

Ecotourism in  
Amazonian Peru:  
uniting tourism,  
conservation  
and community  
development

# Ecotourism in Amazonian Peru: uniting tourism, conservation and community development

Jennifer L. Hill  
and Ross A. Hill

**ABSTRACT:** *With reference to two ecotourism enterprises that operate within Tambopata, Peru, this article evaluates key principles necessary to enable the successful achievement of ecotourism in a little-developed tropical forest region. In so doing, it highlights the intricacies of the relationship between ecotourism, environmental conservation and local community development. Principles are identified as i) empowering communities by integrating them in an ecotourism venture; ii) exchanging knowledge between a community and tour operator; iii) managing forest resources jointly between a community and tour operator; iv) minimising local economic leakage; v) educating tourists through interpretive programmes; and vi) minimising environmental and wildlife disturbance. The article offers cautious optimism that the tourism enterprises are consciously helping to protect the rainforest of Tambopata, while meeting the socio-economic needs of the local communities.*

## Introduction

Ecotourism has been defined as 'environmentally responsible travel to natural areas which conserves the environment and improves the well-being of local people' (The Ecotourism Society cited in Western, 1993, p. 8). Ecotourism should involve local people, feed economic profit into local environmental protection, and contribute to the maintenance of local species diversity by minimising visitor impact and promoting tourist education. The challenge is to accommodate increasing numbers of visitors seeking an intrinsically environmental tourism experience, while minimising the costs and enhancing the benefits associated with natural area tourism (Boo, 1990; Cater and Lowman, 1994). As such, ecotourism is being promoted by governments and the tourism industry alike as a sustainable alternative to mass tourism, despite criticisms that it can be just as damaging to the natural environment and local cultures (Wheeller, 1991; Conservation International, 1999; Kruger, 2005).

Peru is the third largest country in South America, comprising three distinct physical regions: the western desert coast, the central mountainous inter-Andean region, and the eastern lowland tropical forest which occupies the upper reaches of the Amazon River (O'Hare and Barrett, 1999). Here, we investigate two ecotourism enterprises operating within the Department of Madre de Dios in south-eastern Amazonian Peru. We evaluate key principles necessary to enable successful achievement of ecotourism in a little-developed tropical forest region and thus highlight the intricacies of the relationship between ecotourism, environmental conservation and local community development.

## Study area

South-eastern Peru is a hotspot of biological diversity and this is reflected in its status as one of the most protected regions in Amazonia (Phillips, 1993; Myers *et al.*, 2000; Hill and Hill, 2001). This article makes reference to the

## Ecotourism in Amazonian Peru: uniting tourism, conservation and community development



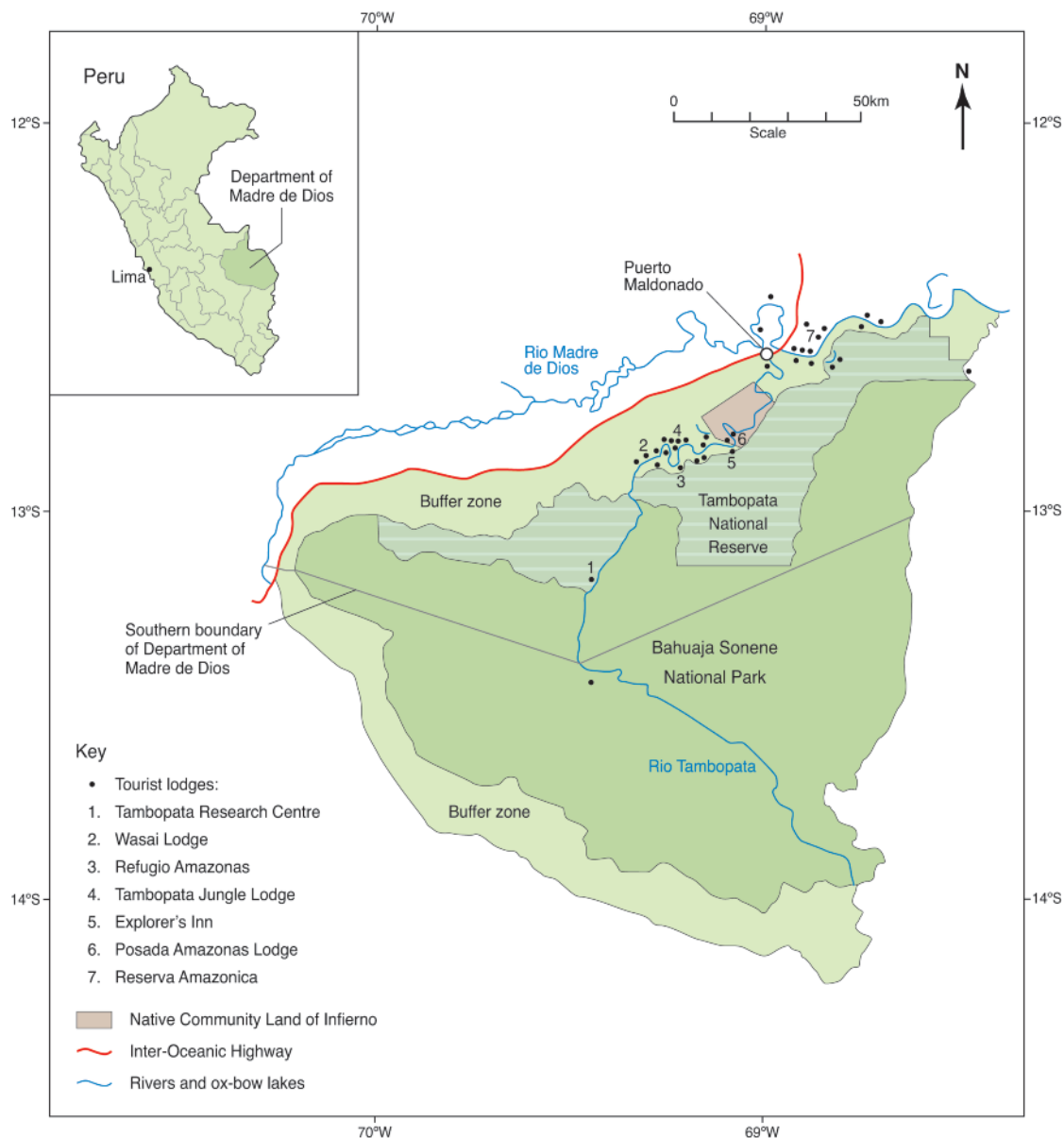
**Figure 1:** The Tambopata region in the Department of Madre de Dios, south-east Peru, showing the many tourist establishments in the area and their relationship to protected areas. Source: Paul Revell.

