TOURISM AND APPLIED PERSPECTIVES IN POVERTY REDUCTION AND BIO-CULTURAL HERITAGE PROMOTION IN THE POTATO PARK (CUSCO, PERU)

TURISMO Y PERSPECTIVAS APLICADAS EN LA REDUCCIÓN DE POBREZA Y LA PROMOCIÓN DEL PATRIMONIO BIO-CULTURAL EN EL PARQUE DE LA PAPA

(CUSCO, PERÚ)

Cristian Terry¹ ² ³

Basado en una investigación de tipo etnográfica y cualitativa, el artículo muestra cómo el agro-ecoturismo del Parque de la Papa (Cusco, Perú) tiene efectos positivos para las comunidades locales de zonas rurales. De hecho, el agro-ecoturismo contribuye a la reducción de la pobreza al mejorar el capital monetario y humano, reforzar la seguridad/soberanía alimentaria y garantizar el bienestar desde un punto de vista local. También promueve el patrimonio biológico y cultural local, principalmente la conservación de la papa nativa (al igual que otros aspectos relacionados) y el patrimonio textil andino. Utilizando como ejemplo la experiencia laboral del autor como coordinador del proyecto de agro-ecoturismo, el artículo finalmente destaca la importancia de una antropología aplicada en el sector turístico para contribuir al bienestar y la autogestión de los pueblos indígenas, y en términos generales, a un enfoque más ético y sostenible del turismo en favor de los pobres (“turismo pro-pobre”). Creando puentes entre investigación “pura” y aplicada, el manuscrito invita a los investigadores a participar y colaborar científicamente en este esfuerzo.

Palabras claves: población indígena, agro-ecoturismo, efectos socioeconómicos, promoción del patrimonio, antropología aplicada, Cusco (Perú).

¹ Science and Technology Studies Laboratory, University of Lausanne, Lausanne, Switzerland. cristian.terry@graduateinstitute.ch
² Master in Development Studies, Graduate Institute of International and Development Studies, Geneva, Switzerland.
³ Ph.D. in Social Sciences, Social Sciences Institute, University of Lausanne, Lausanne, Switzerland.
Based on a qualitative ethnographic research, the article shows how the agro-ecotourism of the Potato Park (Cusco, Peru) has positive effects for the local rural communities. The agro-ecotourism actually contributes to poverty reduction by enhancing the monetary and human capital, reinforcing the food security/sovereignty, and ensuring well-being from a local point of view. It also promotes the local biological and cultural heritage, principally the conservation of native potatoes (along with other related aspects) and the Andean textile patrimony. Using as example the author’s working experience as the coordinator of agro-ecotourism project, the article finally highlights the importance of applied anthropology in the tourism sector to contribute to indigenous peoples’ well-being and self-management, and more broadly to a more ethical and sustainable pro-poor tourism. Bringing together “pure” and applied research, the paper invites scholars for engagement and scientific collaboration to this endeavor.

**Keywords:** Indigenous population, agro-ecotourism, socio-economic effects, heritage promotion, applied anthropology, Cusco (Peru).
Tourism is one of the most important industries in the world (Fletcher 2011; United Nations World Tourism Organization [UNWTO] 2018). Due to the fact that global tourism is continually expanding (Gössling & Peeters 2015), authors such as Michel (1998) have talked about the “touristification of the planet.” Because of this process, some people, such as indigenous populations, have become active participants in this industry. For instance, in Peru, community-based tourism (CBT; Turismo Rural Comunitario) has grown in recent years and has been encouraged by the state and NGOs. Therefore, indigenous populations are implicated in the tourism sector and offer diverse services to tourists (home stay, cooking experience, weaving exhibitions, etc.). What does tourism mean for these populations? Why do they engage in this activity? What are its effects on their life? How involve should the researchers be in tourism activity collaborating with local people?

The present article aims to respond to these questions by focusing on a CBT project: the agro-ecotourism of the Potato Park in the Cusco region. The region has three features that are important for the purposes of this article: tourism, poverty, and heritage. First, Cusco is the principal Peruvian tourist attraction and one of the main tourist spots in South America due to the presence of Machu Picchu, an archeological Inca site deemed to be one of the seven new wonders and a UNESCO World heritage site. There is also an increasing demand for CBT experiences among tourists seeking for more authentic or traditional experiences away from mass-tourism paths (Ariel de Vidas 1995; MacCannell 1976; Terry 2019). Second, Cusco is one of the Peruvian regions affected by poverty, extreme poverty, and other associated issues, especially among rural indigenous people. Third, Cusco possesses a great deal of pre-Hispanic and colonial heritage as the former capital of the Incan Empire, which was later conquered by Spanish conquistadores. This heritage is closely linked to the tourism market. Moreover, CBT
promotes Andean traditions inherited from pre-Colombian times such as rituals, agricultural practices and goods, or weaving.

Tourism is seen as a tool for development for both the Peruvian state (Desforges 2000) and international institutions such as the World Tourism Organization (UNWTO 2013). If literature in the social sciences and anthropology emphasized the undeniable socio-economic, cultural, and environmental effects on visited sites, these effects would be viewed as rather controversial. Several studies have stressed negative impacts (e.g., Araña et al. 2012; Hall & Higham 2005; Higham & Font 2020; Nash 1989; Rossel 1988; Scott 2011) while others have challenged these studies by showing positive or nuanced effects (e.g., Archer et al. 2012; Burns 2000; Cazes 1992; Gjerald 2005; Leite & Graburn 2009; King et al. 1993; Picard 1996; Pizam & Milman 2014; Teo 1994), some within the Peruvian indigenous population (e.g., Fuller, 2011; Gascón 2005; George 2005; Pérez Galán & Fuller 2015; Prochaska 1990; Terry 2009, 2016, 2020b; Zorn 2004).

