

A dam, a park, and offsets: Analyzing socio-ecological conflict in Santander, Colombia, through political ecology and Galtung's conflict triangle

Jane Kathryn Feeney¹

Independent scholar

Abstract

Environmental offsets are proposed as a solution to counterbalance the inherent conflict between extractive development and environmental protection. However, with the expansion of offsetting projects across the world, new socio-ecological conflicts are emerging as a direct consequence of these initiatives. This article examines a case study of environmental offsets implemented in Parque Nacional Natural Serranía de los Yariguíes located in Santander, Colombia, to compensate for the impacts of the Hidrosogamoso hydroelectric dam. Based on fieldwork conducted between 2018 and 2019 and adopting an analytical framework that combines Johan Galtung's conflict triangle with political ecology, this study reveals the contradictory goals, values, policies and narratives, and the behaviors and attitudes that have led to tensions. In doing so, it highlights the social impacts of offset projects implemented in a protected area, as well as the practical and ethical challenges of attempting to offset environmental harm.

Keywords: Environmental compensation, biodiversity offsets, conflict, Colombia, Hidrosogamoso, protected area, conflict triangle

Résumé

Les compensations environnementales sont proposées comme une solution pour contrebalancer le conflit inhérent entre le développement extractif et la protection de l'environnement. Cependant, avec l'expansion de ces types de projets à l'échelle mondiale, de nouveaux conflits socio-écologiques apparaissent comme une conséquence directe de ceux-ci. Cet article examine une étude de cas de compensations environnementales mises en œuvre dans le Parque Nacional Natural Serranía de los Yariguíes situé à Santander, en Colombie. L'objectif a été de compenser les impacts du barrage hydroélectrique Hidrosogamoso. Le travail de terrain s'est déroulé entre 2018 et 2019 et a adopté un cadre analytique qui combine le triangle des conflits de Johan Galtung et l'écologie politique. L'étude révèle les objectifs, les valeurs, les politiques et le récit contradictoires, ainsi que les comportements et les attitudes qui ont conduit à des tensions. Je souligne les impacts sociaux des projets de compensation mis en œuvre dans une zone protégée, ainsi que les défis pratiques et éthiques liés à la tentative de compensation des dommages environnementaux.

Mots clés: Compensation environnementale, compensation de la biodiversité, conflit, Colombie, Hidrosogamoso, aire protégée, triangle de conflit

Resumen

Las compensaciones ambientales han sido una solución propuesta como contrapeso ante los conflictos inherentes entre el desarrollo extractivo y la protección al medio ambiente. Sin embargo, con la expansión de los proyectos de compensación alrededor del mundo han surgido nuevos conflictos socio-ecológicos como consecuencia directa de estas iniciativas. Este artículo examina un caso de estudio de compensaciones

¹ Dr Jane K Feeney, Independent Consultant, formerly PhD Candidate at Trinity College Dublin, the University of Dublin, Ireland. Email: feeneyj1@tcd.ie. I would like to thank Laura Peña for assistance with community interviews, all the interviewees who shared their valuable time and insights, and the two reviewers for their helpful comments. This research was undertaken at Trinity College Dublin, the University of Dublin, and funded by the Irish Research Council Government of Ireland Postgraduate Scholarship (GOIPG/2016/510).

ambientales implementadas en el Parque Nacional Natural Serranía de los Yariguíes ubicado en Santander, Colombia, las cuales tienen como objetivo compensar los impactos de la represa hidroeléctrica Hidrosogamoso. Con base en trabajo de campo realizado entre 2018 y 2019, e incorporando un marco analítico que combina el triángulo del conflicto de Johan Galtung con ecología política, este estudio revela las contradicciones en las metas, valores, políticas y narrativas, así como los comportamientos y actitudes que han resultado en tensiones. De este modo, se destacan los impactos sociales de los proyectos de compensación implementados en áreas protegidas, así como los retos en la práctica y la ética de los intentos de compensar el daño ambiental.

Palabras clave: compensación ambiental, biodiversidad, compensaciones, conflicto, Colombia, Hidrosogamoso, área protegida, triángulo del conflicto

1. Introduction

The Magdalena Medio region of Colombia has been described as a frontier, a place of refuge and progress (Ruiz Nieto, 2018, p. 14), where the history of land occupation is closely related to the political and environmental conflicts arising from land grabs, the construction of communication routes and the arrival of multinational oil companies. Over the past two decades, the Hidrosogamoso dam has come to represent a new symbol of progress for the region. However, it has also provoked tensions among the local community due to the social and ecological impacts incurred by the megaproject. As a result, Hidrosogamoso appears as a case study in databases of environmental conflicts (EJ Atlas, 2019; Observatorio de Conflictos Ambientales, 2017), where conflicts over dams and water distribution represent one of the most common categories of socio-ecological conflict around the world (Temper *et al.*, 2015). Hidrosogamoso also belongs to a lesser-studied category – conflict over environmental offsets – which arise as an indirect and often unexpected consequence of development projects.

Under national and international agendas of sustainable development and green growth, environmental offsets aim to find a balance between economic growth and environmental protection. The term 'environmental offsets' or 'offsets' is used here to refer to different activities that aim to compensate for the environmental impacts of development projects, encompassing biodiversity offsets, forest compensation and no net loss schemes. Offsets form part of the mitigation hierarchy, a central tool in environmental impact assessment to compensate for the unavoidable negative environmental impacts of development, through conservation and ecological restoration programs that aim for no net loss, or ideally a net gain, in biodiversity (BBOP, 2012).

Offsets have stirred a contentious debate between those who seek pragmatic solutions and a compromise between competing economic and ecological interests, and those who reject the approach as a greenwashing strategy. Work from political ecology, ecological economics and related fields has highlighted the ethical challenges associated with sacrificing a piece of nature in one location for another piece elsewhere (Ives & Bekessy, 2015; Spash, 2015), and critiqued offsets as the commodification and neoliberalization of nature (Apostolopoulou & Adams, 2019; Büscher *et al.*, 2012; Robertson, 2000; Sullivan, 2013). Yet countries where conservation is chronically underfunded turn to offsets as a source of revenue, whether through public policy or to meet the requirements of international funders. Consequently, the number of countries incorporating offsets into national policy is on the rise (Global Inventory on Biodiversity Offset Policies, 2019; OECD, 2016), with a particular uptake in biodiversity-rich, extractive-dependent countries (IUCN *et al.*, 2017). Offsets are now included in the standards of financial institutions and multilateral banks (Equator Principles EP4, 2020; European Investment Bank, 2018; Hardner *et al.*, 2015; International Finance Corporation, 2012).

High in the mountain range of the Serranía de los Yariguíes lies an important water source, the origin of streams that flow down to feed the rivers of the Magdalena Valley and the Hidrosogamoso dam. It is here that the dam developer ISAGEN², in partnership with the national parks authority (Parques Nacionales Naturales de Colombia: hereafter Parques Nacionales) and the environmental foundation Patrimonio Natural, carried out ecological restoration projects as part of its environmental compensation commitments. This article examines

² ISAGEN is an energy generation and commercialisation company in Colombia. It was a public-private company until 2016 when it was privatised and purchased by Canadian firm Brookfield Asset Management.

a particular socio-ecological conflict that arose out of this offset project. There are two main objectives. The first is to offer a contribution to the literature on environmental/conservation conflicts by utilizing an analytical framework that combines political ecology with peace and conflict studies. In response to the opportunity highlighted by Le Billon and Duffy (2018) to connect these two fields, this framework centers on Galtung's (1996) conflict triangle, enriched by a nuanced critical perspective offered by political ecology. Second, it offers an empirical contribution to the biodiversity offsetting literature by examining offset implementation beyond high-income countries, a gap that has been highlighted by Gelcich *et al.* (2017). Specifically, I hope to add to the small but growing body of work revealing the social impacts of offsets in low- and middle-income countries, such as Malaysia (Brock, 2015), Madagascar (Bidaud *et al.*, 2018; Bidaud *et al.*, 2017) and Brazil (Anaya & Espirito-Santo, 2018). Colombia is a suitable place to explore this theme, for it is a megadiverse country that is experiencing an increasing number of socio-ecological conflicts and alarming death rates of environmental defenders. It also has advanced environmental offset legislation.

