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Can non-utilitarian Indigenous economies help remake meaningful territorial relations in the heart of agrarian extractivism in Bolivia?

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Abstract
Commodification fuels the expansion of extractivist agrarian frontiers, forcing diverse territorial relations into the dynamics of globalized markets. With commodification, resource extraction can be speeded and widened, generally leaving trails of destruction and overexploitation behind. However, research has shown that many territorial relations at agrarian frontiers resist commodification and its extractivist logics. In this study, we analyze narratives about everyday economic practices and territorial reconfigurations at the agrarian commodity frontier in the Chiquitanía, Bolivia, to understand how multiple values guide such practices, and how they complicate linear narratives of commodification. We found that non-utilitarian values play a key role in building meaningful territorial relations potentially shaping non-extractivist practices. We discuss about the importance of exposing the limits of commodification by noticing multiple value interplays to unveil and acknowledge the capacities of non-utilitarian Indigenous economies to build non-extractivist pathways.

Keywords Territory · Agrarian change · Rural economies · Relational values · Commodity agriculture · Diverse economies

Introduction

Different forms of extractivism have historically shaped rural economies in Latin America. Mining, logging, rubber tapping, and commodity plantations have been common ways in which human beings appropriate resources from the environment. Typically, such appropriation becomes extractivist when a high volume of resources is rapidly extracted and transferred out of their places of origin, generating only a temporal prosperity (if any), and leaving a trail of destruction and overexploitation behind (Gudynas 2020). Agriculture, often in combination with forestry, can be extractivist when it expands agrarian[1] frontiers by establishing large-scale commodity crops at the expense of the existing territorial diversity (Svampa 2022; Veltmeyer and Ezquerro-Cañete 2023).

Agrarian extractivism triggers the reconfiguration of social-ecological relations at the frontiers to make them work for globalized markets by means of commodification (Rasmussen and Lund 2018). Commodification is a process that transforms diverse relations and entities (e.g., agriculture, land, forests, ecosystems) into standardized goods and services to be sold in globalized markets that ignore their underpinning territorial relations (Smessaert et al. 2020; Volpato et al. 2022). For instance, land can turn into a commodity when it becomes a financial asset that feeds market speculation (Arango et al. 2025). Amid the multiple values that shape territorial relations, commodification captures those that can be translated into globalized market standards and made commensurable, to produce tradeable "cheap" resources (Moore 2023). Concrete practices of resource control reinforce such value translation when different

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[1] Many scholars use the term "agrarian" to denote the many territorial relations that agriculture entails, beyond the productive or extractive processes, including cultural, economic, political and social-ecological relations.

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actors fueling frontier expansion (e.g., powerful agribusinesses) promote land grabbing, privatization, or enclosure, or land-use deals to concentrate power and economic benefits (Arango et al. 2025; Borras et al. 2025; Rasmussen and Lund 2018). Through its value dimensions and its concrete practices of control, commodification becomes a powerful means of extractivist frontier expansion.

Indigenous territories in Latin America have historically suffered the ravages of agrarian extractivism. Their lands are often coveted by governments, capital owners, or farmers pushing for frontier expansion in quest for economic opportunities and resource control (Meyfroidt et al. 2024; Serje 2024). From the long-standing perspective of Latin American scholars, Indigenous territories are dynamic and lived spaces made of everyday material and immaterial practices, and informed by multiple values that reflect meaningful relations including humans and non-humans (Haesbaert and Mason-Deese 2020; Quiroga et al. 2025). Such relations support people's livelihoods, which are shaped by situated practices and multi-scalar power relations and political struggles for the defense of territorial rights. Therefore, the capacity to shape and defend their territories represents an existential imperative for Indigenous people in face of the threats of extractivist projects (Eichler and Bacca 2021; Quiroga et al. 2025).

In this study, we aim at assessing the links between the value dimension of commodification and concrete practices of territorial reconfigurations in a context of deepening agrarian extractivism in the Bolivian Chiquitanía, one of the most expansive agrarian frontiers in Latin America. We are particularly interested in exploring how some territorial relations react to the intensification of extractivism and to what extent they reveal the limitations of commodification processes (Barney 2009; Moore 2015). To understand the value dimensions, we draw on the environmental values literature (Balvanera et al. 2022) and we consider values as a concept of the importance to people of their relations to others, humans and non-humans.

We focus on two types of interacting values: *instrumental*, when people consider relations as means to an end, and *relational,* when they consider relations as ends in themselves (Himes et al. 2023; Ortiz-Przychodzka et al. 2023). Some instrumental values are *utilitarian*: they reflect a prioritization of those relations that are means to maximize profit through market mechanisms and monetary units[2]. They are highly compatible with commodification because they stress those elements that are easier to replace or to be compared through common features considered commensurable (Balvanera et al. 2022; Lowrey 2008). Nevertheless, not all instrumental values are utilitarian and commensurable: some can refer to non-monetary objectives often overlapping with senses of collective or territorial belonging that make them hard to replace or to compare (Balvanera et al. 2022; Ortiz-Przychodzka et al. 2023). For instance, in the Bolivian Chiquitanía, collecting wild honey has both a cultural and an economic importance to Indigenous people as it provides food, medicine, occasional income, and spaces for collective sharing and storytelling (Adler et al. 2023; Ortiz-Przychodzka et al. 2025; Zuna et al. 2023). *Relational* values are also non-utilitarian, as they stress the importance of meaningful, irreplaceable relations that contribute to people's sense of connection, identity or belonging to a place (Himes and Muraca 2018; Vizuete et al. 2025). Considering the multiple values at play in the territorial reconfigurations at the frontiers can help understanding how commodification undermines meaningful relations that support Indigenous people's livelihoods, while also being limited by the persistence of non-utilitarian values guiding diverse economic practices (Gudynas 2020).

In Bolivia, governments have instrumentalized agrarian extractivism to centralize the control and administration of rural spaces inhabited by Indigenous people (McKay 2018b; Serje de la and Margarita 2017; Svampa 2022). In the Eastern lowlands, a large part of the Indigenous territories and public lands have been ravaged by large-scale extractivist projects led by transnational agribusiness supported by consecutive governments (Colque et al. 2021, 2022; Oxfam 2024). This, despite the promises of emancipatory social and ecological transformations of the initially Indigenous-backed government that was in power most of the time since its democratic election in 2006 until 2026 (McKay and Colque 2021).

There is an increasing interest in assessing the impacts of the deepening of agrarian extractivism in the context of frontier expansion in the Bolivian lowlands (de la Vega-Leinert and Cristina 2017; Gudynas 2020; Jasser et al. 2022; McKay 2018b; Rodríguez et al. 2023). A focus on narrative dimensions of extractivism can contribute to understand how its underlying values and practices relate to commodification processes affecting territorial relations. Moreover, it can provide a picture of how territories come into being through multiple agencies (Castañón Ballivián, Enrique 2024; Levy et al. 2024; Stiernström and Arora-Jonsson 2022) amidst destructive dynamics (Oliveira and Hecht 2016). Analyzing value dimensions can unveil narrative spaces of contestation and incommensurability (Lowrey 2008), with relations that resist being narrowly defined in the terms of commodity markets (Ioris 2022; Jasser et al. 2022; Rivera Cusicanqui, Silvia 2018).

[2] Utilitarian values, in a neoclassical economics sense, imply that rational human beings decide on how they relate to others according to their expectations of maximizing their monetary profit (Gibson-Graham et al. 2016).

This paper unfolds as follows: we first describe our research approach focused on people's narratives and everyday experiences and practices, and how they relate to commodification. Then, we describe the general context of extractivism and agrarian frontier expansion in Bolivia and in the Chiquitanía. Afterwards, we depict the utilitarian narratives that support commodification as a success story and a key economic feature of extractivism, and we show how the territorial reconfigurations of extractivism destroy meaningful relations through deforestation, water depletion and crop diversity loss. We unveil alternative perspectives of frontier economies with the cases of handicrafts and honey, including not-fully commodified elements that could help to rebuild meaningful relations based on non-utilitarian values. Finally, we provide elements for discussion and conclusions about the limits of commodification and the possibilities of non-extractivist economies.

