

Argentina in the context of the global socio-environmental crisis

More agro-extractivism to get out of the extractivist problem?

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| IN SHORT

EN

- Agro-extractivism has shaped the productive matrix during the last four decades in Argentina.
- Agro-extractivism not only does not satisfy the population's food demand, but also deepens the socio-environmental crisis, generating environmental depredation, health problems, economic concentration, and social polarization.
- To overcome the crisis of agro-extractivism in Argentina, it is necessary to transform the patterns of production, consumption and accumulation, which will require democratizing access to land and promoting agrifood production oriented to the domestic market.
- Agroecological proposals have the capacity to favour climate resilience, promote socioecological diversity and generate healthy food that does not depend on external technology.

DE

- Agrarextraktivismus prägt Argentinien nun seit über vier Jahrzehnten.
- Agrarextraktivismus führt in Argentinien zu Umweltzerstörung, erzeugt Gesundheitsrisiken, verschärft sozioökonomische Ungleichheit und ist ein Hauptfaktor für soziale Polarisierung.
- Agrarextraktivismus kann nur überwunden werden, wenn sich Produktions- sowie Konsummuster deutlich verändert. Der Zugang zu Land muss demokratisiert werden und die Landwirtschaft muss auf den heimischen Markt ausgerichtet werden.
- Agrarökologische Ansätze können der Klimakrise entgegenwirken und einen gesunden Lebensmittelkonsum anregen, ohne von externer Technologie abzuhängen.

FR

- L'agro-extractivisme a défini la matrice productive au cours des quatre dernières décennies en Argentine.
- Non seulement l'agro-extractivisme ne satisfait pas la demande alimentaire de la population, mais aussi il aggrave la crise socio-environnementale, générant une dégradation de l'environnement, des problèmes de santé, un processus de concentration économique et une polarisation sociale.
- Pour surmonter la crise de l'agro-extractivisme en Argentine, il est nécessaire de transformer les modèles de production, de consommation et d'accumulation, ce qui implique la démocratisation de l'accès à la terre et la promotion d'une production agro-alimentaire orientée vers le marché intérieur.
- Les propositions agroécologiques ont la capacité de favoriser la résilience climatique, de promouvoir la diversité socio-écologique et de produire des aliments plus sains qui ne dépendent pas de technologies externes.

ES

- El agro-extractivismo ha moldeado la matriz productiva durante las últimas cuatro décadas en Argentina.
- El agro-extractivismo no solo no satisface la demanda alimentaria de la población, también profundiza la crisis socioambiental, generando depredación ambiental, problemas sanitarios, concentración económica y polarización social.
- Para superar la crisis del agro-extractivismo en Argentina, es necesario transformar los patrones de producción, de consumo y de acumulación, lo que requiere democratizar el acceso a la tierra y promover la producción agroalimentaria orientada al mercado interno.
- Propuestas agroecológicas tienen la capacidad de favorecer la resiliencia climática, promover la diversidad socioecológica y generar alimentos sanos que no dependen de tecnología externa.

Introduction

The socio-ecological crisis is hitting the world hard. Extreme temperatures, droughts, floods, environmental migrants, and worsening living conditions are adding worldwide. However, the effects are far from balanced, and the most vulnerable social groups face the worst impacts. Therefore, the crisis is global and local, and three factors are central to explaining its causes and tracing possible solutions: production patterns, consumption patterns and food sovereignty.

Agricultural activity has heavily conditioned how mankind develops itself. Today, about 40% of the earth's surface is occupied by agriculture and livestock, representing approximately 1500 million hectares used for crops and 3500 million for animal farming (Howden et al., 2007; Feldman & Cortés, 2016, p. 461). According to the IPCC (2014), climate change will strongly affect the agricultural sector, most probably decreasing harvests' quantity and quality. Therefore, this Policy Brief argues that if we grasp how mainstream agrarian production organizes, we find some of the explanative causes of its crisis. To do that, we analyze the Argentinean case, where agricultural goods export has historically played a fundamental economic and social role.

