

Summary Report

Ecotourism Evaluation

**Peña del Ángel
Purulha, Baja Verapaz, Guatemala
April 24 to May 8, 2004**

Conducted by:

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EXECUTIVE SUMMARY

The United State Department of the Interior, International Technical Assistance Program (DOI-ITAP) in conjunction with the United States Agency for International Development Guatemala (USAID/Guatemala) sponsored an evaluation of the ecotourism and interpretation opportunities for three sites in the geographic area of the Sierra de Las Minas Biosphere Reserve (B.R.). The evaluation team consisted of Bill Jackson (USDA-FS) and Arden Anderson (DOI-BLM). Mr. Jackson was sent to evaluate the ecotourism potential for the Pena del Angel site while Mr. Anderson was sent to evaluate the ecotourism sites of Chilasco and Albores. This report focuses on the evaluation of Pena del Angel only.

Pena del Angel is located in the biological corridor between Sierra de Las Minas B. R. and the Quetzal Biotope Reserve. The primary objective of the evaluation at Pena del Angel was to assess the current tourism infrastructure, the potential for ecotourism services including agritourism, the organization of the local ecotourism committee and then offer recommendations on ways to develop or improve on these with the goal of developing a local ecotourism project that can provide an additional source of community income and address local conservation threats to the biological corridor.

The first five days of the field visit were spent evaluating the Pena del Angel site, reviewing and discussing project materials with Fundacion Defensores de la Natureleza (FDN) employees Eduardo Mayen and Mauricio Chon, and meeting with several members of the community of Pena del Angel including the Pena del Angel Ecotourism Committee. The last five days of the field visit were based in San Jeronimo, Baja Verapaz, where the FDN Matanzas District Office is located. During this time, several day-trips were made to visit regional tourism attractions to understand regional tourism trends. Also during this time meetings were held with several key tourism stakeholders including the mayor of Purulha, local tourism business owners, and members of local tourism committees.

A good understanding was made of both the opportunities and challenges facing the development of ecotourism at Pena del Angel. Opportunities include strong community will, persistence, and the support of several entities including FDN and the municipality of Purulha to develop an ecotourism project at Pena del Angel. Significant challenges include difficult access due to persistent road damage, lack of basic tourism infrastructure and low level of community knowledge about ecotourism and conservation.

Key recommendations ranged from the broad perspective of developing tourism in the Verapaces region to specific detailed ways to develop the ecotourism project at Pena del Angel. A very brief summary of the key recommendations and the corresponding page numbers are presented below:

- Creation of a **Tourism Strategy Plan for Las Verapaces**. (page 23)
- Creation of a **Sierra de Las Minas/Quetzal Biotope Biological Corridor Management Plan** utilizing the Limits of Acceptable Change (LAC) framework. (page 23)
- Creation of an **Ecotourism Management Plan** for Pena del Angel utilizing the LAC framework. (pages 16-19)
- Creation of a **Business Plan** for the Pena del Angel Ecotourism Center to complement the Ecotourism Management Plan. A **training plan** will also be included here. (page 16 & 19)
- **Improve the farm-to-market access road** between Purulha and Pena del Angel. (page 5 & 20)
- **Improve the ecotourism infrastructure** at the Ecotourism Center in Pena del Angel. (pages 7-12)
- Utilize Peace Corps Volunteer to **strengthen Pena del Angel Ecotourism Committee**. (page 15)

Listings of very specific and detailed key recommendations are presented later in this document.

Project Site Description

Peña del Ángel is a small town located in the municipality of Purulha in the Department of Baja Verapaz, Guatemala. Purulha is located on the main paved highway to Coban, about 130 km. northeast of Guatemala City.

The most direct road from Purulha to Peña del Ángel is a distance of 10 km (dirt farm-to-market road). There is another dirt road that is 33 km that takes about 2 hours to arrive to Peña del Ángel. The 10 km. route is in fairly good condition for the first 7 km. but the last 3 km. is in very bad condition and hasn't been used by cars in almost 3 years. The local population of Peña del Ángel walks the 3 km. that in many parts has naturally converted into a foot path. There is local transportation for the other 7 km. between La Cumbre de Panimaquito and Purulha.

Peña del Ángel has between 75-80 families with approximately 400-600 persons. It's a rural agricultural community located at the head of a valley with very steep mountains all around. Some of these mountains are more than 800 meters higher than the elevation of Peña del Ángel. The people of Peña del Ángel produce coffee, cardamom, corn, beans, oranges, bananas and achiote (fruit). The economy of the population depends almost exclusively on the sale of coffee in the months of October and November.

Existing agriculture practices include steep hillside farming with organic shade-grown coffee and cardamom at the lower elevations and basic grains including corn and beans on the upper slopes. Slash and burn techniques are still utilized in the area and there is a noticeable expansion of agricultural uses in areas that were secondary-growth forest. According to state and local law, the higher elevation cloud forest is said to be off-limits to slash and burn but there is some evidence of forest clearing on the upper slopes to produce corn and other grains.

The community of Peña del Ángel is located in an official Biological Corridor between the Sierra de las Minas Biosphere Reserve and the Quetzal Biotope Reserve. The Biological Corridor is an important habitat link for the quetzal and many other endemic and migratory bird species. The mountains around Peña del Ángel consist of lower-montane rain forest below and cloud forest above.

Conservation efforts focused on local residents consist mainly of education, agroforestry techniques and crop diversification. The residents are encouraged by FDN to reforest abandoned corn fields that are suitable, with coffee, cardamom and native trees that can provide habitat for many wildlife species, especially birds. FDN also encourages residents to diversify economic opportunities by planting cardamom, orange trees, avocado trees, producing different jellies and soaps, and by promoting ecotourism. Ecotourism as a tool to promote conservation of the biological corridor and at the same time provide diverse economic opportunities for Peña del Ángel is being proposed.

Some of the attractions of the area include friendly hard-working people, visitor security, the peacefulness of the location, a steep and scenic mountain landscape with lush vegetation, the namesake canyon with impressive 300m-high white cliffs, waterfalls, the Panima River, and a unique pedestrian bridge made of thick wood planks more than 70 years ago. Potential tourism activities include bird watching, hiking, mountain biking, relaxing, learning about the local culture, and learning about and possibly assisting the local community with the coffee, fruit tree and cardamom harvest.

Necessary Support Requested from DOI:

1. Evaluation of existing infrastructure to support tourism and what improvements are necessary.
2. Design of interpretive trails for tourists: trail design, sign needs and interpretation content.
3. Strengthen the social organization, especially the ecotourism committee.
4. Train local committee members to be tourist guides.
5. Develop visitor use regulations and a fee system for Pena del Angel.
6. Evaluation of the potential to develop agritourism and connect the Pena del Angel site with other local tourist attractions.

1. Evaluation of existing infrastructure to support ecotourism and what improvements are necessary.

The current tourism infrastructure in Peña del Ángel is very basic and consists of a small ecotourism site that was abandoned by the municipality of Purulha about 3 years ago due to the lack of community organization, lack of communication between the community and municipality, and the deterioration of 3 km of the main access road. There is currently no flow of tourists to Peña del Ángel. The road access is moderately difficult (see Road Access Recommendations); there are no hotels or restaurants and no other developed tourism facilities in the immediate area.

The abandoned ecotourism site has two cabañas, a kitchen (with eating area), resting plazas, a few trails, latrines and lots of space to expand. After restoration, the two cabañas could potentially accommodate 12 persons per night. The ecotourism site is approximately one manzana (1.7 acres) in size and located along the south bank of the Panima River at the foot of the Peña del Ángel (steep cliff canyon said to be in the shape of an angel). The ecotourism site is about 300 meters from the namesake village, Peña del Ángel.

In 2003 the ecotourism site was concessioned or leased (without charge) by the municipality of Purulha to the Peña del Ángel Ecotourism Committee for a period of 10 years.