This ambiguous situation should invite researchers to document the phenomenon through fieldwork studies, as several authors have highlighted (Carr et al. 2016; Cazes 1992; Delisle & Jolin 2007; Guay & Lefebvre 1998; Terry 2016). A critical anthropological approach toward tourism is a pertinent tool for reaching this objective (Burns 2000) and goes further into “ideological dichotomies” (Van den Berghe 1992: 235). Acknowledging this methodological posture, the present article aims to present a reflection on the effects of tourism and applied research based on fieldwork that brings together tourism, poverty reduction, and heritage promotion. By exploring this, I argue that tourism could be an interesting socio-economic and cultural tool when it is self-managed and collectively rather than merely individually beneficial. I also insist on the need for an applied anthropology to promote the positive impacts of tourism and indigenous long-term self-management. The article is based on an ethnographic fieldwork through which I try to contribute particularly to the anthropological literature on
tourism, but also to tourism studies reflecting on sustainable tourism possibilities and applied research.

The article will be structured as follows. First, I will describe my methodology and the fieldwork in the Potato Park, including its socio-economics context and poverty-related issues. Second, I will contextualize the Potato Park and describe the agro-ecotourism project as a way to better understand its effects in terms of poverty reduction and heritage promotion. Then, I will enter directly into the article’s core, which is structured into two parts. The first part explores the tourism–poverty-reduction relationship by looking at the socio-economic effects of agro-ecotourism: income, food security/sovereignty, knowledge and education, and well-being feeling. The second part focuses on the link between bio-cultural heritage and agro-ecotourism by showing how the latter promotes the former, which contains biological and cultural components: conservation of native potatoes and other agricultural-related activities and textile heritage promotion. Articulating the two previous parts, I will end the article arguing for the importance of applied anthropology in the tourism sector to contribute to indigenous peoples’ well-being and self-management, or more broadly to a more ethical tourism.

Methods and Fieldwork in the Potato Park

The data used in the article comes from the NGO ANDES’s statistics from 2007 and 2010 and four months of fieldwork in 2011, in which I conducted interviews and participant observation. I interviewed 19 indigenous people (eleven men and eight women) principally concerned with agro-ecotourism. The participant observation was done both inside and outside tourist interactions. Through this study, I focused on local viewpoints toward agro-ecotourism. The research was performed in the context of my collaboration as a volunteer with the NGO that supports the Potato Park project.
I have updated my research’s outcomes somewhat by providing new data based on a one-year professional experience as the coordinator of agro-ecotourism project (2012), as well as follow-up visits to the Park (2014, 2015 and 2020). This permits a certain diachronic viewpoint and also proposes some practical perspectives, moving from anthropological fieldwork to the applied work in the tourism sector. The analysis I developed here is framed by this length of time, which has to be taken into account to prevent us from making generalizations about tourism’s impacts on local populations.

The Potato Park (*Parque de la Papa*) was officially created in 1998 as an indigenous bio-cultural heritage area. The name refers to its great biodiversity, principally of a thousand varieties of native potatoes (*papas nativas*). Actually, the conservation of this variety was the main motivation for setting up the Park and is still its principal objective. The Park was promoted by the local NGO, ANDES (*Asociación para la Naturaleza y el Desarrollo Sostenible*). It actively participated in signing an agreement with the International Potato Center to repatriate native potatoes that belonged to the zone before the Park’s creation.

The Potato Park is an intercommunity-based organization, composed by five Andean communities of the Pisac district: Amaru, Chahuaytire, Pampallaqta, Paru-Paru, and Sacaca.² Situated about 45 minutes from the city of Cusco, this 9,280-hectare area is located approximately 3,200-5,000 meters above sea level (Figure 1). It houses around 1,200 families, or 6,700 people.
The Potato Park targets three main goals: 1) “to eradicate extreme poverty and hunger,” mainly based on preserving genetic varieties for future generations who “can depend on alternative crops with solid bases”; 2) “to promote the equality of gender and to train women”; and 3) “to ensure environmental sustainability” by articulating ancestral and modern principles that guarantee. To fulfill these goals, the Park has different projects. Among these, agro-ecotourism is given special attention, since it oversees other economic activities in the Park, as we will see later.

Like other Andean communities (Gascón 2005), the Park’s economy is family-based. It relies mainly on an accumulation/alternation of different activities; the most important remaining activities are agriculture and farming. This peasant-economy feature allows the people to ensure that they have enough food throughout the year (potatoes, corn, quinoa, meat, etc.). Besides this self-sufficient basis, other activities provide monetary income to the people to buy other items from the market, mainly food (e.g., rice, pasta, sugar, etc.), but also technology (e.g., radio, television, cellphones, etc.). Within this monetary economy, tourism has progressively acquired an important role in the Potato Park and elsewhere in the Cusco...
region and is promoted through the national and regional governments through the CBT model. The Potato Park’s agro-ecotourism is a particular example of this model. Before CBT, *comuneros* had already been working in other “classical” tourist activities, mainly as *porteadores* (carriers) on the famous Inca Trail (a four-day trek road to Machu Picchu).

In the Potato Park, the peasant economy depends on the community; some are better off than others in terms of agricultural varieties and surfaces. Due to geographical context, the communities’ agriculture can suffer from bad weather, especially those situated at high altitudes. For instance, in May 2011, a snowstorm significantly affected Pampallacta’s crops. According to the local discourse, diseases and viruses constantly threaten crops. Moreover, climate change has worsened the situation, bringing with it unknown diseases affecting native potatoes (see Cometti 2015). A Paru-Paru *comunero* (F/technician) affirmed that 40 to 45 years ago, production was abundant at 3,700 meters above sea level, while today, people need to go up to 4,100 meters for equal production.