First, we understand the agriculture industry as *agrarian extractivism*, an activity that eventually undermines the very bases that maintain itself due to over-exploitation (Teubal, 2001; Alonso-Fradejas, Alonzo & Dürr, 2008; McKay, 2017). In Latin America, agricultural production has consolidated a regime of specialization in monocultural export commodities (palm oil, soybean, sugarcane, avocado, among others) and biofuel generation. What has been called the 21st-century agro-extractivism (Petras & Veltmeyer, 2014) is the enhanced use of fossil fuels, pesticides and chemical fertilizers and the over-consumption of fresh water to expand the agricultural frontier (displacing other crops, native forests and populations) while boosting massive wealth concentration.

The exploitation of nature today due to commodities production consumes a big chunk of the world's water

and oil reserves while generating between 20-30% of greenhouse gases influencing global warming (Stocker et al., 2013, cited in Feldman & Cortés, 2016, p. 460; Nicholls & Altieri, 2019). Moreover, this type of agriculture production occupies 70-80% of the global arable land (Nicholls & Altieri, 2019, p. 55). However, ironically, it only produces 30% of the food humans consume (ETC, 2017).

In Argentina, the current extractivism development model consolidated itself in the 1990s via three pillars: hydrocarbon exploitation, open-pit metalliferous megamining, and transgenic soybean cultivation (Gómez Lende, 2015). Since then, the so-called soybean or agribusiness model has generated several questions due to its economic, social, environmental and sanitary effects.

If this agro-extractive production has not solved the problems of structural inequality nor reduced the socio-territorial conflicts and environmental degradation in the last three decades, why is it still being presented as a solution to all Argentinean problems? Different administrations at national and provincial levels and many business actors proposed to deepen this type of production in one way or another. Therefore, we ask ourselves: does it make sense to seek more agro-extractivism to escape the extractivist crisis?

To get out of the crisis, we must review what the agrarian sector is producing, how and for whom. Latin America is one of the most unequal regions on the planet (ECLAC, 2021). In Argentina, more than 40% of the population lives below the poverty line, while a growing spiral of environmental degradation and social inequality keeps feeding from each other (INDEC, 2022). Therefore, we argue that it is necessary to reform how people access land in the country, recover regional and local economies oriented to the domestic market, and promote a type of agroecology that does not rely on the chemicals controlled by a handful of transnational corporations.

The production profile of Argentine agriculture: a recent historical trajectory

In the 1970s, agriculture in Argentina radically changed, modifying the forms of production, products, land use, and actors involved. These changes were part of the so-called "Green Revolution," a technological diffusion process that emerged in the United States. These advances in plant biotechnology cannot be detached from the consolidation of a neoliberalist international order, in which a corporate lexicon permeated the media to promote a new capitalist reconfiguration of production (Traverso, 2012). By 1982, when the IMF and the World Bank began to negotiate the debts of developing countries, few could escape the implementation of institutional reforms that led to the privatization of their entire productive networks. John Williamson's (1991) "Washington Consensus" eventually refined the new global guidelines: cutting public spending, privatizing assets and services and promoting fiscal discipline, trade liberalization, and labour deregulation. Therefore, flexibilization of the working force's rights and the establishment of new private property formats (such as intellectual property) were central to the structural adjustment to solve the foreign debt crisis in Argentina and other Latin American countries (Gárgano, 2022a).

Unsurprisingly, this international normative framework permeated people's daily life in what Bartra (2006) called the "rent of life." Svampa (2012; 2013) has characterized this process in regional terms, analyzing how the Washington Consensus policies laid the normative and legal foundations for expanding an extractivist model based on what she called a "Commodity Consensus."

In 1996, during the second presidency of Carlos Menem, Argentinean agriculture's neo-liberalization began with the authorization of the use of a new transgenic soybean variety. The then Secretary of Agriculture, Livestock and Fisheries authorized RR soybean (RoundUp Ready, RoundUp resistant), a variety modified through transgenesis. Interestingly, this governmental

authorization was elaborated only based on English documents provided by the company Monsanto itself.¹ In general, genetically modified organisms (GMOs) can be interpreted as an instrument of a neoliberal food regime (Otero, 2012). Transgenics were first approved in the United States in 1992 when the links between the US government, the judiciary and the seed industry intensified. The goal was to develop genetically modified crops that tolerate herbicides and/or resist insects (Bt). The technology package includes the agronomic management of "no-till", the genetically modified crops and the agricultural chemical inputs (mostly herbicides) to which they are tolerant. However, under this neoliberal regime, seeds and technology are patented and commercialized chiefly by a few multinational firms creating problems of knowledge concentration and inequality. Today, very few companies are estimated to control over 60% of patented seed sales worldwide (Howard, 2016).