Road Access Recommendations:

1. Improve the direct farm-to-market access road to Pena del Angel which is an approximate distance of 10 km. Maintain the first 7 km of road surface once a year at the end of the rainy season (winter) and install drainage devices where necessary (i.e., culverts, road dips, drainage ditches). Redesign or perform major road reconstruction work on the last 3 km of road to Pena del Angel. Hardened water crossings, culverts, hardened drainage ditches, frequent road dips, and out sloping is required on this 3 km stretch to slow down the water runoff and avoid the soil erosion which is now occurring. According to the mayor of Purulha, Sebastian Castro Garcia, the last 3 km of road to Peña del Angel will be repaired by the municipality within the next two years. ***Recommendation: send a professional engineer to consult on road reconstruction requirements especially the last 3 km since we're talking an elevation difference of almost 2000 feet in a little over a mile.***
2. If the last 3 km of road to Pena del Angel remains impassable by motor vehicles there are 2 options for visitor access: (1) visitors can ride local transport the first 7 km and walk the last 3 km (about an hour walk downhill) – on the 3 km return trip up hill the visitor can hire a guide from Pena del Angel to help carry gear; (2) visitors can arrange a ride to Pena del Angel in Purulha or with a tour operator utilizing the long route, which is a 33 km four-wheel drive car ride passing through Mojon Panima before arriving in Pena del Angel.

3. Four key road signs are needed to direct traffic to Pena del Angel using the 10 km direct route. The first two signs are to be located on the main highway to Coban. The first sign will be for drivers coming from the south and the second sign will be for drivers coming from the north. The signs should be similar to the INGUAT road signs and say simply "Peña del Angel Ecotourism Center" with an appropriate arrow pointing in the correct direction. The third sign will go just past the gas station where you have to make a right hand turn to get on the road to Pena del Angel; this sign should be smaller and say simply "Pena del Angel" with an arrow pointing right. The fourth sign should be placed at the end of the 7 km before the downhill walk of 3 km to Pena del Angel. This sign should say "Bienvenidos! Pena de Angel, 3 km".

4. There is an old bridge the crosses the Panima River just before arriving to Pena del Angel. The bridge should be considered a cultural or heritage resource because of its unique design and antiquity. The bridge is said to be over 70 years old and has a solid cement/rock base and an attractive wood structure with an A-frame tin roof overhead. The bridge is only wide enough for one vehicle at a time although not many cars are using the bridge due to the 3 km of bad road mentioned above. According to the mayor of Purulha, there are plans to take down the bridge and put up a new one.

Supporting road access information:

The 10 km direct access road begins in the municipality of Purulha which is located on the main highway to Coban. The road to Pena del Angel is mostly native surface with some crushed rock introduced for road base. There is one bridge crossing during the first 2 km but no other hardened water crossings or hardened drainage ditches. Only a few culverts were encountered on the road. The first 7 km of the road between Purulha and La Cumbre de Panimaquito is in fair condition and follows the contours of the landscape reasonably well. The first 7 km is rocky and bumpy in spots, with some minor washouts and water crossings and is probably muddy during the rainy season. But this 7 km stretch is said to be passable by ordinary passenger cars year-round. According to local residents of Pena del Angel, a transport bus carries people between Purulha and La Cumbre de Panimaquito several times a day, year-round.

The last 3 km between La Cumbre de Panimaquito and Pena del Angel is in bad shape and is not used regularly by cars because of steep terrain, frequent landslides, muddy conditions and lack of maintenance. The last 3 km is however, used daily by Pena residents who walk the distance to carry out business and buy/sell products in Purulha. According to local residents the last 3 km of road has not been used regularly by cars in 3 years although every now and then you will see someone come down the road in a Jeep or other four-wheel drive vehicle. No one attempts to drive up the road however and instead take the long route – the 33km route back to Purulha (see next paragraph). The last 3 km of road has an elevation difference of approximately 600 meters considering the elevation of La Cumbre de Panimaquito is at 1500 meters and Pena del Angel is at 900 meters. According to the *Peña del Angel Community Diagnostic Report* elaborated by FDN in 1998, the reconstruction and repair of the road to Purulha is the number one priority for the community since it will open channels of communication, health and safety access, and market access (coffee, cardamom and fruits) including tourism access.

The 33 km long route, although rocky, bumpy and steep in spots, is very scenic with stunning views of the surrounding precipitous mountains and valleys including the Sierra de Las Minas Biosphere Reserve. Because of human settlement and encroachment in the area there are also astonishing views of steep hillside agriculture and deforestation using slash-and-burn techniques which may not appeal to all but is important for tourists to see and understand why and how it's done. Since Pena del Angel is not on the main tourist route and unknown to many, arranging transport directly to Pena will be difficult going the long way and the most viable option unless the direct 10 km route is fixed is to walk the last 3km. The owner of Country Delight Inn, Randall Petrie Nanne, near Purulha has expressed interest in arranging car transportation and tours to Pena del Angel so this could also be a viable option in the near future. A local

tour operator in Coban (Aventuras Turisticas) also said that if the demand is there that they could arrange transport to local attractions.

Ecotourism Center Recommendations:

Landscaping:

5. The grounds surrounding the cabanas, kitchen, trails, etc. need to be maintained at least once a month by members of the ecotourism committee. This should coincide with their suggested monthly committee meetings. There has been an overall lack of maintenance on the grounds which has resulted in an overabundance of weeds, grasses, plants, etc. some of which may cause allergic reactions to visitors, decrease the attractiveness of the site, and accelerate the deterioration of the existing structures.

6. In addition the ecotourism committee should begin planting local fruit trees, a few coffee and cardamom plants and medicinal plants on the grounds to offer some unique interpretation experiences to the visitors, attract different species of birds, and provide a source of food to feed the visitors.

Cabana Grande: 8 meters x 12 meters, 3 private rooms, 1 common room

Cabana Pequeña: 6 meters x 8 meters, 1 private room, 1 common room, 1 entry room (mud room)

7. In the Cabana Grande, ½ of the roof material (local palmace leaf) needs to be replaced immediately. The south ½ of the roof was replaced by the ecotourism committee about 6 months ago. In the Cabana Pequeña all the roof material needs to be replaced immediately. Water is entering both structures and causing accelerated deterioration of the wooden walls and brick floor within the cabanas.

8. Once the roof is replaced, the inside of the cabanas will have to be cleaned thoroughly and the existing inner and outer wood walls inspected for possible replacement if too deteriorated.

9. Strongly suggest a ceiling be built over all the rooms to help with the security of the cabanas, increase the attractiveness of the rooms, increase the privacy of the rooms, reduce the noise being made by visitors in each room, and reduce the number of insects, animals, etc. that will enter.

10. All windows and doors will need to be replaced since they do not exist. All window and door moldings will also need to be replaced. Approximately 6 windows and 4 doors will be needed for the Cabana Grande. Approximately 5 windows and 3 doors will be needed for the Cabana Pequeña. All doors should be lockable and be made of solid durable wood similar to the "hormigo" wood currently in use. Some of the "palo de sangre" wood in the cabanas may also need to be replaced since they are starting to rot. All windows should have durable screens to reduce the number of insects that can enter. Windows should be lockable from the inside and be able to slide to open and close. Glass windows would be ideal to let the sun and scenery in on cold days and to see out on rainy days.

11. A small fireplace/hearth should be built inside the common room of the cabanas to produce 2 benefits: 1) provide a nice ambience, heat and a rustic setting and 2) the smoke produced from burning wood will help prolong the life of the palmace roof to 20-30 years instead of the 2-3 years without any smoke. The smoke works to compact the palmace leaf and make it more resistant to water.

12. Furniture will have to be purchased for all the rooms in the cabanas. The 3 private sleeping rooms in the Cabana Grande should be able to accommodate 1-2 persons and the common room should have sufficient chairs and tables to accommodate up to 6 people. The Cabana Pequeña will need furniture to accommodate 1-6 persons. Simple wooden slat beds with comfortable cushions, a wood table, wooden

shelves, gas lamps and candles, hooks to hang things on, and a chair or two are all that are necessary. A mosquito net for all beds is a must!

Kitchen: 3 meters x 8 meters, 1 big room

13. The bamboo siding serving as the 4-foot wall surrounding the kitchen will need to be replaced. The bamboo is deteriorating and has become bug-infested. Roof in good shape.

14. The kitchen needs a cooking source, to keep with local character I suggest a typical campesino kitchen with big fogon, comal, and grinding stone for making tortillas. ½ of the kitchen should be fully enclosed with native wood planks for the cooking area and the other ½, the eating area, should be a mix of native wood planks below and screened-in porch above. 2 doors will be needed, one for the eating area and one for the cooking area.

15. Dining tables and chairs will be needed, suggest 2 large tables to accommodate 6 persons each or 3 small tables to accommodate 4 persons each. Gas lamps should also be provided in the kitchen.

