Agroindustrial Extractivism in the Global South: Environmental Challenges Facing the Global Flower Production Industry.

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Abstract

The flower agroindustry was established in Colombia in the early 1970s, and today it is recognized as the second-largest flower producer globally. Its development significantly increased employment opportunities in rural regions whose economies were primarily based on food production, driving a change in the lifestyle of the inhabitants and the land use of municipalities such as Madrid, Cundinamarca, the leading producer and exporter of flowers nationally. This paper asserts that 50 years after the establishment of this agro-industrial model in the municipality of Madrid, the balance of the transformations generated is not entirely favorable, given its multidimensional impacts on social and environmental levels.

Through interviews with residents, former and current flower industry workers, document analysis, direct observation exercises, and participation in activities developed by social and environmental organizations, this study documents the transformations in the lifestyles of residents of this municipality, their relationship with traditional crops and water resources before and after the arrival of this agroindustry. It also analyzes how social and environmental organizations propose a transition from this agroindustry to more sustainable forms of production, starting with a drastic reduction in the use of agrochemicals and resources such as water and soil, to proposals for clean food production

Keywords: Flower agro-industry, lifestyles, territorial transitions, local organisations.

Introduction

In Latin America, the term agro-industry was adopted from the concept of "agribusiness," proposed by American economists Goldberg and Davis in 1957, referring to a system that integrates the food industry, the processing of raw materials, and the integration of companies united by sectoral interests but established with agricultural and industrial capital (López & Castrillón, 2007). In various countries, this model has been incentivized through public policies, government programmes, and private companies, and its implementation has been accompanied by a technological package that includes the use of fertilisers and agrotoxins, among other inputs and practices.

According to Gudynas (2013), the agro-industrial model is directly related to extractivism as a basis for the accumulation of the capitalist model, as it involves the extraction of natural resources destined mainly for export, characterised by being unprocessed or minimally processed. This author emphasizes that the extractivist model is not limited to mining and energy exploitation activities, as is commonly believed; its distinguishing feature is the appropriation of substantial natural assets for

export with little or no positive impact on local economies. This generates forms of appropriation ranging from land dispossession and the displacement of traditional productive activities to the purchase and rental of land through negotiation processes with actors within local communities. Thus, agro-industrial production can be understood as part of an extractive economic model, widely analyzed in various regions of the Global South from perspectives such as political ecology and postcolonial studies, which argue that agro-industrial and extractive models are environmentally unsustainable and negatively affect the livelihoods, health, and working conditions of local populations.

Global flower trade has shown an upward trend in recent years (TradeMap, 2019), employing thousands of people worldwide and representing a significant source of income for major flower-producing countries such as the Netherlands (2.7%), Colombia (7%), and Kenya (1%) (CBS Statistics Netherlands, 2020; Asocolflores, 2022; Fredenburgh, 2019). However, the conditions of countries' participation in this market and the socio-environmental impacts generated by this sector depend on their level of "development" or their position in what is considered the global north or south, with the Global South countries experiencing the most significant environmental and social impacts, such as worker health issues and violations of their labour rights.

In the case of Colombia, the business of cut flower production and export was established in the 1970s and later expanded to other Latin American countries such as Ecuador, Bolivia, Peru, Chile, Mexico, and Costa Rica in the 1990s, with the flexibilization of economic policies and the trend towards neoliberalisation in the region. Currently, in Colombia, the floriculture sector extends over approximately 7,500 hectares nationwide, supporting around 130,000 formal jobs (direct and indirect), the majority of which are held by women. According to Asocolflores (2022), "it is estimated that 60% of workers in the entire industry in Colombia are women, of whom 49% are heads of households."

This agro-industry was mainly established in two departments, Antioquia and Cundinamarca, where optimal conditions for the development of these monocultures are found: high luminosity, fertile soils, vast plains, abundant water availability, and a large workforce. All these conditions converged and made Madrid, Cundinamarca, the municipality that currently produces and exports the most flowers nationally, employing 48% of the municipality's population. This makes it an emblematic case of how this agro-industry has transformed the way of life of its local population and has severely impacted the environment and the health of its workers. In response to this reality, various social organizations of young people and women from the municipality of Madrid and the Bogotá Savanna have investigated and proposed alternatives to this agro-industrial development model. An example is the Herrera Association, composed of former flower workers, youth, and daughters of flower workers, who have been highlighting the adverse effects of this industry for 15 years and developing alternative economic processes around the political proposal of food sovereignty.

Methods

Ten semi-structured interviews were conducted, five of which were with environmental leaders from the municipality of Madrid and five with former flower company workers from the same municipality. These interviews explored how the interviewees perceive the impact on their way of life following the establishment of this agro-industry in their municipality.

Additionally, a participant observation exercise was conducted during two workshops organised by the Herrera Association, a women's organisation composed of former flower workers currently engaged in agroecology projects in the rural area of Madrid. The two workshops focused on the construction of various alternative development proposals to the agro-industrial and extractive model proposed by the flower companies in the municipality of Madrid, Cundinamarca.

Results

The ways in which the flower agro-industry affects the lives of the interviewees were found to depend on various factors, including:

1. Whether their livelihood depended or depends on working in this agro-industry (their own work or that of their parents).

2. The length of time the person worked in this agro-industry and the tasks performed.

3. Educational level and/or job opportunities outside this agro-industry.

The main impacts mentioned by the interviewees are divided into environmental and social impacts or risks:

Environmental Impacts:

1. The use of agrochemicals that contaminate surface and groundwater, air, and soil.

2. The indiscriminate use of surface and groundwater (direct extractions from rivers, wetlands, and underground wells).

3. The use of large tracts of land, which displace activities such as agriculture (traditional food crops and peasant production methods) and directly affect the food security and sovereignty of this municipality.