Research approach

For this study, we first consulted key literature on extractivism and agrarian dynamics in Bolivia, to provide contextual information focused on the lowlands and the Chiquitanía region in the department of Santa Cruz (Fig. 1). We included literature from Bolivian authors, academic and NGO researchers, and international scholars working on critical agrarian studies, analyzing the social-ecological impacts of frontier expansion and multiple initiatives for the defense of Indigenous people's territorial rights[3]. The

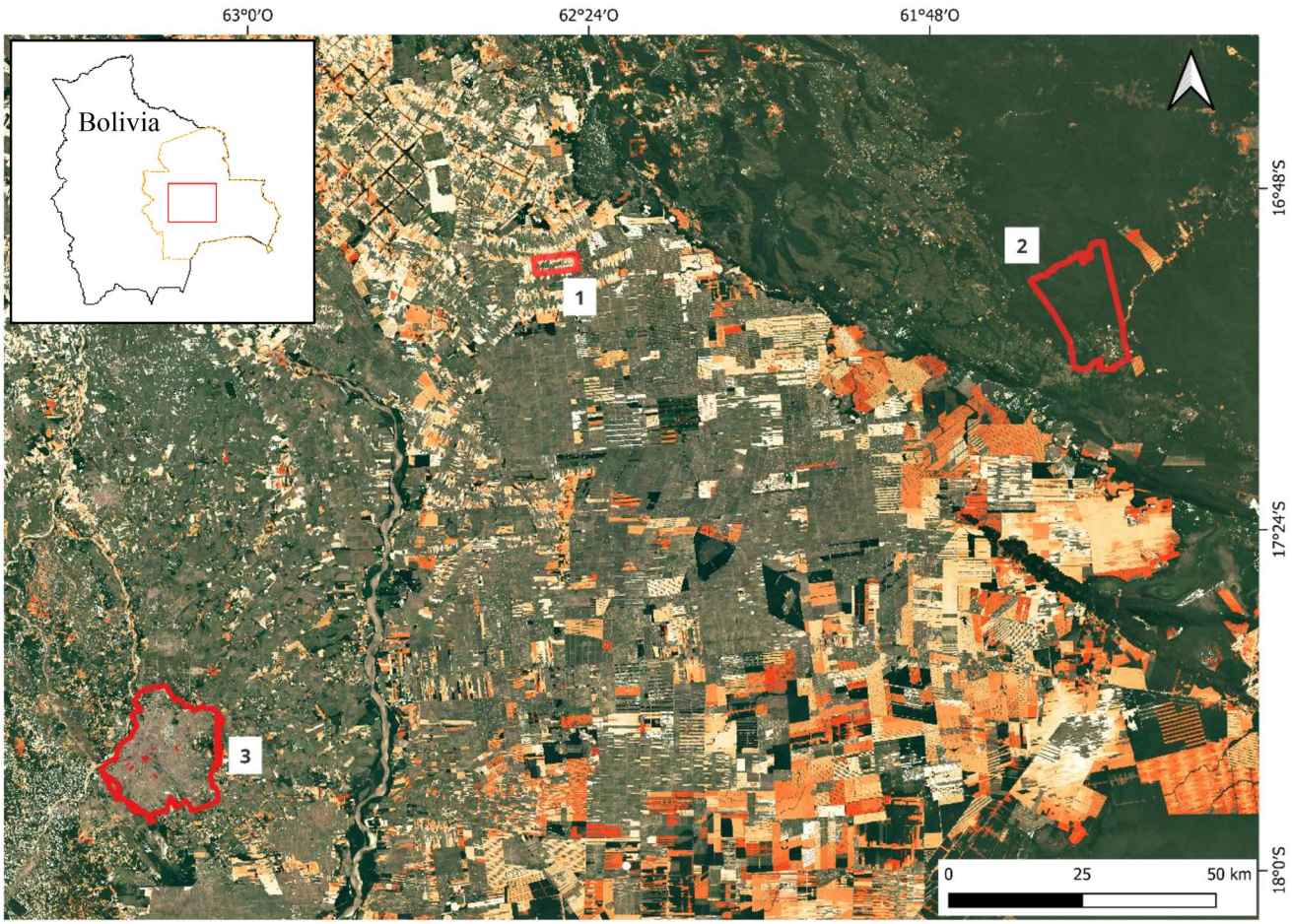

Fig. 1 Location of (1) 16 de marzo-Cordillera, (2) San Juan de Lomerío, and (3) the city of Santa Cruz de la Sierra, in the department of Santa Cruz (yellow line in the reference map). Orange: deforestation between 2000 (lighter) and 2020 (darker). Source: the authors with data from Mapbiomas, GeoBolivia, the Amazon network of Georeferenced Socio-environmental Information (RAISG), and Google maps. October 2025

[3] This research was part of a project titled "Biocultural diversity in farming landscapes of the Global South": https://www.bioculturaldiversity.de.

empirical research was led by the first author, who collected data in Santa Cruz de la Sierra, capital of the department of Santa Cruz, and in the Chiquitanía region from October to December 2021. This period marks the end of the dry season, when small-scale slash and burn techniques give way to planting in Indigenous territories, as the first rains start falling. It is also when people start assessing the ravages of wildfires and deforestation, both facilitated by the dry conditions. In this context, interviews with Indigenous community informed about the need to understand the impacts of frontier expansion in their territories. Moreover, ethical protocols were agreed for data collection and analysis, including an informed consent and research agreement[4].

The first author conducted 88 semi-structured interviews, including 28 regional Indigenous leaders, members of environmental NGOs and research institutes, private organizations working with non-timber forest products, local journalists, and 60 residents[5] of two Indigenous communities. A snowball sampling helped identifying key people leading projects to assess and address social-environmental problems in the Chiquitanía, and community residents known to be knowledgeable in agricultural and forestry activities at the local level. The interviews covered people's experiences and descriptions of daily economic practices and the relations (including human and non-human beings) that they consider more important to support Indigenous people's livelihoods. They also inquired about how the territorial reconfigurations caused by frontier-expansion affect human-nature relations and livelihoods. Non-structured conversations and participant observation during community gatherings, NGO workshops, and daily household and agricultural activities allowed expanding field observations.

In the first community, Cordillera-16 de Marzo ("Cordillera"), we interviewed 27 individuals (12 women and 15 men) from 25 households. This Guaraní community was founded in 1979, by families coming from the South-West of Santa Cruz in search for work opportunities in *haciendas* and land distributed by the governmental land-reform (Colque et al. 2021; Haas, Francesca 2023). Nowadays, its 153 households (ca. 900 residents) own 2400 hectares, dedicated mostly to soybean and some subsistence farming. Most native forests were replaced by soybean, sorghum and sunflower monocrops. The high production costs due to high input prices depending on global markets, the lowering soil fertility and scarcer rainfall, oblige residents to rent their land to wealthier neighbors having access to machinery, agrochemical inputs, and transgenic seeds (Fundación Tierra 2023; Haas, Francesca 2023).

In the second community, San Juan de Lomerío (hereafter, "San Juan"), 33 individuals (12 women and 21 men) from 23 households were interviewed. Its Chiquitano community of around 90 households (ca. 500 residents) holds 37,000 hectares covered by 18,000 hectares of a collectively managed dry forest, which surrounds the agricultural plots and small cattle ranches. The frontier is quickly advancing in neighboring areas with recent settlements and private soybean and cattle *haciendas*. San Juan was founded in 1835 by Chiquitano families, escaping enslavement from the *haciendas* and the violence of rubber extraction (Fundación Tierra 2022). Nowadays, its residents practice small-scale diversified agriculture and cattle raising, mainly for self-provisioning, as well as hunting, forestry, and some seasonal work in neighboring agribusinesses.