Rest Sites/Plazas: 8 in total spread across the grounds with flat brick platforms.

16. All 8 plazas will have to be thoroughly cleaned since many are now overgrown with vegetation. Shrubs, weeds, potential hazards, etc, should also be cleared within a 1-2 meter radius of the plazas.

17. In the long term, the 3 bigger plazas (5x5 meters) can potentially serve as the foundation for smaller 1 bedroom cabañas with capacity for 1-2 persons. A short-term option is to build a palmace-thatch roof over the plaza and use the area underneath for tent camping, picnic area, or resting area with hammocks and chairs.

18. The 5 smaller plazas (3x3 meters) are round and should be used as day-use areas for picnics, resting, or reading areas with or without a palmace-thatch roof.

Water: There is a spring-fed source approximately 1000 meters away.

19. A water system will be needed to provide water for cooking, cleaning, bathing and drinking. The mayor of Purulha will need a "solicitud" from the Ecotourism Committee indicating that they need the water system and can provide some manual labor. The mayor has expressed his support in helping the Committee financially and procedurally to obtain a water system.

20. A water cistern will need to be built near the kitchen for cooking, washing, and cleaning purposes. All water or drinks served to visitors will need to be either boiled or chlorinated beforehand – no exceptions!

21. Water for 2 showers, 2 sinks, and 2 flush toilets will also be necessary in a central location ideally in between the 2 cabañas or somewhere close by. A very good and economical option is to locate the showers, sinks, etc. on one of the bigger brick plazas (5x5 meters) and build them off the ground. Another ideal alternative is to build a bathroom and shower facility similar to the one at Piedras Negras in Sierra del Lacandon National Park.

22. All dirty water leaving the bathroom facilities and the kitchen area should be directed into an appropriate septic system in order to avoid contamination of the Panima River. Due to the restricted size

of the tourism site and the proximity to the Panima River, a professional hydrologist, geologist or septic system specialist must be consulted in order to allow for an appropriate location and design.

Electricity: There is an existing power line that follows the road to Pena del Angel and is approximately 800 meters away.

23. Electricity is not a necessity for the tourism site but would make the site more attractive overall and I recommend starting the process of bringing an electrical line to the site. That being said, an even better alternative to electricity are solar panels which are being used successfully at the Albores Cabanas site.

24. The mayor of Purulha has expressed his support in helping the Ecotourism Committee financially and procedurally to obtain a power line. The mayor of Purulha will need a "solicitud" from the Ecotourism Committee indicating that they need the power line and can provide some manual labor. After receiving the solicitud the mayor will send out for a feasibility study from Orza, the power company in the area.

25. With the addition of electricity and/or solar panels, each room in the cabanas should have a light with their own switch, the bathrooms should have a few lights, and the kitchen should also have a few lights.

Additional Tourism Infrastructure Needs:

26. A full-time guardian will be needed at the tourism site once repairs are begun to keep the site in good condition and prevent vandalism from occurring. In the long term, a guardian will be necessary to receive visitors and coordinate their stay. The mayor of Purulha indicated that he will provide the salary for a full-time guardian from the community of Pena del Angel.

27. A small, separate, stand-alone cabana should be built which could serve as an office/visitor center/guide station/store. This cabana should be built near the entrance to the Ecotourism Center close to the Cabana Grande. The guardian (see #26 above) would work from here and this would be the central location for visitors to receive more information, sign-up for a guided activity, buy local crafts, etc.

28. A few families from the community of Pena del Angel should be prepared to receive visitors in the event that a visitor arrives and the ecotourism center is either full or in a state of disrepair. Aurelio Gonzalez Lopez, with whom I stayed during my visit, expressed his willingness to open his home as a small hospedaje (boarding house) for visitors. His wife, Berta Lidia Dubon, makes excellent and hygienic meals and they and their family are very friendly and active in the community.

29. The Panima River which flows through Pena del Angel and past the ecotourism center is one of the major attractions to the area due to its beauty, simplicity and setting it provides. Unfortunately the river which will be very inviting for tourists to take a dip in, especially on hot days or after a long hike, is said to be contaminated with sewage from Purulha and with chemicals used on the many "leather-leaf" (ornamental plant export) farms upstream of Pena del Angel 11km. I brought this up in a meeting with the mayor of Purulha and he stated that in 2005 they are planning to begin construction of a water treatment plant to treat waters leaving Purulha. He claimed they have funding in the amount of 3 million Quetzales from the FIS fund: Fondo Inversion Social. ***I recommend that water quality tests between Purulha and Pena del Angel be started as soon as possible on a frequent basis (1-2 times/month) to measure various water quality indicators such as the amount of fecal coliform, bacterias, chemical content, etc.*** If measured levels of coliform and other substances harmful to human health are present and/or above standard, signs need to be posted along the river in the Pena del Angel area stating definitively that: "the river is contaminated, it will cause you sickness and do not swim in or drink this water". This responsibility should fall on the municipality of Purulha or the Pena del Angel community.

2. Design of interpretive trails for ecotourists: trail design, sign needs and interpretation content.

Within the Pena del Angel area, there are several foot trails that are used by the local people to access their coffee and corn fields and to reach other neighboring villages. The dirt road which bisects the town of Pena del Angel and eventually leads to Purulha going west and Mojon Panima going east is also used for foot travel since only a few people in the entire Panima River Valley own a vehicle and 3 km of the road to Purulha isn't passable by vehicles.

Within the immediate area of the Ecotourism Center itself, there are a few very short foot trails that are mainly used to connect the cabanas, the kitchen and the rest plazas. There are also two 5-minute, mostly undeveloped, trail segments leading to the river and slightly above the river that offer good views of the steep Pena del Angel canyon and surrounding dense foliage..

During my stay in Pena del Angel, members of the Ecotourism Committee and I, explored many possible options for hiking and bird watching opportunities. From what I saw, there is much potential for one to two hour, ½ day or full-day hiking trips in the area.

Key Recommendations:

One to two hour hikes

There is good opportunity to develop short hikes in the immediate vicinity of the ecotourism center of between 100-500 meters in length. These hikes would also be good for school groups. All the hikes mentioned here would begin and end at the ecotourism center and could be done with or without a guide.

1. The area between the kitchen and the Cabana Pequena would be a good spot for a short medicinal plant and local trees and plants trail. This trail should be a horseshoe or loop trail with a length of 30-40 meters, a trail width of 1 meter, and it should maintain a buffer of 2 meters from the river's edge to avoid any resource impacts. The trail should be one-way only and should have plenty of signs for directions and simple interpretive signs explaining the common name (and scientific name ideally) of the tree or plant and what they are used locally for.
2. There is potential to build a trail along the Panima River going downstream to the pedestrian bridge which crosses the Panima River. This trail would be ideal for giving interpretive talks about the importance of the forest and clean water, birds and other wildlife species, history of the bridge, and the village of Pena del Angel. This trail would be about 100-200 meters in length one-way and visitors could return or begin on the dirt road above the ecotourism center to make a loop trail. On this trail I recommend a 3 meter buffer from the river's edge, a trail width of 1 meter, trail corridor height of 2 meters, trail corridor width of 1.5 meters, have the trail follow the contour of the land with no section greater than 20% slope. If sections of the trail are greater than 20% slope, utilize steps otherwise accelerated erosion will most likely occur.
3. There is already a short 10 minute trail that leads to a brick rest site/plaza about 30m above the ecotourism center towards the canyon. The current trail is too steep and narrow and should be improved to follow these standards: build the trail according to the contours of the land using switchbacks and climbing turns with no section greater than 20% slope unless steps can be built effectively; use frequent water bars to keep water off the trail and maintain a trail width of 100cm. The rest site is a good spot to take photos and could also offer opportunities to give interpretive talks on the Pena del Angel cliffs and canyon, the cloud forest ecosystem and birds, etc.

4. There is another 10 minute trail that goes past the intersection of the trail mentioned in #3 above and leads to a section of the river with good views of the river, canyon and surrounding rocks. The trail also goes past a natural spring that forms a very small waterfall (this is the spot the ecotourism committee plan to pipe their water from for the ecotourism center). The committee needs to place a small footbridge over the water that runs down from this spring to avoid soil erosion. This trail should also be improved according to the standards mentioned in #3 above. After reaching the river, I do not recommend taking people past this point since there is no trail and hiking and scrambling on and over the rocks in the riverbed is strenuous and slippery and can be dangerous to inexperienced hikers. To hike past this point further into the canyon (which does offer even greater views of the boulder-strewn river and steep canyon), an alternative is to build an elevated platform trail along the edge of the river. This could be done utilizing local resources but the building design would have to be solid and the river flow patterns taken into account. Another option is to build a small viewing deck (2m x 2m) at the end of the trail.

