

# Private protected areas, ecotourism development and impacts on local people's well-being: a review from case studies in Southern Chile

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#### **ABSTRACT**

Private protected areas (PPAs) are expanding rapidly in less-industrialized nations. This paper explores cases in Los Ríos, Chile, to understand how local people living in and near three PPAs viewed impacts of tourism development on human well-being and local governance asking: (1) Why and how do governing PPA actors engage local people in conservation and ecotourism? (2) How do local people perceive the impacts of PPAs? (3) How do perceived impacts differ between PPA ownership types and contexts? We used an Opportunities, Security and Empowerment research framework derived from local definitions of well-being. Results suggest that governing PPA actors (PPA administrations and Chilean government officials) viewed local people as threats to forest conservation goals, embraced exclusion from reserve governance, but encouraged selfgovernance among local people through educational campaigns promoting environmental stewardship and ecotourism entrepreneurship. administrations avoided emerging participatory democracy approaches to ensure local resistance did not threaten their authority. Despite asymmetrical power relations, PPA-community partnerships were viewed locally as both improving and damaging well-being. Our findings suggest that the social impacts and consequences of PPAs facilitating ecotourism development should be subjected to the same level of scrutiny that has been given to public protected areas.

#### ARTICI E HISTORY

Received 25 June 2015 Accepted 4 April 2016

#### **KEYWORDS**

Chile; ecotourism; private protected area; sustainable development; well-being

#### Introduction

There is a growing interest in the private conservation movement among governing conservation actors (including governments, non-governmental organizations [NGOs] and international development agencies). Like public protected areas, private protected areas (PPAs) have flourished in the last two decades (Igoe & Brockington, 2007), though official global tallies remain elusive. Recent discussions about PPAs reason that they fill national biodiversity conservation coverage needs, bolster resource management, enhance citizen participation, promote bottom-up management (Stolton et al., 2014) and are potentially lucrative (Holmes, 2013b). PPAs may be owned by individuals,



cooperatives, NGOs or corporations, and diverse ownership types have been linking their reserves with ecotourism initiatives.

Whether it is defined as an investment opportunity, tourism experience, land-use practice or conservation tool, ecotourism is attractive for those interested in private conservation. Ecotourism has become an important part of a global agenda pursuing "weightless capitalism" (Gee, 2000), assigning an economic value to natural resources to further conservation goals (Honey, 2008) and reduce social inequity and overconsumption of natural resources often associated with a free market system (Fletcher, 2011). At national and regional levels, PPA-ecotourism initiatives have garnered the attention of policy-makers interested in promoting development through PPAs and reducing anthropogenic threats to natural resources (Serenari et al., 2015). These initiatives have also inspired reserve creation (Langholz & Krug, 2004) and economic transformation at the local level (Taylor, 2010).

Ecotourism impacts human well-being because it targets biological conservation and community development simultaneously (Ballantyne & Packer, 2013; Jamal, Borges, & Stronza, 2006). Ecotourism's impacts are commonly evaluated in a Panglossian manner by the suite of benefits ecotourism might provide; one of those being sustaining the well-being of local people (Singh, Slotkin, & Vamosi, 2007). Although the term well-being is often referred to in works exploring the linkages between protected areas and ecotourism, there have been few attempts to operationalize the term. Assessing ecotourism universally, Ballantyne and Packer (2013) claimed that if ecotourism is defined as benefits for local communities rather than ecotourism as activity, impacts to well-being can be expressed as protection or respect of local cultures, heightened visitor awareness, local participation and ownership of business ventures, enhanced local pride, and sense of empowerment. Gateway communities, in particular, tend to experience such benefits through increased employment and income, infrastructure development, and cultural renewal (Bennett, Lemelin, Koster, & Budke, 2012). These scholars also noted ecotourism's failures to improve well-being. Our research supported the generic categories of well-being (opportunities, security and empowerment) discernible in the World Bank's (2001) approach.

Though limited, research on PPAs suggests mixed impacts on local people's well-being. Alderman (1991) found that PPAs in Latin America and sub-Saharan Africa resulted in considerable employment increases and opportunities for local recreation, while Langholz (1996) cited the establishment of youth academic scholarships in Costa Rica. Barany and colleagues (2001) identified improved democratic decision-making in Nicaragua, while improved local economies in South Africa and linkages to social empowerment in Columbia were cited by Sims-Castley, Kerley, Geach, and Langholz (2005) and Langholz and Lassoie (2001), respectively. Scholars also uncovered social costs, such as sociopolitical rifts in Africa and elsewhere (Langholz & Lassoie, 2001), loss of cultural identity among local ranch hands in Chile (Jones, 2012), elevated land prices, contests over land-use rights and disturbances to employment conditions (Holmes, 2013b).

Works exploring PPA impacts on well-being tend to comprise macro or PPA owner perspectives and, accordingly, investigations of local perspectives on well-being impacts on those living near, and on rare occasion within, PPA borders are needed. There is relatively little literature exploring the social impacts of PPA ecotourism development on well-being, or how these impacts differ among different PPA ownership types. This study offers, therefore, a first look at PPA impacts on well-being through the eyes of impacted local publics and helps draw attention to and situate the private conservation movement into practice and scholarship. With an emic approach, we privileged rural communities' perceived needs and aspirations (Infield, 1988) and employed a case study in Los Ríos, Chile, to answer three key questions: (1) Why and how do governing PPA actors engage local people in PPA conservation and ecotourism development? (2) How do local people perceive impacts of PPAecotourism development on their well-being? (3) How do perceived impacts differ between PPA ownership types and contexts?

The study extends the discussion of future research into protected areas, encouraged by Eagles (2014) in his much cited recent paper on research priorities in park tourism, by exploring issues of park governance, management, evaluation and finance that are typically researched in public protected areas into the neo-liberal world of private protected areas.

## Overview of the study area

Since the 1970s, economic expansion and corporate timber have been closely associated in Chile. Decree-Law 701 (i.e. 1974 Forest Law) presented timber companies with incentives to purchase large tracts of forest for timber production, including the biodiverse Valdivian forest in Los Ríos in southern Chile (Klubock, 2006). Alex and Clapp (1998) and others chronicled forceful social disturbances during this era as rural people were displaced or saw the forest in which they depended for resources become degraded. Communities turned to employment with the corporate timber regime (Klubock, 2006). The timber era was an extension of *latifundia*, a period characterized by livelihoods dependent on a single industry, worker exploitation and temporary or seasonal employment on large private estates during the early to mid-twentieth century (Faúndez, 1988). In Los Ríos, timber laborer and *campesino* strikes, evictions, political revolt and violence occurred during this era (Klubock, 2014).