The following section sets up the analytical framework, exploring the theme of conflict from the fields of political ecology and peace and conflict studies. Section three presents an overview of historical land conflicts in Colombia and contemporary socio-ecological conflicts. Section four introduces the case study of the Hidrosogamoso dam and the environmental offsets in Parque Nacional Natural Serranía de los Yariguies (PNN SYA). Section five analyzes the socio-ecological conflict at the heart of this case, adopting Galtung's conflict triangle and drawing on political ecology and the work of Latin American scholars, in particular Colombian anthropologists, political ecologists and historians (Escobar, 2006; Palacios, 2006; Parra-Romero, 2016; Serje, 2017; Ulloa and Coronado, 2016). Finally, some conclusions and routes to peace are discussed.

2. Conflict – perspectives from political ecology and peace studies

Conflict arises from the pursuit of incompatible goals (or those perceived to be incompatible) by two or more people, groups or institutions (Gilmartin, 2009). In human society, conflict is inevitable and can manifest in a range of violent or nonviolent practices, such as protest, intimidation, physical force, dialogue, negotiation, or legal action (Andrews *et al.*, 2017). Although violent conflict is often the more visible manifestation, conflict can also be peaceful and transformative, leading to constructive dialogues and outcomes.

Conflict is a central theme in political ecology (Robbins, 2020). It features center-stage in Martinez-Alier's conception of political ecology as "the study of ecological distribution conflicts" (Martinez-Alier, 2002, p. 54), i.e. social conflicts over the unequal distribution of environmental benefits and burdens. In the Latin American context, scholars have emphasized the importance of examining not only unequal distribution of resources (economic and ecological), but also uneven cultural dynamics and power relations when analyzing socio-ecological conflicts (Escobar, 2006; Parra-Romero, 2016). In attempts to identify the causes and triggers of violent conflicts, some economists and political scientists have pointed to resource scarcity as drivers or triggers (Homer-Dixon, 1999; Maxwell & Reuveny, 2000) while in contrast, others point to resource abundance: i.e. 'the resource curse' (Collier & Hoeffler, 2004; Humphreys, 2005). Political ecologists have rejected overly simplistic accounts that draw direct causal links between conflict and environmental scarcity, abundance or degradation, instead highlighting the specific and situated nature of socio-ecological conflicts and illustrating examples that defy deterministic theories (Fairhead, 2001; Peluso & Watts, 2001). In more recent work, political ecologists have examined the linkages between nature conservation and conflict, including tensions over protected areas and illegal wildlife trade, human-wildlife conflict, and conservation within contexts of war. This work reveals both militarized forms of conservation (Duffy *et al.*, 2019; Verweijen and Marijnen, 2018) and 'soft' or 'green' counterinsurgency approaches that legitimize environmental and social harms through less conspicuous means, including the mapping of conservation areas and biodiversity offsets (Dunlap & Fairhead, 2014; Woods and Naimark, 2020).

The field of peace and conflict studies emerged as an academic discipline in the mid-21st century to analyze violent and nonviolent conflicts and routes to peace, through empirical, critical and constructive approaches (Galtung, 1996). Johan Galtung, widely regarded as the founding father of the field, conceived of the conflict triangle or 'ABC triangle' (Figure 1), a central theory widely used for analyzing different conflict situations. According to the conflict triangle model, three elements make up a conflict: attitudes or assumptions;

behaviors; and a contradiction (Galtung, 1996, p. 70). A conflict can originate at any point in the conflict triangle; a contradiction might lead to certain behavior and attitudes, or accumulated behavior or attitudes might lead to a contradiction. Galtung (1990) also describes three forms of violence: direct (e.g. physical or verbal violence); structural (e.g. repression or exploitation), and cultural (a symbolic form of violence that legitimizes direct and structural violence, e.g. through religion, ideology, media or science).

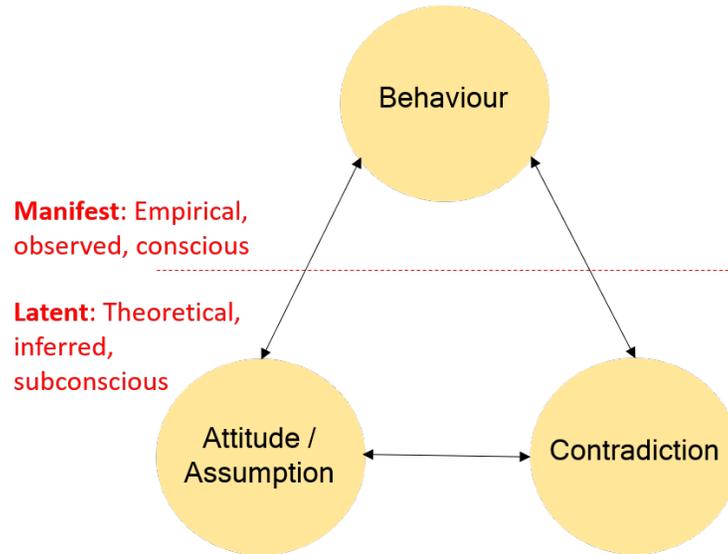


Figure 1: The conflict triangle or ABC triangle, adapted from Galtung (1996).

Bridging political ecology and peace and conflict studies

There has been little intersection between political ecology and peace and conflict studies, partly because of political ecologists' criticisms of the reductionist positivist approaches within peace and conflict studies, and conversely, criticisms coming from conflict scholars of the use of ad hoc case studies and lack of systematic analysis within political ecology (Le Billon & Duffy, 2018). However, there are calls for greater engagement between the two fields for their mutual benefit (Ide, 2016; Le Billon & Duffy, 2018). Ide (2016) shows how a constructivist approach can reveal the role of discourse in constructing identities and environmental problems, dimensions often overlooked by mainstream research on socio-ecological conflicts. Political ecology analyses recognize that conflicts emerge not only over material distribution and access to resources, but also over ideological differences; they show how pre-existing social struggles can become 'ecologized' and reframed as environmental issues and likewise how new divisions emerge from ecological conflicts (Le Billon & Duffy, 2018; Robbins, 2020). On the other hand, theories, frameworks and debates from peace and conflict studies can offer political ecologists insights into conflict dynamics and a basis from which to critically analyze socio-ecological conflicts. While Galtung's conceptions of structural and cultural violence have been influential in work on political ecologies of violence and environmental conflicts (Bohle & Fünfgeld, 2007; Le Billon, 2015; Navas *et al.*, 2018; Scheidel *et al.*, 2020; Shapiro & McNeish, 2021), the conflict triangle has not received the same level of attention. This article therefore aims to explore the potential of the conflict triangle in analyzing the political ecology of an offset conflict.

