

When patriarchy and agro-extractivism impede women's political participation and collective agency: An analysis of Ecuadorian women's time poverty and its implications for ecological care

Kamila Torres¹

Martina Angela Caretta

Universidad del Azuay, Ecuador

Lund University, Sweden

Abstract

Extractivism is a global phenomenon driven by the logic of capitalism that is manifested chiefly in mining, but also in agribusiness. Women around the world have emerged as leaders of resistance movements against extractivism. In this article, we question this recurrent theme in political ecology literature based on ethnographic fieldwork in southern Ecuador, where resistance has been less successful. Dairy farming, introduced as a development strategy by the Ministry of Agriculture and Livestock, relying on extensive farmer debt, has changed communities' livelihoods and added a significant burden to women's lives. Imported Holstein cows require certain types of pasture grass, supplements and a consistent milking routine. When asked to reflect on how their days go by, women can only list an array of caring responsibilities – housework, child and elderly care and rearing animals. Without this continuous caretaking effort, the herd would not be as productive and family enterprises would fail. We first show how agro-extractivism is manifested in territorial restructuring, replacing biodiverse horticulture with pasture. Second, we demonstrate how agro-extractivism relies on gendered labor dynamics that limit women's political participation and collective agency. Dairy farming is extractivist, consuming women's time, depleting their bodies and impeding them from organizing against gold mining, which receives state concessions. We add evidence to the limited literature on dairy farming as a form of agro-extractivism, contributing to the debate on agrarian social reproduction. We question the celebration of women's leadership in environment movements by demonstrating that forms of extractivism intertwined with patriarchal norms eats into women's time, restricting their organization of ecological care against mining.

Keywords: agro-extractivism, dairy farming, women, social reproduction, time poverty, Ecuador

¹ Both authors contributed equally to the research behind, and writing of, this article. Kamila Torres is adjunct in Anthropology at Universidad del Azuay, Ecuador (ektorres@uazuay.edu.ec). Martina Angela Caretta is Associate Professor at the Department of Human Geography, Lund University, Sweden and corresponding author (martina_angela.caretta@keg.lu.se). We would like to thank the women of Oña and Nabón for taking their time to share their knowledge with us. Many thanks also to the members of the Lund University Extractivist Research Network for early comments on a draft. We are indebted to the two reviewers who helped us improve this article. Funding for this article came from FORMAS grant 2022-01567.

Résumé

L'extractivisme est un phénomène mondial, motivé par la logique du capitalisme et qui se manifeste principalement dans le secteur minier, mais aussi dans l'agroalimentaire. Partout dans le monde, les femmes se sont imposées comme les leaders des mouvements de résistance contre l'extractivisme, et en particulier contre l'exploitation minière. Dans cet article, nous remettons en question ce thème récurrent dans la littérature sur l'écologie politique en nous appuyant sur des travaux ethnographiques menés dans le sud de l'Équateur, où la résistance a été moins fructueuse. L'élevage laitier, introduit comme stratégie de développement par le ministère de l'Agriculture et de l'Élevage, qui repose sur un endettement important des agriculteurs, a modifié les moyens de subsistance des communautés et alourdi considérablement le fardeau qui pèse sur la vie des femmes. Les vaches Holstein importées ont besoin de certains types d'herbe, de compléments alimentaires et d'une routine de traite régulière. Lorsqu'on leur demande de décrire leur quotidien, les femmes ne peuvent énumérer qu'une série de tâches domestiques : ménage, garde d'enfants et de personnes âgées, élevage d'animaux. Sans ces efforts constants, les vaches ne seraient pas aussi productives et les entreprises familiales feraient faillite. Nous montrons tout d'abord comment l'agro-extractivisme se manifeste dans la restructuration territoriale, remplaçant l'horticulture biodiversifiée par des pâturages. Ensuite, nous démontrons comment l'agro-extractivisme repose sur une dynamique de travail genrée qui limite la participation politique et l'action collective des femmes. L'élevage laitier est extractiviste, il accapare le temps des femmes, épuise leur corps et les empêche de s'organiser contre l'exploitation aurifère, qui bénéficie de concessions de l'État. Nous ajoutons des preuves à la littérature limitée sur l'élevage laitier en tant que forme d'agro-extractivisme, contribuant ainsi au débat sur la reproduction sociale agraire. Nous remettons en question la célébration du leadership des femmes dans les mouvements environnementaux en démontrant que les formes d'extractivisme liées aux normes patriarcales empiètent sur le temps des femmes, limitant leur organisation de la protection écologique contre l'exploitation minière.

Mots-clés: agro-extractivisme, élevage laitier, femmes, reproduction sociale, pauvreté temporelle, Équateur

Resumen

El extractivismo es un fenómeno global impulsado por la lógica del capitalismo que se manifiesta principalmente en la minería, pero también en la agroindustria. En muchos lugares, las mujeres están presentes en la literatura sobre ecología política como líderes de movimientos de resistencia contra el extractivismo, y en particular contra la minería. En este artículo, cuestionamos este tema recurrente. Basándonos en un trabajo de campo realizado en el sur de Ecuador, analizamos cómo la ganadería lechera, introducida como estrategia de desarrollo por el Ministerio de Agricultura y Ganadería, basada en la adquisición de deudas considerables por parte de los ganaderos para adquirir medios de producción, ha cambiado la forma de vida de las comunidades y ha supuesto una carga significativa para las mujeres. Las vacas Holstein importadas son animales delicados y costosos que requieren determinados tipos de pasto, suplementos y una rutina de ordeño constante. Cuando las mujeres reflexionan sobre cómo transcurren sus días, ellas solo pueden enumerar una serie de responsabilidades de cuidado: las tareas domésticas, el cuidado de los niños y los ancianos y la cría de animales. Sin este esfuerzo continuo de cuidado por parte de las mujeres, las vacas correrían el riesgo de no ser tan productivas y, por lo tanto, su empresa familiar fracasaría. En primer lugar, mostramos cómo se manifiesta el agroextractivismo en la reestructuración territorial, corroborada por la pérdida de biodiversidad frente al pastoreo. En segundo lugar, demostramos cómo se sustenta el agroextractivismo, que se manifiesta en dinámicas laborales de género caracterizadas por la escasez de tiempo, lo que limita la participación política y la acción colectiva de las mujeres. La ganadería lechera es una actividad extractivista que consume el tiempo de las mujeres, agota sus cuerpos y, en la práctica, impide que ellas se organicen contra otra forma de extractivismo: las concesiones concedidas por el Estado para extracción de oro en sus territorios. A