As the timber industry deteriorated in the latter half of the twentieth century, many rural people were left landless and with few income options (Armesto, Smith-Ramírez, & Rozzi, 2001). A relatively recent State-led sustainable development path attempted to address the issues of forest degradation, poverty and emigration in Chile's rural areas. Defunct timber plantations were designated protected areas by various wealthy private actors. Chile has at least seven large PPAs undertaking ecotourism and community engagement which cover over 40,000 km²/15,444 mi² of terrain and impact thousands of natural-resource-dependent people via private development-based conservation. PPA administrations encourage nearby communities to participate in micro-tourism endeavors, wage employment, and provide goods and services to the PPA itself in order to address local material poverty and meet biodiversity conservation goals (Bishop & Pagiola, 2012) or protect or modernize disappearing cultural traditions (e.g. http://fundacion.huilohuilo.com). Yet, some larger Chilean PPAs met resistance over inequitable benefits, livelihood disruption (E. Corcuera, personal communication, 2013), elitism, rising land costs, foreign ownership (Holmes, 2013a) and land rights (Meza, 2009; Wakild, 2009).

Los Ríos is 840 km south of Santiago. It has an area of 18,429 km² with an estimated population of 356,396. The region comprises a northern portion of the Valdivian Rainforest Ecoregion, a rare, ancient and threatened temperate rainforest. The forest's condition began declining in the sixteenth century due to Spanish—Indigenous conflict, colonization and subsistence livelihoods, and intensified later with commercial exploitation (Alex & Clapp, 1998; Wilson, Newton, Echeverría, Weston, & Burgman, 2005). The forest is considered a global biodiversity hotspot, harbors one of the highest rates of endemic species in the world, and was targeted for protection by the Worldwide Fund for Nature (WWF) and the World Bank (Dinerstein et al., 1995; Núñez, Nahuelhual, & Oyarzún, 2006).

#### Methods

## Defining human well-being

To assess well-being, we asked the question *Que es para usted una buena calidad de vida* (For you, what is a good quality of life)? Contextualizing well-being in this way is an approach that has been used in other studies (e.g. Fattore, Mason, & Watson, 2007) and helped us understand PPA impacts from the local people's perspective. Thematic analysis of informant responses yielded three dimensions of well-being (Opportunities [the ability to do something desired], Security [free from want and fear], Empowerment [ability to impact outcomes, increase capacity, or obtain power and authority]), similar to those employed by the World Bank (2001). We used a forward and backward translation process to design English and Spanish versions of the interview guide to ensure clarity and validity (Marín & Marín, 1991).

## PPA and participant selection

We used a case study design to investigate PPAs intentionally engaging local people in ecotourism development and assess the perceived impacts to well-being under three different PPA private

governance types in Los Ríos, Chile, as defined by the International Union for Conservation of Nature (IUCN): NGO (Valdivian Coastal Reserve [RCV]), Corporate (Oncol Park [OP]) and Individual (Huilo Huilo Reserve [HH]). We employed selective (key informant) sampling to obtain "tentative theoretical jumping off points from which to begin theory development" (Thompson, 1999, p. 816), followed by snowball sampling. Sampling was not intended to be representative, rather we targeted people who were most knowledgeable about and experienced with PPAs and who maximized the range of data elicited by providing diverse perspectives (Beebe, 2001; Lincoln & Guba, 1985) within the budding Chilean PPA network (e.g. government officials involved in PPA matters [4], PPA advisors [3], PPA administrators and staff [8; none were owners or executive team members], current or former community leaders [19], and local residents engaged in tourism development [e.g. tour guides (2), tourism enterprise owners (14)], and current or former PPA employees and contractors speaking as citizens [10]).

## **Data Collection and Analysis**

A team of two Chilean researchers fluent in English completed most of the 85 semi-structured interviews between May and August of 2013; a third researcher completed interviews with English speakers. Key informant sampling started with predominately male community leaders which created a similar bias in the overall informant pool (67% [OP: 71%; RCV: 64%; HH: 74%]). The sample achieved at least basic primary education (81% [OP: 82%; RCV: 72%; HH: 96%]), over 45 years of age (55% [OP: 71%; RCV: 64%; HH: 44%]), and half self-reported as Chilean (50% [OP: 14%; RCV: 44%; HH: 91%] while more than one-third identified as Indigenous 37% [OP: 64%; RCV: 56%; HH: 4%].

Continual movement between text and themes with QSR International's NVivo qualitative data analysis software (Version 10, 2012) allowed us to find critical thematic moments and relationships to build a "thematic map" and encourage reflection on our own involvement in the study (Guba & Lincoln, 1985; Petty, Thomson, & Stew, 2012). We used a variety of strategies to ensure accuracy of our findings, including triangulation, member checking and employing external auditors (Creswell, 2013). The sources of results from, and statements by, informants are indicated in the text by the codes given in Table 1.

## Results

# State motivations for pursuing PPAs and community interactions

Our interviews with Chilean government officials revealed that legislators were aware of PPAs; they were viewed as a way for the country to address its biodiversity representation gaps and offer new development opportunities to rural communities (summarized sentiments of MIN-001 and 002). Respondents noted that Article 35 in the National Environmental Framework Law (1994) recognizes PPAs, but the government does not regulate them or provide tax-based incentives to establish them. Certain PPAs, mainly large ones, attempt to unite global and national sustainable development and biodiversity conservation goals, primarily through ecotourism development. An example was provided by the regional government of Los Ríos, which crafted the Regional Tourism Policy to facilitate sustainable development through public and PPA tourism development. This strategy was reiterated by SIRAP (Sistema Regional de Áreas Protegidas) who claimed on their website that "local development and conservation go hand in hand in the region of Los Ríos".