All interviews where recorded when authorized. We coded the transcriptions and the field-notes, first deductively to identify key economic practices, commodification processes, non-market-based practices, social-environmental conflicts, the importance and meanings of human-nature relations. Second, we coded inductively to analyze emergent topics within the deductive categories. We assessed people's narratives of the regional transformations, and their descriptions of everyday economic practices and how they connect them with multiple events affecting their territories (Koch et al. 2021; Spiers and Lewis 2016; Tacchetti et al. 2022). With this, we aimed at identifying common topics and people's situated experiences from which multiple values emerge. Our interviews and data analysis depicted those territorial relations that our interviewees considered meaningful and deeply affected by frontier expansion.

The persistence of an extractivist economy in Bolivia

Bolivia's social, political and economic transformations in the last two decades involved a historical recognition of territorial demands and plural values of Indigenous People and rural communities. Many of these were incorporated in Bolivia's political Constitution of 2009, founded on principles of ethical pluralism, including Aymara's notion of *suma qamaña* or *vivir bien* (living well), and Guaraní's *teko kavi* or *vida armoniosa* (harmonious life). Such principles are linked in the Constitution to a diversity of values considered central to lead transformations towards a more pluralistic society, with economies based on practices of complementarity, reciprocity, solidarity, redistribution, equity, justice, and sustainability (Estado Plurinacional de Bolivia 2009). Since taking office in 2006, government representatives of

[4] An ethical protocol for this research was approved by the Ethical Committee of the Leuphana University of Lüneburg (Number 202,004-05–23).

[5] In the results section, we use the terms *comunario* and *comunaria,* two common denominations for male and female residents in the area.

the Movimiento al Socialismo, political party and social movement initially under the leadership of Evo Morales, have highlighted the decolonial and anti-capitalist foundations of such principles supposedly guiding the territorial transformations and rural development policies (Eichler 2019; Ministerio de Relaciones Exteriores 2020; Morales 2009).

Despite its disruptive foundations, the Constitution does not break radically from the globally dominant language of rural development and sustainability policies. Broadly, it envisions a strong role of the State in guiding the economy towards harmonizing the needs for social equity and justice with rural industrialization, led by national actors, prioritizing the domestic production and added value for a successful participation in globalized markets while maintaining national food sovereignty. For this, the Constitution mentions the need to support small and medium-sized producers, the promotion of agroecological practices and soil conservation, but it leaves the door open for a regulated market of transgenic seeds – a long-term demand from large agribusiness. All the above, while searching to overcome "the dependence on raw material exports" and achieve a "productive economy in the framework of sustainable development, and in harmony with nature" (Estado Plurinacional de Bolivia 2009, p. 82). Critical political and academic voices have shown that the implementation of these Constitutional principles and legal achievements has been hindered by rural development policies that have deepened extractivism, economic inequalities and environmental degradation (McKay and Colque 2021; Wanderley et al. 2019).

In spite of the political changes since 2006, Bolivia has maintained an economic orientation towards the short-term gains of exporting raw-materials from mining and agriculture (Svampa 2022; Veltmeyer and Ezquerro-Cañete 2023). Bolivia's extractivist agrarian economy causes environmental degradation, generates few jobs, and fails to promote inter-sectorial synergies and innovations (Eichler 2019; Gudynas 2020; Wanderley et al. 2019). Commonly, extractivism relies on the recurrence of bonanza effects when global commodity prices are favorable (Gudynas 2020). In Bolivia, for many years, extractivism seemingly allowed for public investment in poverty reduction and decreasing inequalities. Nevertheless, scholars agree that this happened at the cost of high deforestation rates, biodiversity loss, soil and water pollution, and increasing agrarian conflicts (Colque et al. 2022; McKay 2020; Oxfam 2024; Wanderley et al. 2019). As we will see next, the Bolivian lowlands have been a key setting for an extractivist expansion of the agrarian frontier, aggravating social-environmental conflicts (Colque et al. 2022; McKay 2018b).

Extractivist dynamics in the Chiquitanía

Bolivia's deforestation hotspots are mostly located in the lowlands, due to their wide forest cover and biodiverse ecosystems (Vos et al. 2020). The department of Santa Cruz accounts for more than 76% of Bolivia's deforestation between 2010 and 2022, affecting 2,3 million hectares in this period (Müller et al. 2024). As a result, the large tropical dry forest of the Chiquitanía region in Santa Cruz is quickly losing its capacity to connect the Northern Amazonian rainforest, the Eastern wetlands of the Pantanal, and the Southern dry savannas of the Chaco (Maillard et al. 2024; Vides-Almonacid et al. 2007). The majority of the cleared land is turned into cattle ranches and soybean monocultures, reflecting the dynamics of an extractivist agrarian commodity frontier (Müller et al. 2024).

Such dynamics are not new in the Chiquitanía. Already in the 15th Century, its Chiquitano, Guarani, Guarayo, and Ayoreo inhabitants suffered the violence of fortune-seekers and colonizers (APCOB 2016; Arrien 2008). Although the Jesuit missions in the 16th Century provided some degree of protection, they transformed the sociocultural structures, for example by concentrating the previously scattered population into squared-shaped villages planned according to the economic needs of the missions (Arrien and Chuvé 2007; Jasser et al. 2022). Later, slavery and highly exploitative working conditions[6] allowed the establishment of *hacienda* systems, relying on sugarcane plantations, cattle ranching, and regional economies of timber, rubber, and mineral extraction (Arrien and Chuvé 2007; Balza Alarcón, Roberto 2001; Vides-Almonacid et al. 2007). The management of Indigenous land, soils, forests, and people as colonial resources, has been a central feature of extractivism in the Chiquitanía, including the control on decisions on land use and labor, and increasing dependence of local populations on powerful landholders (Soruco et al. 2008).

Currently, commodity exports drive the expansion of the agrarian frontier, following the trends of global markets mainly of soybean and meat industries (McKay 2018a). While meat exports are particularly motivated by China's demand, soybean is heavily linked to regional actors in Brazil, Paraguay, Argentina, and more recently Colombia and Peru (Müller et al. 2024). Regional, foreign and national investors, including Santa Cruz' agrarian elites, Andean settlers, and Mennonite communities[7] that have set large-scale

[6] Slavery was abolished in 1939 and land was widely redistributed in 1953, but forms of patronage and forced working conditions persisted, and remnants exist today (Arrien and Chuvé 2007).

[7] Since the 1950s, Mennonite communities have settled in the Bolivian lowlands, with increasing numbers in the last decade. They have spread soybean plantations and have been important drivers of deforestation (Escoffer 2024; Valdivia 2010).

soybean plantations since the end of the 1980s (Valdivia 2010), profit from cheap land and labor in the region. Many use the land through lease contracts, avoiding the hassles of land-markets, and they employ Indigenous workers with underpaid and seasonal arrangements including the provision of agrochemical fertilizers and transgenic seeds (Jasser et al. 2022; McKay 2018a).

Such frontier dynamics are favored by governmental policies and their economic agendas (McKay and Colque 2021), in which commodity exports are considered a key financial asset to allegedly fund programs for social transformation and poverty reduction (Colque et al. 2022; Llanque and Mamani 2024; Oxfam 2024). In this sense, the government sees the expansion of the agrarian frontier as a necessary step to boost exports, even if this favors powerful agribusinesses (Andreucci et al. 2023; Czaplicki Cabezas, Stanislaw 2024; Oxfam 2024). For instance, the *Agenda Patriótica* initially aimed at increasing agricultural land by almost 10 million hectares by 2025. Although this was later discarded due to the practical difficulties of such aim (Colque et al. 2022), researchers estimated in 2021 that the area of frontier expansion covered 10,6 million hectares in the department of Santa Cruz only (Fundación Tierra 2021b). Additionally, legal initiatives have enabled land grabbing and deforestation, affecting public land and Indigenous territories[8], for example by condoning illegal timber extraction (Colque et al. 2022) or promoting the use of transgenic seeds in large-scale monocrops (Fundación Tierra 2024; Salinas 2024).

