>35</sup> Interview with Gustavo Petro by Alfredo Serrano Mancilla. *"La paz es revolucionaria en Colombia"*. <https://www.youtube.com/watch?v=LyN9VpLkFfA>. Abril 8 de 2023. Desde Abajo. [En Colombia tenemos relaciones de producción premodernas](#). Abril 9 de 2023.

<sup>36</sup> Informe ONU: [131 millones de personas en América Latina y el Caribe no pueden acceder a una dieta saludable](#). - OPS/OMS | Organización Panamericana de la Salud (paho.org) Enero 19 de 2023

<sup>37</sup> FAO, FIDA, OMS, PMA y UNICEF. 2022. *El estado de la seguridad alimentaria y la nutrición en el mundo 2022. Adaptación de las políticas alimentarias y agrícolas para hacer las dietas saludables más asequibles*. Roma: FAO. <https://doi.org/10.4060/cc0639es> p.16



## Guarded Predictions on the Consequences of Irreversible Soil Deterioration under Agro-industrial Technology

Soil is a living organism, delicate and highly complex in its mineral and organic components, as well as in its links, processes and movements. Within it, water and nutrient cycles take place. They are great repositories of biodiversity, from tiny microscopic bacteria and nematodes to springtails, mites, myriapods, earthworms, moles and worms, and each of these species groups diversify into other creatures. According to studies, one cubic metre of forest floor can contain between 2000 and 3000 invertebrate species. Earthworms are the best known, commonly called ecosystem engineers due to their high removal capacity, the formation of networks of pores and soil channels.<sup>38</sup> This mechanism favours the circulation of air and water within the soil, facilitates the infiltration of surface water and reduces erosion during runoff. Contrary to the behaviour of the earth's cycles, technology perfects itself by adding a set of techniques without the appearance of a nature-based solution. For this reason, the conversion of productive agricultural soils to intensive cereal crops is advancing at the pace of droughts and is continually expanding above and below the soil layer without being sufficiently publicised among the public.<sup>39</sup>

Nutrient cycling includes certain amounts of organic matter, carbon, nitrogen and phosphorus captured and stored within the soil. Each biogeographic region defines the typology of diversity, forms of species distribution and the specific impacts of human activities. Suppose the fractures of agro-industrial agriculture do not alter the water cycle. In that case, it can define how much water the soil can retain and how much it can nourish plants (including trees and their roots) capable of containing erosion, key components of traditional or agroecological agriculture in winters with heavy rainfall in floods. Scientific research portends guarded forecasts about the consequences of the limit of no return to which one-third of the world's arable land is approaching. Before our eyes, the natural soil architecture formed over hundreds of years is disappearing in seconds under fires and deforestation, rapid practices coupled with standardised agriculture of cereals eager for transgenic seeds, fertilisers and pesticides. The irreparable damage is already done. Regions on different continents are already suffering from severe and prolonged droughts, salinisation of fresh water with irreversible impact on fertile land and loss of food sovereignty, ineluctable conditions for human existence. Even artificial agriculture will not be viable in the so-called global food system. Technology has neither the power nor the capacity to save us from the final collapse. In short, the mythology built around standardised technology has proved incapable of mitigating the impact of emissions and extreme weather changes and replacing the depletion of humus and myriad species in ecosystems.

## Transnational Capitalism Directly Responsible for Floods and Fires with Regional and Global Reach

In Chile, forestry plantations occupy more than 3 million hectares of pine and eucalyptus. Most monocultures are located in regions most affected by mega-fires: Maule, 'uble, Biobío and Araucanía.<sup>40</sup> In 2017, nearly half a million hectares were destroyed. In 2023, over five days, another razed 280.000 hectares in the plantations of the export forestry industry managed by economic groups Angelini of Forestal Arauco and the Matte Group of the Chilean Paper and

<sup>38</sup> Blog Ecomandanga. [Lombrices, las ingenieras del suelo.](#)

Data extracted from the research of Blouin M, Hodson ME, Delgado EA, Baker G, Brussaard L, Butt KR, Dai J, Dendooven L, Peres G, Tondoh JE, Cluzeau D & Brun JJ (2013) A review of earthworm impact on soil function and ecosystem services. *European Journal of Soil Science* 642 (2), 161-182. doi: 10.1111/ejss.12025

<sup>39</sup> Nubia Barrera Silva. [Trees and the 'Net-Zero' Emissions Hoax.](#) The Jus Semper Global Alliance, March 2023.