Tambopata National Reserve (TNR), created in 2000 with an area of 274,690ha, and the Bahuaja Sonene National Park (BSNP), first created in 1996 and subsequently extended in 2000 to an area of 1.1 million ha (Figure 1). Unlike National Park status, the National Reserve designation officially permits sustainable use of forest resources into the future (Matsufuji and Bayly, 2006). The TNR and BSNP together support 1300 bird species, 200 mammal species and approximately 10,000 plant species (INRENA, undated). The key attractions for tourists include relatively abundant populations of monkeys, macaws, giant river otters and harpy eagles.

In 2006 over 40,000 visitors passed through Puerto Maldonado on their way to the Tambopata rainforest (Kirkby *et al.*, 2008). While the key motive for visiting the area is to experience an

exotic location relatively close to Cusco, tourists have also expressed an interest in learning about the forest ecosystem and its conservation (Kirkby, 2002). Increasing numbers of visitors to the region have prompted a rise in the number of eco-lodges along the Madre de Dios and Tambopata rivers: from 14 in 1998 to 37 by 2007 (Kirkby *et al.*, 2008) (Figure 1).

Two ecotourism enterprises are examined here: Inkaterra, a Peruvian ecotourism company that has offered ecotourism experiences since the mid-1970s; and Rainforest Expeditions, a private ecotourism company founded in 1992 by two Peruvian conservationists. Inkaterra's mission is to generate profit while simultaneously helping to research and preserve the local ecology as well as aiding the sustainable development of local communities. The company has established a



parallel non-governmental organisation, the INKA TERRA Association (ITA-NGO), which is funded by profits gained from ecotourism and which invests in research, conservation, social development and education. The company owns and operates Reserva Amazonica Lodge (formerly known as Cuzco-Amazonico), which opened in 1976 as the first tourist installation along the Madre de Dios River. Rainforest Expeditions combines tourism with environmental education, research and local sustainable development to support the conservation of the areas in which they operate. The company manages three rainforest lodges: the Tambopata Research Centre (opened 1989), Posada Amazonas Lodge (opened 1998) and Refugio Amazonas Lodge (opened 2006). For the purpose of this article, only Posada Amazonas Lodge of Rainforest Expeditions and Reserva Amazonica Lodge of Inkaterra are examined.

The two enterprises were selected because of their long history in the region as well as their focus on environmental conservation and community development through tourism. There is a notable difference between the enterprises, however, with respect to the extent of community participation. The Posada Amazonas venture is highly participatory, displaying many characteristics of community-based ecotourism (Cusack and Dixon, 2006). The lodge is owned by the Ese'eja Native Community of Infierno (a mix of native Indians and immigrant peoples) and is operated jointly with

Rainforest Expeditions. Reserva Amazonica, by contrast, is owned and managed by Inkaterra and involves local community members as employees and service providers. This difference is primarily a result of the geographical locations of the lodges and their relative accessibility to Puerto Maldonado (Figure 1). The Reserva Amazonica Lodge is located on the Madre de Dios River, approximately 13km east-north-east of Puerto Maldonado and less than 5km north of the TNR. The Posada Amazonas Lodge is located on the Tambopata River, approximately 25km south-south-west of Puerto Maldonado. It falls just outside the protected area of TNR and within the native community land of Infierno. These differences in location and participation help to draw out some distinct issues for consideration with respect to the achievement of ecotourism.

## Research methods

A case study approach was adopted to investigate ecotourism in context and to provide a detailed source of reference material (Buckley, 2003). Primary data were obtained by participant activity in the ecotour products of the two companies. Field research was carried out for two weeks in April 2006, when the authors undertook a three-day ecotour at Reserva Amazonica Lodge, followed by a five-day ecotour at Posada Amazonas Lodge and the Tambopata Research Centre. In order to ensure an authentic experience and avoid bias in product delivery, the authors elected to identify themselves

Ecotourism in Amazonian Peru: uniting tourism, conservation and community development



**Figure 2:** The reception building at Inkaterra's Reserva Amazonica Lodge. Photo: © Jennifer Hill



## Ecotourism in Amazonian Peru: uniting tourism, conservation and community development



as academic tourists at the close of each ecotour. At this point they also obtained permission from the lodge managers and the tour guides to publish comments and observations. Factual statements originating from all interviewees are referred to as personal communications with the respondent's initials in the results.