In 1998, a consortium called Genética Mandiyú, made up of Monsanto, Delta and Pine Land and the Argentinean firm Ciagro, launched Bt cotton and planted it in regions such as Santiago del Estero, Salta, Catamarca, La Rioja, Chaco, Formosa and Santa Fe. Moreover, Monsanto was granted a national patent for this cotton variety in Argentina, making Genética Mandiyú the only supplier of this much more resistant seeds. However, its high price initially slowed its dissemination (Qaim & Cap, 2002).

Conversely, RR soybeans, on which Monsanto did not have a monopoly, quickly popularized in Argentina and the United States. In Argentina, the company Nidera began producing the RR gene (Campi, 2013). Between 1996 and 2011, the area using RR soybeans increased from under 5 million to almost 19 million hectares, increasing the production from 10,862,000 to 40,100,197 tons (Gras & Hernández, 2013, p. 76). Moreover, the neoliberal privatization agenda in Argentina was implemented in parallel with policies of

¹ This RR transgenesis technique involves the introduction of a gene from a bacterium (*Agrobacterium tumefaciens*) into the soybeans that encodes an enzyme that resists the action of

Glyphosate, the active ingredient of the broad-spectrum herbicide *RoundUp* generated by Monsanto (currently merged with the chemical-pharmaceutical corporation Bayer).

production deregulation and decentralization of functions to the provinces and municipalities (González & Manzanal, 2021). As the financial sector expanded, the agro-industrial, mining, and real estate sectors became more concentrated. It is possible to affirm that policies oriented by international lending agencies drove Argentina's neoliberal agriculture of the 1990s. Those, in turn, paved the way for introducing transgenic crops in an increasingly concentrated and deregulated agricultural sector. Thus, restrictions on importing agricultural inputs, price controls and seed marketing were eliminated, and the export of *commodities* was strongly encouraged (Teubal, Dominguez & Sabatino, 2005).

The institutional and regulatory framework promoted for Argentinean development was central to advancing agribusiness. In general terms, the suppression of state intervention mechanisms, such as regulatory bodies, minimum and maximum prices, planting, harvesting and marketing, made Argentine agriculture one of the most unregulated in the world. As regards the regulatory framework associated with the technological package, one of the first and most relevant steps was the creation of the National Advisory Commission on Agricultural Biotechnology (CONABIA) in 1991. Created as a government agency responsible for advising and regulating the release of plant and animal materials obtained through genetic engineering, it was composed of representatives of other government agencies and the private sector directly involved in the agricultural business.

The regional expansion of modified soybeans then advanced in Argentina, Brazil, Uruguay, Paraguay and Bolivia. In 2003, this region, the Pampa, became known for some as the "United Soybean Republic." A Syngenta advertisement in the Argentine newspapers Clarín and La Nación predicted what soon became clear: "soybean knows no borders".

Image 1: "United Soybean Republic"



Source: GRAIN (2013).

Table 1 shows how concentration increases when we look at the agricultural technology package as a whole. Those who control the sale of modified seeds are the same corporations that also produce and sell the chemical inputs that are associated with these varieties:

Table 1: Leading companies in seed and pesticide sales

Company	Country	Seeds sale (US\$ million, 2015).	Pesticide sales (US\$ million, 2015).	Merger partner
Monsanto	United States	10.243	4.758	Bayer
Syngenta	Switzerland	2.838	10.005	ChemChina
Bayer	Germany	819	9.548	Monsanto
DuPont	United States	6.785	3.013	Dow Chemical
Dow Chemical	United States	1.409	4.977	Dupont
BASF	Germany	Marginal	6.211	n/d

Source: Own elaboration based on Rosario Stock Exchange (2019).