<sup>40</sup> Nicolás Salazar Maleras. [Pino y Eucalipto: las especies inflamables detrás de los incendios forestales.](#) Febrero 5, 2023.

Cardboard Company in the Biobío region.<sup>41</sup> Monocultures of fast-growing pyrophilous pine and eucalyptus species are established on wetland soils and riverbanks. They possess highly flammable oils and alcohol and consume hundreds of litres of water per tree. Despite this, the businessmen blame "Mapuche terrorism", a people in resistance for 30 years. According to their statements, they have limited themselves to setting fire to the machines, a symbolic way of confronting extractivist capitalism in the area.

The Arauco Malleco Coordinating Committee of the Mapuche movement attributes the cause of the fires to the forestry model without any compensation for the impoverished communities. In addition, desertification, droughts, contamination and, the reduction of community lands, the political co-optation of families and vulnerable people, among other conflicts that the model of death drags along. Küla Mapuche, a leader, states: *In the case of forestry, the land was grabbed by international capital at low prices during the dictatorship, subsidised by the state. From this context, they have blamed the state, the main ally of the forestry companies, for encouraging their capital, ensuring their products and maintaining them as sectors of power hand in hand with the governments in power, a guideline extended to Boric's neoliberal government. On the side of the leader Meli, the Mapuche people, he pronounces himself as a staunch enemy of the forestry companies. He clarifies: never causing fires that take human lives in the communities surrounded by forestry and in precarious survival conditions. They blame Forestal Mininco, Forestal Arauco and CORMA for their neglect and negligence in evading their responsibilities to mitigate the eco-environmental and human impacts of forestry extractivism, which is the cause of the fires. On the contrary, unbridled ambition is behind these fires, and to fill their pockets, they have shown that they do not care about human life or the environment. For this reason, the Mapuche people are committed to a relentless struggle against the forestry companies until their definitive expulsion. This is the only alternative for living with dignity and reconstructing our itrofil mongen, the basis of our Mapuche society.*<sup>42</sup>

Turning to the main conclusions of the European Commission Report in 2021, when referring to forest fires in 22 of the

*Extreme weather conditions and their direct consequences of climate change differentiate countless conflicts linked to forced migration and introduce a factor of declining fertility, increased health risks and life expectancy... Asian ecosystems and the decline of coral reefs will negatively affect food security.*

27 EU Member States, a total of 500.566 hectares were burned. In 2022, the destructive trend was even worse. Italy was the worst affected country, followed by Turkey, Portugal and Greece. In summer, some European territories showed more aridity, less rain and higher temperatures. On the other hand, the total number of fires was the lowest on record, meaning that the fires

were much fewer in number but larger in size. In 2021, almost a quarter of the total burned area of the Natura 2000 network was in Italy, followed closely by Spain. These two countries together accounted for 45% of the total area. The Natura 2000 network covers more than one million km<sup>2</sup> (18,36%) of Europe's land area and includes adjacent seas. The Natura 2000 network contains protected biodiversity sites and includes different types of natural habitats and species of wild flora and fauna of Community interest. Climate change has also increased the area of forest that burned in the United States by 4,2 million hectares from 1984-2015.<sup>43</sup>

<sup>41</sup> Mario Hernández. "En Chile los incendios son facilitados por el monocultivo de pino y eucalipto para la industria forestal". <https://rebelion.org/en-chile-los-incendios-son-facilitados-por-el-monocultivo-de-pino-y-eucalipto-para-la-industria-forestal/> Febrero 14 de 2023.