Cusco is one of Peru’s poorest regions, principally in rural areas. This worrying situation is proven by statistics, reports on malnutrition and food insecurity (Programa de Naciones Unidas para el Desarrollo [PNUD] & Programa Mundial de Alimentación [PMA] 2010), lack of education (Benavides et al. 2010), and scholars (Figueroa et al. 1996; Franco 2007; Morlon 1992). When I was doing my field research, the available official statistics were not encouraging: In 2009, the average poverty incidence in the Cusco region was 51.1%, with lower rates in rural areas (Instituto Nacional de Estadísticas e Informática [INEI] 2011). More specifically, in the province of Calca—where the Potato Park is geopolitically situated—the 2005 Human Development Index was also very low (0.50) according to the United Nations Development Program.

It might be true that the communities of the Park seem to have a less severe condition (at least visibly) compared to other *comuneros* such as Q’eros (Terry 2019: 108-109).
However, they still have some issues, as I witnessed, that qualified them as poor or that could have an impact on their poverty situation (present or future): lack of drinking water and hygienic services, bad health service (only two small medical centers), and deficient public education (number of schools and time to reach the place), among others. In his study within the Potato Park area, Galvin (2004: 281) declared that the area was classified as “poor” on a national scale. The 2003/2004 socioeconomic assessment already showed a worrying situation in the Park. Some of the indicators had not indeed improved at the moment I conducted my fieldwork study.

This brief description gives a general overview of the Potato Park’s socioeconomic situation, which is pertinent to assess agro-ecotourism’s effects. We will see indeed how these impacts affect some areas, such as income and education, while others are less concerning (e.g., health).

**Agro-ecotourism in the Potato Park**

The article limits its assessment’s scope to agro-ecotourism or “tourism of the Park.” It is imperative to distinguish the latter from: 1) “the tourism within the Park” (i.e., the entire range of touristic activities within the five communities, including agro-ecotourism); and 2) “the tourism outside the Park” (i.e., other tourist activities performed by comuneros, mainly in the Cusco region).

**Agro-ecotourism evolution**

The agro-ecotourism project officially started in June 2007, even though there were some visits before. Statistics show a progressive rise in tourism between 2008 and 2010, with differences from one month to another (Figure 2). This variability fits that of tourism in Cusco, characterized by high and low seasonal fluctuations closely related to Western vacations.
The 2010 year represented the peak of agro-ecotourism visits and therefore income. However, as elsewhere, the tourism sector is unpredictable. While doing my fieldwork in 2011, the Potato Park members were already claiming a decrease in tourism. In 2012 as the coordinator of the agro-ecotourism project, I also realized this tendency. However, recent interviews in 2014 with ANDES employees and comuneros have claimed that tourism was growing compared to 2011.

**Agro-ecotourism: organizational and logistic structure**

In any agro-ecotourism assessment, it is relevant to know about the organization of the Potato Park’s tourism structure. ANDES and the Park work together to make agro-ecotourism visits possible. The visitors’ organization follows this process: 1) Independent visitors or tour operators contact ANDES’s secretary to make reservations. 2) The NGO asks Lucho — the principal employee in charge of this organization — to organize the visit among the Touristic Actors of the Park (TAPs; i.e., comuneros directly concerned with agro-ecotourism activities).
During my fieldwork, Ceci — another NGO employee who worked with woman-based groups (i.e., “Gastronomy” and “Medicinal Plants”) — frequently intervened on the visits organization among these groups. 3) Finally, during the visits, the concerned TAPs perform their services and sell their products. The NGO plays then a key role in organizational and logistic terms, while the Potato Park’s role is fundamental during the visits themselves.

This structure is currently valid, even though since 2015 there seems to have been some transfer of capabilities to the comuneros. Also, during 2012, this structure was modified because of my work as a responsible member of the agro-ecotourism project. I will discuss these modifications at the end of the paper, since it is fundamental to understand the applied research perspectives and future perspectives for the Potato Park.

Besides its logistic and organizational role, ANDES provides workshops particularly for the TAPs in order to improve their tourist services. It also administrates the money from visits, giving a part (90%) to the TAPs and keeping another part (10%) for the communities (see below Fondo communal). Furthermore, the NGO is meant to promote agro-ecotourism, which is one of the tasks that is barely fulfilled. This is also a key element to keep in mind in terms of transfer capabilities to the Park, of which I will approach at the end of the article.

**Touristic Actors of the Park (TAPs)**

Because of its intercommunal structure, the Potato Park possesses a collective-based administration through the Asociación de Comunidades del Parque de la Papa (ACPDP). This entity has a political representation, since each president of the five communities (presidente comunali) is part of the ACPDP board. This composition is critical to people’s support of the Park: The community’s decisions are made within Asambeas comunales composed by comuneros (excluding women) led by the president.
Below the Potato Park’s head, there are the local technicians, traditional authorities (Varayoc), musicians, and colectivos económicos (working economic groups). The Park’s guardian sometimes plays a certain role, principally, cleaning the site and preparing the Potato Park’s mockup before the visitors’ arrival. All of these people belong to what I categorized as TAPs, even though the guardian’s and local technicians’ work are not tourist-focused and have a monthly salary. Aside from the local technicians, who can intervene in helping to organize visits with Lucho, the rest participate only during the visits. Traditional authorities and musicians are in charge of welcoming the visitors while the colectivos are more involved in agro-ecotourism activities by providing different services and selling products to tourists.

There are seven colectivos: local guides, *Papa Arariwas* (potato technicians), medicinal plants, handicrafts (weavers’ group), gastronomy, homestay tourism (*turismo vivencial*), and botanic gardens. With an estimated total of 62 people and 46 families, each TAP varies in composition in terms of participants’ number, gender, and community (though not all the communities are equally represented).

Due to this variability, I present an overall picture of TAPs during my fieldwork in 2011, acknowledging the likely changes in their (re)composition throughout time.