Currently, the United States, Brazil, Argentina and Canada account for 83% of the world's genetically modified crops, followed by India, China, Paraguay, South Africa, Uruguay and Bolivia. Around 24 million hectares, 12-13% of the world area cultivated with transgenics, correspond to practically all soybean, cotton, and 98% corn production (ArgenBio, 2021). In Argentina, the 2020/2021 crop year marked twenty-five years of interrupted planting of transgenic crops. Meanwhile, Europe maintains substantial restrictions.

The RR soybean used in Argentina enables planting crops in the soil without previous or subsequent tillage. This technique is combined with herbicide to eliminate any vestige of the last crop and control weeds. Afterwards, a machine creates small trenches for the seeds to be placed and covered, rather than the traditional approach of ploughing the ground to plant. This system involves a standardized production process that requires little supervision, is adaptable to diverse geographical environments and allows short cycles to be sown and harvested twice a year, reducing the number of needed workers while expanding profit margins (Lapegna, 2019, p. 130).

With this standardization, agricultural activity is reduced to a series of repeatable steps, simplifying the natural environment and the agrarian social subjects. This "sojización" involved the standardization of landscapes and of the "land producers", excluding and

decapitalizing family and peasant farming. Unsurprisingly, many rural communities did not receive these reconfigurations passively, prompting social resistance of multiple scopes.

This agricultural model turned soybean cultivation into an expanding monoculture and modified the national territory into a "green desert" (Teubal, 2001). Comparing the data collected by the 2002 and 2018 National Agricultural Censuses, it is observed that 25% fewer EAPs were registered in less than two decades.² Between 1988 to 2018, this figure was 41.5% (González & Manzanal, 2021). Furthermore, most of the farms that disappeared were smaller than 200 hectares, while in the Pampa region, the number of farms larger than 1,000 hectares increased.

An investigation showed that the total number of EAPs registered in the 2018 CNA was 250,881 units, compared to 333,533 in 2002, which implies the disappearance of 82,652, approximately a quarter, at an average annual elimination rate of 5,166 EAPs (Azcuy Ameghino & Fernández, 2021, p. 14). This figure ratifies the continued elimination of productive units, which worsened during the 1990s and remains to the present. Thus, perhaps the most significant fragility of Argentina's democracy lies in land access, who can exploit it and how. The answer to these questions has many social, economic and environmental implications.

Table 2: Evolution of EAPs 2002-2018

EAP census 2018	EAP census 2002	EAP eliminated 2002-2018	Average annual disposal	Average surface area of PADs eliminated
250.881	333.533	82,652 EAP	5,166 EAP	200 HA

Source: Own elaboration based on Azcuy Ameghino & Fernández (2021, p. 14).

Focusing now on the farms in the Pampa, "at the end of the second decade of the 21st century, 3.9% of the EAPs owned 38.4% of the agricultural surface; without considering that some landowners own more than one farm, and many of them have fictitiously subdivided their properties for political and tax evasion purposes"

(Azcuy Ameghino & Fernández, 2021, p. 15). Rural depopulation is directly associated with this trend of farm concentration: while 1,230,000 people were living in EAPs in 2002, the figure dropped to 732,000 in 2018, a 40% decrease. The total number of residents on farms decreased significantly.

² According to the glossary of terms used in the preparation of the 2002 National Agricultural Census (CNA), the agricultural

holding (EAP) is the unit of organization of agricultural, livestock or forestry production.

Table 3: Residents in EAPs according to CNA 2002 and 2018

Rural residents nationwide	2002	2018
TOTAL	1.233.589	732.986
Producers or partners	202.423	117.255
Family members	589.947	379.643
Non-family workers	161.080	135.386
Other residents	280.139	100.702

Source: Based on Azcuy Ameghino & Fernández (2021, p. 19).

Multinational firms and local entrepreneurs are imbricated in a growing process of concentration of land ownership and use. This process has not been equal throughout the national territory. While the Pampa was where the disappearance of farms with small landholdings advanced the most, the peasant farm and small-scale production in the Northeast maintained a greater pre-eminence (Paz, 2011). In addition to this situation, land grabbing occurs in other places through the purchase of land and also other mechanisms, such as leasing and contracting (Borras et al., 2013).

Soybean expansion also impacts marginal crops and farms integrated into other regional or international value chains, such as cereals, fruit, tobacco and tea. However, the most significant socio-economic impact has been on family and peasant agriculture and food sovereignty as a whole. On the other side of the spectrum, agribusinesses and transnational biotechnology companies are the major winners in this scenario, together with local landowners and offshore financial capital (Gómez Lende, 2015).