5. There is great potential to build a hiking trail which leads to a big rock outcrop about 150-200m above the ecotourism center. Members of the ecotourism committee and I bushwhacked up to this point hiking mostly through an old (steep) cornfield (guamil) that is recovering naturally but still devoid of trees. This fact makes it very feasible to construct trail here and that there are no trees makes for very impressive views of the surrounding cloud forest with great views of the Pena del Angel cliffs and canyon, and views of a waterfall that you can't see from the ecotourism center. The base of the rock outcrop would serve as a good spot for some benches to rest on and enjoy the awesome view. From the rock outcrop there is already a local trail that leads back down to the road enabling the opportunity for a loop trail of 1-2 hours. Additionally, from the rock outcrop there is a short section of trail that leads higher into the cloud forest so visitors could catch a glimpse of this and then return. (Building trail further into the cloud forest is not advisable due to the very steep terrain) The trail to the rock outcrop should also be built according to the standards mentioned in #3 above and every effort made to make the trail less than 20% slope utilizing many switchbacks and climbing turns. Directional signs would be needed to tell people how to get to the rock outcrop and back down to the ecotourism center. An interpretive sign at the rock outcrop discussing the Pena cliffs and canyon and the cloud forest ecosystem would be ideal.

6. The dirt road which bisects the village of Pena del Angel would make for a great 1 to 2 hour hike and would offer many opportunities to interact with the local people, take pictures and appreciate the views. The birding along the road is also very good due to the variation in landscape and vegetation, and minor elevation differences. Additionally, the road going east is fairly flat and would result in comfortable hiking. Alternatively, the road going west towards Purulha is very steep but could also be utilized for short hikes.

7. Just east of the pedestrian bridge, towards the village of Pena del Angel, on the south side of the road, there is a large tract of healthy, intact lower-montane rain forest that is owned by Conrado Torres of Guatemala City. In total, the tract is one caballeria or 64 manzanas (111.5 acres). With the permission of Sr. Torres the Ecotourism Committee may be able to construct a loop trail on the land but special priority should be given to maintaining the health and integrity of this ecosystem. Assistance from FDN staff on where to best locate the trail would be helpful to avoid building in sensitive areas.

½ day hikes and full day hikes

All the potential ½ day hikes and full day hikes would take place outside of the ecotourism center zone. The ½ day hikes and full-day hikes utilize existing roads and trails already in use by the local residents.

8. The dirt road leading to Purulha from Pena del Angel would make for a good ½ day to full day hike especially to see birds, observe how the residents live and to interact with the local residents since this is the main access route between Purulha and Pena del Angel. As mentioned in the road access section

above, 3 km of the road from Pena del Angel to La Cumbre de Panimaquito (La Cumbre) is not suitable for cars so therefore, is either walked or biked. This 3 km section of road offers great views of the Panima River Valley, the surrounding cloud forest and hosts a variety of local and migratory bird species including the quetzal, emerald toucanet, black-collared swifts and turquoise-browed mot mot. From La Cumbre, a small village nestled in the cloud forest 600 meters above Pena del Angel, there are views of the entire Panima River Valley to the east, and views of the Quetzal Biotope Reserve and the Purulha area to the west. Also from La Cumbre there are two side trails that go through cloud forest and lead to excellent viewing points. These viewing points offer great opportunities for taking photos of the surrounding landscape, bird watching, relaxing, learning about the cloud forest ecosystem and reforestation efforts taking place visibly nearby, and also learning how this cloud forest is being threatened by the advancement of agriculture. From La Cumbre the dirt road continues for another 7km to Purulha for those who want to extend their hike, for others it's a 3km hike downhill back to Pena del Angel and the ecotourism center.

9. There is a working trail that starts in Pena del Angel and goes steeply up the south ridge of the mountains through coffee and corn fields, up to the cloud forest and beyond to La Cumbre de Pacayal. This hike would take between 1.5 – 2 hours and offer opportunities for bird watching, learning about the cloud forest ecosystem and local agricultural practices. From La Cumbre de Pacayal the option exists to go east towards Finca Pacayal and Finca San Luis, back downhill to the dirt road at Panima village, and then hike the road west back to Pena del Angel. This 4-5 hour hike would meander between cloud forest and local agricultural areas and would offer great views of Sierra de las Minas Biosphere Reserve. From La Cumbre de Pacayal the option also exists to hike west to La Union Barrios town passing through the heavily forested Cerro Verde. This trail would also meander through cloud forest and local agricultural areas offering great views of Cerro Verde and the Quetzal Biotope Reserve. The hike from La Cumbre de Pacayal to La Union Barrios is between 2.5 – 3 hours so a full day hike from Pena del Angel to La Union Barrios would take at least 5 hours one way. La Union Barrios is located on the main highway to Coban so instead of turning around and hiking back the 5 hours to Pena del Angel, a hiker could choose to catch local transport to Purulha and beyond to La Cumbre de Panimaquito and then hike the 3km road back to Pena del Angel.

10. As mentioned in #6 above, the dirt road which bisects Pena del Angel is a good option for hiking and also mountain biking. The road going east continues down the Panima River Valley for another 30-40 km and beyond all the way to Lago de Izabal according to locals. Another option is to hike or bike on the 33km route back to Purulha which although rocky, bumpy and steep in spots, is very scenic with stunning views of the surrounding precipitous mountains and valleys including the Sierra de Las Minas Biosphere Reserve.

For all the trails mentioned above, the Ecotourism Committee should use the following trails manual when planning, designing, constructing and maintaining trails: *Planificación, Construcción y Operación de Senderos en Áreas Protegidas* by Larry Lechner (larlec@frii.com) I gave a copy of this manual to Eduardo Mayen, FDN Matanzas District Coordinator based in San Jeronimo, Baja Verapaz.

3. Strengthen the social organization, especially the ecotourism committee.

Peña del Ángel has between 75-80 families with approximately 400-600 persons. Existing community organizations include: Comité de Salud; Comité Padres de Familia; Comité Madres de Familia; Comité Pro-mejoramiento (general community development); and Comité de Ecoturismo (ecotourism committee). Pena del Angel receives community assistance in the form of training and assistance from

several government and non-government organizations including, but not limited to, the following: Fundacion Defensores de la Naturaleza (training in several conservation-related themes including shade-grown coffee, income diversification, reforestation and environmental education); Municipality of Purulha (construction materials for public works, health and education assistance); MINEDUC (local school assistance); FUNRURAL (student financial aid); Grupo Gestor de Purulha (tourism promotion); Programa las Verapaces (community development for the Verapaz departments); and RECOSMO (community development).

The Ecotourism Committee of Pena del Angel was formed in 2003 and originally had over 60 members including seven elected officers. The committee was formed with the goals of community development and augmentation of the local economy through ecotourism. Also in 2003, the Ecotourism Committee received some direction and financial support from the local Grupo Gestor (local business owners) and Programa las Verapaces (their primary contact was Lic. Macdala Sagastume). With the support their initial project was to clean and repair the two cabanas at the ecotourism center. The committee replaced the palmace-thatch roof on the kitchen and ½ of the roof on the Cabana Grande but then ran out of funds and/or support and that was the last effort made to repair the ecotourism center. As a result of the absence of financial support since this initial project in 2003, many members of the Ecotourism Committee grew discouraged and disinterested about the potential for ecotourism and subsequently left the committee.

When I visited with the Ecotourism Committee between April 25 and May 8, 2004, there were a total of 23 members including seven elected officers. The elected officers are President – Sabino Gonzales Lopez; Vice-President – Selso Gabriel; Secretary – Victor Lopez; Treasurer – Rafael Ali; First Vocal – Edelberto Cruz; Second Vocal – Felipe Cu; and Third Vocal – Antonio Maas.