través de este artículo, aportamos pruebas a la escasa bibliografía existente sobre la ganadería lechera como forma de agroextractivismo y contribuimos al debate sobre la reproducción social, destacando un caso novedoso en la intersección entre la extracción y el agotamiento, aplicado a un contexto rural. Esta evidencia cuestiona la literatura predominante que elogia el liderazgo de las mujeres en los movimientos medioambientales al demostrar que el extractivismo, entrelazado con las normas patriarcales, lleva a las mujeres a experimentar una escasez de tiempo y, por lo tanto, limita su oportunidad de organizarse para la lucha contra la minería.

Palabras clave: agroextractivismo, ganadería lechera, mujeres, reproducción social, pobreza de tiempo, Ecuador

1. Introduction

Feminist political ecologists have long theorized human-environment interactions through the lens of gender, particularly examining how agency and power influence women's ability to shape knowledge and politics in relation to the environment (Rocheleau *et al.*, 1996). Engaging with different scales – from the global to the local – and with different actors from activists to scholars, feminist political ecologists have highlighted the exploitation suffered by marginalized groups at the hands of neoliberal policies such as water privatization and extractivism (Harcourt *et al.*, 2015; Lutz-Ley & Buchler, 2020).

Extractivism is the profit-driven process of extracting natural resources, also involving the exploitation of human labor and non-human ecological systems. It has been the focus of several feminist scholars (e.g. Barca, 2020; Caretta *et al.*, 2020). Building on the first definitions of extractivism originating in Latin America, several have emphasized how mining, logging, plantation and monocropping agriculture build on the unpaid and care labor of feminized and racialized bodies (Gomez-Barris, 2020; Ojeda, 2021; Lochery *et al.*, 2024). Moreover, there are specific gender impacts and vulnerabilities that natural resource extraction brings about. Mining, for instance, results in pollution and contamination that affect women's health, but it also entails additional care work for women taking care of children and the elderly in deteriorating environmental conditions (Beebeejaun, 2021; McHenry, 2021; Nyanza *et al.*, 2019). Additionally, highly masculinized working environments in the extractive industry are linked with increased prostitution and gender-based violence (Kolala, 2019; Granovsky-Larsen, 2023; Bradshaw *et al.*, 2017). Nonetheless, women are not just portrayed as victims of these capitalist logics of extraction. Numerous publications have placed women's leadership firmly at the center of resistance movements against mining and intensive agriculture (Lahiri-Dutt, 2012; Fent, 2021; Venes *et al.*, 2023). Often the first to realize the environmental impacts of these practices through their social reproductive role in the home, women have historically mobilized to limit or halt water and soil pollution from mining (Caretta, 2020). Importantly, women's leadership against extractivism has been recorded across the world (Tyagi & Das, 2020; Womin Collective, 2017; Ulloa, 2020; Glynn & Maimunah, 2021), noting the difficulties they encounter when their role is visible in their communities. Threats from companies, social exclusion from their own neighbors, mobbing from politicians and assassination are some of the documented risks that these women face (Tran *et al.*, 2020). They nevertheless are firm in their commitments to stand up against financial and political powers located far away from their communities, but reaping most economic benefits from the destruction of women's communities' environment (Jenkins, 2015; Bell, 2015; Billo, 2020).

In 2023, after having carried out years of transnational research on the role of women's leadership against mining (Caretta, 2020; Caretta *et al.*, 2020), we returned to southern Ecuador to communities threatened by a gold mining concession thinking that mining had not started thanks,

among other factors, to women's leadership. We were, however, faced with different circumstances. Female *mestizo* farmers, with limited access to educational and financial resources, full time homemakers and caregivers to their children and elders, were aware of the threat of the impending gold mine, but complained that they had no time to participate in organizing efforts against it. They repeatedly stressed that their days were totally absorbed by their duties as dairy farmers and homemakers and they had no time left for meeting each other.

To document this, we draw upon original data gathered in 2023 and 2024 in southern Ecuador. We carried out 24 semi-structured interviews, we followed 8 women farmers for two days to track their time usage. We met 21 of them in three focus groups to understand generational changes in the local gender division of labor. We validated our preliminary analysis with 44 participants through verification sessions (see also Caretta, 2016).

In this article we the role of women in the resistance against extractivism by exploring how patriarchal norms and extractivism collide, depriving women of time and agency to participate in and organize for ecological care. We contribute to feminist political ecology by showing how agro-extractivism, in the form of dairy farming, undergirded by patriarchal norms, assuming women to be chief homemakers and caretakers, denies women of the necessary time and energy to fight against mining.

The article is organized as follows. We start by reviewing the Anglophone and Latin American literature on the concept of extractivism. In the same section, we discuss ongoing debates on social reproduction and care, to show how they relate to extractivism. Research context and methods follow. Our results find changing local livelihoods due to the introduction of dairy farming and how these have affected women's political participation and collective agency against mining. To conclude, we interrogate how this case contrasts with earlier studies on women's leadership against mining and how it problematizes and advances ongoing debates on extractivism, with a specific focus on interlinked dairy farming and social reproduction.

2. Extractivism and social reproduction

The first theorizations on the concept of extractivism, derived from the Spanish verb *extraer*, emerged in Latin America (Gudynas, 2009; Acosta, 2013) describing it as development process grounded on the appropriation of nature. According to Gudynas (2009, 2021) extractivism is an intense process that relies on the removal of a high volume of natural resources which are owned by foreign and national capital and destined for export. While Gudynas (2009) focused mostly on hydrocarbons and mineral extraction, Acosta (2013) expanded the concept to also include farming, forestry and fisheries to stress that when resources are extracted, they do not automatically replenish: as with fish stocks or soil fertility (Kröger, 2016; Dunlap, 2021).