<sup>42</sup> Coordinadora Arauco Malleco. [Las llamas son del capital, las vidas de los pueblos oprimidos](#). Febrero 8 de 2023.

<sup>43</sup> Informe europeo sobre incendios forestales: tres de las peores temporadas registradas han tenido lugar en los últimos seis años. Bruselas. Octubre 31 de 2022.

## Meteorological Threats and Migration

Extreme weather conditions and their direct consequences of climate change differentiate countless conflicts linked to forced migration and introduce a factor of declining fertility, increased health risks and life expectancy. Tens of thousands of people die, are displaced and disappear from the face of the Earth. The incalculable costs reduce economic, agricultural and social development possibilities, aggravated by damage and destruction of infrastructure in the affected countries. In regions of the Earth, glacier retreat is advancing, and the decline of freshwater is altering the future of water security. Asian ecosystems and the decline of coral reefs will negatively affect food security. At the same time, the frequency and intensity of dust storms is increasing due to changes in land use, land cover and other climate-related factors, especially in regions such as the Arabian Peninsula and the Middle East and Central Asia. In communities around the world, there is already a fierce struggle for food and water, especially in deforested countries such as Indonesia and nine Pan-Amazonian countries. Projections are changing rapidly, with 65% of the population and 370 million people now projected to be migrants or displaced by flooding and land subsidence.<sup>44</sup>

In Sadhel, Southeast Asia, the Caribbean, and the Pacific, people flee water or drought. In Indonesia, a third of Jakarta is sinking into the sea. In 2020, 48,8 million people were estimated to be undernourished in Southeast Asia, 305,7 million in South Asia and 42,3 million in West Asia.<sup>45</sup> Between 2019 and 2020, undernourished people grew by 6% in Southeast and West Asia and 20% in South Asia. The multi-agency report, coordinated by the World Meteorological Organisation, sets out a puzzle of environmental and social conflicts in Asia, which accounts for more than half of the world's total.<sup>46</sup> Moreover, it is the continent most exposed to climate collapse [which competes with other highly deforested countries in South America and Mesoamerica] with record losses of thousands of lives and displacements in many countries. Let us see: (i) Precipitation: Summer monsoons in East and South Asia and frequent tropical cyclones caused flooding and landslides. (ii) Warming of the oceans in and around Asia is increasing above the global average and, in the case of the Arabian Sea, at three times the rate. Sea surface temperatures in parts of the Arctic Ocean have also warmed at three times the global average over the period 1982-2020. (iii) One focus of climate change is in Barents in the northern Arctic Ocean, where sea ice loss is driving further ocean warming. The global average sea level has risen to 3,3 mm yearly since the early 1990s. (iv) The North Indian and Northwest Pacific oceans are experiencing significantly higher growth than the global average. (v) Glacier retreat in the Tibetan Plateau and the Himalayas is accelerating. By 2050, glacier mass is projected to decrease by 20-40% affecting the lives and livelihoods of some 750 million people in the region. (vi) Intense cyclones, monsoon rains and floods have affected highly exposed and densely populated South and East Asia areas and displaced millions of people in China, Bangladesh, India, Japan, Pakistan, Nepal and Vietnam. Cyclone Amphan, one of the strongest cyclones ever recorded, hit the Sundarbans region in May 2020, displacing 2,4 million people in India and 2,5 million in Bangladesh. In conclusion, increasing environmental disasters directly impact population decline. Erosion and land subsidence are forging 60% of major crop losses with critical repercussions on food shortages in rural communities across the continent.

## Russia's Permafrost, an Unimaginable Time Bomb Little Discussed

The world's coldest areas are among the absolute hotspots of climate change: the Arctic, Antarctica, Alaska, and the vast areas of Russia's permafrost. Scientist Nikita Simf estimates that warming the ground by up to 3 degrees has melted the

<sup>44</sup> UN.org [¿Cómo afecta el cambio climático a Asia?](#)

<sup>45</sup> Sonam Wangchuk. Naciones Unidas. [El cambio climático y los fenómenos extremos provocaron millones de desplazados y gastos millonarios en Asia durante 2020](#). Octubre 26 de 2021.