Key informant interviews were undertaken with the lodge managers (Chris Blakeley at Reserva Amazonica and Malu Gutierrez at Posada Amazonas) and allocated local interpretive guides (Yuri Torres and Oscar Mishaja at Reserva Amazonica and Posada Amazonas respectively). The lodge manager interviews were in-depth and semi-structured, each lasting one and a half hours and focusing on: the lodge's tourism mission; the operator's role in mitigating the impacts of lodge operations and visitor activities on local environments and cultures; the role of visitor education in the ecotourism experience; the nature and extent of community participation in lodge enterprises; and the destination of company revenue. Interviews with the interpretive guides were shorter and more informal, focusing on the role of the guide in visitor education and the extent of local community involvement in lodge operations. Finally, after the authors' return to the

UK, Kurt Holle, a co-founder and co-director of Rainforest Expeditions, answered the same semi-structured questions as the lodge managers via email. Mr Holle provided direct access to the motivations of Rainforest Expeditions and supplied first-hand economic and socio-cultural data about the company. Secondary data were accessed from unpublished reports available from lodge libraries and staff during the field visits. This information was combined with published material from diverse subject backgrounds.

## Results

### Reserva Amazonica Lodge

The Reserva Amazonica Lodge (RAL) was opened in 1976, and in 1977 the Peruvian government granted the lodge an ecological reserve totalling 10,000ha to administer ecotourism and research (Kirkby *et al.*, 2000). In 1990, however, a new government failed to renew the reserve status of the land and, subsequently, it was partially colonised by settlers. Undeterred, in 2004, Inkatererra obtained government approval for an ecotourism concession over the land by signing a benefit-sharing agreement with neighbouring communities and demonstrating ongoing sustainable ecological management. The status of the Inkatererra Ecological Reserve today prohibits the extraction or conversion of natural resources by local inhabitants (CB personal communication). This allows Inkatererra to act as a direct agent of conservation, but the arrangement necessitates making payments to communities in cash and kind as described below.

Lodge buildings (including 34 private cabins) are constructed from local materials in the traditional architectural style of the native Ese'eja Community. The buildings consequently have a low visual impact in the landscape (personal observation). The reception is thatched in the traditional style and includes a circular mezzanine, built around the trunk of a strangler fig, with balconies overlooking the Madre de Dios River and surrounding forest (Figure 2). To minimise energy use by visitors, no electricity is supplied to cabins, and kerosene lamps and candles provide lighting. Most cabins have cold water supplies and visitors are advised to use the resource sparingly (personal observation). Non-biodegradable tourist waste is taken off-site and organic waste is composted at the lodge or used as animal fodder by community members (CB personal communication).

**Figure 3:** Section of canopy walkway close to Reserva Amazonica Lodge.  
Photo: © Ross Hill



The lodge receives general interest tourists who usually stay for three days, predominantly as part of international package tours to Peru (CB personal communication). The lodge possesses the oldest rainforest trail system in the area, with four marked trails covering 8km and providing access to a variety of forest types. Inkaterra offers guided walks along the shorter trails, with visitors exploring the longer trails at their leisure. Visitor impact on the environment is thereby limited spatially to these trails. Additionally, Inkaterra, in partnership with the World Bank and National Geographic Society, has constructed a canopy walkway close to the lodge (Figure 3). This consists of 275m of bridges raised 30m above the ground providing views of the rainforest canopy. In total, there are two towers accessing the vertical profile of the forest, six platforms for viewing wildlife and seven hanging bridges (personal observation). A small fee allows access to the walkway and provides entrance to an interpretation centre. Information in the centre describes the vertical stratification of the forest and the specialised types of flora and fauna that can be found in different forest layers. The economic benefits derived from the walkway contribute to education and conservation projects in the Ese'ejá Community (YT personal communication).

At RAL information is supplied to visitors in a number of different ways. Pre-departure information includes ecological detail about the site and its biological diversity. An interpretive eco-centre on site explains how tourist activities benefit the local community and environment. Most importantly, field interpretation by guides is related to current research, and slide shows about the local ecology (including information gathered from research projects on-site) are presented to tourists after evening meals (personal observation).

Figure 4 shows the itinerary for a typical three-day stay. The manager at Inkaterra stressed the importance of a small group experience to his clients (CB personal communication). Walks undertaken by the authors on the lodge's trail system consisted of tourist-to-guide ratios of 4:1 or 2:1. Minimising visitor numbers per guide ensures a personal experience and reduces disturbance to wildlife. This has been demonstrated by a 23-month study into the relationship between tourist traffic on trails and the diversity of 26 species of large mammal across five lodges in the region,

including RAL. The study found no significant difference in species richness of mammals between tourist trails and non-trafficked pathways (Kirkby *et al.*, 2000).

The Peruvian guide who accompanied the authors during their ecotour was very knowledgeable about rainforest ecology and conservation, providing high quality bespoke interpretation. During a visit to Lake Sandoval, visitors walked 3km to an ox-bow lake, stopping at a visitor centre to examine interpretive information. The guide walked the visitors around information boards, explaining the formation of the lake and how successional vegetation change is causing the lake to in-fill slowly over time, while contributing to local species richness.