Rural sociologists and agrarian economists in Latin America fleshed out analytically how industrialized agriculture is also an extractivist, capitalist mode of production (Teubal, 2009; Giarracca & Teubal, 2014). This system is firmly anchored in the history of the colonial plantation economies of the Caribbean (Girvan, 2014), and the 2000s saw more monocultures, high chemical inputs and mechanization, all controlled by a few food multinationals and laborers suffering poor working conditions. The economic, social and ecological fallouts of this mode of production generated depletion of natural and social resources, while channeling ever increasing profits to a few corporate food actors (Akram-Lodhi & Kay, 2009; Gudynas, 2010). Agribusiness, particularly in the form of soybean production for animal feed and for biofuels, was also singled out as a form of extractivism that led to biodiversity loss, land grabbing and a major shift in labor dynamics and territorial restructuring (Svampa, 2013; Petras & Veltmeyer, 2013; McKay *et al.*, 2021). Studies on

agro-extractivism have focused mostly on crops across Latin America (e.g. Araya, 2021; Giacalone, 2020; Sauer & Olivera, 2021), while animal rearing has received less attention (Weis, 2013). Although foundational works connected agro-extractivism to production solely for export (Gudynas, 2010), Tetreault *et al.* (2021) argued that industrialized agricultural production geared towards national markets is no less detrimental to local communities and their surrounding environments.

Along these lines, feminist scholars have contributed to deepening the understanding of extractivist practices by stressing the gendered and embodied nuances of this capitalist and neoliberal process (Ulloa, 2016; Gomez-Barris, 2020; Ojeda, 2021; Lochery *et al.*, 2024; Zaragocin & Caretta, 2021). They have shown how women's bodies are depleted through violence and pollution caused by mining as well as gendered labor dynamics (Ojeda, 2021; Landivar Garcia, 2021; Guermond *et al.*, 2024), and used and consumed through prostitution, which goes hand in hand with the masculinized context of mining (Kolala, 2019; Granovsky-Larsen, 2023; Bradshaw *et al.*, 2017). Moreover, in communities where there is no ontological division between nature and people, this process entails violence that is directly inflicted to the bodies of those that live locally and recognize the territory as part of their identity and embodied sense of self (Cruz & Bayon Jimenez, 2022). Extractivism does in fact go beyond natural resource extraction. It is a destructive system of subjugation, depletion and non-reciprocity (Changon *et al.*, 2022; Dunlap *et al.*, 2024; Guermond *et al.*, 2024) which is aimed at profiting from resources, and surplus value created elsewhere (Andreucci, 2017).

We depart from the original definition of extraction (Gudynas, 2009). Others have done this too, to focus on uneven geographies of production within countries – where value is captured not always for export, but for industrial production aimed at urban consumption (e.g. Artiga-Purcell, 2024; Dunlap *et al.*, 2024; Guermond *et al.*, 2024). We focus on agro-extractivism through dairy farming because value generation is possible from the extraction of nature which, through pastures and cows, is turned into a commodity and through the invisible and externalized labor of women who take care of herds on top of their daily social reproductive tasks. These gendered labor dynamics overlay local patriarchal norms that expect women to be the main homemakers and caretakers. Women experience "depletion through and of social reproduction" as Guermond *et al.* (2024) stress, as they have no time left to care for themselves or for their community, which is threatened by another form of extractivism: mining.

To expand the current understanding of extractivism and its nuances, we build on the work of feminist economists who situate the sustainability of life at the center of their analysis. They do so by emphasizing social reproduction, the social and material enactments that allow for the maintenance and subsistence of people and social relations (Federici, 2004, 2011; Perez Orozco, 2006, 2014). We bring this into dialogue with feminist political ecology (e.g. Elmhirst & Hidalgo, 2017), especially in relation to how gender is a necessary category for understanding environmental access and dispossession. Without the everyday unpaid labor of maintenance and care done by women and feminized bodies, they argue, the economic system and life itself would not exist. In other words, without the labor unaccounted for and invisible in the market economy, the capitalist system would implode (Carrasco, 2017; Federici, 2011; Perez Orozco, 2014) or as poignantly stated by Mezzadri (2021: 1191) "social reproduction (does) not produce value, yet it enables its creation." The same can be said for extraction. Economies based on extraction are fundamentally dependent on the work of social reproduction since without everyday caring tasks and reproductive chores like cleaning, cooking and taking care of the elderly and children, men would not be fit to work for companies depleting their bodies and the environment (e.g. Benya, 2015; Dorow & Mandizadza, 2018; Guermond *et al.*, 2024).

Feminist scholars have been adamant about recognizing and making visible the pivotal role played by care. Care, in a flagship definition, "includes everything that we do to maintain, continue, and repair our 'world' so that we can live in it *as well as possible*" (Tronto & Fischer, 1990: 40). It is *any* life-sustaining physical and emotional practice that binds bodies, bodies and nature in complex relations of giving, receiving and mutual interdependence. On the flip side, because women have this caregiving role, society also expects them to be ecological caretakers without accounting for their time poverty (e.g. Caretta, 2020; Elmhirst & Hidalgo, 2017).

In other words, capitalism is not gender neutral, it is anchored in a patriarchal, colonial, racist and anthropocentric system and social reproduction and care allow for its maintenance (Perez Orozco, 2014). Historically, the provision of care has been organized around intersecting hierarchies of gender, class and race which have made for its invisibility, devaluation and, more recently, a source of profit-making in lucrative care markets. Reproductive tasks continue to be excluded from processes of value generation because they are deemed to be non-value producing (Mezzadri, 2021). Therefore, women are erroneously presented as financially dependent on their partner if they do not have a waged occupation outside the home. Yet, on the flip side, if they receive a wage for their job, they are forced to operate under the unrelentless pressure of the second shift. On the one hand, it is expected of them to be homemakers and caretakers, including taking on a major portion of emotional labor within the household, while also being wage-earners and having a career outside the home (Carrasco, 2017).