3. Colombia: historical land conflicts and contemporary socio-ecological conflicts

Colombia, as a result of its geographical location and unique physical features, is a haven for biodiversity, a megadiverse country home to approximately 10% of the planet's biodiversity. It ranks first for bird and orchid species diversity (CBD, 2017; SiB Colombia, 2019). It is also rich in cultural diversity with

numerous ethnic groups such as Indigenous, Black, Afro-Colombian, Raizales, and Palenqueras Romani populations. Indigenous peoples represent approximately 3.4% of the national population, and almost a third (29%) of the national territory is categorized as indigenous reserves (International Work Group for Indigenous Affairs, n.d.). Violence and armed conflict mark Colombia's history, from the colonial era through a series of land conflicts in the 20th century to the most recent phase of internal armed conflict from the late 1950s. A peace accord was signed in 2016 between the Colombian government and the Revolutionary Armed Forces of Colombia – People's Army (FARC-EP) after fifty years of conflict (Jurisdicción Especial para la Paz, 2016). The causes, dimensions and actors entangled in this half-century war are multiple and complex. However, at the heart of the issue is land – access, use and tenure – which plays a key role in both the origins and the endurance of the armed conflict (Grupo de Memoria Histórica, 2013; Romero, 2010). Over the years, forced displacements, land concentration and failed reform have persisted in Colombia, with the addition of new dynamics in the form of drug trafficking, mining, energy and agribusiness models and criminal alliances between the various groups of actors (Ballvé, 2013; Grajales, 2011; Grupo de Memoria Histórica, 2013). The evolution of different phases of extractivism and neoliberalism has been intertwined with war, where "the state and paramilitary forces act at the service of national and transnational capital" (Oslender, 2007, p. 758).

These factors have led to an increasing number and intensity of socio-ecological conflicts linked to pro-extractivist policies in the country over the past two decades, primarily over mining, fossil fuel extraction, biomass and hydropower (Forero & Urrea, 2018; Pérez-Rincón *et al.*, 2017). Such policies and the resulting extractive practices have impacts on water, soils, rivers and forests; they result in land grabs, impact protected areas and the groups most affected are *campesinos*³, indigenous peoples, small-scale fishers, artisanal miners and Afro-descendent communities (Pérez-Rincón, 2014). Violence, forced displacement and killings of activists are used to silence counter narratives, repress social movements and grab land for capital investment (Dyer, 2019; Ulloa & Coronado, 2016), in some cases disguised behind narratives of grassroots and sustainable development (Ballvé, 2013). In Colombia's post-war transition, violence against human rights and environmental defenders has increased, and the country has been ranked in recent years as having the highest number of killings of defenders, according to Global Witness (2021) and Front Line Defenders (2021). Leaders of community-based and ethnic groups, and increasingly women, are those most at risk (Front Line Defenders, 2021; United Nations, 2020).

4. Case study: The Hidrosogamoso dam and environmental offsets in Parque Nacional Natural Serranía de los Yariquíes

In the year 2000, Colombian energy company ISAGEN S.A. E.S.P. (hereafter ISAGEN) was granted an environmental license to build the Sogamoso hydroelectric dam, also known as Hidrosogamoso. Construction began in 2009 and the dam began operation in 2014. ISAGEN was at that time a state-owned energy company until the majority share was purchased by Canadian firm Brookfield Asset Management in 2016 for approximately US\$2 billion (Brookfield, 2016). The privatization of one of Colombia's principal energy companies was heavily criticized by many in the country and the handling of the sale was marred by controversy since Brookfield Asset Management was the sole bidder (Symmes Cobb, 2016).

Hidrosogamoso is located in the canyon where the Sogamoso River crosses the La Paz Mountain Range in the Department of Santander and consists of a 190-meter-high concrete dam, a power plant with an installed capacity of 820 MW, and a reservoir. Using the water flow of the Sogamoso River, Hidrosogamoso produces electricity for the national grid, providing approximately 8.3% of Colombia's energy (ISAGEN, 2015). The reservoir, one of the largest in the country, required an area of approximately 7,000 hectares of agricultural land and forest to be flooded. As a result of the scale of the dam, the landscape underwent a major transformation, as can be seen in the aerial photos in Figure 2, and incurred extensive social and environmental impacts, reported

³ The word *campesino* can be translated in English as 'peasant', a term which has its own long and contested history (Edelman, 2013). The original Spanish term is used in this article, adopting the Acosta Navarro *et al.* (2018, p. 7) definition of a *campesino* as an "intercultural subject who identifies themselves as such, vitally involved in direct work with the land and nature; immersed in forms of social organisation based on unpaid family and community work and/or on the sale of their labour", where the subject may be of any age or gender.

elsewhere (Duarte-Abadía *et al.*, 2015; EJ Atlas, 2019; Ríos Vivos Colombia, 2011; Roa Avendaño & Duarte Abadía, 2012; Rodríguez-De-Francisco *et al.*, 2019).

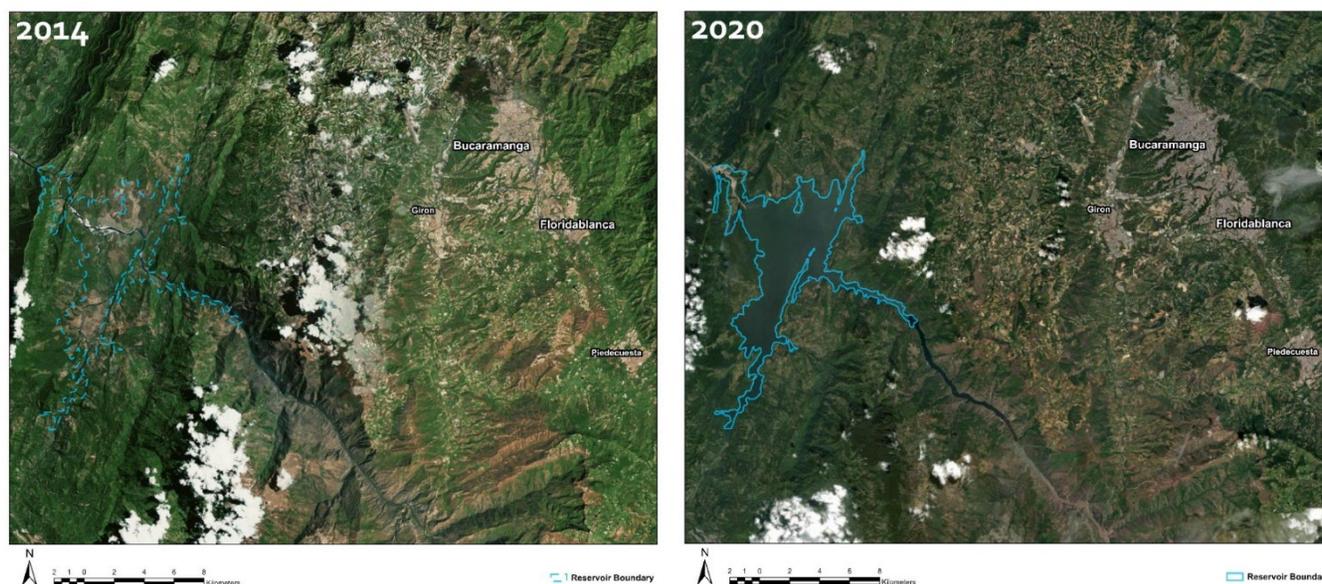


Figure 2: Aerial photos before and after construction of the Topocoro reservoir, 2014 and 2020.

Colombia has some of the most advanced environmental legislation in Latin America and is embracing environmental offsets to limit the negative impacts of development. The government has several legal environmental compensation instruments, as part of environmental impact assessment (EIA) and licensing processes, dating back to the 1970s. In 2012, Colombia introduced biodiversity offset legislation under the 'Manual for the allocation of compensation for biodiversity loss' (Ministerio de Ambiente y Desarrollo Sostenible [MADS], 2012), which was updated in 2018 under the 'Compensation manual for the biotic component' (MADS, 2018). The environmental license for Hidrosogamoso was granted in 2000, prior to the current national biodiversity offset legislation but subject to other environmental offsets under the '1% investment' and 'forest use' laws. The 1% investment refers to a legal instrument requiring developers of a project or activity impacting on natural water sources to provide financial compensation amounting to no less than 1% of the project cost directed towards restoration, conservation, preservation and monitoring of the affected water basin (Fondo Acción *et al.*, 2016).