León (2021, pp. 423-425) showed that, in the last agricultural census of 2018, there was a high concentration of land use around oilseeds and cereals, especially in the Pampa and the provinces that expanded their agrarian frontier. Within these crops,

the concentration around soybeans and corn has deepened. On the other hand, intensive crops, except for sugar cane and, to a lesser extent, tobacco and yerba mate, have shown a productive stagnation. The same happens with fruit and horticultural crops in most provinces, with the consequent adverse effect on the labour market and domestic consumption.

Thus, as a summary of the sector's productive profile, the following stand out: 1) the intensification of the concentration of the area sown with grains, based on larger scale production units; 2) the weakening of many regional intensive crops; and 3) the reduction of traditional activities of the peasant economy and/or small producers, such as goat and sheep farming and horticulture (León, 2021, p. 425). At the same time, conflicts over territorial displacement, land use and land ownership are spreading. According to 2014 data from the Ministry of Agriculture, peasants and indigenous people dispute the right of at least 9.3 million hectares, equivalent to 455 times the area of Buenos Aires (Álvarez, 2021, p. 237).

Faced with this past and present panorama of inequality and socio-environmental crisis, two questions arise. Is this the only existing field? What are the answers and solutions for the future the state proposes?

Agroecology, climate crisis and food sovereignty

According to international organizations such as the FAO (Food and Agriculture Organization), non-intensive family farming is responsible for a large part of food production worldwide: "Family farmers provide healthy,

diversified and culturally appropriate food, and produce most of the food in both developing and developed countries" (FAO, 2019). At the same time, this agriculture offers solutions to problems derived from

global warming. Nevertheless, climate change will strongly affect this activity due to droughts, high temperatures, and floods, impacting agricultural and livestock production (IPCC, 2014). Moreover, higher temperatures can accelerate the decomposition of organic matter, affect soil fertility, spread insect pest species and proliferate plant diseases, increasing crop losses (Altieri & Nicholls, 2009, p. 5).

Moreover, agriculture's vulnerability concerning climate change is directly related to what is produced and how. Specialization in large-scale monocultures has already reduced the genetic diversity present in agricultural systems (Heinemann et al., 2013). In this scheme, transgenic crops (mainly soybean and corn, representing around 180 million hectares cultivated worldwide) and biofuels play an essential role (Nicholls & Altieri, 2019, p. 57).

Conversely, multiple studies have systematized how agroecological practices and peasant agriculture knowledge can generate successful tools for developing climate resilience and territorial health. In this line, Nicholls and Altieri (2019) argue that traditional agricultural systems offer a wide range of practices that increase functional biodiversity in crop fields and thus contribute to the resilience of agroecosystems, such as crop diversification (polycultures), preservation of local genetic diversity, animal integration, organic matter employment, water harvesting, and agroforestry systems.

For example, more than ten Argentine provinces and different departments of Uruguay already have municipalities in which peasant agriculture has expanded. Beyond establishing another relationship between farms and the land – influencing collective and environmental health – this type of agriculture has reduced the high costs imposed by the technological package based on intensive pesticides (Sarandón & Flores, 2014). It also made evident the necessity of a strategy to shorten the distance between producers and consumers. According to a report from the Network of Free Chairs of Food Sovereignty (CALISA), consumers paid 5.2 times more for food than producers did in 2022, a situation that highlights the need to shorten intermediaries in the sector's value chains (RED CALISA, 2022). Agricultural production, industrial processing and marketing still appear as separate links in the chain, which makes final prices more expensive.

While the agro-export produces *commodities* primarily for biofuel production or animal consumption in other countries, family farming typically generates healthy food. In regards to local availability to sustain food sovereignty based on the reactivation of local economies oriented to the domestic market, there are currently sufficient quantities of food and even surpluses to cover food needs: 99% of what is consumed is produced domestically (RED CALISA, 2022). Today, vegetable production is mainly carried out by family farming, and it is also this sector that promotes agroecological production, which is not only desirable but also a way forward.