Feminist geographers have shown that precarious, casual and informal work, which the current capitalist system heavily relies upon, has also meant that paid work and everyday social reproductive labor have become blurred (Meehan & Strauss, 2015). In practical terms, however, productive and reproductive tasks jointly generate value (Mezzadri, 2021). Having to abide by both ends of the productive/reproductive, paid/unpaid dichotomy under the current neoliberal agenda, women must give up the little time they would normally have for congregating with other women or participating in decision-making (Carrasco, 2017; Guermond *et al.*, 2024). They effectively squeeze every minute of their day to make the most out of their limited time either on the home or work front, or both at the same time, as these are blurred. As this study shows, this is particularly the case when income depends on taking care of dairy cows while tending a vegetable garden, caring for children and the elderly at home, and making sure everyone is fed and the house is clean.

3. Methods

This article is based on original data gathered in 2023 and 2024. We both identify as feminist scholars and carried out fieldwork jointly to draw strength from our reciprocal positionality. Torres is an anthropologist based at a regional university close to the research site in southern Ecuador who has expertise on agricultural issues in the area, with local and national peasant organizations. Caretta is a feminist geographer based in Sweden with prior research projects in Ecuador and on extractivism in various locations globally (Caretta, 2020; Caretta *et al.*, 2020). We are both fluent in Spanish and have vast experience with qualitative methods and engagement with local, less affluent rural communities globally (Caretta, 2015, 2019).

In 2023 we interviewed 24 women between the ages of 29 and 87 with the majority being between 45-50. Older women had up to 11 children, while the youngest had between one and three. All women had caring responsibilities either for their children or for elderly members of their family. They also took care of vegetable gardens and chickens for their family's consumption. Some of them also had one pig for subsistence and several guinea pigs which they sold as a secondary livelihood. Importantly, most women engaged in dairy farming, each owning an average of 1-3

cows. A handful of women were considered leaders of their communities through their involvement in local irrigation committees, the county-wide water assembly and the community-based organization, Pro-Mejoras. Interviews lasted from 45 to 90 minutes, were recorded, transcribed in Spanish and the quotes used for this article were translated into English. We individually, deductively and manually coded the interviews to find recurring themes and discussed and compared our preliminary analyses.

In 2024 we carried out 7 member-checking workshops with a total of 44 participants. These workshops consisted of showing representative anonymized quotes and photos from our previous fieldwork to discuss with participants the accuracy and validity of our preliminary analysis. Member-checking allowed us to add details and nuances to our analysis while also facilitating interactions with community members, both men and women, who had previously participated in our research (see also Carretta, 2016). Three of these workshops were geared solely towards women. These 21 participants were asked to report how the gender division of labor had changed during their grandmother's, mother's and their time (Figure 1). Through a table that they would independently fill out understood when dairy farming was introduced and how it affected intra-household and societal relations.

Workshops were voice-recorded, transcribed in Spanish and the quotes used for this article were also translated into English. We jointly manually coded those tables to analyze their content.

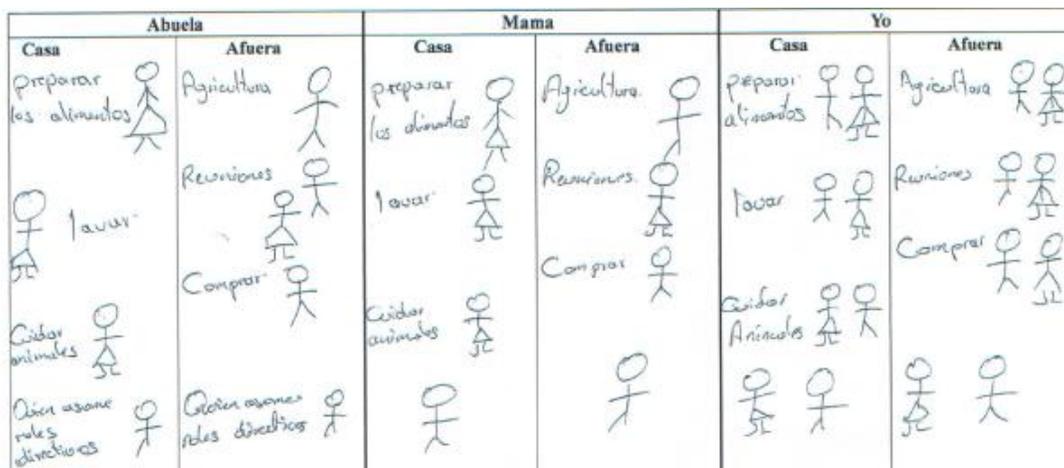


Figure 1: Example of gendered division of labor over the last three generations. Source: author fieldwork.

Additionally in 2024, because women had repeatedly stressed their lack of time during interviews, we followed eight women to map their time use, with the help of a research assistant. Their ages and occupations were representative of the wider sample. Women had stated that they had no time to participate in collective organizing against mining. Following the methodology developed by Ringholfer (2015) women reported how they spent their time, in half hour intervals, between 5 am and 11.30 pm on a weekday and weekend. Their time usage was analyzed according to four categories:

1. Person system (including personal care and self-reproduction)
2. Household system (including everyday reproductive tasks e.g. childrearing and cooking)
3. Economic system (including income generation outside the home)
4. Community system (including politics, social cohesion, reciprocal relations).

Women's time poverty also affected data collection. While we tried to lessen their burden by interviewing while they were going about their daily chores, focus groups were undeniably stressful both for them and for us. At times we felt we had to rush through the activities because respondents would repeatedly watch their clock to see when it was time to go milk the cows. Moreover, while some came late, others left early. These limitations are the manifestation of patriarchal norms that expect women to be homemakers, caretakers and full-time dairy farmers, making them constantly time-pressed.

Data sources were triangulated to ensure validity and reliability. We found significant overlaps among the data shared through interviews, workshops and tables. Through an iterative process, first individually and then jointly, we merged data to produce an overview of an archetypal day for these women, and picked representative quotes.

4. Research context

This study was carried out in the community of *Morasloma* belonging to the *Oña* canton located in southern Ecuador (Figure 2, 3). The neighboring communities and *Morasloma* are part of *San Felipe de Oña* parish with a total of 2,456 people that largely self-recognize as *mestizo* (INEC, 2022).

Morasloma is located in the upper part of the cantonal capital (*Oña*) and is characterized by a cold climate with two seasons: winter from January to June and summer from July to December.