In Indigenous communities, collective rules are attempts to prevent fire and timber extraction from getting out of control. However, as the Chiquitanía's frontier advances, massive deforestation and wildfires are revealed as key strategies of extractivist actors[9] using them for land clearing to establish soybean monocrops or pastures (Jasser et al. 2022; Rodríguez et al. 2023). In consequence, land-use change and the establishment of new settlements trigger social-environmental conflicts with Indigenous communities that hold territorial rights recognized by the political Constitution (Jasser et al. 2022; Llanque and Mamani 2024; Zambrana and Alan 2020). Indigenous territories suffer the pressure from extractivism, as their economies need to adapt and respond to the large-scale landscape fragmentation and homogenization. People-forest ties, including hunting and uses of wild species to collect timber, plants, fibers, fruits, and honey, as well as practices of rotational agriculture and silvopastoralism, are weakening in face of deforestation and land-privatization.

Utilitarian narratives of economic success underpin commodification

Agricultural commodities have been an economic pillar of Santa Cruz, especially since the 1990s, when the department became the setting of a rapid expansion mainly of soybean monocrops (McKay 2018b) following the regional trend in Brazil, Argentina, Paraguay and Uruguay (Gudynas 2020). It provided a utilitarian business model for Santa Cruz' economic elites, a foundation of their entrepreneur identity with narratives of economic competitiveness and successful integration to global markets (Castañón Ballivián, Enrique 2015; Valdivia 2010). This model was initially challenged by the political agenda of the left-wing government, reflected in the "Agenda Patriótica 2025", which allegedly put small-scale and community farmers at the center of its strategy of agrarian frontier expansion (Ministerio de Planificación del Desarrollo 2015). However, soybean agribusinesses managed to adapt their narrative to keep their political influence, by arguing that soybean exports are fundamental for national economic growth, food sovereignty, and agricultural progress including small-scale farmers (Castañón Ballivián, Enrique 2015; McKay 2018b).

Despite its discursive influence, the expansion of soybean agribusiness has promoted the economic exclusion of small-scale farmers by concentrating most productive land and agricultural financial credit, providing limited job opportunities, and fueling soil degradation, water depletion and deforestation (Castañón Ballivián, Enrique 2015; Colque et al. 2021; Czaplicki Cabezas, Stanislaw 2024; McKay 2018a; Oxfam 2024). Small-scale farmers are mainly included in the commodity business as subordinated, badly paid workers and land rentiers (Castañón Ballivián, Enrique 2015; Valdivia 2010), favoring the commodification of their workforce and of their relation to land. Their subordination is enabled by the negligence, and often the complicity of the State, which facilitates the allocations of financial resources to large agribusinesses (Czaplicki Cabezas, Stanislaw 2024) hindering a more autonomous and sustainable smallholder farming (Machicado Gallo 2022; McKay and Colque 2021).

The extractivist frontier expansion has come with the establishment of a dualistic narrative led by agribusiness sectors based on a utilitarian value-scale. According to our

[8] Half of the 20.5 million hectares of the Bolivian Chiquitanía are owned by the State. 25% are private lands, 13% are autonomous Indigenous territories, and 10% are smallholders also including Indigenous communities with collectively land-ownership (Fundación Tierra 2021a).

[9] Aymara and Quechua families of Andean origin, called *interculturales* due to their mixed ethnicity, have been increasingly building new settlements in the lowlands. They are commonly blamed for deforestation, land-grabbing and land-trafficking, although often *interculturales* are merely used by more powerful actors interested in land investments (Swift and Dávalos 2024; Colque et al. 2021). In particular, Mennonite families are key actors of deforestation and soybean expansion, together with transnational agribusinesses (Escoffer 2024).

interviews with NGO members, on one side, such dualism portrays a type of producers that can adopt market's utilitarian values and entrepreneurial strategies to become proper economic agents or entrepreneurs, mainly using the soybean agribusiness as a model of success. On another side, it portrays those populations that follow non-utilitarian and non-market values as being bound to subordination, for example by becoming workers in agribusiness enterprises. In other words, with the advance of soybean's agrarian extractivism, people have two choices: they can become full capitalist entrepreneurs, accumulating enough capital to establish a successful enterprise based on utility maximization (only a choice for those with access to capital), or they become workers, or capital producers, by selling their workforce and their cheap products to those with purchase power. Either way, relations based on non-utilitarian values must fit the logics of extractivism by being commodified or by becoming capital. These include Indigenous people's territorial and social-ecological relations with Chiquitanía's landscapes, forests, water sources, and crops.

Narratives of agrarian extractivism imply that most Indigenous people fall into the category of non-entrepreneurial and non-economic agents. These narratives rely on racialized descriptions of Indigenous people as *flojos* ("lazy"), because their economic decisions are considered non-utilitarian, their territories unproductive, and their forests "idle land (…) that has to be privatized" and put to work to produce commodities, according to an NGO member. This idea of the "lazy native" (Li 2023) creates the impression that Indigenous farmers are inefficient and unable to adapt to market dynamics (Li 2023; Serje de la and Margarita 2017). Thus, their capacities are measured according to a utilitarian value-scale in which soybean entrepreneurs are at the top. In this way, the experiences of Indigenous farmers are flattened through simplistic understandings of subsistence, overlooking their capacities to deal with market dynamics amidst adverse economic and ecological conditions. Frontier expansion and commodification use these narratives to subordinate the undervalued local populations, to justify land-use change and grabbing, and to confront them to mobilized migrant populations considered functional to the agribusinesses (Li 2023; Serje de la and Margarita 2017).

Some interviewees express resignation and concern regarding these narratives that treat Indigenous territories as obstacles for economic progress: "it is a systematic plan to take away the value of the forest and promote territorial occupation" (NGO member). Simultaneously, communal forms of tenure, work and organization, guided by non-utilitarian values, such as collective land rights, and systems of *trueque* and *mingas* (barter trading, reciprocal and collective work) are giving way to individual land-use and *jornaleo* (individually-paid day labor). Communities are pushed to create or adhere to unions, entrepreneurial or federative structures that break with their own traditions of collective organization, and favor individual alliances through land leasing and purchase contracts. For some researchers and NGO members, these structures induce the commodification of people's relation to land by privileging the quest for individual profit as the only road to success.

Utilitarian narratives have long supported initiatives for agriculture industrialization in the Chiquitanía. When Green Revolution technologies were becoming the norm, in the 70s and 80s, NGOs supported productivist perspectives of agriculture, only understanding later that they were facilitating commodification and extractivism, both linked to deforestation and territorial fragmentation, according to an NGO member. Currently, NGOs are searching for profitable alternatives for Indigenous communities that can at least coexist with, if not counteract the expansion of agrarian extractivism. Most efforts rely on cash crops such as peanut, pineapple, plantain or fruits, as well as agroforestry and silvopasture, including timber and non-timber uses of forests (e.g., fibers, handicrafts and honey). According to our interviews, these strategies can offer options, for instance for women who are in charge of their families while men are away for seasonal work in neighboring plantations, but there is still no stable market-demand. Although such economies can help diversifying income, they can hardly counter commodification and can fall into extractivist logics. They risk replicating the enchantments of a temporal prosperity (Jaramillo et al. 1986; Llanque and Mamani 2024) based on a few promising commodities, without breaking producers' vulnerability towards price variations and the power of middlemen. Such bonanzas feed on the expectations of a quick but temporal profit generated by sudden external investments that can considerably transform the lives of Indigenous territories. However, once the bonanza is gone, many people resume what they perceive as the safest options: *jornaleo*, land leasing, and timber extraction. Thus, extractivism reproduces itself through commodification.

Commodification veils alternative stories of diverse economies that do not follow a utilitarian value-scale, while it inflates the performance of large-scale monocrops. In the Chiquitanía, some researchers point at the flaws of the so-called "agroindustrial model", which can only advance at the agrarian frontier with strong public policy support, and should therefore be ranked low in its own utilitarian scale (Czaplicki Cabezas, Stanislaw 2024; McKay 2018b). Agrarian extractivism underrates the less extractive economies and non-utilitarian forms of relating to land and forests that persist in Indigenous territories despite the long history of colonialism and extractivism.

Stories of success based on utilitarian values contrast with the lived experiences of people in affected territories.