**Tourist “demand-over-offer” situation: one-day tour preference**

The agro-ecotourism offer combines the TAPs’ services/products with local tourist attractions (mainly native potatoes, landscape, and indigenous people). It proposes three visiting options: one-day tour, three- or five-day trekking, and a cooking circuit. Each option mobilizes a different set of TAPs, which is a key item to understand when considering the income inequality among TAPs.

Despite this diverse offer, the one-day tour was by far the most in demand from both independent tourists and those on organized tours during my research and work experience.
The tour was not situated in one place but actually in different communities. The tourists and tour operators preferred the one-day tour because it fit better with their limited timeframe aside from the visits to the “classic” hot-spot sites such as Sacred Valley or Machu Picchu. In some cases, it was also a matter of money, mainly for independent tourists traveling in small numbers. Apart from a few foreign student groups, tourists only stay for a few hours in the Park. As a Turismo vivencial member said: “The Park brings always [the tourists], but [they] come for a journey. The majority does not stay here” (G/Paru-Paru). Yet, within the one-day tour offer, tour operators or tourists can modify its components because of limited time or money. This “demand-over-offer” situation is a key feature to take into account for agro-ecotourism economic effects.

### Agro-ecotourism’s Effects

Agro-ecotourism tends to have positive effects on the Potato Park’s population. I will first focus on a set of socio-economic effects in terms of: monetary capital, food security/sovereignty, human capital, and well-being. I will then point out its effect on heritage matters.

### Agro-ecotourism’s socio-economic effects

**Monetary capital: from the TAPs’ income to the Fondo comunal**

As previously stated, TAPs obtain money from their services and/or product sales during agro-ecotourism visits. This activity provides a direct income to local individuals and families. A rotary system is established to distribute income among TAPs. However, because of the variability of the tourism sector, the demand-over-offer situation, along with the possible re-composition of the tourist program components or other criteria (availability, ANDES’s preference, meritocracy or experience that challenges the rotary system), their income is
variable not only throughout the year but also from one TAPs group to another or from one individual to another. For instance, according to the 2009 income, the *Turismo vivencial* and Handicraft groups are actually among those that benefited least from agro-ecotourism compared to others. The *Turismo vivencial* group suffers particularly from the demand-over-offer situation while the Handicraft group is pushed aside due to the strong competition within the textile sector in the Cusco market. As a weaver claims: “We make weavings but nobody buys them […] We made that for nothing. For this reason, I want to enroll the Medicinal Plants group” (B/Sacaca).

As I stated, income inequalities are also found among individuals. In this respect, the case of Gastronomy members is exemplary. Although the group is more concerned about agro-ecotourism income, there are individual disparities due to a set of factors: 1) the income per person depends on the number of participants during a visit (it is the largest TAPs group and their participation is assigned normally by the rotary system); 2) the revenue per person relies on the number of meals the concerned group sells; 3) some members need to pay for being transported to the restaurant in Chahuaytire, which is different from a person who lives nearby. As a member claims: “We are four or five persons for cooking. If I was alone, I got more money” (M/Paru-Paru). The case of Gastronomy thus demonstrates how the agro-ecotourism income is variable at the collective (among TAPs) and the inter-individual (among members) level.

Despite these disparities, agro-ecotourism income is considered to be a “supplementary resource.” A local technician’s opinion sums up this general opinion: “If the money is not enough, [the agro-ecotourism] gives us at least little money” (F/Paru-Paru).

Beyond the TAPs’ income, what is extremely interesting is that agro-ecotourism participates in the generation of a collective income to all the Potato Park communities. This is actually a rather revolutionary feature within the CBT-based model, which generally tends
to benefit only the direct participants. This indirect income is operated thanks to the *Fondo comunal*, which corresponds to an amount of annual accumulated money and is redistributed to the five communities at the end of the year (Figure 3). This accumulation is made from the entrance fee to the Park (PEN 15.00 or USD 3.00 approximately), which goes directly to the *Fondo comunal*. To a less extent, the TAPs’ contribution from their earnings (10% of agro-ecotourism income) is also added to the *Fondo comunal* (this extra money is not well regulated). Apart from the Gastronomy and Medicinal Plants groups, which are under the control of Ceci who looks after this sort of tax, this payment remains rather theoretical.

In any case, agro-ecotourism remains an important source for the *Fondo comunal*. While it is not the only source (donations or other non-tourist visits), its importance has grown from 2008 to 2010. According to my estimation, while the agro-ecotourism’s participation in the *Fondo* in 2008 was between 17% and 31% of the total, this percentage grew from 58% to 64% in 2010.

![Figure 3. The Fondo comunal’s mechanism of redistribution. Source: Elaborated by C. Terry.](image)

*El mecanismo de redistribución del Fondo comunal.*

The *Fondo comunal*’s redistribution principally obeys the principle of equity based on the annual participation of TAPs. The assessment relies on different criteria: participation of visits (tourist or not) and workshops, the degree of president and local technician engagement in the tasks of the Potato Park, etc. Through this collective assessment, each community
receives a certain amount of money that is not necessarily the same for all; the more comuneros who are engaged, the more money their communities will obtain. The equity principle encourages wide community participation in the project. As a Potato Park weaver highlights: “Because of the [Fondo comunal], I come to the workshops and other colectivos’ meetings” (B/Sacaca).

The Fondo comunal is frequently used for the communities’ tasks (gestión comunal), including administrative expenses and paying people for collective work (faenas). In other cases, the money serves to improve the communities’ standard of living by installing electricity and water canalization or buying materials for constructing a new communal room. A community can instead decide to save money in a bank to obtain a surplus and use the savings for communal purposes, or split the income among its inhabitants.