Until the beginning of this century, this region was characterized by strong internal migration. Men migrated for work to the mines of *Portovelo* in the nearby southern province of *El Oro* and *Nambija* in the nearby eastern province of *Zamora Chinchipe*. This migratory dynamic marked the life of the communities; women were left in charge of taking care of the house and children all the while carrying out subsistence agriculture, whereas the monetary income depended on the men's seasonal work.

Currently, these communities are dedicated to agriculture, tourism and crafts. The Development and Land Management Plan for the Province of Azuay 2019-2030 (Gobierno Provincial de Azuay, 2021), indicates that the main economic problem for rural areas is low productivity in the agricultural sector. This condition is worsened by the lack of access to markets, which do not make it viable to produce more or alternative crops. In addition, there is no financial support from public agencies, and a gold mining concession threatens the sector.

The mountain of El Mozo lying east of *Morasloma* and south of *Cochapata* is in fact part of mining concession of 1,776 hectares including both *Nabón* and *Oña cantones*. Mining exploration started in 1992 (GAD Nabón, 2021). In 2002 Newmont Overseas Exploration Limited sold its exploitation rights to the mining company Cachabí for 21 years (Minera Cachabí, 2019). Cachabí is linked to the transnational company Iamgold Corporation (Lang, 2018) which has mined elsewhere in the Azuay province of southern Ecuador, such as in *Loma Larga*, causing major social conflicts (Benalcazar, 2022). In 2016 the Ministry of the Environment issued a certificate of environmental viability and registered the "Environmental Impact Study, Environmental Management Plan for the phases of exploration, exploitation and benefits of metallic minerals in the small mining regime of

Several community members worked in mining in other parts of Ecuador and thus are aware of the risks involved. The lack and/or contamination of water due to mining is their main source of concern. In the nearby province of Nabón, which would also be affected by the mining of El Mozo, a local group has been active to resist and protest mining with the support of the Frente Nacional Antiminero (National Front Against Mining) and Indigenous communities. Workshops have been organized to inform these communities about the risks of mining and to increase their awareness and encourage them to organize against mining, but local participation is still very limited.

This lack of engagement, we contend in this article, is due to a major livelihood change that took place in the communities surrounding El Mozo in the last 15 years. Dairy farming has been introduced, bringing about significant livelihood changes. Dairy production was first introduced as a developmentalist strategy in Ecuador in the 1960s. First, the creation of a Dutch Mission introduced dairy breeds and provided technological assistance in pasture management to large farms. In the 1980s, cattle rearing was extended to medium and small properties, also under the auspices of the Ministry of Agriculture. At that point, the southern province of Azuay, bordering *Oña* and *Nabón*, had already become the third largest milk producer in the country. This timeline indicates how the State put in a concerted effort so that its agrarian policies would benefit the agro-industrial sector, rather than more numerous and needy smallholders (Chamorro, 2016).

Rural societies in Ecuador have historically been heterogeneous. In the south of the country smallholdings have been most common. Agricultural activities are complemented with the production of handicrafts (Rebaï, 2016) and in some cases with temporary work for men (Martinez, 2014). Such was the case in *Morasloma*, where most interviewees reported temporary migration of men to work in mining in another province, leaving agricultural production mostly for self-subsistence and linked in a limited way to the domestic market. In the 1980s and 1990s Ecuador suffered an economic downturn due to neoliberal policies that led the government to dollarize the economy (Acosta, 2019). Rural areas were the most negatively affected because peasant production lost value in the face of the advantages that agroindustry was acquiring.

In line with these macroeconomic changes, in the last fifteen years, milk production was promoted by the dairy industry in the communities of *Oña*. In *Morasloma*, particularly, interviewees recall that dairy farming expanded due to the initiative of some local people, followed later by financial lending institutions and the Ministry of Agriculture. All these actors promoted dairy farming among residents as a development opportunity that could bring the local cashless economy into the market. Cashless, however, did not mean poor. When asked, interviewees states that their living conditions were humble, but they were never poor or starving. Yet, government agencies promoted dairy farming as a source of income-generating self-employment, as if people were inactive before. Notably, however, this "development" has relied heavily on the involvement of cooperative financial institutions. By lending substantial funds to local farmers to buy cows, chemical fertilizers, feed and supplements for the animals, these cooperatives are effectively exercising a form of financial extractivism.

In *Morasloma* the introduction of dairy farming was generally supported by men and those in the community that had bigger properties where cows could graze. This strategy, we argue, epitomizes the lack of recognition, both nationally and financially, of women's reproductive labor as income generating. Currently, a national dairy company buys the milk and due to company demands, the farmers built a collection center with a laboratory and a chiller system to ensure and maintain the quality of the milk. Local milk production goes to a close-by city where it is processed into powdered milk, used in schools across the region.

5. Analytical discussion

In this section we present and discuss the results of the study. We focus on livelihood changes, time management and time poverty, to show how ecological care is an almost impossible added burden for female dairy farmers.

Territorial restructuring

Over the last ten to fifteen years, the communities we visited have shifted from agriculture and extensive animal husbandry to intensive dairy farming. Most of the families in *Morasloma* are smallholders with a few medium-scale producers with more land on the flatter plains, better access to water, and hence more cattle.

Most interviewees testified that in the past, women would spend most of their time planting vegetables and other foodstuffs. Currently, however, horticulture and cultivation of food for subsistence is decreasing. In addition to the testimonies collected, we could see the landscape changes that they described to us. Where before you could see corn fields, now they have cattle. The women we interviewed own their land, but in most cases, it is scattered across the landscape so they must move the cows as they graze. This makes pastoralism more demanding, especially when using land that is further away from their homes.

Of all the cereals that used to be sown in the past e.g. wheat, rye, barley, the only one that is still presently being cultivated is maize (corn), a fundamental foodstuff in the Andean highlands. Some women shared that they still sow maize for self-subsistence, but the majority agreed that the decrease in production is undeniable.