The 'forest use' system (*el régimen de aprovechamiento forestal*), introduced in 1996, requires proponents applying for a logging permit to plant trees to compensate for the trees felled. In general, these forest offsets have been carried out through reforestation based on the volume of wood extracted, without considering the wider ecological area and ecosystem services affected (Sarmiento, 2014). To compensate for the ecological impacts of Hidrosogamoso, offsets were carried out in areas of degraded forest in a buffer zone surrounding the reservoir and in PNN SYA. This article focuses on the latter within the national park for two reasons. Firstly, as will be described in the next section, the PNN SYA project was a pioneering restoration project implemented in a protected area under a public-private partnership, making it a unique case to examine. Secondly, the type of stakeholders involved and the timescales of the two different offset projects meant that there was greater access to data arising from the national park project. The PNN SYA project involved prominent NGOs that were visible in the territory and relatively easy to access. Since the project was ending in 2018, the year fieldwork was undertaken, stakeholders were still in the area and the experience was fresh in their mind. In

contrast, the buffer zone project was managed solely by ISAGEN with private contractors, and accessing information proved much more challenging, in part due to the project ending in 2015 and stakeholders moving on.

Parque Nacional Natural Serranía de los Yariguíes

PNN SYA is a protected area covering 59,063 hectares that was declared a national park in 2005 (Figure 3). It is located entirely in the Department of Santander, crossing seven municipalities: El Carmen de Chucurí, El Hato, Simacota, Santa Helena del Opón, Galán, Chima and San Vicente de Chucurí. The park is not open to the public, except for biological expeditions and bird watching tours organized by Fundación ProAves, which owns a reserve within the park. The altitude ranges from 500 to 3,200 meters above sea level, giving rise to tropical rainforest, high Andean Forest, sub Andean forest and high Andean *paramo* (high altitude mires, or wetlands). The protected area has been recognized for its important biodiversity, especially bird diversity, and is home to the jaguar, spider monkey, Andean bear and puma (Moreno & Tinjaca, 2018). The main threats to conservation within PNN SYA have been identified as agriculture, livestock, hunting, logging and illicit crops (*ibid.*).

Environmental offsets from development projects are a potential source of financing for protected areas. In the case of Hidrosogamoso, to undertake the environmental offsets within PNN SYA, an agreement was signed between three entities, combining financial (ISAGEN), technical (Parques Nacionales), and administrative (Patrimonio Natural) efforts. The objective was to contribute to maintaining ecological integrity and the provision of ecosystem services of the national park, through ecological restoration, environmental education and local and regional communication (FUNDASET-CONIF, 2016). The PNN SYA offset project is a pioneering initiative in two senses. First, by using ecological restoration, as opposed to reforestation efforts that only focus on individual indicators such as the number of trees. And second, the project combines the efforts of public and private institutions to carry out a project within a protected area, something that had little precedent in Colombia. Ecological restoration of 4,057 hectares was carried out inside the park in two areas – the center-west sector in the municipality of El Carmen de Chucurí, and the north sector in the municipality of San Vicente de Chucurí – which was identified as being degraded by farming, cattle and logging (Patrimonio Natural, 2020). While the project brought positive social benefits to community members involved in the restoration, there were also tensions with certain sectors of the local community over their lack of involvement. Additionally, implementation of the offsets brought up land use issues when it transpired that land designated for offsets and presumed vacant was owned or occupied, as will be discussed later in the article.

Data collection and methods

This research is based on fieldwork carried out by the author between March 2018 and January 2019. Data includes 34 semi-structured interviews with 42 stakeholders and observation conducted at the following field sites: PNN SYA (visits to two of the offset sites and to the homes of community members living inside and near the national park); El Carmen de Chucurí and San Vicente de Chucurí (interviews with project staff, community members and local organizations in both villages); Hidrosogamoso dam at El Cedral (interview with ISAGEN and visit to reservoir and reforestation sites in the buffer zone around the reservoir); Barrancabermeja and Bucaramanga (interviews and meetings with environmental consultants, academics, NGOs and a regional environmental authority); ISAGEN headquarters in Medellín (interview with company executives). All interviews were conducted in Spanish. A research assistant, a sociologist from Santander, was hired to assist with the majority of the community level interviews with farmers and fishing communities. All other interviews – with institutional representatives and a number of ad hoc interviews with community members – were carried out by the author alone. Interview transcripts were analyzed using NVivo. Additional data include responses to freedom of information requests from the national and regional environmental authorities, legal documents, project reports, an independent audit report, peer-reviewed papers and gray material. The next section will present an analysis of the socio-ecological conflict over offsets in PNN SYA.

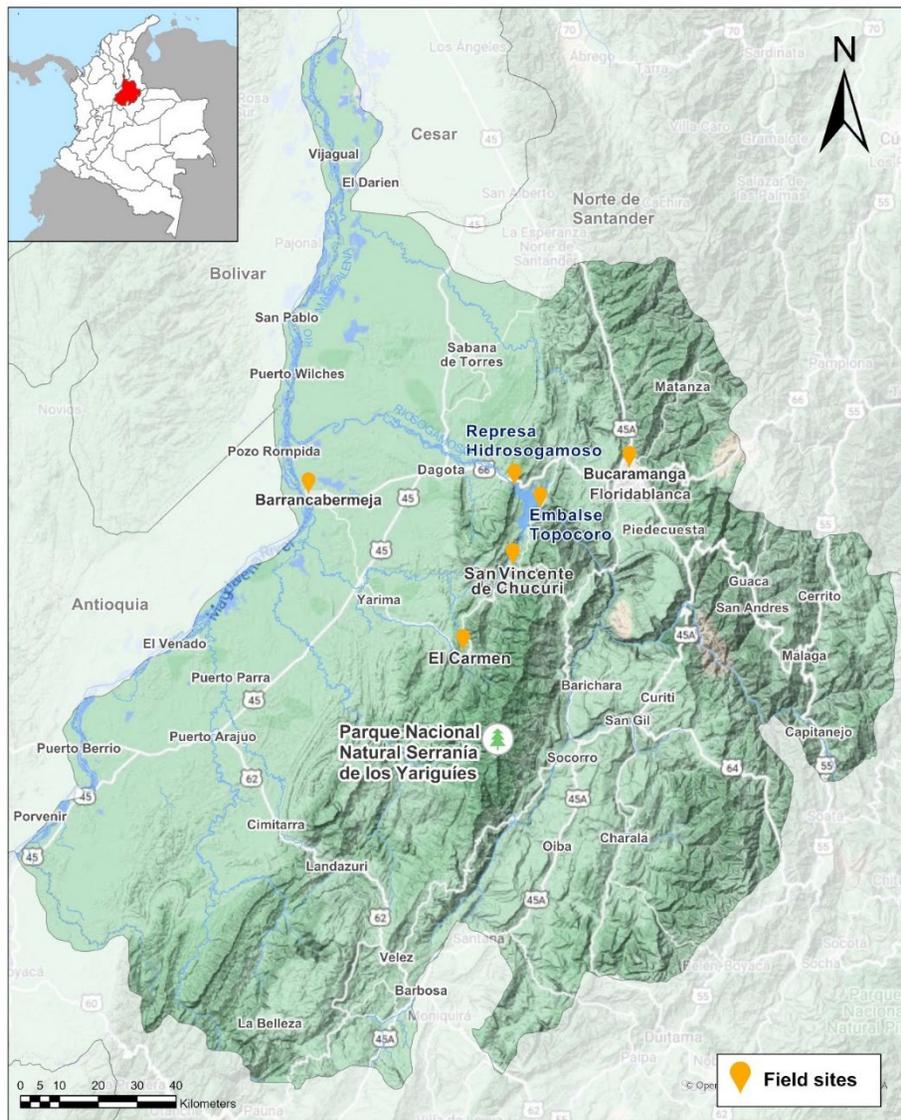


Figure 3: Map of Santander showing research field sites (created by Wahaj Habib).