Strengths, Opportunities, Weaknesses and Threats of the Ecotourism Committee

Strengths

Strengths I observed with the Ecotourism Committee are their desire to develop ecotourism in their community. Although many members left the committee discouraged, the remaining members have networked extensively with many government and non-government groups and are hopeful that they will receive financial and technical assistance to revive the ecotourism center. The committee has the full support of the mayor of Purulha, Sebastian Castro Garcia, and was able to secure a concession on the Ecotourism Center for a period of 10 years starting in 2003. The committee also has the support of many local and regional groups to promote Pena del Angel as an ecotourism destination including the Grupo Gestor of Purulha and San Jeronimo, the municipality of Purulha, several hotel and private reserve owners, the Quetzal Biotope Reserve, FDN and the community of Pena del Angel. Many members of the committee are also making the effort to receive technical training in ecotourism and guide training offered by the Quetzal Biotope Reserve and non-governmental organizations throughout the region.

Opportunities

The opportunities available for the Ecotourism Committee are numerous. The committee can become better organized and trained in ecotourism operations by consulting with more experienced and successful community ecotourism committees in the villages of Chilasco, Albores and elsewhere. A recently appointed Peace Corps Ecotourism Development Volunteer in Chilasco, whom I met with, may also be available a few days or maybe a week per month to help out with committee strengthening and ecotourism development in Pena del Angel. This is an excellent opportunity! Additionally, although many members of the committee left discouraged, the community in general supports the development of ecotourism in Pena del Angel and would become more involved in the ecotourism project as the prospect of receiving financial and technical assistance grew more evident.

Weaknesses

Weaknesses I observed with the Ecotourism Committee are their lack of organization, leadership, training, conservation knowledge and their strong reliance on outside financial aid. These weaknesses can all be overcome as the committee grows with more experience and more training. As mentioned, the committee has only been formed a little over one year so their knowledge base of ecotourism development is very low at this point in time. The current committee is loosely organized as they do not meet on a frequent basis, the roles and responsibilities of each officer are not clearly defined, and there is currently no election process to replace the officers in the future.

At a close-out meeting I had with members of the Ecotourism Committee I gave two hours of training on ecotourism in general including the definition, basic ecotourism principles, potential positive and negative impacts, and what's involved in ecotourism planning. I also encouraged them to seek out ecotourism training opportunities offered in the region. I presented them with an *Ecotourism Committee Guidelines* handout developed by the Peace Corps and the Las Marias ecotourism committee in the Rio Platano Biosphere Reserve in Honduras. The document has very useful information for the committee including a clear mission statement; roles, requirements and responsibilities of elected committee officers; ecotourism guide, basic service providers and visitor guidelines; how to implement a guide rotation system and how to manage collected funds. ***I recommend follow-up to see if the entire committee has discussed this document and if so, how they are using it to their benefit.***

Currently the committee sees ecotourism as a vehicle for economic development but don't see the connection with conservation of natural resources. As mentioned earlier in this document, one of the main reasons for developing ecotourism in Pena del Angel is to promote conservation of important wildlife habitat in the biological corridor between Sierra de las Minas and the Quetzal Biotope. Although the biological corridor has been officially recognized by CONAP, the corridor doesn't have protected area status like Sierra de las Minas and the Quetzal Biotope so conservation threats are very prevalent in this area especially with agricultural encroachment.

The committee should understand that in order to promote the area as an ecotourism destination, they and the community cannot continue to encroach on the cloud forest the visitors will potentially come to see. Unfortunately, this is currently happening to a small remaining island of cloud forest near La Cumbre de Panimaquito where the forest is being converted into a corn field (milpa) and living area. To accommodate a living area with a house planned, very large cloud forest trees are being burned from the inside out so that they will eventually die and fall. According to FDN employee, Mauricio Chon, this practice is now illegal in cloud forests according to Guatemala law and he will follow up on this case with Eduardo Mayen, FDN Matanzas District Coordinator. ***I recommend follow-up on this to see if this is still happening at this location.***

Additionally, in my discussions with the Ecotourism Committee I encouraged them about the importance of committee organization and recommended they meet at least once a month to carry out basic maintenance activities at the Ecotourism Center so the facilities aren't further ruined from the weather and encroaching vegetation. The response I received was that they are very busy with their work in the fields (understandable) and to perform work at the Center they would need to be compensated with funds (don't entirely agree). If a community takes ownership of a project and makes an initial investment, whether it's manual labor, time or financial commitments, that community will take more interest in making sure the project does not fail. On the other hand, if a community waits for a donation or will only work if compensated and there is no personal investment other than paid personal investment that project will most likely fail if the source of funding fails. The start-up of an ecotourism project such as the one at Pena del Angel will require some sacrifice or investment of time and labor from the committee members

in the beginning and it's very important they understand this. Once the project is developed and visitors start to arrive they will see how their investment has paid off.

Threats

Many of the potential threats to the Ecotourism Committee were discussed above under Weaknesses. The current lack of committee organization, training and conservation knowledge can potentially undermine the Ecotourism Committee and any future ecotourism projects. Other localized threats to the Ecotourism Committee include agricultural encroachment and resulting loss of visitor attractions and bird habitat, and lack of support from the mayor of Purulha to fix the access road and provide public works assistance for the Ecotourism Center. Other large-scale threats are the decrease in national and international tourism due to democratic, economic or security problems, the continued decline in the coffee market, and the potential Central America Free Trade Agreement (CAFTA) which may cause market competition against small coffee production areas like Pena del Angel.

Key Recommendations:

1. Ecotourism Committee and the Peace Corps Ecotourism Development Volunteer in Chilasco (David) should meet at least a few times a month to discuss committee strengthening and ecotourism development in Pena del Angel.
2. Encourage community members to join the Ecotourism Committee even if they play a non-active role until the ecotourism project is underway.
3. Ecotourism Committee should meet at least once a month at the Ecotourism Center and try to carry out a cleaning activity after that meeting even if it's only for one hour.
4. Seek out ecotourism training opportunities offered in the region.

4. Train local committee members to be ecotourism guides.

Several members of the Ecotourism Committee have already received training in the last year that will help them to become good ecotourism guides. At least 8 committee members received training in basic tourism services from Programa Las Verapaces which covered food preparation, visitor care and guiding. Several women in Pena del Angel received training from FDN on food preparation including jellies and medicinal plants which could also be potential sale items for visitors. The president of the Ecotourism Committee has received training at the Quetzal Biotope Reserve which covered ecotourism guide training and included a component on interpreting natural resources for visitors.

On Friday, April 30, 2004, eight members of the Pena del Angel ecotourism committee received training from me on ecotourism in general including the definition, basic ecotourism principles, potential positive and negative impacts, and what's involved in ecotourism planning. In addition, on Thursday, May 6, 2004, five members of the Pena del Angel Ecotourism Committee, in addition to 10 members from Chilasco and Albores, received training from Arden and me on Ecotourism and Guides covering many topics including conservation issues and problems, protected areas and ecotourism, roles and characteristics of guides, preparing for a guided trip, visitor services, basic environmental interpretation and resource protection.

Key Recommendations:

1. A **training plan** should be developed for the Pena del Angel Ecotourism Committee outlining what training is necessary, by what date committee members should receive this training, and who or how many from the committee will receive the training. Once a member, or group of members, receives training they should impart the knowledge received to the rest of the committee members at their monthly meetings. The **training plan** should be added as an appendix to the **Ecotourism Management Plan** (see page 16) or could be incorporated into the **Business Plan** (page 19).
2. Priority trainings the committee should receive are community development, leadership and organization, small business development, ecotourism development, environmental education, agroforestry and crop diversification, basic health and sanitation, ecotourism guide training, specialized guide training for birding skills, basic English language skills, and women's arts and crafts development.
3. Committee members should be encouraged to interact with the experienced ecotourism guides from Chilasco. A one-day field trip to Chilasco to meet their guides and see how they run their ecotourism venture would be very helpful and educational and would motivate the committee.
4. Edgar Selvin Perez, wildlife biologist with FDN, has given training to ecotourism guides on the subject of bird identification and natural history of bird species. Edgar should be utilized to conduct a training session for the ecotourism committee.
5. The ecotourism committee should review Chapter 4 of the **Ecotourism Committee Guidelines** handout developed by the Peace Corps and the Las Marias ecotourism committee in the Rio Platano Biosphere Reserve in Honduras. Chapter 4 has a good outline on ecotourism guide rules and responsibilities and explains the guide rotation system which is the method the ecotourism committee of Pena del Angel indicated they plan to use. The committee should develop a similar guideline and include it as part of the **Business Plan** (see page 19).