The regional policy, financially supported by the regional government's Fund for Regional Development (FRD), promoted social participation and community development because of the conventional assumption that local people living near a protected area will degrade it:

PPAs realized they couldn't be like a bubble. People (would) keep stealing wood or introducing their animals, introducing dogs that kill the fauna...therefore a work strategy was implemented in order to work with the people...to create productive sustainable activities like ecotourism and gastronomic services around the protected area. That way the protected areas turn into a way of development for the communities and (the local people) are not a threat; and at the same time protected area biodiversity...is better protected. (MIN-001)



Table 1. Sources of results from informants.

| Informant ID     | Qualifying attribute  |
|------------------|---|
| MIN-001          | SIRAP tourism development official                                    |
| MIN-002          | Protected areas official with the Ministry of the Environment         |
| Oncol-001        | Lead reserve administrator  |
| Oncol-002        | Community relations specialist  |
| TNC-001          | Forest engineer   |
| TNC-002          | RCV coordinator   |
| TNC-003          | Park ranger   |
| TNC-004          | Community relations specialist  |
| HH-001           | Lead reserve administrator  |
| HH-002           | Community relations specialist  |
| NEL-001          | Former teacher; tourism business owner                                |
| NEL-003          | Former community president  |
| NEL-004/M1       | Former timber worker; guide business owner                            |
| NEL-005          | Owner of lodging and food sales business                              |
| NEL-006          | President of water committee  |
| NEL-007          | Former HH employee; relatives work at HH                              |
| NEL-008          | Tour guide; spouse is a teacher                                       |
| NEL-010          | HH hotel maid   |
| NEL-011          | Tourism business owner  |
| NEL-013          | Religious figurehead  |
| PF-001-W1 and W2 | Citizens with family who were evicted or mistreated                   |
| PF-002           | School director   |
| PF-003           | Former timber employee; community association president               |
| PF-005           | Former HH employee  |
| PF-006           | Municipal delegate  |
| PF-007           | Artisan; Former HH employee   |
| PF-008           | Observed peculiar timber operations at HH                             |
| CH-002           | Community elder   |
| CH-003           | Cabaña and restaurant owner   |
| CH-004           | Community tourism officer   |
| CH-006           | Artisan and chef  |
| CH-008           | RCV guide   |
| CH-009           | Cabaña owner  |
| Huape-002        | President   |
| Huape-003        | Former corporate logger; spouse owns restaurant                       |
| Huape-007        | Artisan; Cabaña owner   |
| Huape-008        | Fisherman's union leader  |
| Huape-009        | TNC logger  |
| Huiro-001        | Former corporate logger; TNC ranger (preferred resident voice)        |
| Cad-002          | Stakeholder in livestock remediation project                          |
| Bon-001          | President   |
| Bon-004          | Fisherman/Livestock owner   |
| Pellin-001       | Former Arauco logger; life-long resident                              |
| Pellin-002       | President   |
| Minas-001        | President; Oncol ranger   |
| Pilol-002        | Collaborated with Oncol on project proposal; Spouse is Oncol employee |
| NGO-001          | Executive for Chilean PPA network                                     |

Increased collaboration with other organizations and interests, including the Association of Conservation Initiatives on Private and Indigenous Lands (ASI Conserva Chile), Chilean universities (e.g. Universidad Austral de Chile, Universidad de Chile), various government agencies (e.g. Ministerio del Trabajo y Previsión Social; Corporación Nacional Forestal) and global conservation and development actors (e.g. United Nations Development Program [UNDP]) have influenced PPA conservation-development efforts and internal considerations about the "public politics" of PPA—community interactions (Oncol-002). The Nature Conservancy (TNC)<sup>2</sup> had a more complete documentation of stakeholder involvement than Oncol Park and Huilo Huilo. External partners provided support and funds to help local communities focus on ecotourism to offset the reserve's creation and transition to "more sustainable and resilient livelihoods through a range of income generating opportunities"



(TNC, 2015, p.9). Our research notes that stakeholders have included the WWF, the towns of Corral, La Unión and Valdivia, the World Bank's Global Environmental Facility-Regional System of Protected Areas (GEF-SIRAP) program, and Alerce Coastal National Park (Delgado, 2005; TNC 2015). The UNDP partnered with TNC to establish a US\$300,000 fund to forge development pathways for neighboring communities.

# Synopsis of PPA context and motivations for engaging local people

A family-owned and funded enterprise, Huilo Huilo is 165 km east of the city of Valdivia and located on the northern part of the Patagonia Ecoregion in the Andes Mountains. It is a globally recognized ecotourism destination, resides inside a UNESCO Biosphere Reserve, and harbors the 64-ha Huemul (Hippocamelus bisulcus)<sup>3</sup> Conservation Centre (Vidal, Smith-Fleuck, Flueck, & Arias, 2011). Chilean billionaire, Victor Petermann, his partner Fernando Boher and ex-wife Ivonne Reifschneider began the Huilo Huilo project in 1999 after Petermann acquired two fundos (estates) covering 104,000 ha. His purchase of the Pilmaiguén fundo, a worker-owned estate that became the reserve, resulted in uneven levels of financial capital in the valley as shareholders cashed out of their stakes (Henderson, 2013). Huilo Huilo's operations are based on the three pillars of sustainable development: environmental commitment, social commitment and sustainable economic activity. The Huilo Huilo Foundation (HHF), the project's philanthropic arm, promotes biodiversity conservation; provides support and training for altered livelihoods comprising nature tourism; pursues community activities and projects; and develops a societal ecological conscience. Huilo Huilo officials reported to us that in 2004 the reserve hosted 5068 visitors, over 33,000 in 2011, and between 50,000 and 60,000 in 2013.

The most impacted communities, Neltume (pop. 3495) and Puerto Fuy (pop. 391), were timber communes with local people working for low wages and lacking job security (Klubock, 2004). This area has a history of social unrest (timber worker strikes over unacceptable social conditions, political violence) chronicled by Klubock (2014) and others. A top Huilo Huilo official explained that community interactions take place under the philosophy that "...you have to work with the local communities, for better or for worse. They are there. They are your workers and supporters. They benefit from the park directly or indirectly. You must include them" (HH-001).

TNC and WWF partnered to create RCV, part of a low-altitude coastal mountain range bisecting Valdivia province, in 2003. The Chilean government deemed RCV an underrepresented ecosystem in the National System of Protected Wild Areas of the State and also a priority area for biodiversity conservation by the National Strategy Biodiversity (Delgado, 2005). In an apparent act of good will and support for rural tourism, TNC donated approximately 9300 ha to the Chilean Ministry of National Assets in 2012 to form Alerce Coastal National Park, reducing RCV to 50,251 ha. RCV tourism is growing. TNC officially reported an increase in tourism to RCV from 300 in 2006 to 1794 in 2014 (TNC, 2015).