Inkaterra promotes biological research within its Ecological Reserve, most of which is driven by the academic interests of visiting scientists. Revenue from its primary economic activity, ecotourism, is used to defray the expense of the biologists working in the reserve (CB personal communication). In association with the National Institute of Natural Resources (INRENA) the company funds and manages a primate rescue centre on Rolin Island in the Madre de Dios River to rehabilitate endangered monkeys and to reintroduce them into their natural habitat. Since 2003, Inkaterra has operated the Amazon Centre for Environmental Education and Research (ACEER). This initiative is sponsored by the National Geographic Society and it co-ordinates projects that benefit the local communities, such as an environmental education programme for school students. Although accommodation at

Ecotourism in Amazonian Peru: uniting tourism, conservation and community development

**Figure 4:** *Itinerary experienced by the authors at Reserva Amazonica Lodge over a three-day stay.*

#### **Day 1 (half day)**

Boat journey (45 minutes) along the Madre de Dios River to the lodge. Introduction to the lodge, including guest rules in camp and in the ecosystem. Guided walk along the lodge's trail system. Evening nature presentation on Amazon ecosystems and local communities in the eco-centre.

#### **Day 2 (full day)**

Morning trip by boat to Rolin Island in the Madre de Dios River to visit primate conservation project and

then to Lake Sandoval by boat, foot and canoe. Afternoon visits to the canopy walkway to view birdlife and to a native Amazonian farm to sample regional fruits and learn about farming practices. Evening river tour to encounter black, white and dwarf caimans. Nightwalk locally around the lodge to find tarantula spiders and other nocturnal wildlife.

#### **Day 3 (half day)**

Early morning visit to the canopy walkway and forest trails. Tour of a butterfly farm at Puerto Maldonado.

## Ecotourism in Amazonian Peru: uniting tourism, conservation and community development



**Figure 5:** *Itinerary experienced by the authors at Posada Amazonas Lodge and the Tambopata Research Centre over a five-day stay.*

ACEER is primarily for researchers, ecotourists may also visit the centre (see ACEER website). The project fosters awareness of rainforest conservation among local, national and international stakeholders, including communities, government agencies, tourists and academic groups (CB personal communication).

Inkaterra also supports development in the surrounding native communities. Training in sustainable forest management and agriculture (including crop rotation, natural pest control, soil management) has been initiated for communities surrounding the lodge, with funding from the United Nations Global Environment Facility (CB personal communication). Tourists, with their interpretive guide, can visit farms belonging to families of the Lorin or Gamitana communities. Visitors are informed about farming practices and are encouraged to taste the local 'exotic' fruits (personal observation). The farmers receive remittance from Inkaterra for allowing tourists as visitors and they gain extra money from the sale of craft items (YT personal communication). A small shop at RAL also sells a variety of locally-sourced handicrafts, in addition to Inkaterra products (personal observation).

## Posada Amazonas Lodge

The Posada Amazonas Lodge (PAL) is constructed from local materials purchased from the Ese'eja Community and is relatively compact in size to minimise its ecological footprint (c. 1.5ha) (MG personal communication). The 30-room lodge combines traditional indigenous architecture with low-impact modern technology. The 'walls' of rooms facing the forest are open verandahs to allow contact with nature, while those separating rooms incorporate clay to regulate heat naturally (personal observation). The operation of the lodge follows the same principles of resource sustainability as described for RAL above (MG personal communication).

The Ese'eja Community became interested in developing an ecotourism partnership with Rainforest Expeditions as competition for diminishing resources within its communal lands increased (Piana, 2000; UNDP, 2006). The mission of the partnership is to develop a profitable ecotourism product that effectively catalyses the conservation of natural and cultural resources (Nycander and Holle, 1996). To this end, Rainforest Expeditions brings commercial expertise in the wildlife and cultural tourism market, and the Ese'eja Community brings ownership of biologically diverse land and cultural heritage. A legal contract was signed by both Rainforest Expeditions and the community in 1996, producing a democratically elected 10-member Ecotourism Committee. The Committee represents the community in the partnership and is elected by communal assembly every two years. It includes roughly equal participation of Ese'eja and immigrant men and women (Pauca, 2001). This 20-year contract guarantees that 60% of the profits from the lodge go to the local community and that decision making is split equally among the two partners. Full operation of the lodge will be passed to the local community in 2016, entitling it to 100% of the profit. It is expected that by then the community will have the capacity to manage the lodge without external assistance.

Rainforest Expeditions trains community residents to occupy lodge positions and, currently, nearly all staff members working at the lodge are from the native community (Nycander *et al.*, 2006). Apart from guides, the allocation of jobs follows a rotational system where, after the Ecotourism Committee has shortlisted applications each year

### Day 1 (half day)

Boat journey (approximately 2.5 hours) along the Tambopata River to Posada Amazonas Lodge. Introduction to the lodge, including guest rules in camp and in the ecosystem. Introduction to the Ecotourism Partnership. Visit 35m-high tower to view rainforest canopy and wildlife. Evening video presentation about the rainforest of Tambopata.

### Day 2 (full day)

Visit Tres Chimbadass ox-bow lake – a river otter habitat. Undertake a raft ride around the lake to view wildlife and to fish for piranha. Continue journey (approximately 6.5 hours) to the Tambopata Research Centre. Lodge orientation and guided ecological walk on forest trails (12km). Evening educational lecture on Tambopata macaws.