<sup>46</sup> Sonam Wangchuk. Ibid.



top layer of ice, exposing remnants of the Pleistocene geological era (hundreds of mammoth bones). As the CO<sub>2</sub> and methane stored in the soil have been released into the atmosphere, it has accelerated the rate of global warming in planetary orbit, making it possible to observe roots and grasses from 40,000 years ago. It is a huge carbon store. If you put all those little rootlets on one side of the scale and the other side on our planet's vegetation, then [you could see] those little roots getting heavier as the permafrost thaws everywhere. All this becomes food for microbes, producing greenhouse gases, carbon dioxide and methane. As the ice melts and mixes with the soil, mudflows slide down the slope. Its rapid decomposition turns into tons of carbon and tons of ice. So we have a very dangerous CO<sub>2</sub> bomb. So, what is happening here magnifies every global warming problem immeasurably. If this disaster is not stopped," says the scientist, "any end-of-the-world scenario imaginable could emerge. Siberia and the cities of Russia's Far East are home to 25 million people affected by melting permafrost, with unprecedented rises in the collapse of buildings, roads and other infrastructure in the coming decades.<sup>47</sup>

*The inter-hegemonic war between the US and China accentuates the contradiction between agricultural sovereignty on the opposite side to neoliberal policies anchored in deregulation and the usurpation of fundamental rights in subjugated countries... Through the FTAs, tons of cereals and agricultural products pass our borders, many of them GMOs for animal consumption extended to humans, banned in their own countries.*

## Conclusions

A global vision of the New Cold War is reborn from the anti-imperialist Non-Aligned Movement of the Global South. It represents a compelling basis for peace, stability, freedom and human survival.<sup>48</sup> The progressive governments of South America and Mesoamerica share these conditions. There is real hope for humanity *through a shift to socialism*. Yet the US is urging them to send weapons to Ukraine. The presidents of Brazil and Colombia, Luiz Inácio Lula da Silva and Gustavo Petro have rejected this "proposal", stating that their governments are at war with hunger, drug trafficking, corruption and organised crime. In this sense, the inter-hegemonic war between the US and China accentuates the contradiction between agricultural sovereignty on the opposite side to neoliberal policies anchored in deregulation and the usurpation of fundamental rights in subjugated countries. International pressures accentuate the colonial division of labour tailored to the *commodity export model to the North*. In contrast, the domestic market replaces national production with imports of foodstuffs produced by the rural workforce. Through the FTAs, tons of cereals and agricultural products pass our borders, many of them GMOs for animal consumption extended to humans, banned in their own countries.

In the South, the agricultural economy, the lynchpin of family subsistence, is not exempt from socio-economic and political conflict through the regime of scarcity imposed by capital and transnational neo-colonisation. In GRAIN (2023), food security is provided for a few countries, yet elites accommodate this concept to their nationalist, territorial and militarist agendas.<sup>49</sup> On the planet, from this perspective, what awaits us between 2030 and 2050? The FAO is lagging under the ferocious onslaught of financialised and digital capitalism. Strictly speaking, the agri-food system, a key factor of capitalism, has broken the laws of nature and, therefore, human permanence on Earth. We have seen this in the Earth's hotspots. In turn, the diversity of meteorological and geomorphological reactions, for the moment most visible in the South.

<sup>47</sup> Reportaje de Thomas Aders. [Refugiados climáticos - La verdadera catástrofe ambiental](#) | DW Documental. 16:11-20:26.

<sup>48</sup> The Editors of Monthly Review. [Notes from the Editors of Monthly Review on U.S./NATO Imperium and the Resurgence of the Non-Aligned Movement](#) The Jus Semper Global Alliance, P. 4.

<sup>49</sup> GRAIN. [¿Los nuevos fondos soberanos nos llevan a una menor soberanía alimentaria?](#) 11 de abril 2023.