However, this movement towards agroecological production and revitalization of local economic circuits lacks state funding to expand. Likewise, this production is incompatible with the deepening of the agribusiness production scheme. Genetic contamination and the material conditions required by these circuits mean that coexistence is, in reality, only the relegation of peasant agriculture. Conversely, the proposals promoted by the private sector and the Argentinean state include a more significant extension of the agricultural frontier that goes against what is proposed here. Proof of this is the Law for the Promotion of Agricultural Development (2022), which foresees the intensification of this productive pattern.

The government's fiscal policy operates similarly, being regressive in distributive terms. Multiple exchange rates (official, blue, MEP, CCL, crypto dollar, savings dollar, tourist dollar, future dollar) are circulating in the Argentinean economy. In this context, the agro-exporting group is offered a preferential exchange rate, the so-called "soy dollar", to increase the Central Bank's (BCRA) reserves. The goal of this soy-dollar benefit is preventing the sector from withholding grains and liquidating harvests, which evidences both its capacity to exert pressure and the scarce state participation in the profits generated. These measures may be connected to new cycles of deforestation, droughts, socio-environmental conflicts and deepening of concentration.

Coinciding with these initiatives, in October 2020, the Argentine government approved the first domestically produced transgenic wheat: the HB4 variety. It was modified to be drought resistant, so it was presented as

a national scientific contribution to the climate crisis and a commitment to sustainability (Gárgano, 2022b). The pillars favouring this liberalization were: state financing, the participation of national capitals and the potential foreign currency income.

This approval happened in the context of increasing forest fire outbreaks (in two years, 1,000,000 hectares were lost, most of them in wetland areas), droughts and floods – all that can be associated with the agricultural frontier extension.³ In this sense, the fact that the new wheat is resistant to drought warns about the generation of new products created as apparent solutions to the problems that the same productive matrix promotes. In other words, instead of reviewing the structural connection between monocultures and issues like drought, new solutions are marketed as sustainable because they can still follow the same production, consumption and accumulation patterns just now in more restrictive environments.

The official discourse is that this variety will contribute to reducing the use of herbicides through better soil management thanks to the soybean/wheat alternation, which would result in more sustainable agriculture. However, recent history indicates the opposite. Despite the promise of a reduction in chemical inputs that accompanied the arrival of these crops, according to official data, between 1990 and 2012, herbicide growth in Argentina was 1279% (Moltoni, 2012). From 1996, when the first transgenic crop was approved, to 2020, 62 transgenic crops were authorized in the country; 80.64% were designed to be pesticide tolerant (Ministry of Agriculture, 2020).

Likewise, the companies develop joint ventures with other large transnational corporations, while the state has no participation in the profits derived from the product sale (Gárgano, 2022b). Together with the environmental risks and the trend towards greater sectorial concentration, this development model clearly exposes a typical characteristic of extractivism: the absence of social legitimacy and, therefore, its non-democratic profile. For example, despite multiple questions raised by family farming organizations, rural

and urban residents, and more than 1,500 academics, there was no public consultation in any TGO use approval.

Image 2: "Panazo" in rejection of HB4 transgenic wheat



Source: Gárgano (2022a, p. 134).

Launching this variety also triggered reactions from the most concentrated sectors of the wheat chain, in this case, due to the potential economic damage derived from possible trade refusals from importing countries, which were echoed in the press. Almost thirty years after the beginning of agriculture centred on transgenic soybeans, Argentina is again becoming an open-air laboratory. Despite the existence of a large number of historical examples throughout the world, as well as literature that for years has shown that this type of agriculture poses a risk to food security (Adams, Ellingboe & Rossman, 1971; Thrupp, 1988), a large number of discourses, agricultural practices and technological research persist in deepening its productive dynamics. New technological solutions are offered as salvation in the face of an imminent gap between population and resources, updating old Malthusian ideas while introducing new strategies based on sustainability discourse.