Oh, yes, yes, there's been a change because we were able to grow a lot of maize before. Same goes for wheat. Now we don't, because we have turned it into pasture for cattle. (Interview 17, 2023)

Surrounding communities in southern Ecuador have not yet transitioned to intensive dairy farming because they have smaller water catchments and more precarious irrigation systems. *Morasloma* has witnessed the most substantial changes in its agricultural activity. Horticultural production is so limited that some people buy these foods in the shops. We could also see traders with pick-up trucks offering produce that, according to interviewees, they used to cultivate themselves. Another significant territorial restructuring has occurred because landowners who do not live in *Morasloma* and who have extended pastures moved into native forest land, decimating upland *páramo* trees and shrubs for cattle to graze. These changes are causing conflicts, including land appropriation in the communal areas. These circumstances are indicative of a territory that, due to agro-extractivism, has undergone substantial territorial restructuring (McKay *et al.*, 2021), as this testimony indicates:

We also planted wheat, barley, maize. Then they started to put the cows... Now nobody sows anything anymore. (Interview 1, 2023)

These communities had some cattle 20 years ago. However, there has been a notable shift in the breeds that people own. Interviewees shared that they used to have "creole cows" i.e., a leaner local breed better adapted to high altitude, the climate, and to the various types of grasses. With the promotion of dairy farming, people had to acquire Holsteins, an imported breed that produces

significantly more milk but also consumes more grass and water. This breed requires specific types of inputs such as improved grass, salts, vitamins and antibiotics, if the cattle get sick. Importantly, the grass they eat is expensive to buy as seed, and can only be optimally grown if the pasture is fertilized.

Farmers must assume substantial costs and, most often, need to access a loan from a local financial institution (e.g. lending cooperatives) more than once, to ensure sufficient milk production for their enterprise to be profitable. Dairy farming has radically changed local livelihoods and has transformed people's outlook. There is a general agreement that dairy farming provides a viable occupation that is and will be much more secure than any job that mining could offer. However, while this could be construed as a form self-employment, interviewees reported feeling like they are working solely to repay lending cooperatives which charge interest at up to 20% interest (Jardin Azuayo, 2025).

In *Morasloma*, most of the members of the irrigation board are part of the Dairy Farmers' Association. This overlap is not by chance. Their main concern is to be able to get enough water to irrigate the pastures and to give water to their cows. Therefore, many dairy farmers in the community, especially those with the highest number of cows, see mining as a threat to their livelihood as it would reduce the availability of water (for a similar case in Peru, see Dunlap 2019).

Gendered labor dynamics

The data we gathered paints a striking picture of the additional labor burden that dairy farming has involved for women. While dairy farming is a family enterprise, women are often traditionally responsible for milking which takes place two, if not three times a day. Their husbands manage their standing with the lending institutions and participate in the Dairy Farmers' Association Meetings. They are also in charge of buying chemicals and supplements for the cows which they then spread in the pasture (Figure 4) and often bring milk to the collection center, sometimes with the help of children when they are not in school. Importantly, when interviewing men in these communities, being a dairy farmer and not just a *campesino* emerges as a source of pride.



Figure 4: Man spreading chemicals on pasture, woman moving a cow in the pasture. (photos taken by authors)

Women play a leading role in the economy of their communities, as they perform productive tasks and, at the same time, carry out reproductive tasks. For example, guinea pigs (*Cavia porcellus*) are also the responsibility of women. Women harvest grass for them daily and feed them multiple times a day. These small animals are a delicacy and sold through cooperatives to restaurants in the city of Cuenca. Such has been the reality historically in these communities, but important changes have taken place as these interviewees report:

Before I used to work as a day laborer in other people's fields five days or two weeks every month, now I cannot. My mom has cows and I need to take care of them. These animals are a lot of work. (Interview 15, 2023)

Before we used to sow maize and other vegetables in several fields far from our home and we would then carry the harvest at home. Nowadays, we cannot do this anymore. The cows take up too much time and those fields are left to waste. (Interview 10, 2023)

These two testimonies show how dairy farming profoundly changed people's livelihoods and particularly women's time usage. Vegetable farming and day labor had to be abandoned in favor of full-time dairy farming which has proven to be not only substantially time consuming, but also more energy depleting. Women report being physically consumed by the repeated work of hiking up to the *paramo* several times a day to milk and feed the cows. Moreover, they share how they are impacted emotionally by having to remove the calf from the mother to be able to get milk from the cow. The cries of the calf are a reminder of how their children needed them when they were breastfeeding. Because of how time-consuming milking is, women had to either give up or significantly reduce the time they engaged in artisanal labor such as spinning and weaving, both of which they enjoy since it gave them an opportunity to spend time with other women. The garments they were producing also generated some minimal income, alongside local sale of vegetables, but not comparable to dairy farming.

Women overwhelmingly reported that the gendered division of labor in their communities has changed significantly since their grandmothers' time. They assert that their grandmothers' and mothers' everyday work was physically tougher – e.g., fetching fuelwood – and there was less help from home appliances:

In the earlier times they had to go fetch wood and carry it home because it was the only source of fuel for cooking. Right now, we have gas stoves. (Morasloma workshop, 2024)

Nevertheless, women did not think they work less than their ancestors, but rather they must balance two jobs today: the work of the home, together with income generating activity – often dairy farming – outside it:

Nowadays I am in charge of everything. I even have a position in the Decentralised Autonomous Government [GAD]. Because of this role, I have lots of duties and I am constantly running. I end up doing house chores such as washing at night because I have no other time left. Then I think, yes, fetching and carrying wood was hard, but it was less stressful than being pulled in many different directions. (Cochapata workshop, 2024)

Nowadays, women argued, cash is required particularly for expenses related to children's schooling. Generating this cash is a substantial source of stress for these women that, they think, their mothers and grandmothers did not experience. Additionally, women feel that currently they cannot rely on communitarian and social support from fellow farmers as much as they did in the past. *Mingas* – communal work – have largely disappeared and been overtaken by daily paid work. Interviewees found this to be a negative sign of rising egoism in their communities due, they believe, to the growing importance of cash. Additionally, while younger women report that their husbands share some of the daily house chores and help with the children, this division of labor remains highly unequal, with women retain most of their reproductive daily tasks as well as having to work to earn a salary. Patriarchal norms dictating such unbalanced division of labor are still strong and, with the introduction of dairy farming, have led women to take up a second shift, which has in turn resulted in time poverty.