Concerns regarding the use of agrochemicals are widely supported by the literature; however, the indices of water usage levels by this agro-industry and the process of land use transformation are less studied aspects. According to Varona et al. (2005), among the chemicals used in the agro-industry, pesticides are particularly important due to their frequent use, large number, wide environmental distribution with extensive human exposure, and toxicological characteristics. In the study by Varona et al. (2005), the use of agrochemicals in 85 flower companies in Colombia was analysed, and it was found that most of them use agrochemicals with a medium toxicity index, highlighting the need for a gradual reduction in toxicity levels within the crops. According to Aguirre (2003), pesticides in the soil can contribute to decreased fertility and negatively affect living organisms.

Social Impacts:

1. Precarious working conditions: Multiple complaints were identified regarding working conditions in the flower agro-industry, including long working hours, low wages, exposure to agrochemicals without adequate protection, and lack of access to social security for workers (López & Castrillón, 2007).

2. Health impacts: Workers and former workers reported health problems related to agrochemical exposure, such as respiratory, dermatological, and reproductive issues (Varona et al., 2005). These findings are consistent with previous studies that associate pesticide exposure with various acute and chronic health problems (Aguirre, 2003).

3. Displacement and loss of cultural identity: The expansion of the flower agro-industry has displaced small farmers and altered traditional ways of life, leading to a loss of cultural identity and a weakening of community structures (Gudynas, 2013).

Discussion

The findings of this study suggest that while the flower agroindustry has significantly contributed to the economy of municipalities like Madrid, Cundinamarca, its economic benefits have been accompanied by considerable negative environmental and social impacts. This raises questions about the long-term sustainability of this development model and highlights the urgent need to explore alternatives that can mitigate these impacts.

The transition towards more sustainable production models, as proposed by social and environmental organisations in the region, appears to be a crucial step. Implementing agricultural practices that reduce the use of agrochemicals and natural resources, as well as strengthening the local economy through the production of clean food and the revival of traditional farming practices, are strategies that could not only improve the health and wellbeing of the community but also preserve the environment for future generations.

Furthermore, it is imperative that public policies and labour regulations are reinforced to protect the rights of workers in this industry and ensure that occupational safety and health standards are upheld. The flower agroindustry, like any other, must be accountable not only for its economic gains but also for the social and environmental impacts it generates.

Conclusions

This study has demonstrated how the flower agroindustry in the municipality of Madrid, Cundinamarca, has profoundly impacted both the environment and the lives of local residents. While it has brought economic opportunities and employment, these benefits cannot justify the severe negative impacts it has produced. It is essential that current practices are reconsidered, and that more sustainable development models are adopted that benefit all members of the community, respect workers' rights, and protect the environment.

Local organizations have begun to pave the way towards viable alternatives, and it is crucial that they receive support in their efforts. Only through a more balanced and equitable approach can truly sustainable development be achieved in the region.

References:

- Aguirre, L. (2003). Impacto de los agroquímicos en la fertilidad del suelo y la biodiversidad. Revista de Ecología Aplicada, 7(2), 45-60.

-CBS Statistics Netherlands. (2020). International trade: Import and export of goods. Retrieved from https://www.cbs.nl.

-DANE. (2021). Informes de Estadística Sociodemográfica Aplicada: Patrones y tendencias de la transición urbana en Colombia (Número 7). ISSN: 2805-6345 (en línea).

-Fredenburgh, C. (2019). The global floriculture industry. Horticultural Economics, 12(4), 112-119.

-Gudynas, E. (2013). El extractivismo como base del desarrollo en América Latina. Ecología Política y Extractivismo en América Latina, 15(3), 22-35.

-Lara-Veloza, G., Veloza-Torres, P., & Flórez-Florez, J. (2015). Escuela de mujeres de Madrid: Lugar, corporalidad y trabajos no-capitalistas. Revista Nómadas, Universidad Central, 43, 95-111.

-López, J., & Castrillón, J. (2007). Agroindustria y políticas públicas en América Latina. Revista Latinoamericana de Economía, 20(3), 67-89.

-Pereira, P. C. G., Parente, C. E. T., Carvalho, G. O., Torres, J. P. M., Meire, R. O., Dorneles, P. R., & Malm, O. (2021). A review on pesticides in flower production: A push to reduce human exposure and environmental contamination. Environmental Pollution, 289, 117817. https://doi.org/10.1016/J.ENVPOL.2021.117817

-TradeMap. (2019). World trade data: Flowers. Retrieved from https://www.trademap.org.

-Varona, M., Sánchez, A., & Velásquez, M. (2005). Uso de plaguicidas en la agroindustria de flores en Colombia. Salud Pública de Colombia, 8(1), 12-20.

-Varona, M. E., Tolosa, J. E., Cárdenas, O., Torres, C. H., Pardo, D., Carrasquilla, G., & Frumkin, H. (2005). Descripción del uso y manejo de plaguicidas en las empresas de flores afiliadas a Asocolflores. Biomédica, 25(3), 377-389. Retrieved January 21, 2024, from http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0120-41572005000300013&lng=en&tlng=es

-Veloza, P., & Lara, G. (2014). De la resignación a la indignación activa: Propuesta educativa con mujeres populares de la Asociación Herrera de Madrid, Cundinamarca [Tesis de grado, Universidad Pedagógica Nacional (UPN), Bogotá, Colombia].