In the region, the loss of fertile soils is expanding and, as a result, the ecology of traditional agricultural models and their new agro-ecological adaptations are being altered in permanent resilience against heat waves, droughts, torrential rains and floods, altering the time cycles for the establishment of crops. In this perspective, the food crises outside the UN projections between 2030-2050 will continue to rise and on the planet. In short, the actual projections are oriented towards demographic decline through unequal wealth distribution, food sovereignty erosion, migration, etc. With this caveat in mind, we know from history that more than 1,5 billion people, one in four, subsist in the same material conditions as their ancestors did more than 6.000 years ago. For cooking food, they still use charcoal, a mineral that is a major pollutant of greenhouse gas emissions. Hence, extreme conditions of scarcity force their inhabitants to cut down forests and deplete water and soil nutrients with ineluctable damage to health. These populations outnumber the inhabitants of the world's rich countries.

Humanity is already riding on FAO forecasts between 2030 and 2050 with common features: the populations of Honduras, Guatemala, Ecuador, and Haiti have reached the bearable limit of extreme poverty and its multidimensional factors. In short, the last viable option is to flee in hellish caravans of death to Mexico, a transit country to the USA, leaving anonymous dead and missing people on the roads and hundreds of drowned migrants and those who have disappeared in southern Europe. Paradoxically, they seek new life options in countries of the North; also, the final destination of the natural wealth usurped in their countries of origin, reconverted into infinite profits, without any socio-economic compensation and even less towards the fractured nature. Although countries have shown population growth peaks in previous decades, we could attribute this in part to the fact that humanity had not yet faced the unprecedented events of the collapse of the climate, the fall of the dollar from the international market and the cold war in the transition from the unipolar hegemony of the collective West to a multipolar world led by China.

We have taken the case of the Colombian Amazon rainforest, in the heart of the Chiribitequeque Ecological and Archaeological Natural Park. To the investigation of the EIA, we have added the denunciation of the Yaguará II People, a reservation hit by the deforestation of 2.538 hectares (IDEAM) in virgin territory.<sup>50</sup> The presence of criminal groups in complicity with cattle ranchers, national and international business people, drug traffickers and public officials involved in money laundering has turned this ecological sanctuary into an extremely dangerous place. This leads to rampant meat consumption, considered a key point of economic decline, through its dual use, the first for manufacturing animal feed, essential food for livestock. The second, after the animal's death, its body is cut up, labelled, and the final price is completed with the type of organ of the dismembered body so that it is ready to be served on the consumer's demanding table. Thus, double exploitation occurs in the Natural and Archaeological Park of Chiribiteque, subject to logging, fires and deforestation. The construction of mega pasture farms follows this after the expulsion of indigenous peoples with serious human rights violations. Without direct responsibility, the tragedy of an archaeological and human asset is consummated, followed by the unstoppable dismantling of the Amazon rainforest.

The Amazonia seen from space, the forested and cloud-covered landscape expands and forms vast patches of savannah, with more than 40% of the trees disappearing. After deforestation, the forest is no longer self-regulating, i.e. it loses its essential functions: providing abundant clean water to the planet, regulating rainfall and mitigating the effects of droughts and floods. Torrential rains wash away the fertile and productive soil layer without this function. Moreover, the prices of externalising the forest through consumption hide the true value of biodiversity loss and the myriad ecosystems around the trees, as well as the stability of water cycles and geomorphological cycles, photosynthesis and the creation of

<sup>50</sup> Comunicado del Resguardo Indígena Llanos del Yari Yaguara [Il es víctima del desplazamiento forzado](#). 20 septiembre 2021.

rain thousands of kilometres away, an essential component of soil fertility.<sup>51</sup> The myth of capitalist technology has made us forget that we are finite and vulnerable beings; without this planet, we cannot feed, breathe, and live. Nothing matters more than finding a way to live together - just, respectful, sustainable, and happy - on the only planet we can call home.<sup>52</sup> The Chilean forestry model and the resistance of the Mapuche people, faced with a puzzle of interlocking socio-economic, cultural and political conflicts, repeat the same narrative of the occupied territories in the Colombian Amazon rainforest, Brazil and Central American countries.