5. Develop visitor use regulations and fee system for Pena del Angel ecotourism center.

As mentioned earlier in the document, there are currently no visitors arriving to Pena del Angel. I recommend that an **Ecotourism Management Plan** be developed before visitors do arrive that will serve as the foundation for the development of ecotourism in Pena del Angel. As visitation begins and increases, protocols must be established to effectively manage and monitor ecological, cultural and economic impacts that are associated with ecotourism-related activities (Wallace and Finchum 2004).

The **Ecotourism Management Plan** should be based on the Limits of Acceptable Change (LAC) methodology resulting in clear desired future conditions, and defined management standards and indicators based on specific ecotourism principles. Use of standards and indicators is increasingly common among protected area managers who monitor social and biophysical changes in natural settings (Wallace 1996). Furthermore, the LAC planning framework is used widely by land management agencies in the USA to see whether they are achieving desired future conditions (Wallace 1996).

Two research studies conducted in the Brazilian (Wallace and Pierce 1996) and Ecuadorian Amazon (Lincango 1995) carried out a LAC-based ecotourism evaluation by identifying indicators and standards for six main ecotourism principles. Principles, similar but very distinct from regulations and guidelines, provide the over-arching ethical frame that can be applied in most circumstances (Wallace 1996).

The *six ecotourism principles* carried out and tested in the two studies mentioned above should also be integrated into the Pena del Angel Ecotourism Monitoring Program. The six principles demonstrate that tourism may be said to be *true ecotourism* when it:

1. Entails a type of use that minimizes negative impacts to the environment and to local people;
2. Increases the awareness and understanding of an area's natural and cultural systems and the subsequent involvement of visitors in issues affecting those systems;
3. Contributes to the conservation and management of legally protected and other natural areas;
4. Maximizes the early and long-term participation of local people in the decision-making process that determines the kind and amount of tourism that should occur;
5. Directs economic and other benefits to local people that complement rather than overwhelm or replace traditional practices (farming, fishing, social systems, etc.); and
6. Provides special opportunities for local people and nature tourism employees to visit natural areas and learn more about the wonders that other visitors come to see (Wallace 1996).

These ecotourism principles are flexible, can be adapted to site-specific conditions and should be selected based on community participation during the planning process (Wallace and Finchum 2004). During my close-out meeting with the Pena del Angel Ecotourism Committee we discussed these six ecotourism principles in length and talked briefly about how a specific standard or indicator could be applied as a "measuring stick" to see if the principle is being fulfilled or carried out. For example, an indicator for Principle 1 could be "the type and amount of training given to guides" in order to achieve minimal negative impacts to the environment. Or an indicator for Principle 4 could be "the number of people from the community involved in the ecotourism committee" which has fallen from over 60 members to just 23 members in the last year!

The ecotourism principles chosen for Pena del Angel will guide the development of the specific standards and indicators and will depend heavily on local participation. To achieve a specific standard, probable management actions and monitoring methods will also have to be defined in the Ecotourism Management Plan for Pena del Angel. An outline of a "hybrid" LAC process developed by Wurz, Wallace and MacFarland (1997) for Latin America protected areas includes the following steps:

- | | |
|---------|--|
| Step 1 | Involve all stakeholders from the beginning |
| Step 2 | Agreement among all stakeholders about the mission and unique features of the area |
| Step 3 | Agreement about the salient issues, concerns, opportunities, and desired future conditions |
| Step 4 | Agreement about the appropriate range of zones (opportunity classes) to offer in the area |
| Step 5 | Select indicators related to the defined zones and opportunity classes, and to the issues, concerns, and opportunities |
| Step 6 | Do an inventory of biophysical and social conditions |
| Step 7 | Specify standards or norms for each indicator |
| Step 8 | Identify alternative zone allocations that address issues, concerns, and opportunities, and the desired biophysical and social conditions |
| Step 9 | Identify the probable causes of discrepancies between actual and desired conditions |
| Step 10 | For each alternative, identify the actions necessary to address the discrepancies, issues, and opportunities, and if appropriate, set a carrying capacity for individual sites |
| Step 11 | Evaluate the alternatives and select the preferred one |
| Step 12 | Monitoring program based on indicators and standards |

An established *Ecotourism Management Plan* for Pena del Angel based on LAC methodology that is already in place once visitors start to arrive, would provide more to the committee than just a document and system to self-monitor ecotourism impacts. The process in itself is educational and because it

requires the commitment of the community and key stakeholders, the process will bring many people together to discuss potential positive and negative issues arising from ecotourism. For example, an issue brought up by the committee was the use of alcohol by visitors. Some committee members supported the sale of alcohol to visitors because it would bring in more income to the community. Other members disagreed and thought it might set a bad example for the community. We then discussed how to deal with the situation by coming up with probable solutions such as 1) no sale of alcohol in the community whatsoever and 2) only keep and sell a limited amount of alcohol at the ecotourism center location only.

Using this example, in the LAC framework, we can measure the impact of alcohol use in the community against Ecotourism Principle 1: *Entails a type of use that minimizes negative impacts to the environment and to local people*. The standard the ecotourism committee could measure to ensure Principle 1 is being fulfilled could be “the number of complaints from local community members about visitors drinking alcohol” – if, for instance, the established number, or indicator, of no more than 2 complaints per year is surpassed then the committee needs to take action so this doesn’t keep happening. Another standard could be “the number of times alcohol is seen outside of the ecotourism center”. If, for instance, the established number, or indicator, of 5 times per year is surpassed then the committee needs to take action and maybe post signs telling visitors this is prohibited, tell the visitors each time they check-in that no alcohol use is allowed outside of the ecotourism center, or if the problem persists, discontinue the sale of alcohol to visitors altogether.

The LAC approach to identify specific ecotourism standards and indicators that define your desired conditions can be applied to **all** ecological, cultural and economic aspects of managing an ecotourism venture such as the Pena del Angel Ecotourism Center. Just as an example, to meet Principle 5: *Directs economic and other benefits to local people that complement rather than overwhelm or replace traditional practices (farming, fishing, social systems, etc.)*, some measurable standards set by the ecotourism committee and community could include: increases or decreases in economic diversity; the presence of an adequate fee structure; the number of trained ecotourism guides in the community; the variety and value of items produced and purchased locally, etc (Wallace 1996).

Fee System for Pena del Angel

The subject of fees was discussed with the Ecotourism Committee at our close-out meeting on Friday, April 30, 2004. The committee expressed their interest in charging fees to grow the following types of economic activities in the Pena del Angel community:

1. Accommodations (overnight stay in the cabanas or camping at the Ecotourism Center)
2. Food Sales (food preparation at the Ecotourism Center and sale of packaged goods)
3. Guiding Services (guided day-hikes)
4. Sales of local artisan products (items made in the community such as coffee and jellies)
5. Visitor User Fee (day-use fee for using the Ecotourism Center facilities)

A few specific fee prices that were discussed included 40Q/per night/per room, 20Q per meal, and 20Q to camp/per night. These prices reflect the fee paid for *basic* tourism services in the Purulha region and are fair if the facilities to be provided at the Ecotourism Center are in fact, *basic*. However, in the World Commission on Protected Areas (WCPA) publication, “Sustainable Tourism in Protected Areas”, Eagles et al. (2002) remind us that “tourists are ready to pay for quality”: so, if the end product of the necessary repairs and purchases for the Ecotourism Center results in a nice, clean, quality facility then the fees charged should reflect this.

The generation of additional revenue for the local economy from fees derived from ecotourism is without a doubt one of the primary reasons this project is being proposed. Fees will enable the ecotourism committee to manage and maintain the Ecotourism Center, make improvements to the overall visitor infrastructure, and invest in their ecotourism training and professional development. Start-up funds to repair the Ecotourism Center facilities to the point that visitors can stay there, will most likely come in the form of grants or loans. But after this point, the ecotourism committee will have to carefully manage the fees and decide as a group how to collect the fees, where to keep the fees, how to spend the fees, when to spend the fees, etc.

Business Plan

I recommend that a **Business Plan** be created for the Pena del Angel Ecotourism Center as an appendix to the Ecotourism Management Plan. A specific Business Plan that defines how the ecotourism center should be managed in order to operate efficiently and maximize visitor quality would complement the Ecotourism Management Plan. The Business Plan would outline all costs associated with visitor facilities and infrastructure including the initial repair costs, new infrastructure implementation costs, and annual maintenance costs. The Business Plan would also contain an appropriate fee structure for items 1-5 listed above and define how to collect the fees, guard the fees, spend the fees, etc. Additionally, the business plan would display the roles and responsibilities of the ecotourism committee members, define how to implement the guide rotation system, and list the training necessary for committee and community members. And finally, the Business Plan would contain a strategy for marketing the site.