Therefore, this money benefits the whole community, regardless of whether the inhabitant is an active member of the Potato Park or not (see Figure 3). This feature encourages people to support the Potato Park, and the Fondo is considered to be a more interesting feature than direct income as a supplementary resource (Figure 4). This general opinion expresses the comuneros’ concerns about the decrease in tourist visits during 2011, as an ex-local technician stresses: “Last year [2010], we had a lot of visits, and thus a lot of money. However, today [2011], we do not have enough, which means less income [for the communities]” (L/Pampallacta). One potential risk of this is that it causes under-motivation in the Potato Park project, as several ATPs highlighted. As Papa Arariwa affirms: “[The tourism of the Park] is important for maintaining the potatoes’ varieties, for motivating people to work the fields” (J/Pampallacta). This statement demonstrates the close link between the monetary and the self-consumption activities of the peasants (see below).
Food security/sovereignty

Besides agro-ecotourism, comuneros practice other activities in the Park, principally the agriculture and farming. Here, I want to articulate the difference between these peasant activities and agro-ecotourism: the former are important in economic terms, while the latter is important in terms of food security/sovereignty.

It is true that agro-ecotourism can be either compatible or incompatible with peasant tasks. As the Park’s guardian claims for several TAPs: “The Potato Park’s responsibilities shorten your workday [of agricultural work]” (C/Sacaca). Nonetheless, regardless of the situation, the absence of agro-ecotourism duties allows people to dedicate themselves to peasant tasks. As a Turismo vivencial member says: “If there is no work [associated with agro-tourism], I go to the field” (E/Paru-Paru).

Because of agro-ecotourism’s fluctuation and the rotary system, TAPs are not concerned with the tourism of the Park every day. They still perform their peasant activities since they have a key importance above all in terms of family alimentation. This feature is reinforced by
the decreasing price of agricultural goods: rather than selling their products, people prefer to eat them, as they have an alternative source of income from agro-ecotourism. Along with other activities, whether related to tourism or not, agro-ecotourism becomes articulated with the peasant work (see also Gascón 2005). Through this articulation, a logical dialectic emerges between the capital-based economy and the self-sufficient economy; this dialectic characterizes contemporary Andean communities. “We cannot forget the agriculture […] We have always lived thanks to it. [But] we must work besides. The agriculture is not enough; just for the food,” declares a Turismo Vivencial member (G/Paru-Paru). In the same vein, a Papa Arariwa affirms: “The agriculture is always important […] You eat naturally. We must conserve it throughout the year. [Therefore] there is no other [food] needs. But money is always necessary” (H/Paru-Paru).

Thus, agro-ecotourism provides money, while peasant activities provide food and other supplies. Nevertheless, agro-ecotourism is also a source for the comuneros’ alimentation, since the income is, among other sources of income, used to buy rice, pasta, etc. These items are today part of the Andean communities’ diet. Farming, on the other hand, supplies both money and food (they sell or consume the animals and other products derived from animals such as milk, cheese, or eggs). For instance, guinea pigs provide a food source that is rich in proteins and low-fat elements, and sometimes, the farmers can earn money from guinea pig contests or by selling them as a food.

Consequently, the association between agro-ecotourism and peasant work contributes actively to support food security (Figure 5). We can even talk about food sovereignty since agriculture and farming ensure an alimentation that is locally contextualized in socio-cultural terms. By producing its own food, the Potato Park becomes sovereign in terms of what people consume (see Grey & Newman 2018). They have their own seed that they can use to cultivate, for instance, native potatoes, without depending on Montsanto or other foreign or national
entities. Moreover, the agro-ecotourism income not only permits them to buy other food supplies but also encourages them to practice peasant tasks.

Figure 5. The Agro-ecotourism/peasant activities relationship. Source: Elaborated by C. Terry.

*Relación agro-ecoturismo/actividades campesinas.*

**Human capital: knowledge and education**

Apart from the generation of monetary capital, agro-ecotourism also supports the creation of human capital. Indeed, for TAPs, the Park is also a way to access better formation due to workshops given by or through ANDES. This is perceived as surplus value for diverse TAPs. “I have learnt new meals that I can cook at home,” says a Gastronomy group member (D/Sacaca). Another TAPs affirms: “As a technician, I may have not received much money.
But in terms of knowledge, yes [I have got a lot]. Plus, I have travelled [to Lima, France, India, etc.]. Tell me if I could have got this elsewhere?” (F/Paru-Paru).

For others this feature is the main motivation to continue participating in agro-ecotourism. In this respect, the following statements from a weaver are exemplary because her group is one that benefits least from tourism: “[Handicraft] gives little [money] for investment, even for giving something to children. It is time consuming […] But, during the workshops I learn things. For this reason, I have decided to stay [with the Handicraft group]” (B/Sacaca).

In some cases, it is also a way to set up one’s own business. For instance, a former-Gastronomy-group woman has adapted her house to offer food to tourists. In this regard, the human capital accumulated during the Potato Park workshops can be transformed into monetary capital. The latter can be also invested to develop human capital. If agro-ecotourism is not the only source of income, it remains an important one for investing, principally, in children’s education:

With the agro-ecotourism, we had at least something to educate our children. The agriculture [with] its low income is not enough. For this reason, my generation has not gone to the secondary [school]. Today, [young people] go to the [superior] institutes […] I have now something to educate my children; one of them is going to an Institute. (K/Chahuaytire)

Therefore, among other monetary activities, agro-ecotourism finances the children’s education and even pays for higher education. Generally, this money serves to pay expenses such as school materials or uniforms. The case of a local guide (Q/Paru-Paru) shows how his work allowed him to finance his studies at a gastronomy institute. Due to this education, he was hired as a cook on the Inca Trail. Then, the money he earned was invested in his nephew’s education. This case shines a light on the human-and-monetary-capital synergies.
Effects on migration: the well-being perspective

Migration is part of the comuneros’ daily-life and is a way to seek better economic opportunities elsewhere, including Puerto Maldonado’s mines, harvesting coffee in Quillabamba (Cusco’s rainforest), or working in construction in the city of Cusco. These outside jobs provide supplementary revenue that combines with the peasants’ activities.