The materializations of agrarian extractivism based on commodification and utilitarian narratives disrupt meaningful relations that constitute Indigenous territories and economies. For instance, the homogeneity of large-scale monocrops seems to replace the diversity of relations that emerge at the links between forests and diversified agriculture. As we will see next, Indigenous people's narratives of these territorial reconfigurations unveil how meaningful relations based on non-utilitarian values are being replaced by extractivist and utilitarian ones.

The weakening of meaningful relations by extractivist economies

Extractivist frontier dynamics supported by utilitarian narratives materialize in destructive territorial reconfigurations that pose an existential threat for Indigenous communities. Such reconfigurations disrupt meaningful relations and the related non-utilitarian values that connect long-established material and immaterial practices involving forests, water, and agrobiodiversity. By describing these frontier dynamics, people's narratives show that utilitarian and non-utilitarian values collide as extractivism transforms territories.

Deforestation

Forests are a vital resource for communities in the Chiquitanía, especially in the form of timber, fibers, food and medicine (e.g., wild honey, meat and fruits). Two frequent statements reflect the meaningfulness of such instrumental relations: forests are an inextricable part of the *casa grande* (big home) – i.e., referring to the interconnected Indigenous territoriality in the Bolivian lowlands – and Indigenous people's own *supermarket* – i.e., a common expression of forests as a source of essential resources allowing for some degree of autonomy from markets. According to a Chiquitano leader, despite the advance of agrarian extractivism, "such worldview is not fractured in our social base, we will not lose it". Nevertheless, many people consider that deforestation is already affecting this meaningful relationship with forests in several ways.

As large-scale monocrops expand, forests shrink and are privatized. Deforestation in private and settler areas neighboring Indigenous communities drives wild animals away, and makes key plant species scarce, hindering vital forest uses. For instance, people find less honey and fewer medicinal plants, and they feel that they are losing their ability to treat common diseases and becoming more dependent on the limited treatments offered by public and private health posts, or by hospitals that are far away. Some affirm that the excessive consumption of ultra-processed sugars has become a problem since people no longer use wild honey as a sweetener. Honey also used to help preventing and treating skin wounds, stomachaches, and eye cataracts.

> We used to drink remedies from the countryside; people did not fall sick so much (…). To go to the hospital now you need lots of money. If you don't have it, you are not cured and you die, that's it. (*comunario*, San Juan)

Furthermore, hunting for wild meat is diminishing because it is getting harder to find key species such as *tatús* (*Dasypus* sp.), *corechis* (*Tolypeutes matacus*), *urinas* (*Mazama gouazoubira*), and *petas* (*Podocnemis* sp.). Some wild animals become pests when, displaced from their forests, they end up ravaging people's crops in Indigenous territories in search for food.

> … *taitetús* (*Dicotyles tajacu*) and *troperos* (*Tayassu pecari*), are very harmful. They attack during the maize season, because of deforestation in other places where they used to live (…) where it's only soybean now, so they look for refuge where there is more vegetation (*comunario*, San Juan).

Ironically, a few species also find refuge in the windbreaks left between monocultures within large agroindustrial complexes. Some people used to hunt there, but companies are gradually forbidding it.

Indigenous people's uses of their forests seem to be changing from a slow and collectively managed to a quicker, more intensive and individualistic extraction, according to community interviews. Selective timber extraction, amid collective management plans, still prevails in most Chiquitano territories. It allows some degree of forest regeneration, because the use of heavy machinery is forbidden, and the preservation of forest patches in agricultural areas with a rotation of plots to facilitate soil renewal. However, the dynamics of globalized timber markets, the persistence of illegal logging especially by non-community members, and the growing economic needs of Indigenous communities are pushing for uncontrolled extraction inside their territories. This follows an extractivist and utilitarian agrarian model focused on short-term gains and rapid land clearing for monocrop agriculture:

> People are realizing too late the importance of forests (…). We wanted to be like the entrepreneurs [referring to soybean producers], and that screwed us. We will never be like them, and now they are taking advantage of us. Are we going to keep destroying our land? It won't produce anymore. The land of our Mennonite

> neighbors did not produce anymore, but they had money to go elsewhere (*Comunario*, Cordillera).

The dynamics of deforestation generate an extreme disruption and pose an existential threat for Indigenous communities in the Chiquitanía because their territorial relations are not easily replaced.

> Less forest means less rain, more drought. Those who have money, if their land does not produce anymore, they go away. But Indigenous people were born here. Where will they go? To have water and life, there must be forest (Chiquitano leader).

People's instrumental relations to their forests and land is vitally important for their livelihoods and thus fundamentally meaningful. In contrast, in the utilitarian model of agrarian extractivism relations are primarily instrumental to capital accumulation, and can be replaced by relocating elsewhere.

Water depletion

In a predominantly dry landscape, with a dry season lasting more than seven months a year, stories of water scarcity are common in the region. However, droughts have become longer and more frequent, and the usual rain patterns are increasingly unpredictable. People blame population growth, climate change, and the deforestation and soil depletion caused by the expansion of large-scale monocrops and cattle ranches.

> The soil will not bear fruit. It will not rain on time. Before, October was the planting season, now it's a matter of luck. There have even been years with more than eight months without a drop of water (…) even rivers dry up, and only a few wells remain. If our population continues to grow, together with cattle herds, there will be too much demand for water (*Comunario*, San Juan).

> This *cañada* [water canal] comes from far away. We cannot use it, it is too polluted, can you smell it? (…) it comes from the *menonos* [Mennonite communities] and joins the river San Julián (…) The *menonos* and other companies built this drainage [to redirect water towards monocultures]; it's like a sewer now (…) but, before, we used to cross it in a canoe (*Comunario*, Cordillera).

Meaningful practices connected to water sources are rapidly disappearing. For instance, in San Juan, "women used to wash their laundry in the creek, which was filled during the rains. It doesn't fill anymore. That was beautiful to see, all the women there, just being with the water" (*comunaria*, San Juan). They also used to collect mud from the riverbanks to build clay pots for preparing the *chicha* (maize-based fermented drink). Now fewer people go to San Juan's rivers, or to its main pond for fishing or taking a bath, because they are almost completely dry.

> It was beautiful before, all full of creeks. Kids used to jump inside, all the water turned around and carried them away with force. It depends on God that it rains; only he knows. Now it doesn't rain because of what we did to the church [see below] (…) He is punishing us (*comunario*, San Juan).

People perceive that non-human species are being affected by water depletion. For instance, bees suffer not only from deforestation but also from the lack of water sources. People find them more often in their patios in search for water, while hanging the washed laundry, or drinking from people's sweat during agricultural or household activities, as well as in community ponds.

Non-material relations to water are also changing. In the Chiquitano ontologies, the *jichis* are spirits that guard the domains of water and forests, including the different species that inhabit them. They are interlocutors for a balanced use of the environment, and they appear to people in different human, non-human and hybrid forms that can be friendly, malevolent or ambiguous (Arrien and Chuvé 2007). Stories of water depletion are commonly marked by conflicts with *the* jichis.

In San Juan, a young girl explained that a *jichi* found refuge in the church's tower, after people dried up a *curichi* (wetland) to establish agricultural plots. In 2019, the church was demolished after a controversial decision by the authorities that kept people speculating about the true reasons. Many people mention strong winds that collapsed the tower but, according to the young girl, people teared down the whole church to chase the *jichi* away, fearing his anger for the *curichi*'s depletion. In Cordillera, people have also encountered the *jichi*, usually called *iya* or *duende* by the Guaraní. According to a *comunario*, people used to take water until a *jichi* prevented them from doing so because they were draining too much to irrigate the soybean monocrops. They chased him away by throwing garlic into the water and cutting down the trees; as a result, the *curichi* dried up. "People were scared (…). Once you chase the *jichi*, it never returns." (*Comunario*, Cordillera). Some stories reveal deep conflicts and tragedies:

> I have seen it … a big hairy man with a big hat (…). Many people have seen the *jichi* and gone crazy (…) some hung themselves (…). But it's been a while since we've heard such stories. He's gone, he has been chased away (*comunario*, Cordillera).