### Day 3 (full day)

Dawn visit to a local macaw/parrot clay lick. Guided ecological walk on forest trails. Guided walk to an observation tower at a palm swamp to view a macaw nesting site. Guided night walk on forest trails.

### Day 4 (full day)

Dawn visit to a local macaw/parrot clay lick. Return journey to Posada Amazonas Lodge. Visit a local farm to view and taste the farm products. Guided walk along forest trails.

### Day 5 (half day)

Guided walk along forest trail for dawn visit to 35m-high canopy tower. View rainforest canopy and wildlife. Return to Puerto Maldonado.



and suitable training has occurred, each employee works at the lodge for two years before passing on the position to another community member. This helps to spread income throughout the community and means that community members leave as qualified workers. Currently, more than 50 of approximately 130 families in the community are involved in the venture; either directly as staff members, or indirectly as suppliers or members of the Ecotourism Committee. The partnership is also committed to diversifying income. Thus, community crafts are sold at the lodge if they are equal in quality and price to those available elsewhere in the market (MG personal communication). The local community is able to express its voice through the Ecotourism Committee, which holds twice-monthly meetings with Rainforest Expeditions staff to make decisions about hiring employees, solving staff problems and implementing itinerary improvements (KH personal communication).

Visitors to PAL travel predominantly with all-inclusive tour operators and they generally undertake between three- and five-day tours (MG personal communication) (see Figure 5). The tourist-to-guide ratio does not exceed 10:1 in order to minimise environmental impacts and disturbance to wildlife (OM personal communication). The authors actually experienced

a tourist-to-guide ratio of 2:1 on a five-day ecotour, undertaken with a guide from the Ese'eja Community. Rainforest Expeditions directors recognise the importance of interpretive guides to visitors: 'The guides make or break the guest's experience' (KH personal communication). The guide accompanying the authors proved to be extremely knowledgeable about local species, ecosystem functioning and conservation issues. During a visit to Tres Chimbadas Lake, for example, he indicated that it is the responsibility of community members to protect the lake. He conveyed to visitors how this occurred during a raft trip round the lake (Figure 6). Following a Frankfurt Zoological Society management plan to preserve the populations of endangered giant river otters that inhabit the lake, tourists are restricted to its eastern half. The western half, which has high banks suitable for otter holts, is off-limits to tourists. This management plan has reduced human impacts on the otters, which have been recorded swimming, fishing and relaxing on the eastern side of the lake on a regular basis, even when visitor boats are present (Dehnert, 2003).

The contract between Rainforest Expeditions and the Ese'eja Community involves community responsibility for biological conservation (KH personal communication). PAL is located within

## Ecotourism in Amazonian Peru: uniting tourism, conservation and community development



**Figure 6:** Wildlife observation from a manually powered raft on Tres Chimbadas Lake. Photo: © Jennifer Hill

## Ecotourism in Amazonian Peru: uniting tourism, conservation and community development

10,000ha of communally owned land, 2000ha of which are protected voluntarily (Nycander *et al.*, 2006). Hunting of wildlife considered a tourism resource, such as jaguars, harpy eagles and macaws, is prohibited on this land. Likewise, the community has committed not to fell trees in the areas designated for ecotourism (Nycander and Holle, 1996). There is an ongoing community



**Figure 7:** A scarlet macaw, one of the key tourist attractions in the Tambopata rainforest. Photo: © Ross Hill

project aimed at conserving macaw populations on the community's lands, assuming that this will be beneficial not only to the breeding success of the birds but also to the long-term success of the lodge (Figure 7). Over the short term, the project provides employment in the form of project assistants and offers small cash rewards for families that agree to host a macaw nest box on their land (roughly US\$25 initially plus a further US\$25 if one or more chicks fledge). Over the long-term, the project aims to increase the quality and quantity of tourist macaw sightings by increasing macaw reproduction rates (Brightsmith, 2001).

A number of community projects have been established to promote capacity building and profitable business opportunities (KH personal communication). A computer house has been constructed for primary and secondary students, financed by families who work at PAL and who have children in the schools that will be serviced by the centre. In 2000 a US\$50,000 World Bank grant helped to initiate an artisans committee with 25 community residents using local materials to create tourism products (Pauca, 2001).

Income generated from the lodge is invested in the community. In 2000, net profits paid from the lodge to the community were approximately US\$15,000 – three-quarters of which was divided among community members and the remainder used for investment in education (UNDP, 2006). By 2007 the figure had risen to US\$148,000, again distributed between private improvements in living standards and communal projects (KH personal communication). Positively, most families continue to engage in a variety of economic activities including farming and livestock-tending, thus avoiding becoming totally reliant on a single source of income (Stronza, 2007).