In this context, agro-ecotourism constitutes an attractive alternative for comuneros: they can work at home while earning supplementary money. This is considered a very important feature since they can work within a familiar context, which is different from outside jobs that often have bad working conditions and poor salaries:

With tourism, there is money. If there were more money, I would not need to go outside. I would not worry for anything. Here [at home] I feel well, there is warm food. When I was in Machu Picchu [as a porteador on the Inca Trail], I left my wife alone. I was worried about it. I slept on the floor and ate without respecting time (a cualquier hora). When it was raining, I got wet. Today it is easier to stay here. (E/Paru-Paru)

I have worked in the Puerto Maldonado’s mines for eight years. It was a very hard job. Sometimes I worked for nothing since we were paid by commission. Now, it hurts my bones because of that […] With Turismo vivencial I can stay in the community, eat better and stay nearby my family. (T/Paru-Paru)

The statements of these TAPs speak for themselves. They shine a light on the importance of agro-ecotourism (as well as other tourist activities within the Park) in terms of the limits it imposes on migration or at least on mid- to long-term migration. This is accompanied by a feeling of well-being inside the community and in the family sphere. This feeling is supported, among other things, by local alimentation, which is closely linked to food security/sovereignty and to a certain income for individuals, families, and, more generally, communities (i.e., Fondo comunal).
Agro-ecotourism’s heritage effects

Effects on bio-cultural heritage

As mentioned, the Potato Park is considered to be an indigenous bio-cultural heritage area. This key concept is actually quite complex because, according to the Parrain’s report provided by ANDES,\textsuperscript{10} it includes not only the genetic diversity of species and ecosystems but also cultural and spiritual values, which are all placed in a socio-ecological context.

Thus, we are talking not merely in biological terms but also in cultural terms; both are closely linked to agricultural practices. The cultural dimension manifests in different ways: as tools, techniques, knowledge, and rituals. The chaquitaclla is an example of a pre-Hispanic tool that people still use in agriculture. The practice of making ch’uño—a dehydrated potato—is an inherited pre-Colombian technique for the long-term conservation of potatoes. Rituals such as Papa t’inkay or those dedicated to the Pachamama\textsuperscript{11} (“Mother Earth”) seek to maintain a certain contact with deities to ensure a good harvest. These examples show us the intertwined biological-cultural aspects of agricultural practices.

In this regard, agro-ecotourism plays a key role in promoting, among other things, native potatoes. Their conservation was not only the main motivation for setting up the Park, but the potatoes are also protagonists during the tours. Local technicians or Papa Araríwas show to the tourists the huge biodiversity of the potatoes among other local species (e.g., oca, mashuwa) and demonstrate in situ the effects of climate change on the potatoes. Medicinal plants members use these tubers in the natural products that are sold to visitors. The Gastronomy women cook diverse meals using native potatoes and other local goods (e.g., local mint muña, quinoa). Women have even created the Potato Sour, inspired by the Peruvian cocktail, Pisco Sour. In the Turismo vivencial experience, tourists can participate in the potatoes’ cultivation or harvest. Depending on the agricultural calendar, visitors can observe potato-based agricultural work, the process of ch’uño creation, or even rituals such as Papa
t’inkay.

Likewise, Papa Arariwas’ explanation is an important element in the tourists’ knowledge of both the native potatoes’ diversity and the empirical effects of climate change. By listening and observing, they can better understand the important bio-cultural heritage handed down from pre-Columbian times. Visitors can also see the negative effects of climate change on native potatoes by listening to how comuneros now need to cultivate the tubers on the mountains due to ongoing warmer temperatures. Papa Arariwas point out their worries about the native potatoes’ production if the warmer temperatures continue. In this regard, they evoke mitigation strategies such as the Svalbard projects in Norway to conserve potato seed naturally.

Agro-ecotourism is therefore crucial to protect a bio-cultural heritage such as the Andean native potatoes. If it is true that the biological dimension tends to be more explicit that the cultural dimension, the role of agro-ecotourism in the protection of the potatoes is undeniable. Moreover, visitors improve their awareness of the effects of climate change on this bio-cultural heritage. This may contribute to build a tourism concerned about Anthropocene effects (see critics in Fletcher 2019; Gren and Huijbens 2014; Moore 2015; Zhang 2019; see also Lorimer 2015) that affects nowadays rural Andean populations (Cometti 2015, 2020).

Effects on Andean textile heritage

The case of Andean textile provides another example of how agro-ecotourism promotes heritage, as does a broader offer in the Cusco region (Terry 2016, 2019, 2020a, 2020b).

As I mentioned, the Park possesses a weavers group called Ñawpa Away. Depending on the tourist program, they participate in agro-ecotourism. Even when they are excluded from the tours, there are frequently two or three persons (mostly women) who sell weavings. If they are included, they provide explanations to the visitors about their traditions, mainly the textile
process, which includes spinning to weaving, followed by natural dying using local plants and cochineal. Ñawpa Away members also talk briefly about patterns, which are another important item in terms of the weaving tradition. Indeed, local iconography reflects an interest in the Andean landscape flora (mountains, rivers, etc.) and fauna (mainly birds) as well as some references to historical heritage, since some patterns (pallay) such as ch’uro are called ñawpa pallay. This means “ancient patterns” and thus denotes a relationship between the weavers and their inherited past. Anthropological works have actually shown a cultural dimension to contemporary Andean textile (Arnold et al. 2007; Cereceda 2019; Desrosiers 2012, 2014; Franquemont et al. 1992; Heckman 2003, 2006; Schevill et al. 1996; Seibold 1992; Silverman 2008).