Huiro (pop. 109) and Chaihuín (pop. 240), followed by Cadillal (pop. 40) and Huape (pop. 233) (Delgado, 2005) engage with RCV the most. These communities employed livelihood diversification strategies, but historically relied on fishing, small-scale agriculture or animal husbandry. TNC identified traditional local livelihood strategies as threats to RCV (Delgado, 2005). TNC has a community ranger who liaises between TNC and local people to enact TNC's Social Participation and Community Development Program (Programa de Participacion Social y Desarrollo Comunitario) that helps communities secure FRD and other funds and operates under the assumption provided by a top RCV Official:

... if the people feel that they are part of a project that uses an important land of which they are neighbors, if you have good relationships and understanding, knowing what the area is for and the benefits they might obtain from this area, they become good neighbors and allies of the project...we create a good relationship with them by being good neighbors. We keep our doors open to them, we listen to them. (TNC-002)

TNC's RCV project was viewed as the "most advanced" model by the regional government as it ponders how to "incorporate the communities into development and strengthen protected areas"

(MIN-001). TNC's "political coordination" with the state (TNC-002) makes it inherently a political endeavor. However, a reserve official affirmed TNC prefers an apolitical stance with community affairs stating, "We don't get into political, religion, or ethnics matters" (TNC-001).

Oncol Park is located 29 km northwest of Valdivia and 5 km from the Pacific Ocean in the coastal mountains. It protects 754 ha of the Valdivian forest on the western flank of Cerro Oncol. In 1985, Forestal Valdivia, a subsidiary of Celco-Arauco, bought Fundo San Ramón and then declared part of the land protected to fulfill international forest certification standards, making Oncol Park one of Chile's first large PPAs. Tourism visitation increased from less than 200 in 1990 to approximately 1200 in 1990—1991 (Corcuera, Sepúlveda, & Geiss, 2002), approached 2400 in 2003, and reached 14,000 in 2007.

We examined Oncol Park's impact on Bonifacio (pop. 167), Los Pellines (pop. 244), Las Minas (pop. 37; gateway community) and Pilolcura (pop. 39). The working population of these communities was primarily Indigenous Mapuche and self-employed (farming, commercial forestry and fishing) (Ponce, 2007). In 2011, the Oncol Park administration hired an anthropologist to engage local communities and help local people apply for FRD funds. The administration embraced a PPA—community strategy inspired by the RCV project called the "Territorial Involvement-Community Management Program". The administration was in the midst of "winning the trust of the communities" at the time of our study. A top Oncol Park official explained the PPA—community philosophy: "It is important that the communities that live in the same biological corridor of the park, in the matrix, are also maintained. They are also impacting the park" (Oncol-001).

# Impacts on human well-being

# **Economic opportunities**

Informants stated they initially expected PPAs to create jobs and identified a timber employment culture as responsible for this expectation. A tourism business owner near Huilo Huilo explained: "It's just culture; there's a generation used to receiving everything. (Timber employers) used to give you electricity, water, and your salary. So, having to make your own money is more difficult" (NEL-004/M1). An expectation of jobs was also due in part to a belief that entities capable of buying huge tracts of land should create jobs. Near Oncol Park, a Bonifacio community leader asserted:

I would have thought the millionaires, the owners, would have come, because they have to be rich, and millionaires, to have (a large PPA), and they would have come to ask if we needed jobs, and we could have said, "Yes, our communities could benefit from Oncol Park," but, no. (Bon-001)

Near RCV, the expectation of job creation reverberated from Huiro to Huape. A former corporate logger from Huape commented: "...we expected that (TNC) would protect the forest and give job opportunities to the community" (Huape-009). For some, this expectation was due to TNC's size and wealth. A community elder in Chaihuín expected a greater influx of money from TNC:

We know that (TNC) is part of the twelve countries that are the richest, so we thought they would help people with some projects, give them money to build cabins, to fix the cabins they already had, to focus things towards tourism. But, it didn't happen, nothing happened. (CH-002)

To a former logger from Pilolcura, it was imperative that Oncol Park created jobs stating, "Big enterprises have to give jobs to the people" (Pellin-001). Wage employment was an important Huilo Huilo strategy. An official added: "We give 90% of the jobs in the area" and "informally, 95% of the staff is local" (HH-001). Oncol Park administration used local employment to counter forest disturbances previously caused by traditional livelihoods:

We have always given priority to hiring people from (communities) around the park...We think...that if a family used to raise animals within the park or chopped firewood for Valdivia, and today we employ them, this means a positive impact on the forest because we create a direct economic income for the head of the family...the (protected area) is not being affected...anymore. (Oncol-001)



Local people also praised PPA administrations for providing new options for income where there would otherwise be few. Near RCV, informants credited TNC for helping diversify livelihood strategies through support for ecotourism microenterprises (e.g., craft making, bee keeping) and sustainable living projects (e.g., teaching novel natural resource harvesting techniques). A former corporate logger in Huape told us, "(TNC) insists...on projects...that enable you to live not only from the sea, or from the hills. There are a million things that one can do, starting from projects you can develop yourself" (Huape-003). A Chaihuín guide confirmed,

Here you don't see poverty, well, at least critical poverty. Here the main income is from the mussels, then tourism in the summer. This community is doing better economically than other places. We have many different ways to make a living, with the mussels, the wood, tourism, fishing, et cetera. (CH-008)

A Huilo Huilo official explained how tourism's arrival helped loggers develop new employable skillsets: "In the past, all the people that lived here worked in timber exploitation operations. They didn't know anything else. There weren't any carpenters, stonemasons...these projects helped them discover their talents" (HH-002).

Local people wanting to engage in entrepreneurial tourism ventures believed they needed more knowledge and financial capital to prosper, however. A cabaña owner near RCV said: "You have to save the money...first" (Huape-007). To obtain seed money, a Huape leader observed that some community members sold their lands remarking, "...to have more money and make their cabins...they sell two pieces of land and they build a cabin..." (Huape-002). Informants felt they needed more intellectual and financial capital from the Huilo Huilo administration saying, "They could prepare people, train them so they can improve their services and...local tourism" (PF-002) and "It's important that people have...money to invest, having more resources so that they can work with tourism" (NEL-011). A Neltume entrepreneur asked, "...if they can't get the means to prepare, to work with tourism, what's it good for?" (NEL-011).

Informants perceived stratification of new economic opportunities as a reason that local people had a difficult time amassing capital. The aforesaid Neltume entrepreneur also questioned why particular people received opportunities from Huilo Huilo to develop their tourism businesses, but not others: "Why give that many opportunities to those that already have them?...so few chances for the smaller ones" (NEL-011). Informants near Oncol Park stated that communities lacking an ocean beach or cabins have fewer opportunities to attract tourists. Near RCV, informants contended certain communities and businesses were favored by RCV administration. A Huiro quincho (barbequing structure) owner claimed RCV selectively helped local people, and a tourism officer stated, "I think it's very directed, (RCV officials) have a group of favorite names to call" (CH-004). An RCV official offered a different perspective saying local people who adapted to changes brought by PPAs are "the ones that get economic benefits" (TNC-003). A second RCV official confirmed disengaging from Huape because "strategically it hasn't been given priority stating: it's a little bit farther away, and also the people aren't that easy to work with" (TNC-004).