5. Conflict analysis: socio-ecological conflict in Parque Nacional Natural Serranía de los Yariguíes

To illustrate the specific dynamics of the socio-ecological conflict in PNN SYA, the background to the dispute is discussed below, followed by an examination of the three elements of Galtung's conflict triangle: contradictions, behaviors, and attitudes or assumptions.

Background to the conflict - offsets as a resolution?

When PNN SYA was declared a protected area in 2005, making it one of 59 national parks in Colombia's National Natural Parks System, it was regarded as a great win for conservation in Santander, and the country. However, there were teething problems with the delimitation of the park boundaries due to cartographic errors and inconsistencies presented in legal resolutions (Moreno & Tinjaca, 2018). According to an interviewee from

Parques Nacionales, the park limits were declared without a proper analysis of land occupation, use and tenancy, and therefore they were re-defined in 2008, following visits along the entire perimeter. The new area was 20,000 hectares less than the area originally proposed, to avoid land use conflicts with landowners and occupiers. This situation generated some dissatisfaction among sectors of the community and municipalities, who were left waiting for clarification about whether their land was inside or outside the national park. In Colombia, any land within the boundaries of a national park cannot be sold to anyone but the Colombian State, at a price determined by the Agustín Codazzi Geographic Institute (IGAC) and is subject to strict restrictions (e.g. no crops, cattle, vehicles, hunting or fishing). Environmental offsets have arisen as a key source of finance for the purchase of private properties within protected areas, a process known as '*saneamiento predial*' (literally translated as 'property sanitation'), and to fund the management of protected areas. The 2008 PNN SYA park management plan set a long-term goal to acquire all properties within the park and bring them under state control (Díaz, 2008). Funding from ISAGEN and oil company Ecopetrol⁴ through environmental offsets had by 2017 financed the purchase of 1,898.12 hectares within the park, 1,217 of which underwent active restoration (Moreno & Tinjaca, 2018). Although touted as a resolution to the situation of those *campesinos* left in a state of limbo since the declaration of the national park and the consequential impacts on their livelihoods, the purchase of land and the ecological restoration project highlighted a clash between the rights of *campesino* communities and the conservation of natural resources, explored below.

Contradictions: conflicting goals, values, policies, and narratives

According to Galtung, deep inside a conflict lies a contradiction, which he describes as "something standing in the way of something else" (Galtung, 1996, p. 70). Many contradictions exist with the case of the environmental offsets implemented in PNN SYA: the seemingly incompatible goals of different actors, contested valuations of land, contradictory policies, and conflicting narratives about the success or failure of the restoration project. *Campesinos* living inside and surrounding the park are seen by some in the ISAGEN-Parques Nacionales-Patrimonio Natural alliance and their contractors as standing in the way of their conservation goals – a familiar conundrum around the world, as social conflicts have long been recognized as an inherent part of protected area establishment and management (Adams & Hutton, 2007; García-Frapolli *et al.*, 2018). When protected areas are promoted as wild or human-free zones, as a form of fortress conservation or territorialization projects, the resulting impacts on local people living within or surrounding the protected area boundaries include displacement from their land or severely limited livelihood options (Adams & Hutton, 2007; Brockington *et al.*, 2006; Holmes, 2014; Redpath *et al.*, 2013). One of the main challenges cited by those in charge of coordinating the restoration project was the tense relationship with the local community. In the quote below, one of the project coordinators explains that the community's dissatisfaction with the declaration of the park was understandable, but claims they also tried to take advantage of the situation by charging more for their work:

The [other] challenge was, it must be said, it was the community itself because the community in the first place did not fully accept the presence or formation of the park, which is an expected response because they arrived here before the park arrived. They had their ways of life already established and the park from one moment to the next... the park fell on top of them. And, on the other hand, they knew that the [offset] project was financed by ISAGEN, so they had very high economic expectations about what the project could bring. So, some people in the community tried to charge for their services or their work four or five times more than the work normally cost.

⁴ State-run Ecopetrol operates the Barrancabermeja refinery in Santander, the country's largest oil refinery and owns various oil fields in the department. Ecopetrol has funded numerous biodiversity projects in Santander under environmental compensation programs.

Those community members, meanwhile, saw Parques Nacionales and the restrictions imposed on them as standing in the way of their livelihoods, wellbeing and freedoms. According to some interviewees, the offset project was planned and implemented without proper consultation with the local people; they felt excluded and claimed that the strategy employed by Parques Nacionales to purchase land was unequal and divided the community, as described by a local farmer:

Of all the land that Parques bought, they came and looked for the most diligent, the heads of the area, the leaders. And, to them, "Come here, we'll pay you a lot"... They were leaving the communities without a representative, right? If they paid one, why didn't they pay the others? Yes? That is the way to silence the people, the communities.

The issue of land purchase caused conflicts within the community inside the park. Different families had different tenure arrangements and different sized plots of land, with some families selling up before the rest, and others refusing, resisting and trying to organize the community via an association. Such intra-community divisions were mirrored among the local communities directly affected by the Hidrosogamoso dam (Duarte-Abadía *et al.*, 2015), a common occurrence in socio-ecological conflicts and a consequence of co-optation strategies by corporations and local authorities (Le Billon & Middeldorp, 2021). Moreover, for those without land titles who have not received any offer for their land, they are left in highly vulnerable situations.

The second contradiction at the heart of this conflict was the contested valuation of land inside the park. Despite having important biodiversity values, the valuation was strictly set by IGAC and was not a commercial valuation. Landowners with legal land title who received offers to purchase their land were faced with two options: accept the offer, which inevitably meant downsizing their farms since property outside the park is much more expensive; or turn down the offer and choose to keep the land, with all the restrictions imposed upon it. Both options have negative livelihood impacts. Forty private properties were purchased under the agreement between ISAGEN, Parques Nacionales and Patrimonio Natural, a total of 1,181.7 hectares, ranging from 0.2 to 93 hectares in size, the average cost per hectare of land working out at approximately COP\$4,500,000 or US\$2,248.⁵ Although faced with downsizing, there were also benefits to moving outside the park, to a house more accessible to roads, schools, hospitals and amenities, and in a safer environment since areas in the PNN SYA are prone to landslides. Two families that had relocated from inside the park spoke of the dichotomy they experienced; of being grateful for their new homes in more convenient locations but struggling economically due to the smaller plots of land that they had to set up from scratch. For example, one couple moved from a farm of 121 hectares to one of only 11:

Well, here we bought this farm and everyone who comes says, "It's a very beautiful farm". We bought a very beautiful farm, but we didn't buy the same as what we had. Because up there, [we had] 121 hectares, two farms, where all our children worked, there on the farm and they had more space. Because here it's only 11 hectares... right now we are left only with the farm here with no place to even tie a goat.

Because of the laws dictating the process for the sale of property within publicly protected areas, Parques Nacionales has no authority to enter into negotiations with the landowner over the price, as explained by the interviewee from Parques Nacionales:

In most cases, these appraisals are attractive, it serves people and they have accepted; in other cases, not. In other cases, people say "No, no, that price does not work for me." And well, Parques

⁵ These calculations are based on the values of the forty properties listed in Parques Nacionales Naturales de Colombia (2014). The dollar rate is based on the average COP/USD exchange rate for the year 2014, published on <https://data.oecd.org/conversion/exchange-rates.htm> (Accessed 13 August 2020).

cannot say, "Ah, well, then I'll give you so much more". No, because if it is more, it's embezzlement and if it is less – it cannot be less, it would be a gross violation.