Managing a daily routine of time poverty

The time usage analysis that we carried out based on Ringholfer's (2015) methodology confirms a panorama of time poverty that women face daily. They sleep on average 6-7 hours and, notably, their daily time usage does not vary substantially between weekdays or the weekend. The only notable difference is that 3 out of the 8 women reported participating in community meetings of between 1.5 and 2.5 hours on a Sunday. They were a minority, and such meetings do not happen every week and have nothing to do with organizing against mining. Activities related to the household system such as cooking, washing, and childcare, particularly for those with small children, can take up to 12 hours of women's daytime. Income generating tasks, especially pertaining to dairy farming occupy between 4 to 10 hours every day for all the women surveyed. While this is a broad range, it is notable that all women report being involved in dairy farming as their main income generating activity. Our data confirms Mera's (2021) evidence about the unequal burden of care work that women in Ecuador are afflicted by. An official survey conducted in 2012 shows that women "work per week 17.42 hours more than men, 14.53 more in the urban area and 23.14 more than men in rural areas. Accordingly, "...40.5% of the population is time poor" (Mera, 2021, p113).

Women describe their average daily routine of caring for the cows as follows:

At dawn we go up the mountain and milk the cows, we come back for breakfast at mid-morning, then in the afternoon and night we go back to move the cows, water the pasture and milk them again. We are usually in bed by midnight. (Interview 7, 2023)

The (the cows) are big animals. They eat a lot. They need to eat breakfast, lunch and dinner to be productive. I hike up the mountain twice a day to milk them and take care of them. They need water, vitamins and to be moved around. One cow usually provides 15L of milk a day. (Interview 14, 2023)

These are communities with steep terrain and where town centers are well below the upland *paramo*, where people own fields and cows are pastured (Figure 5). Pastures are rarely fenced because farmers cannot afford this, and so cattle are leashed to a wooden pole that must be moved once or twice a day. In this way, the pasture is grazed progressively and evenly by the animals.



Figure 5: Dairy cows in the *paramo*. (photo taken by author)

The fact that cows require constant care, and such work is time consuming, is also shown in the numerous quotes we recorded during interviews and workshops. Women stated that our time together had to be short or cut short because they had to go milk the cows. The exact instant we told one interviewee that we were done with the interview she turned to her daughter and said:

Maria, now! Up to milk! (Interview 1, 2023)

Additionally, this work is physically demanding. Women report feeling depleted from the milking and caring routine, effacing their mental attention for other ongoing concerns. This was confirmed by our observation of several community meetings held at night, where many women were sleeping instead of listening to what was being discussed.

Time is currently almost solely connected to generating an income among our respondents. This is illustrated in women's limited availability to participate in focus groups and other research activities, but our data cannot speak to past understandings and local meanings of time. The hasty

tone of voice and continuous moving actions described by participants when referring to milking, conveys how much dairy farming has impressed a sense of acceleration of time and has caused a general lack of time. Elderly women did not express this during focus groups. An accelerating pace of life is not only due to milking, but also to longstanding patriarchal norms that expect women to still accomplish all the unrecognized reproductive work that they have always performed. As always, it is women who oversee caring for children and the elderly. When asked about economic activities, caregiving tasks were not mentioned as work. On most occasions during the interviews, while cooking, cutting grass, feeding guinea pigs, spinning or doing any other reproductive activity, women were accompanied by their children.

No time for political participation and collective agency

To summarize, data showed that women oversee almost all household chores, are full-time dairy farmers and are the ones caring also for their children's education and wellbeing. In *Morasloma*, for instance, it is only women who are part of the Parents' Committee and who work for free through *mingas* to improve the infrastructure and cleanliness of the school. These school *mingas* are compulsory, as opposed to the ones that single individuals mobilize the community to take part in. Women's groups that once existed have mostly lost their impetus after the introduction of dairy farming, given its demands on time. The pandemic also played a role in the disintegration of these groups. There was one dedicated to knitting traditional garments to be sold to tourists, but the pandemic meant that such market was lost. When asked:

As: Is there a women's group in your community?

I5: No, women do not want that. We tried, but women did not participate.

As: Why not?

I5: They say they have no time left for themselves or group activities.

(Interview 5, 2023)

It follows that women do not play a significant leadership role in the movement against mining. They participate in protests and meetings, but they report not having time to engage as much as they wish to. In addition to patriarchal norms restricting their daily lives to consuming routines of work, several cultural and societal challenges limit their chances of acquiring leadership skills. Women are relegated to a secondary role in society and they can be scorned for involvement in meetings. Women's political participation and collective agency is considered by men and the local community at large as a waste of their time, or a sign that they are idle. Moreover, women's capability to speak in public is questioned, making them feel insecure and pushing them ultimately not to participate in meetings. One of the few women heading a local irrigation committee shared:

In our communities, women are still shy, fearful. They often say: "I don't like to participate (in meetings), I am scared of talking in public. Maybe something happens to me on the road, on the way there and I cannot get back to my family." This is what they said to me. (*Morasloma workshop, 2024*)

This statement is just one of many where women conveyed a sense of worthlessness, or their incapability to speak up and leading a group. When other fellow women encouraged them to participate in meetings and tried to speak up, they often encountered a push back. These, we note,

are manifestations of a deeply entrenched patriarchal system where mostly men participate in decision-making meetings and women, if at all, get together to work on the school grounds or to knit ponchos for sale.

The women interviewed in *Morasloma* told us that they are concerned about the mining threat, especially because of the consequences it may have for water contamination. Most of them have participated in marches, meetings or walks as public demonstrations in defense of El Mozo. Few interviewees however held leadership positions pertaining to their community's improvement, irrigation management or in defense of the environment against mining. These women leaders reported having to undergo constant public scrutiny and even opposition in their own homes for having become a known community figure. However, they stressed that through their leadership experience they had learnt to overcome their fear of speaking in public, being questioned or being wrong, and they encouraged other women to do the same.