Key Recommendations:

1. Creation of an **Ecotourism Management Plan** for Pena del Angel utilizing the LAC framework.
2. Creation of a **Business Plan** for the Ecotourism Center to complement the Ecotourism Management Plan.

6. Evaluation of the potential to develop agritourism and connect the Pena del Angel site with other local tourist attractions.

Agritourism

Agritourism, or tourism aimed at learning about and supporting local agricultural products and methods, is a potential for Pena del Angel. As mentioned earlier in this report, shade-grown coffee, cardamom and oranges are the biggest cash crops for Pena del Angel and are grown without the use of chemicals. The fact that the community of Pena del Angel is still clinging to the traditional ways of agriculture (i.e., chemical-free shade-grown coffee vs. mass-produced sun coffee) is an attraction to the area in itself. Furthermore, while clinging to tradition, the community is also making the effort to diversify their agricultural products by the cultivation of cardamom, orange trees, and avocado trees. According to the Mayor of Purulha, Sebastian Castro Garcia, the oranges of Pena del Angel are among the best and sweetest in Guatemala along with the oranges of Rabinal, also located in the Department of Baja Verapaz.

Possible agritourism activities could include making visits to local coffee farms to learn about the coffee plant and how it is grown, harvested and delivered to market. The opportunity should exist for visitors to Pena del Angel to buy coffee from the local coffee farms. If, or when, the main access road is fixed to Pena del Angel from Purulha there is much potential to attract regional and national visitors to buy the many fruits and goods grown there.

Currently all fruits and goods produced in Pena del Angel are taken up to Purulha to be sold at the Thursday and Sunday markets. Since 3km of the main farm-to-market access road to Purulha is not passable by vehicles, goods are transported on the backs of locals but many fruits, especially oranges and bananas are left to perish in Pena del Angel. During the coffee harvest in October and November, intermediaries (middle-men) travel the long 33km route from Purulha to Pena del Angel in cargo trucks to purchase local coffee. According to members of the Ecotourism Committee, the coffee is sold by the "quintal" (100 lb sack) for 200Q to the intermediary. The coffee is then transported to the city of Coban (50km north of Purulha) where it is sold to a coffee exporters and processors for the price of 350Q/quintal. According to the Ecotourism Committee, there is a market for chemical-free (organic), shade-grown coffee in Coban, but the vendor buys coffee from the many coffee farms and plantations in the Coban area.

Key Recommendations:

1. To develop agritourism at Pena del Angel as well as increase the rural income, I first recommend that the main farm-to-market access road is improved which would open up community access to market towns, health and education services, technical assistance, tourism, other economic opportunities, etc. During my visit to Pena del Angel I learned that the community has no health center and the school didn't have a teacher for 3 months due to hiring difficulties. While these details are unfortunately common to developing countries, emphasis on developing the community infrastructure should be as important, or even more important, than developing tourism infrastructure. The two should be developed simultaneously.
2. Improved market access for coffee and other products should also include opportunities for technical assistance and training to increase the quantity and quality of coffee in a sustainable manner, marketing strategies for organic, shade-grown coffee, and agricultural product diversification.
3. Technical assistance should also focus on organizing the coffee farmers of Pena del Angel so that they can compete in the coffee market, especially with CAFTA on the horizon. The formation of a valley-wide farmer's cooperative for all the communities in the Panima River Valley to get their products to market without an intermediary or without straining their backs under huge loads could go far in boosting the rural income and food security.

Local and Regional Tourism Connections

I strongly recommend connecting Pena del Angel to other local and regional tourism attractions in the Alta and Baja Verapaz Departments. As a stand-alone tourist attraction, Pena del Angel, may attract visitors who stay for the day or perhaps for one to two nights. With the current level of difficult access, the number of national or international visitors will be very low. If marketed correctly, the Ecotourism Center may be able to attract international backpackers who won't mind hiking the 3 km of bad road to gain access into an uncrowded, beautiful and secure area. There may also be some visitors who won't mind driving or paying someone to drive them the longer 33 km route to reach Pena del Angel but again these numbers would be very low. These numbers would be low because there are just too many other tourism attractions in the region and country that are more accessible, offer similar experiences and have basic tourism infrastructure already in place.

If the main access road to Pena del Angel is repaired, the number of potential visitors could increase substantially. Besides the natural and cultural attractions, Pena del Angel is only 10 km from the main highway to Coban thus making it a very reachable destination for travelers. However, to draw in visitors, both national and international, Pena del Angel should be promoted as one destination among many in the region.

Departments of Alta and Baja Verapaz – the Green Heart of Guatemala

The region mentioned above includes the Departments of Alta and Baja Verapaz. Collectively, the Verapaces are referred to in many tourism publications as “The Green Heart of Guatemala”. This is in reference to the Verapaces as the “wettest and greenest of Guatemala’s highlands” due to the persistent misty rains that blanket the surrounding hills and mountains (Stewart 2002).

The ***Department of Alta Verapaz*** includes Coban, which is the capital of Alta Verapaz, and known by many national and international tourists as an “attractive mountain town with good accommodation, coffee houses and restaurants” (Stewart 2002). Coban is also recognized by many travel guidebooks as the tourism hub of the Verapaces because of the built-up tourism infrastructure and the many opportunities for “ecotourism possibilities in the spectacular mountains and rivers nearby” (Stewart 2002). INGUAT, the government tourism agency for Guatemala, also promotes Coban and nearby attractions such as Semuc Champey on a national and international level. This frustrates many tourism stakeholders in Baja Verapaz who claim that one of the only tourism destination heavily promoted by INGUAT in the Verapaces is Coban. The other site that receives some promotion from INGUAT is the Quetzal Biotope Reserve (also known as the Mario Dary Reserve) located in Baja Verapaz.

The ***Department of Baja Verapaz*** includes the many historic and traditional towns of the Salama Valley including San Jeronimo, Salama, San Miguel and Rabinal. Other sites and towns in Baja Verapaz include the Quetzal Biotope Reserve, San Rafael Chilasco which is the jumping off point for excursions into the Sierra de las Minas Biosphere Reserve, and Purulha which is the municipality where Pena del Angel is located. The Department of Baja Verapaz also contains many privately-owned, protected, natural areas with accommodations that are located along the main highway to Coban including Posada Montana del Quetzal, Ram Tzul and Country Delight Inn.

While some of the areas mentioned above like Chilasco, the Quetzal Reserve, and private protected areas are already receiving visitors, some are only attracting very small numbers of national tourists, but have the *potential* to attract national and international visitors. A few of these lesser-known areas I visited worth mentioning that can potentially strengthen regional tourism opportunities include:

- Hacienda de San Jeronimo, colonial aqueducts and Museo Regional del Trapiche in San Jeronimo (interesting museum showcasing a 16th century sugar mill, large hacienda and stone-arched aqueducts managed by Dominican friars);
- Cerro de la Cruz (great perched overlook of Salama Valley), teja construction area (clay roof tiles and brick building area), and interesting desert landscape with cactus in Salama;
- Local Maya women’s artisan and weaving (huipiles) group in Porte Suelo, Purulha;
- Achi Maya traditional villages of San Miguel and San Gabriel; interesting one-lane bridges in San Miguel that are considered cultural patrimones; and
- Achi Maya municipality of Rabinal founded in 1537 by Bartolome de las Casas; good outside market with ethnic foods like pinol and atol blanco, clay pottery studios and carvings made from the arbol del morro (calabash tree) that is sold in most of the souvenir shops in Guatemala.

The ***current level of visitation*** to the sites and towns in Baja Verapaz is generally low with the exception of the Quetzal Biotope Reserve. In general, most of the visitors to attractions in Baja Verapaz are national visitors. According to the Biotope Director, Giovanni Lopez, the percentage of national visitors to the Reserve is 80% vs. 20% international visitors. Furthermore, he mentioned that the level of visitation reached an all-time high of approximately 35,000 annual visitors in the 1990’s but has since dropped to about 21,000 annual visitors in 2003. He couldn’t pinpoint an exact reason for this but did mention the lack of marketing as a possible explanation. He indicated that although INGUAT does some limited

promotion of the Reserve, the majority of visitors who arrive hear about the area by “word-of-mouth”; a small percentage of visitors are also brought to the area as part of a tour package.