³ To obtain the Hb4 wheat, drought resistance was obtained by transferring the HaHb4 gene naturally present in sunflower, generating that the plant does not register water stress and continues to grow. In addition to this characteristic, the crop

was modified to be tolerant to the herbicide Glufosinate Ammonium, whose toxicity is superior to that of Glyphosate. This herbicide is produced by Bioceres, the same company involved in the technological development of the new wheat.

| Agroecology and access to land as a way out of the crisis

The accelerated transformation of Argentinean agriculture has led to the disappearance of thousands of small farmers, forced rural relocation to precarious urban settlements, increased the concentration of land ownership and tenure and steadily advanced chemical abuse in crops. It is important to stress that Argentina is today placed high in the world's ranking of pesticide use, which has severe consequences on water, soil, air and bodies. Furthermore, the uninterrupted agricultural frontier expansion led by these transgenic soybeans is directly connected to the climatic and ecological crisis.

From the environmental point of view, this productive matrix is unsustainable: it implies loss of biodiversity, contamination of fresh water, air and soil reserves, and accelerated deforestation. Today, Argentina is among the 10 countries in the world that have deforested the most in the last quarter century (FAO, 2015). Meanwhile, the health effects derived from the intensive use of pesticides are already a public health alert.

Regarding its socio-economic impact, this matrix's eventual collapse is also evident. Even with GDP growth, this productive dynamic has accentuated the process of creating inequalities and social polarization. Paradoxically, although the underpinning of the agro-extractive model is usually presented as a necessary condition for the inflow of foreign currency, the agro-exporting bloc is recurrently pointed out also as one of the leading exporters of capital abroad.

Despite these diverse and concatenated problems, the impossibility of advancing in an international economic insertion outside this accumulation pattern centred on the export of agricultural commodities is sustained by a binomial interaction between transnational financial powers and local governments, having a high social and environmental cost. Meanwhile, new narratives of extractivist promises are promoted, especially now that lithium has been announced as a global strategic resource. Lithium exploration in Argentina will probably compromise water reserves in high-altitude wetlands and oil exploration in areas.

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In conclusion, the reorganization of agricultural production based on transgenic soybean and other subsidiary crops, expanded in parallel with the consolidation of a pesticide-intensive technological package, has created and strengthened a specific model of extractivism. In this agro-extractivism, while the seed market concentration has been increasing, the rural exodus and the progressive increase in the price of inputs have directly affected agriculture and its capacity to guarantee food sovereignty.

Beyond the landscape homogenization and the construction of "the countryside" as a unique and de-historicized block, there are other knowledge fields for us to question what relationships with the land are possible and desirable. For example, agroecological production can supply food demand, favour climate resilience, and promote ecological and social diversity. Therefore, it is strategic to strengthen these productive dynamics and build actual public policies that allow for their expansion. Without a locally rooted rural economy orientated to the domestic market that stimulates agroecological reconversion, there will be no possible solution to the extractivist crisis.

This reorganization needs to take up again the structural debt that decades of democracy have not paid off: access to land. Likewise, it is necessary to plan policies to reverse environmental impacts, such as the contamination of fresh subterranean water in the country's most fertile lands. Getting out of these predatory schemes that promote themselves as natural and permanent requires introducing new configurations on multiple levels. The challenge, therefore, is to assume that as a collective task to intervene in the form we produce, eat, and live. Suppose there is to be a future worth living. In that case, the transition to new production and consumption patterns, whose guiding principle is not commodification but the reproduction of life, is necessary and urgent.

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EXTRACTIVISM

| The Project

The collaborative research project ***extractivism.de*** links the Universities of Kassel and Marburg. The project scrutinizes the extractivist development model and proposes new economic, political, and sociological conceptions of extractivism. It preliminarily focuses on Latin America and the Maghreb patterns. The project researches the conditions under which these patterns affect the persistence and transformative capacity of extractivism and its respective institutional settings. Finally, it explores how extractivism affects cultural processes and habitual routines and questions under what conditions and how far the development model extends into institution-building and social practice, i.e., everyday life.

The project aims to understand extractive societies not as deviants from the Western trajectory of development but in their own logic and their own particularities. The project, therefore, combines a strong empirical focus with theoretical work. It links both broad field research and data gathering of primary data and the qualitative and quantitative analysis of available secondary sources with a stringent transregional comparison. It develops methods in cross-area studies and investigates whether and why similar patterns of social change emerge in different areas and world regions despite significant cultural, social, or religious differences. Finally, the project intends to translate the findings for politics, society, and development cooperation.

Please visit www.extractivism.de for further information.