When they decided to elect me president (of the irrigation committee) I felt the world on my shoulder. I did not want to participate or speak in public. However, one meeting after the other I started feeling less fearful. (Morasloma workshop, 2024)

The prevalent condition is one of unequal gender division of labor, second-shift work, and time poverty. Everyday care and productive tasks take up so much of women's time that they lamented not having time to stop, care for themselves, or care properly for their children. Leading or participating in environmental activism was almost impossible. This data was confirmed by the fact that in all the workshops we carried out in 2024, women thanked us for having the space to reflect on how gender roles had changed, along with challenges their community was faced with. The end the workshops almost morphed into self-help groups, where women shared stories of domestic violence, separations and financial struggles. They were encouraging each other to leave abusive relationships. We witnessed these painful conversations, and we thought they were the manifestation of how important it would be for women to have the time to congregate among themselves not solely for the sake of income generating activities or organizing against mining, but specifically for their mental health and to create a circle of support.

The patriarchal system in this region means women must undergo grueling days of productive and reproductive tasks, leaving them no time for political participation. By the same token, patriarchy belittles them if they try to exercise agency, ultimately pulling them from any opportunity to organize against mining.

6. Discussion and conclusion

Rural areas in Latin America have faced historical inequalities because of internal colonialism following the creation of republics in the region (González, 2006). The national political and economic order was established on the basis of colonial society, with rural-urban relations founded under terms of domination and racism. Early on and under the influence of the enlightened Creole elites, it was considered that cities, being connected to Western culture, should concentrate power. From this privileged position they should guide rural areas towards civilization (Zapata and Rojas, 2013). In line with this, *Morasloma* and surrounding communities in southern Ecuador are threatened by major societal and environmental change due to the introduction of 'modern' dairy farming, but also by a gold mining concession. In interviews and workshops, women stressed that the state has abandoned rural populations, and they do not expect much from the government. Therefore, paradoxically they have been co-opted into small-scale dairy farming as an

income-generating activity to solve their immediate needs in the face of the social injustice experienced by rural communities. In the context of the current multidimensional polycrisis in Ecuador, the inequitable redistribution of wealth increases the precariousness of life in rural communities. Women are leading the survival of their households amid different forms of extractivism sustained by the overexploitation of their own labor.

Our original data confirms that different actors promoted dairy farming as a territorial restructuring strategy to link this rural area with close-by urban markets, and to allegedly reduce perceived rural poverty. However, this strategy ushered in a form of agro-extractivism through financial institutions introducing cash into the local economy, but also, most importantly, a substantial amount of debt (see also Cavallero & Gago, 2020). While local farmers partially own the means of production, pending repayment of their loans, profit is accrued by financial cooperatives through interest payments, and by the national dairy company that pays them marginal amounts per liter of milk, as compared to what they sell it for. Moreover, the introduction of intensive dairy farming has resulted in the destruction of the *paramo* ecosystem and the degradation of water resources. It is hard to imagine how these could be recuperated. Against this backdrop, we focused on labor dynamics, and especially on women's everyday routines consumed with the hamster roll of childcaring, homemaking, milking and caring for livestock. Women are left depleted, with no time or energy to engage in organizing against impending threats to their community and livelihood, notably a proposed mining project.

Following McKay *et al.*'s framework (2021), the study contributes to further understanding of agro-extractivism in two ways.

1. First, we examined dairy farming as a particular sector leading to territorial restructuring. We added to the limited evidence around animal rearing (Weis, 2013) as a manifestation of agro-extractivism.
2. Second, we analyzed *labor* dynamics, and particularly social reproductive dynamics, by illustrating how women juggle competing demands, leaving them with no time for participating in decision-making or getting involved in collective action against mining.

We have nuanced the understanding of extractivism, not just as a phenomenon driven by capitalism, plundering natural resources irremediably (Kröger, 2016), but also as the manifestation of everyday social reproduction that depletes people's time and energy and consequently their ability to resist and organize (see also Rai, 2024; Guermond *et al.*, 2024). The introduction of dairy farming has depleted women through their social reproduction (see also Guermond *et al.*, 2024) by increasing their poverty in terms of biodiversity loss through diminishing horticulture, and diminished time availability and caring relationships. In other words, we have shown how rural communities' organizational capacity and women's lives are depleted in a region that could be considered "marginal" in a multiscale analysis of the reproduction of capital. Following Gago and Mezzadra (2015) who argue that capital does not neglect secondary spaces, turning them into "soil for its operations", female labor in *Morasloma* is exploited two ways: in everyday unpaid caring tasks and in income- (and debt-) generating dairy farming, relying on financial extractivism (see also Cavallero & Gago, 2020).

We also build on earlier works in feminist political ecology (e.g. Harcourt *et al.*, 2015; Lutz-Ley & Buchler, 2020) by showing how modernity and development programs are proposals alien to rural societies, with women being a particular recipient of such development projects. Moreover,

academic analysis of extractivism in Ecuador focuses on issues related to Indigenous Peoples and, within those, women's role as leaders (e.g. Jenkins, 2016; Velasquez, 2017). Additionally, in contrast to numerous studies that show how women's leadership has been a fundamental driver and energizing factor of resistance against extractivism, particularly mining (e.g., Tyagi & Das, 2020; Womin Collective, 2017; Ulloa, 2020; Glynn & Maimunah, 2021), we unpacked how patriarchal norms and extractivism collide with each other by making women unable to exercise leadership and to resist. Women cannot undertake yet another reproductive and care burden i.e., ecological care, *if* the patriarchal system sucks their time and energy, while also dismissing their agency. And as Elmhirst and Hidalgo (2017) warn, everything depends on that "if" as there are deep power relations that revolve around nature, economy, and culture.

We take up Mezzadri *et al's* call to consolidate evidence around the role of the "household as a key unit of reproductive governance of capitalism" (2024: 12). By examining the gendered nature of domestic and care work, and cheap labor in Andean communities with a history of agrarian subsistence and now experiencing agro-extractivism, we make a first step in overcoming the urban bias in social reproduction literature (c.f. Mezzadri *et al.*, 2024). Nonetheless, more work is needed on the role of social reproduction in sustaining extraction (e.g. Caretta & Vela Almeida, 2025; Fraser, 2022; Barca, 2020) making visible the substantial role that unpaid care work has in capitalist and masculinist labor dynamics. Moreover, departing from feminist economists (Carrasco, 2017; Federici, 2011; Perez Orozco, 2014) we need to denaturalize the weight of women's reproductive work, encouraging broader debates on the care of water and territories. We want to encourage further political ecology research that delves into the forms of women's leadership, its limits and possibilities.

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