Beyond monetary value, the interviewees discussed other forms of value bundled into a piece of earth: the livelihood opportunities, connection to place, aesthetic values and memories. Those interviewed appealed for recognition of the psychological impact and for support in the relocation process, as shown by a farmer who was relocated from inside the park and worked on the restoration project:

I always hoped and I asked Parques to offer support and they even told me that they were going to get me a psychologist because, well, I lived all my life there since I was eight years old, and for me I always dreamt of inheriting the property when I was an adult... What's more, today I told him, "I don't know if you realise that today is the first time [in six years] a Parques official came to my house." Being surrounded by it all and I worked with the Temporary Union⁶ and no one ever came to say, "Man, how are you?"

These experiences highlight one of the key controversies with offsetting, the difficulty with accounting for societal values that are difficult to quantify, resulting in inevitable trade-offs and social equity implications (Mandle, 2015; Maron *et al.*, 2016).

A third form of contradiction is found in policy. A key policy clash that has contributed to the emergence of socio-ecological conflict in this case study is between a 'parks with people' vs. 'parks without people' conservation model, arising from a constitutional conflict between the fundamental rights of individuals and collective rights to a healthy environment. Analyses of the legal framework affecting *campesinos* in protected areas highlight a tension between, on the one hand, the rights of *campesinos* to human dignity, access to land, basic services and food production, and on the other hand, the duty of the state to protect the environment, conserve areas of ecological importance and control environmental deterioration, where natural parks cannot be sold or seized (Betancourt Santiago *et al.*, 2017; FAO, 2019). While legal protections exist (although they are all too often not upheld) for certain minorities such as Indigenous and Afro-Colombian communities, including reserves within protected areas, the same has not happened for peasant communities (FAO, 2019). The 2008 PNN SYA management plan (Díaz, 2008) directly references the Parques Nacionales 'parks with people' policy but does not include *campesino* communities in its characterization of actors, focusing only on institutional actors. It includes objectives to work with communities in the adjacent areas surrounding the park, but when it comes to property within the park, the objective is simply to gain possession of the land. A local NGO professional explained that financing from offsets has benefited Parques Nacionales but that the legislation makes it extremely difficult for people to live inside parks:

I think for the strategy of Parques, the offsets have served them a lot. Parques, the national system, has very few resources for operations and for investment in parks and improving the conditions, such as sanitation – what they call sanitation, I do not like that word, what they call property sanitation – which is the purchase of properties. That, for me, should not be parks without people, but we can define strategies *with* people, but the legislation of parks makes it super difficult for someone to stay inside the park. It absolutely inhibits them, so they cannot make any productive use of their property.

A fourth contradiction is seen in the conflicting narratives of different actors. The perceptions of success of the offset project vary greatly among the stakeholders, with contradicting reports about the survival rates of the planted trees and the success of the restoration project. Below, an NGO coordinator criticizes the property sanitation process as the deception and displacement of poor *campesinos* and the environmental offsets as a box-ticking exercise that was later abandoned:

⁶ Refers to one of the temporary unions established to implement the restoration project in PNN SYA.

The other [money was] spent buying the land from the *campesinos* who were inside the park and taking them out, displacing them, stripping them of the land. Land worth 30 million pesos per hectare was purchased at 1.8 million pesos to 2 million, 3 million per hectare. So, that is not forest compensation, that is deceiving people... But today, those trees are abandoned, abandoned, the path is abandoned, where the camps were, abandoned, everything is abandoned. So, those are projects that they do simply to spend the money, to take the photos and upload them and deliver the reports, but there is nothing left, compensated there is nothing left, nothing left. So, that is the truth of that situation.

While some local community members report that the restoration was a failure, the official monitoring reports state that the project successfully met its ecological objectives (Garibello-Peña *et al.*, 2018; UT Jaguar Corredor Norandino, 2018a, 2018b). One ecologist interviewed highlighted that although the project was a positive learning experience and the goals were met, as a restoration project it was not necessarily successful in improving ecosystem services in the area. Ultimately, to know the success and survival rates requires ongoing monitoring. The 2018 technical report from the National Environmental Licenses Authority (ANLA) stated that the environmental offsets within PNN SYA had been compliant based on the monitoring to that date and the survival rates of the plants. However, the same aspects were found non-compliant in 2019, due to a lack of sufficient information provided by ISAGEN for that period.

Regarding the purchase of land for the offsets, the report states that ISAGEN did not provide documentary evidence demonstrating that the purchase of properties was carried out following the legal norms and with prior review of land uses in the municipalities. Therefore, on this point the company was found non-compliant in 2018 and 2019 (ANLA, 2018; 2019). In addition, an independent report by the Office of the Comptroller General, Colombia's highest form of fiscal control, found that funds were reallocated from ongoing monitoring of the offset sites to hire private security to protect the national park. This, the report states, represents an insistence by Parques Nacionales on a restrictive and prohibitive approach to conservation, rather than a participatory one and sends a concerning signal regarding future ongoing maintenance of the offset sites (Contraloría General de la República, 2019, p. 62). These tactics show a militarization of conservation, legitimised by narratives of tackling crime and protecting biodiversity (Bocarejo and Ojeda, 2016; Duffy *et al.*, 2019).

Behaviors: participation and protest

The observable behaviors that form part of this conflict include the arrival in the territory of contractors who implemented the offsets, and acts of protest on the part of local people, as well as verbal threats. A central issue of contention in the offset project was the lack of consultation with local community members, an issue mirrored in the declaration of the national park and the granting of the environmental license to Hidrosogamoso. This is attributed to inadequate planning, with restoration teams going out to offset sites to start the restoration activities, only to discover that the land had not been purchased. While some of the locals were included in the restoration project from the beginning, others within the park boundaries were not invited to participate or even informed about the project, only coming to understand something was going on when they saw workers going back and forth past their farms. The tense relationship between some sectors of the community and the parks authority since the declaration of the protected area led to difficult relations during the offset project. The interviewees spoke of receiving verbal threats from the parks authority to stop working on their land and their fear of expropriation. One farmer spoke of the 'war' declared between them and Parques Nacionales, with tit-for-tat actions. For example, a small group of community members blocked access by the restoration team in order to be included in the project:

A: They didn't consider training the people who were inside the park itself. So, I mean, you are the pillar, because you are the one inside the park and you are the one who knows the movements and the history, what is there... Since they had to pass our farm to go up to another farm that had to be restored, which was above us. So, we closed the path on them, "No, you can't pass here until...". So that they could ...

B: Take us into account.

A: ... give us work, consider us or something... We closed the path and that was how we entered [the project].

B: And the system has always been that way, since we know Parques Nacionales, it has always been that way. They have never considered the people at all. So, we've always had to do it the hard way to be able - to be heard, right?

Other community members took down a sign (Figure 4) that had been erected by Parques Nacionales. According to one of the interviewees, they were offended by the sign, which includes a list of prohibited activities, the logos of the three organizing institutions, but no recognition of themselves, organized in an association:

They just put "ISAGEN, Patrimonio Natural, Parques Nacionales" and "No, no, prohibited, prohibited and prohibited". But, not us, that's what makes you angry.

These relatively small acts of protest, or everyday forms of resistance (Scott, 1986), were disruptive but also fruitful, in that they led to later negotiation. The independent audit by the Office of the Comptroller General found that the project failed to properly involve communities. It reported a "coercive approach towards the population settled in the perimeter of the park" and noted that the project opted for ineffective communication strategies such as radio announcements and distribution of leaflets, but with a "conspicuous absence" of pilot activities, visits to farms, or participatory activities (Contraloría General de la República, 2019, p. 63). In contrast, clear successes were the socio-economic benefits and environmental education brought to local people who were involved in the project, and they spoke of a change of mindset after being involved. One local farmer stated:

I think – no, I'm sure the conservation project was successful here in El Carmen. First, a lot of employment was generated for many people, also all these workers, all those people came out with a mentality that we should conserve. So, all this helps us to have a much better environment, very good water, very healthy. So, there was a lot of training by the people who came, telling the people, explaining and many people left there with a different mentality than they had before.