The uncertainty of the times gives us a glimpse of an unprecedented future and will put humanity to the test. The indigenous peoples will have a renewed role to play. They have the strategies, the knowledge, the experience of solidarity values and the experience gained in a thousand battles in defence of Mother Earth. At the end of the road, fierce capitalist individualism will be replaced by new values based on trust and solidarity in political-economic relations. The network will be strengthened by other forms of conscious articulation with trade unions, teachers, gender associations, etc. Ultimately, the climate collapse will take care of the economic disconnection of the South from the North. We do not risk saying that the whole scaffolding of capitalist technology will collapse. Every country will have to turn inwards and think of strategies other than over-consumption, waste, food waste, water and energy plundering. The pandemic of covid-19 warned us about the fragility of standardised capitalism through the disarticulation of extensive value chains.

The perplexed world watched in South, Mesoamerican, and even EU countries as small and medium-sized producers transported their agricultural products in short value chains between the countryside and nearby cities. So, they have offered us a glimpse of what may happen in the future. Just as Amazon has perfected the application of IA in food marketing with giant steps in hyper-concentration of the market, it has also brought the role of IA in the service of agribusiness capital under public scrutiny. This adds another component to the climate crisis, not only through high emissions levels but also through the generation of rubbish, pollutants, and waste of perishable and edible foods, whether natural or synthetic. Meanwhile, it destroys small and medium-sized economies and offers no solution to millions of hungry and undernourished people. Amazon is the best example of catastrophe capitalism on the planet.

Ted Trainer's work traces the path of simplicity voluntarily chosen by groups of citizens renouncing their consumerist lifestyles in industrialised countries. For this author, the decline in consumption originates in zero-growth economies with little ecological impact, perhaps 90% less.<sup>53</sup> This trend adds to the models of rural villages as sources of inspiration for the industrialised world. The vision of bottom-up change is also gaining momentum. Among the proposals for economic degrowth, ancestral cooperative organisations—small and self-sufficient economies—are maintained.

Consequently, an ecosocialist rebellion is looming, whether labelled or not, over the use and control of water, food and energy. Already we see the foundations in areas devoured by drought and famine. In Michael Löwy, the movement convening movements seek system change, convinced that another world is possible beyond commodification, environmental destruction, exploitation and oppression.<sup>54</sup> The power of the entrenched ruling elites is undeniable, and

<sup>51</sup> Nubia Barrera Silva. [Trees and the 'Net-Zero' Emissions Hoax](#) The Jus Semper Global Alliance, March 2023.

<sup>52</sup> Annie Leonard. *La Historia de las Cosas*. Fondo de Cultura Económica. Colombia. 2010. P. 22

<sup>53</sup> [Ted Trainer y la Vía de la Simplicidad – FUHEM](#) 29 mayo 2017.

<sup>54</sup> Michael Löwy. [Why Ecosocialism: For a Red-Green Future](#) The Jus Semper Global Alliance, June 2020.



the forces of radical opposition remain weak. However, hope is growing and remains attached to evading the catastrophic course of capitalist "growth". Ecosocialism provides a vital perspective to further the understanding and strategy of this movement for a Great Transition. Walter Benjamin defined revolutions not as the locomotives of history in the style proposed by Marx but as that of populations seeking the emergency brake before the train falls into the abyss. We have never needed more to reach that lever and establish a new path to a different destination. The idea and practice of ecosocialism can help guide a multiverse world-historical project adapted to local biogeographical regions, economies and cultures.

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### Related links:

- The Jus Semper Global Alliance
- Nubia Barrera Silva: [Capitalism of Dispossession in the Palm Oil Plantations in the Countries of the Global South](#)
- Nubia Barrera Silva: [Ethnic-Peasant Resistance in South America and Mesoamerica to the 4.0 Agriculture of Catastrophe Capitalism](#)
- Nubia Barrera Silva: [Water as the Pandora's Box of Ecological Debacle from South and Central America](#)
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