The case of Ñawpa Away shows us the close relationship between agro-ecotourism and the weaving tradition. The latter is not static (the exact copy of pre-Columbian textiles) but is rather constantly changing (Gisbert & al. 1987). Like other comuneros weavers, the Potato Park’s weavers are nowadays associated with the tourism market, which has seen some changes in terms of the introduction of industrial spinning wool into the textile process. Comuneros buy these industrial-made items to accelerate their weaving production while continuing to work by hand for the rest of the process. I have followed these new strategies, among other things (see Terry 2009, 2016), during my fieldwork studies and my professional experience. They allow for the creation of those traditional hand-made items that are appreciated by the tourists, combined with the tourism market logic of diversification and productivity.

In conclusion, agro-ecotourism promotes textile heritage and encourages both continuity and change within the current tourist and market context. This continuity/change relationship is what makes the textile heritage so dynamic throughout time.
Conclusion and Discussion: Towards an Applied Research

As we have seen, through agro-ecotourism, the Potato Park obtains important benefits in both socio-economic and heritage terms. These benefits concern individuals and families directly, and more broadly, the members of the five communities. This assessment challenges people’s negative beliefs about the effects of tourism and thus contributes, heuristically speaking, to reinforcing the idea of the ambiguous effects of tourism, depending on the place and fieldwork frame in which the researcher is operating. Based on this conclusion, the question now is as follows: as researchers, what role should we play in the tourism sector? Here, I would rather develop a reflection on applied anthropology (and more broadly on applied research) from my on professional experience and posterior visits to the Park. This applied perspective contributes to other works in anthropology (e.g., Abram 2010; Chambers 1997; Ervin 2005; Ferraro & Andreatta 2017; Terry 2016; Wallace 2009; Willigen 2002) and other disciplines concerned by tourism studies (e.g. Cerina et al. 2010; Hall & Page 2002; Jamal & Stronza 2009; Ladkin & Bertramini 2002). These are some explicit examples, since “the distinction between pure and applied research is often difficult to draw” (Coppock 1976: 104). The following account shows the dialectic relationship between these two dimensions.

After obtaining my master’s degree, ANDES hired me to be responsible for the agro-ecotourism project in 2012 based on my fieldwork experience. I demonstrated a certain commitment toward the Park due to the rather positive effects of tourism that I witnessed during my fieldwork. My goals were to enhance the promotion of tourism in the Park and to increase the local income from tourism activities which had decreased in 2011 (see Figure 4). A mid-to long-term objective was to figure out a way of empowering the Potato Park and transferring the capabilities from the NGO to the comuneros. In this vein, I tried to reinforce the participation of comuneros in agro-ecotourism’s promotion by visiting, for instance, different tour-operators to learn about their tourism offers. We also contacted the local government of
Pisac (the Potato Park’s political district) to promote the Park. In 2012, the local government planned some activities in response to the demand for tourism. In addition, we tried to delegate one of the local guides to start organizing visits among TAPs. If the task was accomplished a few times, this demonstrates the ANDES’s intention to build capacity and transfer autonomy to the Park.

On the other hand, I had to deal with the prerogatives of the tourist market. As I mentioned, the demand of agro-ecotourism usually lasts for only one day. Being aware of this trend, I enlarged the offer by proposing short visits that fit better with the time-limited tourist schedule. It also permitted offering affordable prices above all to independent tourists who travelled in small numbers (the price per person was inversely proportional to the quantity of the visitors). I also contributed to reinforcing this one-day trend to the detriment of other alternatives. Nonetheless, by doing this, I thought it would benefit the Fondo comunal and sustain then positive effects for the communities.

In January 2013, I finished my work and I began a PhD in anthropology in Switzerland. Therefore, I did not see the actual results of my work. A year is too short—at least for a mid-to long-term process of empowerment. Since then, I have returned to the Park not only for my PhD fieldwork but also for tourist and academic visits. During these visits, I could see an improvement in terms of empowerment compared to prior situations. In 2012, Lucho—the employee charged with organizing the visits among TAPs—intervened frequently while the comuneros were speaking and offered his expertise and sometimes corrected them. By contrast, during my 2015 visit, Lucho barely talked and let comuneros express themselves. I could see that the TAPs were more confident than before. For instance, the local guide surprised me by giving his talk and responding to each question using local and scientific explanations about climate change.

Even more interestingly, our local guide was in 2015 organizing visits in the Park with
little or no help from ANDES. He told me that he was not only coordinating visits with TAPs but also responding to some e-mails. This is a huge step up compared to 2012, even though this person did not perform the activity daily due to his responsibilities as a local technician. On the other hand, on the ANDES-side, since mid-2012, nobody has been occupying my position. There were two employees (Lucho and the secretary) who are partially in charge of agro-ecotourism, but they have other tasks. In 2020, another comunero from Amaru was responding emails (in Spanish) and coordinating visits. Nonetheless, ANDES helped him in coordinating visits with english-speakers visitors, since he couldn’t speak English. There still then a dependency on the NGO, although a capabilities transfer is in progress.

This current situation is both encouraging and alarming. From my work experience, I stress the fact that it is important to have an NGO-Park partnership in agro-ecotourism, and that capabilities should be transferred progressively to the Park with a mid- to long-term deadline in mind. My fieldwork and working experience uncovered a dependency on the NGO (see also Asensio & Cavero Castillo 2013). Elsewhere, several authors highlight this kind of dependency concerning CBT projects (Stoffelen et al. 2020) and the difficulties of local empowerment in a long run (Saarinen 2011). I think that this dependency is necessary for a while because the tourism market requires capabilities that comuneros do not have yet, such as IT and foreign language (mainly English) knowledge. The “educational poverty” in the rural Andes that Franco (2007) has highlighted is one of the barriers to this. Several people suffer from educational inequality, which manifests, for instance, as low literacy rates.