## Renewed human-nature relations

Local people perceived native forest protection under PPAs diminished utilitarian values toward nature. A Chaihuín guide stated that his community now felt "more respect towards nature" (CH-008). The protection and restoration of native forest also meant conceiving nature differently and increasing awareness of "conservation problems" (HH-002). Informants near Huilo Huilo and RCV communities declared sentiments such as, "People...now...favor conservation, and have much more information at their disposal than they did only a few years ago...People have changed the way they conceive their surroundings, the way they see nature" (NEL-007). A long-term resident of RCV community Chaihuín, a rental cabin owner, reflected:

(Historically), people who lived here didn't care about nature. We used to get a stick and then we made fire with it. Sometimes, we didn't use wood properly since the remains were not burned. Nowadays, we regret that

because we didn't take advantage of the benefits we had. In those times wood was abundant. Now it is not. We have to buy it and it is expensive. (CH-009)

Both Huilo Huilo and RCV officials attributed these changes to a "soft hand" (TNC-003) and patient approach where they "didn't threaten them with calling the police or anything, it was a very slow process of talking to them and convincing them" (HH-002). An RCV official believed "for...touristic development to be really successful, we have to change the ways the people relate to the environment" (TNC-002).

# **Enriched** youth

PPAs provided novel opportunities for historically underprivileged youth. Youth at all three sites participated in PPA sponsored field trips focusing on forest ecology, biology, conservation, recycling, composting and ecotourism. Neltume and Puerto Fuy residents also reported the HHF provided lessons in language and music, and gave educational scholarships.

Some adults claimed youth "take much more advantage of the environment" (NEL-005) than older generations did and, in some cases, now can avoid emigration to the city. For instance, young adults near Oncol Park and Huilo Huilo accepted employment and internships in outdoor recreation and tourism. A former Huilo Huilo employee explained that Huilo Huilo influenced youth to value the forest in a sustainable manner:

Especially for the younger kids, it has meant a lot. They now have courses in school where they learn what a huemul is...what a reserve is, what the meaning of nature is. (This) translates into a long-term advantage for them because when they grow up they will know the value of their land and the opportunities tourism has to offer. (NEL-007)

## **Community improvements**

Informants linked PPAs to community improvement projects in all study communities. Informants discussed collaborations with Oncol Park's administration to fix a school roof in Los Pellines and make road improvements, while RCV communities gained trash removal, a paved road and bus service. Informants mentioned Petermann (the land owner) and TNC gave water rights to nearby communities, ensuring clean and reliable water. Informants believed Huilo Huilo helped turn the gateway community Neltume from a logging shantytown into an attractive mountain town. An executive within a Chilean PPA network echoed others on this matter stating, "I was in Neltume 10 years ago, so I can tell you there was nothing there, just shacks" (NGO-001). Puerto Fuy and Neltume were furnished with wood sculptures, playgrounds, residences for the aged, cultural centers and community activities. An official added:

We built the fire station of Puerto Fuy, we work with the fire station of Neltume, we built the radio station, we give financial help to a local folk band, give direct advice on how to tend to different parks in the town. We also built a bike road, and many other things. (HH-001)

# Security

## Financial security

PPAs addressed rural economic decline at all three sites by driving a shift from timber-based livelihoods to tourism. Huilo Huilo communities were banking on a bright economic future due to the reserve's year-round tourism. A former employee described how the transition already boosted financial security for many local people: "A few years ago, our only work source was the timber industry, and nowadays there's this whole tourism industry going on, which offers much more job opportunities for everyone, not only for the men" (NEL-007). Informants also noted the seasonality of these positions telling us, "...few people work the whole year, most of them just work for the season" (PF-007) and "We have even three times the amount of people during summer" (HH-001). Informants

consistently indicated Huilo Huilo is the main employer noting, "I switched to tourism because there was no other option, it was our future" (NEL-004/M1) and "...we can look at it as a monopoly. Here, who doesn't work for Mr. Petermann is either independent or has to work...outside of Neltume or Puerto Fuy" (PF-003; "monopoly" was echoed by NEL-003 and PF-002). The future was uncertain as local people held their collective breath over a rumor that Petermann was considering abandoning his Huilo Huilo venture. A Puerto Fuy leader commented on the precariousness of so many people relying on one person, who owns most of the land and provides most of the jobs: "I think...if (families) do not have the ability to expand (i.e., buy land from Petermann), or if...forestry and (tourism) construction stops, people are going to be forced to sell (their plots)" (PF-003). The consequence is emigration to urban areas where most Chilean jobs are located.

For those residing near RCV, improved social organization helped boost financial security. One informant commented on how observing others' success led to action: "We knew that Chaihuín was doing well with the cooperative...so we inquired...the reserve said, 'Yes...we can form a cooperative here. Let's form a group of...10-12 people and let's talk about it" (Huape-003). Those near RCV recognized TNC for helping them get organized, pool and distribute resources, give neighboring residents a better chance to keep rather than sell their lands, and win project funds with larger sums of money versus pursuing individual endeavors. An RCV official explained: "...funds were opened mainly for organizations, however, this latest fund for neighboring communities also opened for (individuals); the difference is that the organizations can access higher amounts than (individuals)" and "organizations...above a certain income level are excluded from participating" (TNC-004).

Where local people were not organized they became disenchanted with the competitive funding scheme. Those near Oncol Park reported losing interest because FRD grant proposals failed and PPAs received public relations support even when communities did not reap benefits. A lifelong Bonifacio elder expressed his frustration:

... they call all the communities to the contest, so with that (Oncol Park/Arauco) say that they are working with all the communities...they make you apply for a project and they never say that they have enough money for (all of the) projects...or this is going to be the amount. And the people already lost interest...In fact, they have come offering projects and nobody (applied)...because they are going to lose...it's the biggest lie because (Oncol Park/Arauco are) deceiving the poor man; they deceive, they deceive, hope, hope, they give and then, when everything is set, they tell you, "Your project didn't come out because it lacked this."...Never. I mean, almost never anybody wins, at least no one here. (Bon-004)

However, an Oncol Park official insisted Oncol Park was winning nearby residents over one funded project at a time:

I helped (Pilolcura) to create a project, they conceived the idea, but I drafted it and uploaded it...and we won a grant for the project. And so they keep involving me...and that has led to a very close relationship with the people of Pilolcura, because they see you working in a good way, independent of a corporation, or some organism from the government...people see this as an opportunity and they realize, that in this logic of local economic development, or sustainable development, it's not fiction or a declaration of good intentions. (Oncol-002)