## Discussion

Successful ecotourism requires fulfilment of socio-cultural, economic, natural and political objectives. Rainforest Expeditions adopts a fundamental social principle with respect to the achievement of ecotourism; committing to community integration in the ecotourism venture (Cole, 2006; Okazaki, 2008). Community empowerment is identified as a priority, a responsibility that is recognised by the community. A survey of 69 community members, undertaken by the Critical Ecosystem Partnership Fund, found that 87% of the respondents felt involved in the business of PAL (Rainforest Expeditions, undated). However, in diverse communities, culture and gender differences can limit democratic co-management of ecotourism and conservation (Mitchell and Eagles, 2001; Mitchell and Reid, 2001; Southgate, 2006). Some conflicts of interest exist in the Ese'jeja Community due to ethnic differences among community members (KH personal communication). Likewise, in terms of gender, Stronza (2001) found that fewer women participated in the Posada Amazonas venture simply because taking up employment at the lodge meant living there and neglecting their household duties. However, at the time of writing, the president of the Ecotourism Committee and 80% of handicraft suppliers were women. Additionally, the majority of lodge managers appointed by Rainforest Expeditions have been women (KH personal communication). Conversely, there has been less integration of local communities into the management of RAL. Inkaterra owns and manages the lodge entirely, but it does employ local community members as lodge workers, artisans, guides and boat handlers. This situation can be explained largely by historical forces. With degradation of forest occurring rapidly in the early



1970s, due to uncontrolled land speculation (Yu *et al.*, 1997), the establishment of an ecotourism lodge and associated ecological reserve was the fastest and most effective way to protect a threatened resource.

It is important to facilitate knowledge exchange between the ecotour operator and the community, and to foster the equitable spread of information throughout the latter (Vincent and Thompson, 2002). Communities must be able to state their demands and negotiate equitable relationships with agencies in ecotourism development so as to make informed decisions about their tourism development (Cole, 2006). There is an important role here for community organisations such as the Rainforest Expeditions Ecotourism Committee, which allows ongoing interchange between community members and the company directors. At RAL, with a diversity of ethnic groups surrounding the lodge (making information transfer and community consensus difficult), there is currently less of a two-way articulation between tour operator and the community compared with Rainforest Expeditions. This means that enthusiasm and vision come primarily from the tour operator (top-down) rather than the community (bottom-up).

Training in managerial skills is necessary if communities are to accept increasing responsibility for ecotourism ventures in the future (Victurine, 2000). To overcome the challenge of instilling these skills, Rainforest Expeditions employs an adaptive management strategy (learning by doing) in the operation and management of its lodges. Likewise, Inkaterra trains local community members to manage sectors of its activities in order to improve community managerial capacity.

Joint management of natural resources between a community and tour operator can offer a means of utilising resources sustainably. Ceding of authority to a local community and allowing its members to decide how local resources are used, can be a powerful incentive to alter behaviour towards conservation and thereby protection of natural resources. This is witnessed in the Ese'ejá Community commitment not to hunt wildlife considered a tourism resource, nor to log forest in areas designated for ecotourism. As one community member noted 'we do not have many

development options, but we do have flora and fauna' (Stronza, 2001, p. 9). This is supported by a constant message from the ecotour operator that natural resources attract tourists and hence provide revenue for the community.

Economically, income generated by tourists to a region should be maintained in place and not lost to outside companies who transmit their wealth to headquarters in distant cities (Ashley and Roe, 1998). By offering a full range of tourist services through the companies directly (including employment of local people and using local products) both Rainforest Expeditions and Inkaterra reduce such economic leakage. Integration of the communities into lodge operations ensures that the local people gain direct financial investment.

Environmentally, ecotour operators should aim to develop visitors' knowledge and awareness of the natural environment and minimise local wildlife disturbance (Lee and Moscardo, 2005). Both lodges examined explicitly link tourism and education via interpretive programmes for visitors. Tourists are restricted to small groups in the forest in order to minimise impacts on ecosystems, and (as stated above) there is evidence that such management is protecting species diversity locally. Eco-lodge owners depend upon the protection of the surrounding natural assets as part of their business plans. A primary aim at RAL is to maintain the biodiversity of its ecological reserve under increasing pressure from human activities. The reserve is under threat from illegal loggers who operate businesses in nearby Puerto Maldonado and from some community members hunting within the reserve. This venture highlights the tension that can exist between the conservation interests of ecotourism and the livelihood interests of communities (Salum, 2009). In recent years the tension has been resolved partially through formal agreements with local communities in which they receive assistance to improve their quality of life without damaging the forest. This has included technical assistance to improve farm yields and to manage the forest sustainably. In return, the communities agree to help protect the ecological reserve.

Politically, for successful ecotourism to spread more widely (a strategic direction of Peru's Ministry of Tourism) there needs to be government support in terms of legal land entitlement. The Ese'ejá

Ecotourism in  
Amazonian Peru:  
uniting tourism,  
conservation  
and community  
development

## Ecotourism in Amazonian Peru: uniting tourism, conservation and community development



Community holds legal title to its land; and Inkaterra holds an ecotourism concession which affords it management control over the forest surrounding its lodge. At both lodges, therefore, tourist income is invested directly in forest and wildlife protection. Legally reserved status for broad areas of tropical forest, in which concessions are awarded based on ecotourism merit, would ensure protection of much larger and less fragmented areas of forest. Such extensive areas of forest are necessary to maintain ecosystem processes (Hill and Curran, 2001, 2003, 2005) as well as to support ecotourism. Thus, any controlled expansion of ecotourism in the rainforest of Peru, via community participation, is likely to be most effective as a component of broad conservation and development strategies, linked to national policy legislation.

## Conclusions

Conscientious ecotour operators adopt four broad codes of socio-ecological and political conduct: indigenous community participation/development (employing and consuming locally, imparting management skills); visitor education (provision of pre-departure guidelines, in situ interpretation); environmental conservation (operating in small groups, minimising visitor environmental impact, avoiding wasteful practices); and minimising economic leakage (employing local people, consuming local products).