While ANDES has done good work providing formation to different TAPs (e.g., gastronomy, information, etc.), the NGO can hardly fight against structural issues such as education. I have met young comuneros like a former local guide who graduated as an official guide in an institution where he learned English. Such persons are an important human resource to ensure the continuance of the empowering transfer process. On the one hand, if ANDES stop
participating in agro-ecotourism, there is a potential risk of unethical tour operators seeking to maximize their profit (see Mowforth & Munt 2009). More than once, some tour operators asked me for a local contact to pass directly into the Park without ANDES’s control. The problem is that this kind of act tends to benefit some individuals rather than the collectivity, as the *Fondo comunal* promotes. This is what happens in the classic CBT model where only a few *comuneros* benefit (Pérez Galán & Fuller 2015), which is contrary to inter-community-based tourism (ICBT), as I would identify the Potato Park.

The case study of the Potato Park demonstrates that tourism can be an interesting socio-economic and cultural tool as long as it is self-managed and its benefits are harnessed collectively, rather than individually. Other studies in the Cusco region also support these positive effects, at least potentially, from a socio-economic perspective (George 2005) or in terms of poverty reduction and heritage promotion (Casas Jurado et al. 2012). Based on this case study, I argue for the usefulness of an applied anthropological approach in tourism studies to ensure favorable relationships between tourism, poverty reduction, and heritage promotion. Experiences in agro-ecotourism open up an exiting opportunity to apply our empirical and theoretical backgrounds.

More broadly, I truly think that anthropologists (and other researchers) can actively participate in building a sustainable and ethical tourism. This will probably remain an ideal because tourism always carries undesirable effects (e.g., generating CO2 by riding in planes or buses) and researchers should be engaged in climate change issues enhanced by the tourism industry (Scott 2011). Its effects also tend to be ambivalent depending on the configurations of field research (e.g., the studied population, the scope of the analysis, etc.), which justifies our empirical approach (Burn 2000; Carr & al. 2016; Cazes 1992; Delisle & Jolin 2007; Terry, 2016) and more interdisciplinary studies (Liu 2003). I am aware of the so-call negative impacts of tourism and I do not claim that the Potato Park is free of these. In this respect, I have
highlighted light the income inequality among TAPs, which can be considered a negative feature (see also peasant differentiation in Gascón 2013). Also, I have contributed reinforced the importance of developing short-visit tours that benefit some TAPs to the detriment of others, because my aim as an ANDES employee working in the agro-ecotourism project was to raise the collective revenue and hence generate positive effects, which I have observed in my research.

Thus, rather than deploring these negative impacts, our fieldwork, which derives understanding from empirical research and a theoretical background, provides the basis for improving things and creating a more ethical and sustainable tourism (see Boluk et al. 2019; Higgins-Desbiolles 2018; Larson & Poudyal 2012; Mowforth & Munt 2009), more “responsible” (Spenceley 2012), “just” (Higgins-Desbiolles 2008), “inclusive” (Scheyvens & Biddulph 2017), and “pro-poor” (Ashley et al. 2001; King & Dinkoksung 2014; Scheyvens 2009, 2011), more locally self-managed, as the case of the Kunas in Panama (Snow & Wheeler 2000). This challenging perspective pushes anthropologists and other scholars to deal with the prerogatives of the tourism market in order to articulate the socio-economic benefits in terms of the cultural components of local life: to what extent should we adopt an economic perspective to ensure local income? To what extent should we defend cultural and heritage-related aspects? Do we have the right to make these decisions as experts on behalf of the local culture? These are uneasy questions to be debated and confronted in one’s fieldwork experience. In my opinion, it is important to understand why locals are interested in tourism and what the main issues are. It is also important to talk with them about the potential risks of creating illusions when tourist demands are unlikely to respond to their initiatives and expectations. For instance, the current tourism sector is challenged today by the coronavirus (COVID-19) which has completely paralyzed the tourism industry in Peru as well as the region of Cusco, like elsewhere. To what extent the COVID-19 does affect the Potato Park’s agro-
ecotourism and compromise its positive effects on local communities?

By evoking these unanswered questions, my aim here is not to deliver a straightforward response but rather to advocate for an anthropological dialectic between the fundamental and applied approaches, which should constantly nourish each other. Both will help in creating a more pro-poor sustainable tourism which is close to the local people’s interests and acknowledges the tourism challenges and limits, recently shown by the COVID-19. Both will contribute to use “our ability to harness and channel its positive impacts, but also to come to terms with tourism’s negative impacts by taking responsibility for positive change” (Caton et al. 2014: 125).

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**Notes**

1 See also Gmelch (2004) and Stronza (2001), who claim that tourism is a daily social reality.
2 Initially six communities in 2010. In 2015, Kuyo Grande decided to get out of the Park.
3 [http://www.parquedelapapa.org/eng/03parke_04.html](http://www.parquedelapapa.org/eng/03parke_04.html) (consulted December 2015; no longer accessible). The Potato Park’s website has been inaccessible for a long time. Some information given here about this website is no longer current. A new Potato Park’s Website ([https://parquedelapapa.org](https://parquedelapapa.org)) is now under construction, with updated information (consulted April 2020).
4 Comunero derives from community. I refer here to people belonging to the Andean communities.
5 [https://www.inei.gob.pe/estadisticas/indice-tematico/sociales/](https://www.inei.gob.pe/estadisticas/indice-tematico/sociales/) (last consulted October 2019).
7 I will use pseudonyms in order to anonymize my interlocutors.
8 [http://www.parquedelapapa.org/eng/04paketes_01.html](http://www.parquedelapapa.org/eng/04paketes_01.html) (consulted December 2015; no longer accessible).
10 [www.c3ed.uvsq.fr/cdgecorev/fr/pdf/t7/Parrain.pdf](http://www.parquedelapapa.org/eng/04paketes_01.html) (last consulted May 2010; no longer available).
11 For further information, see, for instance, Cometti (2015: 67-70).