Some community members considered security offered by PPAs owned by moguls or corporations as a bribe. For example, Oncol Park communities were fighting the construction of a pulp mill effluent duct proposed by Arauco, a company responsible for the largest environmental disaster in Chile's history, occurring in Los Ríos (see Sepúlveda & Villarroel, 2012). In several of our interviews Oncol Park was linked to this project and the park administration's community support concept was viewed as a "political maneuver" (Pellines-005) and rejected by the indigenous faction "because of a political vision" (Oncol-002). A woman who had worked with Oncol staff elaborated on this tension:

... we are people that won't sell for a couple of pesos...first we need to know why are they offering us funds because it could be that they are offering this money so they can approve the pipe. That is what we most fear with this relationship between us and the park. (Pilol-002)

An Oncol Park official explained residents in these communities "didn't understand that private wildlife protected areas could be targets of public funds" (Oncol-002). Yet, we also note similar sentiment among Huilo Huilo informants who thought engaging the reserve was akin to being "bought" or a publicity stunt (PF-003). One Neltume leader said: "I haven't given them a chance to buy me" (NEL-006), while a religious figurehead remarked: "I wouldn't ask them for their help, it would make me feel corrupted" (NEL-013).

#### Access to forest resources

Informants stated PPA creation restricted their freedom to extract resources from the forest, particularly where PPA lands were previously unsanctioned commons. Near RCV, a Chaihuín elder reflected: "Back then, if somebody needed wood to make a house, they just went there and got it" (CH-002). Although TNC donated wood to schools, medical centers and other social institutions, they did not sell timber to local residents and they went so far as posting a public letter threatening penal retaliation for stealing wood. Now, local people must purchase wood from elsewhere. A Huape leader expressed his dismay with TNC:

... they should give more work so that when there's bad weather (they) offer a solution to not using native wood...but nothing, they just prohibited (wood extraction). They didn't give anything back, something for us to survive off of while the weather, that can get really rough, hits us. (Huape-008)

Near Huilo Huilo, "the heating issue" (PF-006) prompted the Puerto Fuy neighborhood delegate to wonder, "Why can't I get firewood from (the reserve) if I don't have money to buy it? Why can't we take a stick from there if the stick is just lying there?" (PF-006). Residents near Oncol Park had parcels of family-owned land and did not express much dependency on timber residing on park lands. Informants near the park also disclosed they occasionally received wood from park officials for personal construction projects.

Informants near Huilo Huilo recounted that game hunting, fishing the Río Fuy and gathering wild edibles were no longer viable livelihood strategies. Oncol Park local people said they formerly harvested palmitas (*Gleichenia quadripartida*) and sold them. TNC allowed collection of ferns, fruits and mushrooms within its borders with their permission and guidance.

Changed access to grazing areas across all three sites created perceived threats to human security and resulted in conflict between communities and PPA administration. Informants said, the lands where RCV is located used to be "full of animals" but were "close(d)...with fences" (CH-003) to keep livestock out. Informants said Huiro and Cadillal families were most impacted because they lost their winter grazing lands. A woman working with TNC on the Cadillal project declared: "the reserve cornered us, and isolated us" (Cad-002). A union leader suspected farmers will "have to sell (cattle) to survive" (Huape-008). Some residents responded by decreasing herd size. Ten kilometers down the road, a Huape leader said his community was eliminating cows:

Everybody who has sheep has (enough) land. The problem is the (cows). Well, mostly it's the people of Huiro who have (cows). Here, there are people (with cows), but they are mostly eliminating all the (cows), because they have already been fined. (Huape-002)

#### An official responded with a different outlook on the conflict:

... it's a behavioral change that they have to assume...it's...hard for them, especially the elders. They find it hard to understand why they have to change their ways...because they have always lived here and have always had their cattle free, so (it's like), "Why do these gringos arrive now and tell us to take our cattle out, and want us to change our way of life?" (TNC-004)

In 2014, a cooperative agreement was signed between cattle producers and TNC to help families adopt cattle breeding practices that do not impact RCV and preserve the husbandry heritage and income of impacted Cadillal and Chaihuín families. Residents near Huilo Huilo and Oncol Park experienced change in forest access for livestock when PPAs began, but were reportedly less impacted than RCV communities because livelihoods were less dependent on the forest.



#### **Eviction with few alternatives**

Four informants detailed that privatization impacted a number of families near PPAs by removing them from their homesteads. A long-time Puerto Fuy resident stated that the business arm of the Huilo Huilo project, run by Petermann, is "the most serious conflict (because) he is shrinking the communities; he is taking over everything" (PF-008) and "the owner of all Neltume" (NEL-003). Two Puerto Fuy residents explained that after Petermann purchased the fundos their family members living on the property for generations, but without deeds, "were kicked out or their houses were torn down... They preferred to leave peacefully" (PF-001/W2). "They weren't given a thing, not even (an option) to build somewhere else, nothing" (PF-001/W1). Informants stated 37 families near Huilo Huilo were landless and priced out of the local housing market, with some moving into a social housing development called Villa El Bosque in Neltume. Respondents also expressed concern about the difficulty of establishing a tourism business because there was no place to build one in a shrinking town.

# **Empowerment**

# Stewardship

PPAs provided education and programs help local people adapt to the changes PPAs brought to local communities. According to a HHF official, "The mission of the Foundation is to contribute to the conservation and preservation of the temperate rainforest and its resources, while at the same time educating communities on the true value of their surroundings" (HH-002). A TNC official provided a similar logic: "...the idea was always to conserve...with the communities in mind...conserve with local development, environmental education in schools, work with the communities, because you have to provide new possibilities so they can develop in a sustainable way" (TNC-001). Informants revealed environmental education courses offered by PPAs included lessons in forest ecology and biology and sustainable behavior, and highlighted human-caused degradation of the Valdivian Forest.

Local people believed administrations focused environmental education on youth. A Neltume tour operator, married to a teacher, explained the main objective was to diffuse environmental education throughout the household rather than engage adults directly:

The Foundation teaches the young boys how to take care of nature, to appreciate it, and how to raise awareness inside their own families, because it's one thing to start that process in a young mind and another completely different to do it in an adult. Through those courses, the Foundation seeks to influence entire households through the younger kids, who have shown to be more permeable to that kind of knowledge. (NEL-008)

## A TNC official articulated a similar strategy:

... the environmental education program has its focus on affecting children because what these kids learn is taken to their homes...effectively, these kids become transmitters of information and also become critics of the negative actions of their parents...this (knowledge)...is radiated to the complete community. (TNC-002)

According to local people, these strategies were effective at the household and community levels. A resident with close ties to RCV responded "yes" when asked if the TNC's program changed his child's perception of nature and conservation saying, "Kids pick that up much quicker than we do, on the subjects of taking care of nature, the trash, having more consciousness on what it means to protect the environment" (Huiro-001). A Neltume tourism entrepreneur described how youth react to people, especially parents, who perform behaviors they see as harmful to the environment responding, "... Now if a parent throws a paper to the ground, they're all over them" (NEL-011).