Figure 4: Example of a sign at PNN Serranía de los Yariguíes. Photo: María Isabel Henao Vélez <http://www.parquesnacionales.gov.co/portal/es/de-como-los-santandereanos-recuperan-un-tesoro-escondido-en-sus-montanas/>

Many community members, both those who had been involved and those who were not, expressed a desire for more environmental projects in their area.

Attitudes

An analysis reveals underlying attitudes and assumptions that have led to conflict. The 2008 park management plan stated that "The problem of private land within the area has to do, not with the possession itself, since *it is clear to the community that they must sell*, but rather with the limitation to use since, until negotiated agreements are arrived at, the possessor will not be able to carry out any activity other than those proposed in the zoning and regulation of park use" (Díaz, 2008, p. 59, emphasis added). This statement reveals an assumption that the sale of the land is inevitable and the only option. In the view of ISAGEN, Parques Nacionales, Patrimonio Natural and their contractors, local communities can be a barrier to conservation; both those who occupy areas designated for conservation and those who live nearby and cross the threshold into the conservation areas or let their livestock in. This was often attributed to a lack of education and awareness of the importance of conservation, as illustrated in the below quote from one ISAGEN manager:

When the whole process of [the park] legalization begins, people continue with their culture because it is a no man's land. Although it was the state's, the state did not have a strong enough presence... so the people kept coming in, doing all the human intervention that they used to normally do, because ancestrally that's what they had been doing. ... We lost plantings three and four times because the people brought in livestock and cars and that affected everything. So, that is the worst part. The challenge, the biggest challenge? To educate. The biggest challenge is to educate because you can do the assessments, you can do the methodological development, you can do the whole process of seed collection and processing. But if there is no culture that supports the process, you are not going anywhere. I mean, the biggest issue of ours is culture. We are still very uneducated in environmental issues.

This statement emphasizes the cultural dimension of conflict highlighted by Escobar (2006). Where "to educate" is used in the quote, the original term used by the interviewee is *culturizar*. The most common English translation of *culturizar* is 'to educate.' However, while 'educate' can also be translated as *educar*, *culturizar* carries the connotation 'to enlighten', 'to bring culture to' or 'to incorporate into a culture.' The interviewee is talking about the lack of environmental awareness among the local people, but also in general about the country, "we" – "the biggest issue of ours is culture." This was something that came up repeatedly in interviews and conversations: a negative sense of collective identity when it comes to environmental awareness and conservation practices. In fact many of the interviewees, especially subsistence farmers, live many times more sustainably than the average European, such as the one who was interviewing them.

The quote above also refers to the area of the park where there is no state control as a "no man's land." Colombia's national parks are mostly located in border territories, marginalized peripheries recognized as *baldíos* or wastelands ready to be colonized and appropriated, and as a result also hotspots for guerrillas and counter-guerrillas (Duran, 2009; Palacios, 2006). In many parts of the world, the narrative of 'wastelands' has been used to discriminate against places and the people living there, legitimizing their appropriation in the name of development and modernity (Martinez-Alier, 2002; Swyngedouw, 1999). In Colombia, ideas of cultural superiority on the part of large landowners and elites have justified the use of violence to seize land and natural resources (Velasco, 2015). As Margarita Serje argues, the construction of imagined margins and peripheries has been one of most important spatial strategies for the expansion of capitalism, transforming regions of the world into so-called 'no man's lands' (Serje, 2017). Offsets create new opportunities for such strategies by facilitating trade-offs, with the potential for legitimizing land grabs of territories and resources that are deemed less valuable or are owned or occupied by people with less power (Spash, 2015).

Illicit activity and land occupation within protected areas

Almost half (47%) of the illicit coca plantations in Colombia are located in special management zones (forest reserves, national natural parks, indigenous reserves and territories of black communities) (UNODC-SIMCI, 2020). It is not surprising then that there are strict policies against land occupation in national parks, and illicit activity is a commonly cited threat to conservation. However, without social and economic programs for local populations and effective governance, this approach simply moves the problem to other areas. Recent figures show that the area of illicit crops has reduced inside national parks but increased in the buffer areas surrounding parks (*ibid.*). By failing to address the root causes, these policies negatively impact the most vulnerable communities.

For example, the use of glyphosate in the eradication of coca crops in PNN SYA has caused health problems in the local population (Díaz, 2008). The complex panorama of actors in these regions leads to a negative image of those occupying protected areas as being lawless and harming the environment, or on the other hand, of them not being seen at all. The official webpage of the PNN SYA states that "[w]ithin the Park no communities exist" (Parques Nacionales Naturales de Colombia, 2021). Although there are no organized Indigenous or Afro-Colombian communities inside the park, the statement denies the existence of those *campesinos* who are there. According to the 2014 agricultural census, 419 people, 242 men and 177 women were resident within PNN SYA at the time of the census (DANE, 2016). At a national level, the agricultural census recorded 22,371 people living within 56 of Colombia's national natural parks, 65% in situations of poverty (*ibid.*). Parques Nacionales identifies 37 parks with use, occupation or tenancy conflicts, with a total of 10,726 peasant farmers resident within parks (Parques Nacionales Naturales de Colombia, 2019, p. 25). De Pourcq *et al.* (2017) put the number of inhabitants of national protected areas at 93,681 (35,695 Indigenous, 8,325 Afro-Colombians and 47,376 subsistence farmers). It is difficult to arrive at an exact figure where the true status of land use and occupation varies considerably from predictions, management capabilities are low, and where many of the national parks cover vast areas.

Campesino communities have a history of marginalization. Below, a smallholder farmer discusses his experience and frustration at their exploitation:

The peasantry that has suffered so much, that lives suffering because in Colombia there are no organizational policies ... I left the countryside fleeing, seeing the disorganization in the trade and I returned now after almost 30 years, almost 40, and I returned and it's worse, the exploitation of farmers in the countryside. I came back to the countryside because agriculture is in my blood ... I don't know why today we focus so much on capital; it is not everything in life. And unfortunately, it seems that human beings, humble beings, do not deserve any consideration. And the humble farmers, we are the engine, we who produce the food, we who work, and we should at least have some consideration.

Palacios (2006, p. 167) describes the labor of the *campesino* in incorporating the agrarian frontier into the national economy as "one of the most important hidden sources of capitalization", and their poverty as "the hidden face of Colombian progress." With the intent to bring unproductive land into the national economy and reduce pressure on more populated areas, the Colombian government, like other governments in the region during the mid-late 20th century, provided payments for 'improvements' (*mejoramientos*) that turned unused land into pasture or crops (Griffiths, 2004). The incentives to occupy land and expand agriculture clashes with conservation priorities, and without legislation that recognizes and requires processes of prior consultation with local communities, they become 'invaders' or 'plagues' in the eyes of the environmental authorities (Duran, 2009).

The level of consciousness about environmental issues varies widely among communities. While some interviewees said they grew up knowing the importance of preserving part of their land with forest, others had no conception of this, and felled trees and hunted widely. Several interviewees talk of the change in mentality brought about through educational programs, some of which were run by ISAGEN or other institutions such as the Instituto Humboldt and local NGO Corporación Compromiso. At the same time, the irony of environmental

programs being implemented by a megaproject that caused great environmental harm, with different standards applied for corporations and *campesinos*, causes resentment and anger among the communities. A smallholder farmer said:

I do not believe that the *campesino* is as they say. What happens is that the government washes its hands saying that. Why? Because look at ISAGEN, how many hectares did those people destroy? 7,000, 7,000 hectares. How much will the mining destroy? 70,000 [hectares] that they have, and for them there is no- because there is money. You know that things are like that in Colombia, corruption, where there is money... The CAS [Corporación Autónoma Regional de Santander], for example, if you need a tree, they give you so many problems, yes? For one. Instead, an entity like that arrives and they destroy 7,000, 8,000, 10,000 hectares, but as the license is worth so many millions, 'Yes, here you are'. There is always money to buy conscience.