Many residents agree that losing the material and immaterial connections with water plays in people's general estrangement from nature and reflect deep territorial fractures. These fractures are visible in the stories of encounters with forest beings, which used to be told as part of the cultural foundations of the communities. The disruption of such stories reflects the loss of meaningful relations, in particular, water sources, together with forests, risk becoming merely short-term resources for individual profit at the expense of existing collective agreements.

Crop diversity loss

The sense of general estrangement from nature is also present in people's perception of decreasing food, medicine and crop diversity in agricultural plots and home gardens. The harshness of living conditions that people associate with deforestation, droughts, and water scarcity, discourages community members from cultivating home gardens and producing food, medicine (e.g., harvesting honey) or fibers (e.g., cotton) for their own use.

As a result, earning an income becomes a priority to buy daily food and medicine in markets, and younger generations are losing interest in farming. Typically, men find precarious, seasonal contracts in neighboring *haciendas*, or sell timber and meat. Women sell homemade food to seasonal workers and other products to occasional travelers. For example, they commercialize honey and handicrafts, such as hammocks and handbags that used to be made of cotton grown in their own plots, but now are made of synthetic threads bought in markets. "Most women still know how to knit, but now the only ones that make hammocks are the elders. They used to make them with their own cotton, but they don't grow it anymore (*comunaria,* San Juan)". Knitting is a traditional practice in the Chiquitanía, taught across generations. It is also a source of income for women.

> I have my own cotton [in her home garden]. I knit because my knees hurt. I have to stay sitting. Therefore, I knit. I can sell, but the most important is to stay busy, otherwise I would only think about my pain. I've taught to younger women so they can knit, and earn their own money (*comunaria,* San Juan).

As with forests, crop diversity is considered a source of autonomy and collective identity. By increasingly relying on commercial seeds, people become more dependent on markets. Some affirm that such seeds "often do not germinate"; they are more vulnerable to droughts and frosts, and to pests and diseases that are ravaging the monocrops in unprecedented ways, pushing people to buy expensive pesticides (*comuniario,* San Juan).

> Before, maize, rice and yucca where not separated, they were one same plant. The maize plant also produced rice on top, and below it was yucca. People got all they needed from it. But, because they became lazy, the plant broke apart and now we have to plant everything separately. People do not select the seeds anymore; they buy [commercial seeds], because they just want money. Those seeds grow poorly; plants grow too low and are easily reached by foxes and *pejis* [*Euphractus sexcinctus*] (*comunario*, San Juan).

This contrasts with local plant species that show more resistance: "my tobacco plant survived, because I talked to it, I asked her to resist and stay with me. I burn tobacco to chase away bad energies" (*comunaria*, San Juan). With the loss of local seeds, meaningful relations also seem to disappear.

Dependence on markets due to the loss of medicinal and food plants affects social bonds. Traditional meals provide a sense of collective identity: "as Guaraní, maize is our staple product. We had it always, all year."; "it all comes from maize" (*comunaria*, Cordillera). Talking about old recipes with varieties of beans, yucca, and maize, brings nostalgic memories and reveals concerns about current eating habits: "people make fun of our old foods, but they were healthier (…) I learnt to prepare them because I grew up eating them, I learnt to value that." (*Comunaria*, Cordillera). Using agrochemicals intensively and eating industrial food seem like a disruption of cultural traditions for some residents, and a reason for increasing health problems such as diabetes and hypertension.

People's reflections about the reconfigurations in their communities show the profound changes in the relations that used to guide the way they manage forests, water, and land. The narratives suggest a sense of loss of livelihood diversity, and a hindering of the abilities to provide food and medicine. However, as meaningful relations seem to vanish, narratives also reveal the persistence of diverse economies amidst the territorial reconfigurations.

Remaking meaningful relations towards non-extractivist economies

Despite the general sense of social and ecological loss, some people emphasize that Indigenous people actively build economic initiatives opposed to extractivist logics and utilitarian values:

> The Chiquitano people have other perspectives than producing for the market (…). If we can sell, we sell, but not in [big] quantity. Only if we have enough (…). We coexist with nature (…) *Cambas* [a denomination for lowland people] are not lazy, as they say. [We know that] forests also contribute; our vision is still alive but entrepreneurs do not see it (Indigenous leader).

> Indigenous people without territory are nothing (…). It is their home, where they can move freely. They have a nomadic past, without frontiers. They need large spaces to live. It is not that they are lazy, it is a way of life (Indigenous leader).

These narratives do not deny the connection between Indigenous economies and markets, but they show resistance to the complete adoption of extractivist logics. Multiple connections can link Indigenous territories to markets, and some put forward non-extractivist arrangements in which the establishment of meaningful relations can resist commodification. As we will describe next, the cases of handicrafts and honey show that other economic models are possible, based on non-utilitarian values.

The case of handicrafts

Handicrafts made of fibers collected in the forests and savannas are mainly for household use, but have increasingly become an additional source of income, especially for women. During a conversation with a small-scale urban entrepreneur working with Indigenous artisans to innovate the designs of handicrafts made with plant fibers, he highlighted how a close dialogue and mutual learning can produce careful relations:

> We respect the timings of artisan women, because at the same time they are cooking, cleaning, and taking care of children. They weave in their free time With the lianas we collected nearby, we saw that if we take too many, they don't grow back (…) we learned with them [women artisans] about the fruits, the seeds (…) if an ecosystem breaks, there is no way back (…).

With such relations, markets become processes of encounter and mutual affection. In the case of handicrafts, urban buyers can learn about rural livelihoods and the life cycles of plants, and adjust their expectations accordingly. Moreover, Indigenous artisans can try to translate their quotidian economic practices into market values, without submitting their own:

> We establish a beautiful dialogue (…). Commercialization is the hardest part; negotiating the price. Artisans do not consider the time it takes them [to get and transform the fibers], and buyers do not value it. (…) We try to get to know the artisan, to establish a relationship (…) so that the product tells a story (…). Then we have to work with the client, so that they do not ask for impossible quantities (…). It is uncomfortable to put pressure on someone who is used to a quieter lifestyle (urban entrepreneur).

Dialogue and encounter start with the immersion in the productive processes of artisans and ends at the final sell. Immersion passes through visits to the artisans to observe their work, or to invite them to give workshops in the city, to sensitize buyers about the creative process. Thus, entrepreneurs and artisans reflect together on the multiple realities involved in handcraft making: "… it is not the way they [buyers] want, producing fast, selling and paying (…). It [visiting the artisans] takes you to another dimension, far away from the rush" (urban entrepreneur). This dialogue blends multiple values in the commercialization process: artisans' deep bond to their land, the use-value of forests, the simultaneous instrumentality and reciprocity of the buyer-producer partnership, and the monetary values of commercialization.

> You can buy an object, and you help them [the artisan women] keep doing what they like, that is part of their culture. So that they can, through handcraft, learn more about themselves while earning an income. We try to make these objects be more than objects. They contain stories reflecting their voices; they reflect a part of what they are (…) there lies the recognition of value (Administrator of an urban handcraft market).

Some handicraft markets, although small in scale, try to avoid extractivism by allowing for encounters between people from different realities and with different values. Beyond handicrafts, some see possibilities of building non-commodified relations within markets with other local products such as honey, Chiquitano almonds (*Dipteryx alata*), local food varieties (e.g., *maiz blando, Zea mays*), wild fruits, spices, oils, medicinal plants, and fibers, such as

cotton (*Gossypium spp.*), cacao (*Theobroma cacao*), pesoé (*Pterodon emarginatus*) or cusi (*Attalea speciosa*). Such markets can challenge extractivism and commodification by considering and making a plurality of values more visible, without subordinating them to utilitarian ones.

The case of honey

In the Chiquitanía, Indigenous people currently collect honey in forests and in scattered trees in their agricultural plots, mainly from native stingless bees, or harvesting primarily from *señorita* (native stingless bee, *Tetragonisca fiebrigi*), and *extranjera* (European honey bee, *Apis melifera*) in boxed-hives installed in some plots, home gardens or patios. Honey is either used at home as medicine, as a sweetener or exchanged with neighbors. However, some market opportunities are arising and, with them, risks and opportunities of honey commercialization appear.