Through these educational efforts adults also came to believe they were threats to the forest. A former logger who participated in PPA environmental education confessed he unknowingly harmed nature and then changed his ways telling us:

I used to go to the hills with a machete...just cutting branches, any branch, but it turns out that I didn't realize I was hurting a tree that afterwards would give us air. But now the reserve has educated us so much, that instead of hacking the tree we take care of it. We take care of nature now. (Huape-003)

A Chaihuín artisan commented TNC's efforts helped him recognize the impact of historical community practices, "because of ignorance, we planted eucalyptus here, and now vegetables don't grow like they used to" (CH-006). An Oncol Park official found their environmental education programming, usually taking place inside the park, was not as successful with local adults who (1) do not enter Oncol Park or (2) "feel that Oncol Park is for more wealthy people and that they do not have a place (there)" (Oncol-002).

Capacity-building programs offered by all PPAs concentrated on skill building within a market-based economy. Informants noted PPAs offered courses in entrepreneurship and business finance, leadership, sustainable harvesting techniques, apiculture, guiding, as well as culinary and artisan interests. Informants believed these empowerment opportunities enhanced self-pride, self-worth and self-confidence. As tourism projects progressed and garnered visits from regional and national authorities, informants noted resident transformations. A former Huape logger explained how TNC's projects and programs empowered him and his fellow community members: "... it makes you grow as a person...now we have more empowerment. We are not running away anymore...Now...you (desire) to be something more" (Huape-003).

## Female empowerment

Informants stated that women gained knowledge and skills from PPAs that allowed them to work for the first time, changing local culture. According to informants, women chose to step out of the shadow of their male partners. This was true of RCV women, less visible among Oncol Park women, and especially true near Huilo Huilo, perhaps due to the HHF's devotion to women's empowerment. A Puerto Fuy woman spoke about the cultural change women were "motivated" to make declaring, "Now we women aren't so submissive or anything. We go out to work and ready (to work)" (PF-001). Women comprised most of the Huilo Huilo hotel staff and can make much more money than their male counterparts. A Huilo Huilo official noted: "...there are even months where women make three times more money than their husbands" (HH-002). Women in Huilo Huilo and RCV communities ran tourism businesses and organizations or earned income on the side making handmade goods. A former timber worker now working in tourism believed Huilo Huilo women to be "better entrepreneurs" than men because women were not entrenched in the previous timber culture that stifled the entrepreneurial spirit (NEL-004/M1).

Women's empowerment ruptured customary household dynamics in some cases, however. A Neltume woman explained she accepted employment as a maid for Huilo Huilo because her husband's wages working in reserve construction for Petermann were not enough to support their family. She linked her subsequent divorce to her decision to keep working for the reserve, telling us, "I think we (women) all have the same problem...men can't stand it, that there's no schedule...they're too macho...and want women to be around for them" (NEL-010). A woman working in tourism noted that the working mother concept impacted children because mothers, who usually stayed at home, were working, "...children are the ones who benefit the least because their mothers are now busier and don't have as much time for them" (NEL-001).

## **Community disempowerment**

Informants across all three cases felt disempowered by exclusion from decision-making. An RCV official stated local people "don't participate in the decisions that we make" (TNC-003). Similarly, a Puerto Fuy resident stated: "I've never seen (Huilo Huilo administration) in a meeting with the community, or asking them, 'We have this project, what do you think?'" (PF-005). Others in the Huilo Huilo area echoed sentiments that they have no power when it comes to the Huilo Huilo administration's actions stating, "they have the power; they get along with the police, so there's nothing we can do" (PF-008) and "If (Petermann) doesn't like something he growls and if he feels like sending them to hell he does" (NEL-010). Despite asymmetrical power relations, resistance to unilateral decisions occurred.



Informants detailed how communities near RCV and Oncol Park wrote denunciation and rejection letters and cut the road in response to PPA actions that threatened local people's well-being.

Informants across all sites also acknowledged community tensions surrounding PPA—community relations, which undermined empowerment efforts. Social relations in Neltume and Puerto Fuy were summarized with two dichotomies. A Huilo Huilo official offered one stating that those working in tourism and conservation rather than timber were "traitors" (HH-002). Perhaps this label was moored to the sale of the worker-owned fundo to Petermann in 1988, ending the dream of a commune:

We were going to build a community near El Salto (waterfall) for those who had shares. We dreamed about doing that, everyone having land where we could grow our crops, etc. But, we never thought so many of our neighbors would sell their shares to foreigners or companies. (NEL-006)

A second theme pits dissenters against those who were thankful for a job. A reserve maid and others revealed that dissenters were commonly fired; for example, those fired for arguing, "(Petermann) isn't paying enough...will realize what they lost and wonder, 'How can I even get food to eat tomorrow?" (NEL-010). Informants also noted divisions within communities near Oncol Park, with three informants stating Arauco employed a "divide and conquer" strategy to get their way (Minas-001, echoed by Pellin-002 and Bon-004), but divisions were noted less frequently near RCV.

## Discussion

Our results suggest that Los Ríos PPA administrations and government officials, i.e. governing actors, pursued PPA-community relations because they believed local people degraded the forests and had insufficient capacity to craft sustainable livelihoods on their own. Centralized environmental governance has historically blamed local people for degrading resources within parks, imposing an ideological separation of culture and nature that rendered local livelihoods a threat to ecological integrity (Adams & Hutton, 2007; Sarkki, Rantala, & Karjalainen, 2015). Our findings differ from the scholarship on public protected areas because local people were not portrayed as the primary source of governance-related conflict, suggesting governing actor beliefs about local people were depoliticized. However, to justify development projects and ideological divides, PPAs, as conservationdevelopment institutions, must be depoliticized (Büscher, 2010). Our findings suggest five factors that may explain how PPA administrations navigated the process of depoliticization. First, PPAs were not viewed by the State as entities to control. Instead, PPAs were tools by which the State could help address species and habitat protection and human development needs. This first factor established our second — PPA owners were able to make virtually all decisions about their land and to what degree they interacted with local people, including closing the unsanctioned commons and directing ecotourism development involving private land. Chile's socially legitimized neoliberal regime, our third factor, includes strong property rights and liberalized markets (Holmes, 2015), making the second factor possible. Fourth, PPA administrations moderated their customarily antagonistic beliefs by characterizing PPA—local relations with apolitical nomenclature (neighbors, supporters, workers). It is debatable whether this step was necessary given our final factor - PPAs were viewed as inevitable by non-PPA local informants, and when people are confronted by things perceived as inevitable, they are inclined to legitimize them to avoid discomfort (Moore, 1978).