Meanwhile, for companies like ISAGEN, the lack of control of illegal activity causes a lot of frustration. There are many regulations and a lot of bureaucracy when things are done legally, while illegal activity slips by unnoticed, as one senior executive pointed out:

We have a lot of regulation, a lot on paper. Incredible, and there is a lot of control, there are many entities watching if things – especially when you try to do things legally, because if you do them secretly, nobody notices, and nobody asks. But if you do them legally, in full view of the world, all the controls fall on you.

6. Conclusion

This article has explored a socio-ecological conflict over environmental offsets in the Colombian national park, Parque Nacional Natural Serranía de los Yariguíes (PNN SYA). These offsets aim to compensate for the environmental harm caused by the Hidrosogamoso hydroelectric dam. Responding to the opportunity highlighted by Le Billon and Duffy (2018) to connect political ecology and peace and conflict studies, this article adopted an analytical framework combining work from both fields. Galtung's conflict triangle provided a useful model to explore the different behaviors, contradictions, and attitudes of the various actors in the conflict, while the work of political ecologists and scholars from the region offered insight into historical patterns and recent trends.

The article argues that the socio-ecological conflict arose as a result of contradictory policies, narratives, goals and values, centered around a dichotomy between a vision of conservation that excludes humans and the reality of territories that are inhabited by a diverse range of actors. This has been conditioned by attitudes and assumptions that paint *campesinos* as invaders, a negative stereotype that feeds into a collective identity as environmentally unconscious, obscuring the important relations and knowledge of rural communities with respect to nature. These attitudes have been shaped by centuries of marginalization of *campesino* communities, as well as the marginalization of countries and regions. Behaviors, such as the unannounced arrival of contractors in the territory to implement offsets and the unequal treatment of different community members, ignited already existing tensions and frustrations. The finance provided by ISAGEN offered the opportunity to purchase land but did not offer a solution for those who did not have legal title to land. Even for those who did, it was unjust compensation. On the other hand, the local people hired as laborers on the project report a positive experience and highlight a demand and opportunity for participatory conservation projects.

Acts of protest disrupted the offset project, but also resulted in negotiations between communities and the institutions. At the time of the interviews, negotiations were continuing between Parques Nacionales and local people inside the park. One of the community members acknowledged that they were building a better relationship with Parques Nacionales, that they were at that point in time 'at peace' with them. This was thanks to the recognition by newer Parques Nacionales employees of the errors that had been committed in the past. Galtung (1996, p. 265) describes peace as "what we have when creative conflict transformation takes place

nonviolently." It is encouraging to observe a shift in the most recent management plan of PNN SYA, published following the completion of the offset projects. This was due to a more participatory approach being used by Parques Nacionales (Moreno & Tinjaca, 2018). The document draws attention to the structural causes leading to the occupation, use and possession of land in the protected area including "the disarray of the country's agrarian policy, the internal armed conflict, the illegal extraction of natural resources, the uncoordinated development actions that the state has promoted" (*ibid.*, p. 55). In contrast to the 2008 plan, the 2018 plan does include the *campesino* community in their characterization of actors and recognizes the existence of communities within the park. It acknowledges the conflicts with locals and the challenges in arriving at solutions for the governance of the protected area. However, the only strategy proposed is removing people through land acquisition. Therefore, more work is needed to explore and test participatory conservation models within protected areas that incorporate rural communities.

Conflicts over access and ownership of land and natural resources, an issue already well established in the literature, will continue to surface in Colombia because land acquisition within parks is one of the mechanisms enabled under the biodiversity offset policy. The so-called 'property sanitation' strategy, which attempts to fix the issue of irregular land possession by bringing property under state control, is exemplary of the separation of humans from nature. The terminology implies a need to decontaminate the land and, despite 'parks with people' institutional policies, Colombia's national parks generally still follow a 'parks without people' model because this is built into the legal framework for protected areas. These experiences highlight the need for reform to resolve tensions over the constitutional rights of *campesinos* and the duty of the state to protect biodiversity, and there is increasing attention being brought to this issue (Betancourt Santiago *et al.*, 2017; FAO, 2019; Gobierno de Colombia *et al.*, 2018). While there is a degradation narrative operating here that focuses on the environmental threat posed by *campesinos*, the much bigger issue is the extreme concentration of land. Ten percent of the land within national parks is agricultural and of that, over 90% is huge plots of over 1,000 hectares each, while smallholder farms make up a miniscule 0.1% (DANE, 2014).

A recurring point of tension in the socio-ecological conflict at the offset site, at the development site, and at a broader scale across the decades of armed conflict in Colombia, is the use, occupation and tenancy of land. Environmental offsets are being proposed as the engine for a new sustainable development model for Colombia and as a strategy for peace. However environmental offsets bring their own conflicts at offset sites, while risking the legitimization of harm to nature and people at the development site. Offsets and, more broadly, corporate social responsibility programs, have been used by companies to build a social license to operate, to silence opposition, and to distract from the social and environmental damage they inflict (Gilbert *et al.*, 2021). Used in this way, offsets are what Galtung refers to as cultural violence – a symbolic form of violence that legitimizes direct and structural violence, rendering them acceptable in society (Galtung, 1990). Meanwhile, the militarization of conservation occurred, following the privatization of ISAGEN and the subsequent redirection of funds for ecological monitoring towards the hiring of private security to monitor the park.

Galtung's conflict triangle offers a practical model to examine socio-ecological conflict and the visible/invisible or conscious/unconscious dimensions of conflict. Understanding the attitudes, contradictions and behaviours of different parties in a conflict is a prerequisite for its transformation. Does an analysis of conflict using the conflict triangle and political ecology risk falling into 'conflictphilia'? Bayón Jiménez *et al.* (2021) critique Latin American political ecology for overly focusing on conflict, in particular concentrating on actors in a fixed time and place. They argue for greater engagement with critical geographies of mobility to address the histories and practices of mobility in these cases. The temporal and scalar frame through which a problem is examined can change how it is understood, and can lead to contention (e.g. in the climate-conflict nexus, see Abrahams and Carr, 2017). This is precisely where political ecology can bring value – examining not only the standalone conflict, but the wider dynamics that shape socio-ecological conflicts across time and scales. There are many examples of rich political ecology analyses that examine changing socio-political contexts, power, and the influences of colonialism, development and globalisation (e.g. Escobar, 2008; Green, 2016; Ulloa & Coronado, 2016). In *Peace by peaceful means*, which presents the conflict triangle, Galtung (1996) also addresses cultural and structural forms of violence/conflict and the influence of factors such as neocolonialism.

There is increasing recognition among international institutions and conservation organizations of the importance of socially inclusive conservation and restoration, especially in post-conflict contexts to build peace and mitigate future armed conflict (Conservation International, 2022; IUCN, 2021). Environmental peacebuilding is a growing field of research and practice, especially in the context of growing climate security concerns, and aims to provide 'wins' for both nature and peace. Incorporating political ecology into environmental peacebuilding, and peace and conflict studies more broadly, might limit what Ide (2020) has called the 'dark side' of environmental peacebuilding – potential adverse effects such as depoliticization, displacement, discrimination, deterioration into conflict, delegitimization of the state, and degradation of the environment. By examining the consequences, trade-offs and complexities of what (on the surface) seem to be win-win solutions, political ecology can help to identify opportunities and risk factors for environmental peacebuilding efforts. This is particularly relevant in Colombia, which has experienced positive and negative environmental and social impacts since the signing of the peace accord. These include more biological expeditions and discoveries on the one hand, and a surge in deforestation and attacks on environmental defenders, on the other. The implementation of the peace accord and reconciliation efforts are needed to transition to first, negative peace (the absence of violence) (Galtung, 1969) and later, positive peace associated with environmental and social justice.

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