Indigenous leaders and NGOs are particularly interested in promoting honey collection and production as a way to value forest resources and native bees. According to our conversations, honey has a sociocultural and ecological value because the practices of collection and beekeeping can strengthen community bonds and raise awareness on the importance of collective resources (e.g., water sources, forests, and wild flowers) and bees' pollination capacity. It also has a potential monetary value, because there is a growing market demand for Chiquitanía's honey in Bolivia's cities, especially after the Covid pandemic in 2020.

> Many plants are forest resources that have no value. When honey is produced [from their flowers], they acquire value. Without it, no one cares. Only when they see that bees visit them, they value them (NGO member).

> We can't just protect the forest; we need economic alternatives. Honey is giving good results, for example, the *señorita* has a good production, and its honey is more expensive. They use native flowers, from the region, to produce their honey (Indigenous leader).

The possibility to develop economies of honey lies in its overlapping instrumental and relational values, including ecological, social, cultural and monetary ones. People and bees are bound together through forests. According to an NGO member, only collective agreements can result in a successful management of native bees and their honey, while individual initiatives risk promoting overexploitation. If everyone extracts wild honey without a common regulation, the pressure on bees and on the trees hosting their hives can be too strong for them to adapt. This is especially true considering that people usually extract the honey by cutting down the whole tree where the hive is located. Thus, a high market demand could have a strong social and ecological impact. The only way to avoid risks is to keep a balanced relation between market opportunities and a strong community regulation of the practices of collection and commercialization. Moreover, stressing Indigenous people and bees' interdependence with forests, water sources, and flower diversity, can promote their collective management.

Our conversations with Indigenous leaders reflect the tensions between market demands leading to extractivism and overexploitation, and the life-rhythms of bees and forests. However, they further emphasize the need for not putting all the responsibility on Indigenous people's collective decisions, but also on unsustainable consumption, especially originated in the high demand from urban consumers disconnected from the realities of rural territories. Merely producing for the markets can quickly lead to overexploitation, which is why some see in honey an opportunity to organize and rethink the values of territorial relations without denying the possible benefits of selling honey.

> More than producing [for the markets], what is interesting is the opportunity to strengthen Indigenous territories through women's [beekeepers] organization and their capacities to transform products [e.g., producing soaps, shampoo, and medicine from honey]. There is an increased consciousness of the needs for healthier consumption, and this can favor Indigenous women (Leader of a Chiquitano women organization).

In words of an NGO member, synthesizing his conversations with Indigenous leaders interested in beekeeping and honey marketing:

> With [wild] honey, there are no opportunities for extractivism and commodification. Its production is unpredictable and unstable. An alternative would be to domesticate one or two bee-species [in boxed-hives]. In general, it is a matter of Indigenous people creating their own cooperative model; learning to be a community again. Native honey could adapt to any agricultural activity that is not destructive, or to a forestry that is well managed (…). It should also be a product for community's own consumption, and not only for markets (NGO member).

Hive management in boxes is a tempting strategy to reduce the pressure on forests and wild bees. However, according to our conversations, out of the more than 27 stingless bee species in the Chiquitanía (Morón et al. 2023; Townsend et al. 2021), only the *señorita* seemed to adapt well to

domesticated habitats. Therefore, people turned to *Apis melifera* for its adaptive capacity and higher volume production, despite the fact that its honey is considered to be of lower quality, and thus cheaper.

> Profitability is a decisive factor with honey. (…) If people do not see some money quickly, they lose motivation. Boxed-hives are easier and cheaper to manage [than wild honey collection], and people can have them without neglecting their crops, or their cattle (leader of a private organization).

However, an NGO member affirms that the focus on only a few species can hinder the efforts to make bees' diversity more visible and to promote the protection of their habitats. Honey economies lie on a fragile balance between market dynamics and collective management of human-forest relations. Such balance depends on the interplays between the multiple values of honey, and the strong pressures of markets that overlook territorial relations and rhythms to impose utilitarian logics.

The risks of commodification

Commodification can hamper initiatives such as handicrafts and honey economies, and subsume them to extractivism in many ways, according to our interviews. First, bigger businesses can take on the commercialization, thanks to their advantage in the value chains (e.g., better access to information, capital, credit, and connections with markets). This is usually the case, according to an NGO member, when the volumes and quantities demanded become too high, oriented towards long-distance markets, or when the product transformation surpasses the technical capacities of the communities and small businesses. Second, the commercialization of non-timber forest products can fall into the enchantments of a *bonanza* by selling promising products without considering the plurality of values and disregarding meaningful relations between humans and other beings.

In both cases, values are translated into utilitarian terms and turned into profits appropriated by powerful actors. Such appropriation benefits from exploitative conditions, for example, when Indigenous or smallholder farmers end up working underpaid for large agribusinesses (Moore 2023). Recalling Tsing's "salvage accumulation" (Tsing 2015), agrarian extractivism can end up taking advantage of the multiple value relations existing outside of its direct control by commodifying them and allowing its dominant actors to accumulate the profits generated[10].

Promises of prosperity can attract all actors in the value chain, especially in contexts where extractivism has left few economic alternatives behind.

> Handicrafts, carpentry, weaving, clay artwork, honey are successful (…). The new government has brought many new projects. People are also excited about the industrialization of cassava flour, sugarcane and its derivatives. If it happens, then let it all come because there is enough territory and land (Chiquitano Indigenous leader).

> Rivalry and competition exist. At the end of the day, money rules (…). If they [community artisans] perceive they can sell cheaper and more, they will do it (…) because they have many needs (urban entrepreneur).

Moreover, initiatives can be hindered by the territorial reconfigurations of extractivist economies, including deforestation, water depletion, and land privatization:

> Because nowadays all the land has owners, [artisans] cannot go anywhere in search of plants. They have to ask for permission to property owners, and sometimes pay them to pass (…). Because of deforestation there is not much material left [e.g., plant fibers] (…). There are many tensions between the artisans and their neighbors [large landowners] (urban entrepreneur).

Our conversations suggest that diverse economies can only persist in contexts of extractivism by not giving up their value-plurality and the careful encounters between markets and territories.

> The hope is that, instead of [Indigenous people] merely adopting entrepreneurial or market logics, they create their own. That they dwell in their own place, integrating some elements of markets. In the corporative game, they are doomed to lose. Indigenous people are not [corporate] entrepreneurs (…). However, they have territories, resources, and networks that allow them to connect and build bridges (NGO member).

According to conversations with Indigenous leaders and residents, reactivating economic territorial bonds and making them visible could help to avoid the temptations of short-term profit mainstreamed by the agribusiness model. However, they stress that increasing economic precarity and territorial fragmentation make people turn towards

[10] "Salvage accumulation" is a process of translation of non-capitalist relations into capitalist assets and commodities to be appropriated and accumulated without totally controlling the conditions of their production (Tsing 2015).

Table 1 Non-utilitarian values in narratives of territorial reconfigurations

Territorial reconfigurations	Non-utilitarian values involved	
	Instrumental	Relational
Weakening of meaningful relations		
Deforestation	Forests lose their capacity to provide key resources for present and future community life.	Indigenous people's vital and irreplaceable connection to forests is in danger.
Water depletion	Water sources, used daily for agriculture, household life, and recreation, become scarce.	The loss of immaterial connections to water (e.g., conflicts with *jichis*) affects the cultural foundations and produces a sense of estrangement from nature.
Crop diversity loss	Fewer crops provide food, medicine, and income autonomy.	There is a sense of loss of cultural identity and memory linked to decreasing food diversity.
Remaking of meaningful relations		
Handicrafts	Can provide income opportunities, especially to women collectively organized.	Creative and commercial processes can promote collective bonds, careful encounters, and mutual relationships. Such processes can sensitize on social-ecological life cycles.
Honey	Can reactivate the instrumental value of collective forest management.	Honey reflects people and forests interdependence, and the importance of social bonds created through forest management.

immediate but short-lived income opportunities. Many residents notice the impacts of large-scale monocrops on soil deterioration and water depletion, but they cannot find alternatives. Some markets provide possible ways out of the submissive relations offered by agribusinesses, but the dependence on a few commodities such as soybean remains unchallenged. Initiatives like handicrafts and honey are not likely to substitute commodities, but they unveil possible transitions pathways out of the rule of extractivism. This translates into "moving between worlds", in words of a Chiquitano Indigenous leader, overcoming the myths and prejudices that deny the capacities of Indigenous people to create their own economic models without losing their territorial bonds.