While the broader conservation community has shifted toward participatory conservationdevelopment projects since the 1980s (Eagles, 2004; Sarkki, Rantala, & Karjalainen, 2015), all PPAs in our study were carving out a unique position within contemporary protected areas management by excluding local people from governance at the PPA scale, but encouraging them to participate in development projects to inspire self-governance. PPA administrations shirked emerging participatory approaches being adopted in public protected areas, such as devolution of resource rights or community-based conservation (Bixler, Dell'Angelo, Mfune, & Roba, 2015), preferring projects that preserved their decision-making authority. Under the model identified in our study, PPAs carry a unique risk of creating a false sense of financial security and disempowering local people in ways that are less evident in similar efforts promoted by public protected areas. For instance, the PPA owner can, at their sole discretion, withdraw community support after local people become dependent on a PPA. Little has been written about the social concerns surrounding protected areas outside of land acquisition patterns and management (Stolton et al., 2014). Our findings suggest that the social impacts and consequences produced by PPAs facilitating ecotourism development should be subjected to the same level of scrutiny by protected area authorities that have been given to public protected areas.

Although we found PPAs maintained near-exclusive control over reserve-scale governance, they did work successfully to encourage self-governance among local people through educational and livelihood diversification strategies aimed at producing "environmental subjects". Agrawal suggests an environmental subject is a person who has come to show concern for and act in ways beneficial to the environment (2005). This approach of encouraging local people to accept dependence on nature and can benefit from ecotourism is obviously paternalistic (e.g. Cooke & Kothari, 2001), but studies suggest that when people living near protected areas perceive benefits associated with ecotourism, especially socioeconomic ones (Bonet-Garcia et al., 2015; Bottrill et al., 2014), they may turn from dissidents to advocates for protected areas (Hayes, Peterson, Heinen-Kay, & Langerhans, 2015; Liu, Ouyang, & Miao, 2010). Interestingly, informants reported positive gains in empowerment and security, and did not express concerns about the paternalistic nature of PPA efforts to produce environmental subjects and ecotourism advocates. This context may help explain why ecotourism has shown a potential to diminish the probability of conflict between local people and park management (Buckley 2009; Duffy, 2008) despite challenging existing livelihood strategies. Taking these findings in aggregate, it is conceivable that PPA owners will continue to embrace ecotourism development schemes (Langholz & Lassoie, 2001; Stolton et al., 2014), paternalistic as they may be, because the approach can be used to exert influence over local subjectivities and behavior for the benefit of conservation.

Our results highlight at least two ways PPAs may more effectively build ecotourism-based community partnerships in communities receptive to PPAs. First, our informants noted concerns about inadequate levels of startup capital. Therefore, PPA actors will need to work with community leaders to make more readily available the various capitals needed to take advantage of the new ecotourism economy in these areas. Focusing on collective arrangements rather than individual efforts could be a starting point, particularly in indigenous communities where community identity, solidarity, and action were prioritized. Finally, governing PPA actors can build support by reducing perceptions of social stratification in new opportunities and benefits. Our results do not clearly delineate between benefits being provided in biased ways or perceptions of that problem, but more equitable distribution of efforts and more transparent communication about how benefits are allocated would address both potential explanations.

#### Conclusion

PPA ecotourism ventures can improve the well-being of local inhabitants as well as degrade it. If PPAs reach their projected lucrative state in the future, PPA ecotourism development projects could be a boon to local people, particularly those residing in gateway communities, possessing ample tourism startup capital, and eager to engage in entrepreneurial endeavors. However, this model does not serve everyone, and in some cases may contribute to negative social outcomes.

Our study of PPA ecotourism development illustrates at least three take-home points with implications for scholars and practitioners who contemplate sustainable alternatives to historically unjust conservation-development schemes. First, when hegemonic conservation-development principles are viewed as a source of hope and means to economic and social mobility, and benefits are observable and deemed essential to survival, local people may be willing to reproduce broader conservation and development discourses across space and time and discount or overlook drawbacks (Silva & Motzer, 2015). Second, if PPA actors sincerely endeavor to enhance well-being from ecotourism, they need to pursue equitable capacity-building efforts (Bennett, Lemelin, Koster, & Budke, 2012) that

align with local definitions of well-being. Should they fail to give serious consideration to local definitions of well-being, dissenters may brandish various "weapons" (Scott, 1985) to rewrite dominant conservation and development discourses to suit their vision of well-being or simply ignore PPAs. Finally, our study demonstrates that despite attempts by PPA administrations, PPA ecotourism could never be apolitical, and a belief that related participatory projects are purely an exercise in altruism or corporate responsibly would be naive. PPAs have strong and undertheorized ties to political economy and environmental histories that shape the design and execution of private development-based conservation. The processes and web of actors that give rise to PPAs and their social impacts must be examined within the political economy of conservation and place-based governance and perceptions.

This paper's introduction noted Eagles' (2014) 10 research priorities for protected areas in the future. While many of the 10 research priorities are common to both public sector and private/NGO sector protected areas, this paper suggests that at least one additional research area is required: the governance, political economy and socio-economic evaluation of PPAs.

#### **Notes**

- 1. Panglossian optimistic, even naively optimistic
- 2. The Nature Conservancy is a globally active non-governmental organization based in the United States. Their mission is to "conserve the lands and waters on which all life depends" and use "non-confrontational, pragmatic, market-based solutions" to achieve their conservation goals. See www.nature.org for further information.
- 3. The south Andean deer.

# **Acknowledgments**

We thank those informants who participated in this study, as well as our dedicated research team members. We also recognize the following funding sources for their contribution to this research: Tourism Cares; Laarman International Gift Fund; American Alpine Club; Food and Agricultural Sciences National Needs Fellowship Grants Program.

#### Disclosure statement

No potential conflict of interest was reported by the authors.

## **Funding**

We also like to recognize the following funding sources for their contribution to this research: Tourism Cares; Laarman International Gift Fund; American Alpine Club; Food and Agricultural Sciences National Needs Fellowship Grants Program.

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