The research presented here describes two largely successful examples of ecotourism, but the extent of success is influenced by the level of community participation. While Inkaterra has, to a large extent, protected the forest surrounding its lodge and spread the economic benefits of ecotourism throughout the local communities by offering direct employment opportunities and supplying goods and services to local residents, a lack of full community participation has resulted in partial disturbance of its ecological reserve by local inhabitants and the company is unable to engender the capacity for residents to plan a sustainable future for themselves. Conversely, Rainforest Expeditions has encouraged local residents to be active participants in making tourism a long-term option for their livelihoods. The Posada Amazonas Lodge enterprise provides a good example of community integration in ecotourism with respect to employment of local people, inclusive decision-making and stakeholder

ownership. However, the positive impact of full participation may not be universal (Wunder, 2000). It depends on the ability of the ecotour operator and local community to work together to secure long-term financial and technical support in order to establish a foundation of indigenous leadership and management.

Overall, this research offers cautious optimism that ecotourism at Inkterra's Reserva Amazonica Lodge and Rainforest Expeditions' Posada Amazonas Lodge is consciously helping to protect the rainforest of Tambopata, Peru, while meeting the socio-economic needs of the local communities in a largely sustainable fashion. With due acknowledgement of their varying social and geographic contexts, the enabling principles identified here might be considered in other areas of the wet tropics.

## References

- Amazon Centre for Environmental Education and Research (undated) 'ACEER facilities'. Available online at [www.wcupa.edu/aceer/facilities.asp](http://www.wcupa.edu/aceer/facilities.asp) (last accessed 31 March 2011).
- Ashley, C. and Roe, D. (1998) *Enhancing Community Involvement in Wildlife Tourism: Issues and challenges*. London: International Institute for Environment and Development.
- Boo, E. (1990) *Ecotourism: The potentials and the pitfalls* (Volume 1). Washington: World Wildlife Fund.
- Brightsmith, D. (2001) 'Macaw conservation and management in Tambopata, Peru IV: work with the native community of Infierno'. Abstract of papers presented at the Eleventh Canadian Congress on Leisure Research, 17–20 May. Nanaimo: Department of Recreation and Tourism Management, Malaspina University College.
- Buckley, R. (2003) *Case Studies in Ecotourism*. Wallingford: CABI Publishing.
- Cater, E. and Lowman, G. (eds) (1994) *Ecotourism: A sustainable option?* Chichester: John Wiley and Sons.
- Cole, S. (2006) 'Information and empowerment: the keys to achieving sustainable tourism', *Journal of Sustainable Tourism*, 14, pp. 629–44.
- Conservation International (1999) *The Green Host Effect – An integrated approach to sustainable tourism and resort development*. Washington: Conservation International.
- Cusack, D. and Dixon, L. (2006) 'Community-based ecotourism and sustainability: cases in Bocas del Toro Province, Panama and Talamanca, Costa Rica', *Journal of Sustainable Forestry*, 22, pp. 157–82.
- Dehnert, K. (2003) 'Human impact on giant river otters in Lake Tres Chimbadas'. Tambopata Summer Research Opportunity, Unpublished project report. Stanford: Stanford University.
- Hill, J. and Curran, P. (2001) 'Species composition in fragmented forests: conservation implications of changing forest area', *Applied Geography*, 21, pp. 157–74.
- Hill, J. and Curran, P. (2003) 'Area, shape and isolation of tropical forest fragments: effects on tree species