Discussion: the limits of commodification and the possibility of non-extractivist economies

Non-utilitarian values unveil territorial relations that are not-fully commodified

People's narratives of how commodification shapes their daily lives unveil relations that are not fully-commodified. Our interviews unfolded stories about the disruption of meaningful relations with forests, water and crops, involving combinations of non-utilitarian values (Table 1). However, people's account of territorial reconfigurations are not mere passive descriptions of devastation: they are statements about the entities and relations that still matter to them beyond utilitarian framings.

Those meaningful relations reflect the persistence of non-utilitarian instrumental and relational values alongside the spread of extractivist practices relying on commodification. Our research shows the relentless advance of commodification in both communities, but also that not everyone perceives it as beneficial or accepts it passively. Commodification produces tensions when people have to adopt or work for an extractivist agrarian model, out of an apparent lack of alternatives, while observing and sometimes decrying the destruction it leaves behind. Most interviewees value and lament the loss of relations that they deem meaningful and irreplaceable. In our interviews, such tensions do not result from a collective politization against commodification or extractivism. Yet, they reflect the persistence of non-utilitarian values suggesting that commodification does not remain unquestioned.

In our interviews, the loss of territorial relations linked to forests, water, and diverse crops is experienced as a threat to the very survival of Indigenous people's livelihoods, social bonds, and cultural identity. This shows a limit to commodification, in the sense that the human and non-human work that produces those forests, water and crops is not a commodity in itself (McMichael 2023; Moore 2015), despite being treated as such by the agents of extractivism. Because such work and the relations it entails cannot be translated into utilitarian terms, it is not valued by extractivist practices and can easily be ignored and destroyed. Extractivist frontier expansion is therefore a process inherently contradictory, because it destroys the territorial relations that it cannot commodify but that it needs to ensure the reproduction of the resources it commodifies (Moore 2015; Tsing 2015). This contradiction is at the core of the tensions we described before referring to people's experience and sense of loss of meaningful relations.

As we will discuss next, as the extractivist agrarian commodity advances, the contradictions open possible spaces of contestation through which non-extractivist alternatives can emerge that involve interplays between multiple values.

Highlighting incommensurability to support non-extractivist economies

In our study, non-utilitarian values and commodification relate to each other dialectically. Non-utilitarian values appear both in narratives about the weakening and the remaking of meaningful relations due to commodification (Table 1). In such narratives, neither extractivism, through commodification, nor non-extractivist initiatives, through non-utilitarian values, seem to overcome the other.

The meaningful relations constituting handicrafts and honey economies in our research, based on non-utilitarian values, are both in tension with commodification and at risk of being commodified. This result can be interpreted in light of Lowrey's idea that commodity markets need accessible "reservoirs of unexploited nature and independently, rich creative human culture" (Lowrey 2008, p. 70). Such reservoirs, ruled by "alternate orders of value" (i.e., non-utilitarian values), are "amenable to the market yet remain partially outside of it" (2008, p. 73). In other words, the tensions exposed in people's narratives in our research reflect the incommensurability of utilitarian and non-utilitarian values, illustrated by the concurrent forces working for commodification while "simultaneously undermining it" (Lowrey 2008, p. 73). Unveiling such value interplays is key to understand that extractivist agrarian commodity frontiers do not always succeed in hegemonizing utilitarian narratives, or do not do so without resistance.

Our research suggests that a mediation between economic logics is needed, one that prevents extractivism from destroying meaningful relations in Indigenous territories, while opening pathways for fair market negotiations and more equilibrated power-relations. Bolivia's political constitution provides a key supporting framework, for it acknowledges economic pluralism including principles of reciprocity, solidarity, complementarity and justice[11]. However, such support has been hindered in practice due to the persistence of dominant extractivist logics guided by the interests of globalized markets (Eichler 2022; Wanderley 2013). In line with Wanderley (2013), analyzing and supporting plural Indigenous economies at the frontier requires to avoid portraying them as fully subordinated to extractivist logics (and therefore doomed to be commodified) or completely external to them. Our research suggests that this can be done by noticing the interplays between non-utilitarian values, which persist and emerge in reaction to commodification amidst territorial reconfigurations, and which remain incommensurable with utilitarian values.

The ostensible dominance of extractivism in Bolivia's agrarian commodity frontier creates devastating territorial reconfigurations, especially with rampant deforestation. However, our research shows that such dominance is nuanced. While the utilitarian narratives of large agribusinesses underrate non-utilitarian "alternate orders of value" (Lowrey 2008, p. 73; Svampa 2015), our results suggest that enactments of non-extractivist economies can emerge that place meaningful relations at their core. Our research provides some analytical insights to understand the emergence of non-extractivist economies at the agrarian commodity frontier:

- An analysis of narratives of territorial reconfigurations caused by the expansion of extractivist practices should pay attention to expressions of non-utilitarian values reflecting how meaningful relations persist despite being affected.
- In our study, meaningful relations involve mixes of non-utilitarian instrumental and relational values that reflect how the links between people and forest, water, or crops are mediated by situated practices of use (e.g., forestry and agriculture as vital sources of livelihood), collective experiences, worldviews and cultural references (e.g., relations with the *jichis*).
- Market-based monetary values can interact with relational ones within meaningful relations, as in the case of handicrafts and honey economies triggering processes of collective organization and careful interactions, particularly for women.
- Meaningful relations emerge from dynamic spatio-temporal coordinations (Ortiz-Przychodzka et al. 2025), such as the ones described for handicraft markets.
- Non-extractivist economies built on non-utilitarian values are not isolated from the impacts of the territorial reconfigurations fueled by extractivist practices. Moreover, being at the frontier puts them at risk of commodification, for example through the trap of *bonanzas*.

Future research is needed to better understand the elements enabling the persistence of non-extractivist economies in highly adverse contexts such as those of expanding extractivism at agrarian commodity frontiers. Paying attention to the multiplicity of values and their interactions can help to look beyond the veil of dominant utilitarian narratives and highlight the capacity of Indigenous economies to build non-extractivist pathways.

[11] Supported by international legal frameworks adopted by the Bolivian National Congress: the UN Declaration on the Rights of Indigenous Peoples (including collective territorial rights, self-determination and sovereignty) adopted in 2007, and the International Labor Organization's convention 196 ratified in 1991 (Eichler 2019).

Conclusions

Extractivist frontier expansion in the Chiquitanía is fueled by the commodification of territorial relations, including forests, land, and livelihoods that are not completely ruled by capitalist market relations. Commodification entails the mainstreaming of utilitarian narratives, especially by large agribusinesses promoting an extractivist approach to agriculture and forestry that makes small-scale farmers more vulnerable while concentrating most productive capital and lands (Castañón Ballivián, Enrique 2024; McKay 2018b). Utilitarian narratives spread the myth of inefficient Indigenous farmers, while overstating the success of large agribusinesses (Li 2023). Our results show that agrarian extractivism leaves a deep trail of destruction in the two communities that were part of our study. Moreover, commodification conceals the capacities of non-utilitarian Indigenous economies to build non-extractivist paths based on meaningful territorial relations (Table 1). Nevertheless, our results also show the persistence of non-utilitarian values in the narratives depicting the weakening and in those about the remaking of meaningful relations. Such persistence provides elements to think the possibilities of emergence of non-extractivist economies amidst the devastation cause by the expanding agrarian extractivism.

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Declarations

Declaration of interests The authors report there are no competing financial and non-financial interests to declare.

Compliance with ethical standards This research was conducted with an ethical protocol approved by the Ethical Committee of the Leuphana University of Lüneburg, EB-Antrag_202004-05–23-Hanspach_BioKultDiv. Previous informed consent was obtained from each interviewed person, in signed form when possible, otherwise orally.

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