## Ecotourism in Amazonian Peru: uniting tourism, conservation and community development

- diversity and implications for conservation', *Journal of Biogeography*, 30, pp. 1391–403.
- Hill, J. and Curran, P. (2005) 'Fragment shape and tree species composition in tropical forests: a landscape level investigation', *African Journal of Ecology*, 43, pp. 35–43.
- Hill, J. and Hill, R. (2001) 'Why are tropical rain forests so species rich? Classifying, reviewing and evaluating theories', *Progress in Physical Geography*, 25, pp. 326–54.
- National Institute for Natural Resources (undated) *Reserva Nacional Tambopata*. Lima: INRENA.
- Kirkby, C.A. (2002) *Análisis inicial del impacto económico del turismo en Puerto Maldonado y periferia, Madre de Dios, Perú*. Lima: WWF-OPP.
- Kirkby, C.A., Doan, T.M., Lloyd, H., Farfán, A.C., Arriaga, W.A. and Marín, A.P. (2000) *Tourism Development and the Status of Neotropical Lowland Wildlife in Tambopata, South-eastern Peru: Recommendations for tourism and conservation*. Puerto Maldonado, Peru: Tambopata Reserve Society-Research and Monitoring Studies.
- Kirkby, C.A., Day, B., Turner, K., Soares-Filho, B.S., Oliveira, H. and Yu, D.W. (2008) 'Ecotourism finances biodiversity conservation in the Peruvian Amazon'. Unpublished paper. Norwich: Centre for Ecology, Evolution and Conservation, University of East Anglia.
- Kruger, O. (2005) 'The role of ecotourism in conservation: panacea or Pandora's box?', *Biodiversity and Conservation*, 14, pp. 579–600.
- Lee, W.H. and Moscardo, G. (2005) 'Understanding the impact of ecotourism resort experiences on tourists' environmental attitudes and behavioural intentions', *Journal of Sustainable Tourism*, 13, pp. 546–65.
- Matsufuji, D. and Bayly, T. (2006) 'Areas naturales protegidas en Peru, La Reserva Nacional Tambopata y El Parque Nacional Bahuaja-Sonene' in Rainforest Expeditions (ed) *Guía Interpretativa de Rainforest Expeditions* (thirteenth edition). Tambopata, Peru: Publication 16 of the Tambopata Research Centre, pp. 69–81.
- Mitchell, R.E. and Eagles, P.F.J. (2001) 'An integrative approach to tourism: lessons from the Andes of Peru', *Journal of Sustainable Tourism*, 9, pp. 4–28.
- Mitchell, R.E. and Reid, D.G. (2001) 'Community integration: island tourism in Peru', *Annals of Tourism Research*, 28, pp. 113–39.
- Myers, N., Mittermeier, R.A., Mittermeier, C.G., da Fonseca, G.A.B. and Kent, J. (2000) 'Biodiversity hotspots for conservation', *Nature*, 403, pp. 853–8.
- Nycander, E. and Holle, K. (1996) 'Rainforest expeditions: combining tourism, education and research in southeastern Amazonian Peru' in Miller, J.A. and Malek-Zadeh, E. (eds) *The Ecotourism Equation: Measuring the impacts*. New Haven, CT: Yale University, Yale School of Forestry and Environmental Studies Bulletin Series (Volume 99), pp. 169–81.
- Nycander, E., Holle, K., Napravnik, M. and Zapatar, L. (2006) 'Nuestros albergues en la selva' in Rainforest Expeditions (ed) *Guía Interpretativa de Rainforest Expeditions* (thirteenth edition). Tambopata, Peru: Publication 16 of the Tambopata Research Centre, pp. 265–8.
- O'Hare, G. and Barrett, H. (1999) 'Regional inequalities in the Peruvian tourist industry', *The Geographical Journal*, 165, pp. 47–61.
- Okazaki, E. (2008) 'A community-based tourism model: its conception and use', *Journal of Sustainable Tourism*, 16, pp. 511–29.
- Pauca, E. (2001) 'Rainforest expeditions and the native community of Infierno: a joint venture for profit, development and conservation'. Unpublished report.
- Phillips, O.L. (1993) 'Comparative valuation of tropical forests in Amazonian Peru'. Unpublished PhD thesis. St Louis, MO: Washington University.
- Piana, R. (2000) 'Traditional forest uses and ecotourism at the Infierno native community: two different income generating activities and their impact on local people's economy'. Unpublished Master's thesis. Copenhagen: University of Copenhagen.
- Rainforest Expeditions (undated) 'Posada Amazonas: social impact'. Unpublished report. Lima: Rainforest Expeditions.
- Salum, L.A. (2009) 'Ecotourism and biodiversity conservation in Jozani-Chwaka Bay National Park, Zanzibar', *African Journal of Ecology*, 47, pp. 166–70.
- Southgate, C.R.J. (2006) 'Ecotourism in Kenya: the vulnerability of communities', *Journal of Ecotourism*, 5, pp. 80–96.
- Stronza, A. (2001) 'Revealing the true promise of community-based ecotourism: the case of Posada Amazonas'. Paper presented at the Sustainable Development and Management of Ecotourism in the Americas Preparatory Conference for the International Year of Ecotourism 2002. Curitiba, Brazil, 22–24 August.
- Stronza, A. (2007) 'The economic promise of ecotourism for conservation', *Journal of Ecotourism*, 6, pp. 210–30.
- UNDP (United Nations Development Programme) (2006) 'Community action to conserve biodiversity: linking biodiversity conservation with poverty reduction. Case studies from Latin America and the Caribbean'. Available online at [www.undp.org/biodiversity/biodiversity\\_library.shtml](http://www.undp.org/biodiversity/biodiversity_library.shtml) (last accessed 31 March 2011).
- Vincent, V.C. and Thompson, W. (2002) 'Assessing community support and sustainability for ecotourism development', *Journal of Travel Research*, 41, pp. 153–60.
- Victurine, R. (2000) 'Building tourism excellence at the community level: capacity building for community-based entrepreneurs in Uganda', *Journal of Travel Research*, 38, pp. 221–9.
- Western, D. (1993) 'Defining ecotourism' in Lindberg, K. and Hawkins, D.E. (eds) *Ecotourism: A guide for planners and managers* (Volume 1). Vermont: The Ecotourism Society, pp. 7–11.
- Wheeller, B. (1991) 'Tourism's troubled times: responsible tourism is not the answer', *Tourism Management*, 12, pp. 91–6.
- Wunder, S. (2000) 'Ecotourism and economic incentives – an empirical approach', *Ecological Economics*, 32, pp. 465–79.
- Yu, D.W., Hendrickson, T. and Castillo, A. (1997) 'Ecotourism and conservation in Amazonian Peru: short-term and long-term challenges', *Environmental Conservation*, 24, pp. 130–8.

Jenny Hill is Deputy Head of the Department of Geography and Environmental Management, University of the West of England (email: [Jennifer.Hill@uwe.ac.uk](mailto:Jennifer.Hill@uwe.ac.uk)) and Ross Hill is Reader in Geoinformatics, Bournemouth University (email: [rhill@bournemouth.ac.uk](mailto:rhill@bournemouth.ac.uk)).