The *lack of marketing and promotion* of the Baja Verapaz area was mentioned during discussions with many regional tourism stakeholders including the mayor of Purulha, the director of the Quetzal Biotope Reserve, owners of the Posada Montana del Quetzal and Country Delight Inn, members of Grupo Gesture, and local tourism committees. While there was general agreement among the different stakeholders that tourism should be promoted more in Baja Verapaz, there was also some acknowledgement that the region has to be ready to *receive* visitors with an appropriate amount of infrastructure and visitor services. The statement was made by several stakeholders that if a visitor were to arrive to a town or site (in the Baja Verapaz region) that town or site needs to be able to provide the visitor with good quality service so that they can recommend the experience to others. Since many of the tourism experiences in the Verapaces (and all over the world for that matter) are learned “word-of-mouth”, a series of bad visitor experiences could be devastating to local tourism.

Another issue in particular mentioned by different stakeholders was the absence of a Baja Verapaz-based tour company or agency to bring people to the many different tourism attractions. This limits the services provided to visitors who arrive and are ready and willing to pay somebody to experience other regional sites. As mentioned in the paragraph above, tourism sites must be able to provide visitors with good quality services which in many instances, includes being able to locate someone that can guide and transport visitors to regional tourism sites. Randall Petrie Nanne of Country Delights Inn mentioned his intentions of providing tour services in the near future for Antigua and Baja Verapaz sites including the Quetzal Biotope Reserve, Pena del Angel, San Jeronimo and Rabinal. A local tour operator in Coban (Aventuras Turisticas) also said that if the demand is there that they could arrange transport to local attractions.

There was also general recognition that the tourism attractions in Baja Verapaz are not on the grand scale with famous sites such as Antigua or Tikal. This they realize, but they also realize that the strength of the Verapaces attractions packaged together and offered on a regional scale will do much to increase tourism and local economic development. Some of the common tourism “marketing” strengths mentioned by the different stakeholders emphasized Baja Verapaz as a new tourism alternative for Guatemala that is safe and secure, uncrowded, and relaxing with many opportunities to experience nature and traditional cultures. There is currently some effort being made to unite the different tourism stakeholders and promote the area especially in the Department of Baja Verapaz.

Tourism Promotion Efforts

Current efforts to promote tourism opportunities in Baja Verapaz include an initiative between the four municipalities of Baja Verapaz (Purulha, Salama, San Jeronimo and Rabinal) and the Grupo Gesture in San Jeronimo to open up a small tourism office/welcome center at La Cumbre de Santa Elena (major crossroads area for the Verapaces region along the highway to Coban) and jointly contribute to the salary of one person to work in the office full-time. According to the director of the Grupo Gestor in San Jeronimo, the tourism office will open up in 2 months (July 2004) and display tourism information mostly for the Baja Verapaz region. Another effort to promote tourism in Alta and Baja Verapaz is the annual Verapaces Ecotourism Festival that is held in Coban one year and at a town in Baja Verapaz the next. This year marks the 6th Anniversary of the event and it will be held in San Jeronimo November 5-7, 2004.

There is also an effort being made to specifically promote ecotourism in the biological corridor between Sierra de las Minas and the Quetzal Biotope Reserve. In a conversation I had with the mayor of Purulha, Sebastian Castro Garcia, he announced his intention of allocating space for an ecotourism office in the new municipality building to be opened within the year of 2004. This effort would be coordinated

between the following partners: municipality of Purulha, Grupo Gestor of Purulha, the Pena del Angel Ecotourism Committee and Defensores de la Naturaleza. The purpose of the office would be to have a full-time employee (shared expense) to help develop ecotourism in the area, make necessary contacts with other tourism stakeholders, and research potential grant and loan opportunities to improve basic tourism infrastructure in Purulha and surrounding villages including Pena del Angel.

Key Recommendations:

1. Regional meeting of stakeholders including key tourism operators in Coban and local mayors to discuss a regional tourism strategy. As a result of this meeting, form a taskforce to develop a *Verapaces Tourism Strategy Plan* utilizing the Limits of Acceptable Change (LAC) framework. (See page 16 for more information on the LAC framework.)
2. If a meeting between the two Verapaz departments is not feasible, limit the regional meeting and the regional tourism strategy plan mentioned above in #1 to Baja Verapaz only.
3. Use the 6th Annual Ecotourism Festival in San Jeronimo as the catalyst to unite the different regional tourism stakeholders. Seek assistance from USAID Parks in Peril Program through local partner, Defensores de la Naturaleza to make a presence in this important festival.
4. Encourage Defensores de la Naturaleza to create a *Sierra de Las Minas/Quetzal Biotope Biological Corridor Management Plan*. Since many different land jurisdictions are involved here, this project would call for the input of multiple parties including the municipality of Purulha and affected citizens. A multiparty management plan would encourage the municipality to think about possible land use restrictions through land use planning and zoning strategies on those municipal lands adjacent to protected areas such as Sierra de las Minas B.R. A Biological Corridor Management Plan based on the LAC framework would help address the conservation threats placed on Sierra de las Minas by the current uses of adjacent lands. The management plan would also contain a component on ecotourism development and should include the six ecotourism principles listed on page 14 of this document. The Ecotourism Management Plan for Pena del Angel would ultimately be based on direction given in the Biological Corridor Management Plan
5. Follow through with development of an Ecotourism Office at the Purulha Municipal Building.

ACKNOWLEDGMENTS

This evaluation could not have been possible without the valuable logistical support and professional knowledge provided by FDN Sierra de Las Minas B.R. employees Cesar Tot, Eduardo Mayen and Mauricio Chon. Many thanks also to Igor de la Roca for coordinating this trip from the FDN headquarters in Guatemala City. I would like to particularly thank Eduardo Mayen for helping me understand the current management situation in the Matanzas District of Sierra de Las Minas. A huge amount of gratitude also goes to Mauricio Chon, the FDN resource guard for the Matanzas District, who helped me to understand the management situation from the perspective of the local community.

Many thanks to the Ecotourism Committee of Pena del Angel for showing me their beautiful area and helping me to understand their current living situation. And finally, a big hug and smile to the family of Don Aurelio Gonzalez Lopez in Pena del Angel for making me feel welcome in their home for three nights.

Appendix I: Daily Activities Summary

The evaluation team arrived in Guatemala City late Saturday evening April 24, 2004. This allowed time on Sunday, April 25 for the team to meet and share information and resource materials for the upcoming assignments.

Monday, April 26, began with a breakfast meeting with Igor de la Roca and Herberth Reiche to review the Bocas del Polochic assignment, followed by a second meeting at the FDN office to meet FDN headquarters staff and review the schedule for the Sierra de Las Minas assignment. The Sierra team then departed the city enroute to the Sierra de Las Minas B.R. area. Mr. Anderson was dropped off in San Agustin Acasaguastlan and Mr. Jackson was dropped off in San Jeronimo, Baja Verapaz.

On Tuesday, April 27, Jackson and FDN Matanzas District Coordinator Eduardo Mayen, discussed the project specifics in the morning and then departed for the village of Pena del Angel arriving around 2pm. Mayen, Jackson, FDN resource guard Mauricio Chon, and several members of the Pena del Angel Ecotourism Committee hiked 2km up the main access road to Purulha which has been impassable to vehicles due to road damage. The team discussed the road situation and the challenges of visitor access due to the damaged road. Mayen left for San Jeronimo at around 5pm leaving Jackson at Pena del Angel with Mauricio Chon until the following Friday, April 30. The Ecotourism Committee decided that Chon and Jackson would stay in the house of Aurelio Gonzalez Lopez until April 30.

On Wednesday, April 28, two officers of the Ecotourism Committee (President – Sabino Gonzalez Lopez, 1st Vocal – Edelberto Cruz), Chon and Jackson evaluated the tourism site abandoned by the municipality of Purulha three years earlier. In the morning we talked about the necessary repairs, materials needed, costs, took measurements and then surveyed the area for possible hiking trails for 3-4 hours in the afternoon. There was lots of discussion with Sabino and Edelberto about the community structure and reasons for wanting ecotourism.

On Thursday, April 29, two members of the Ecotourism Committee (Secretary – Victor Lopez and Jose Nery Cho Dubon), Chon and Jackson evaluated the 3km of damaged road between Pena del Angel and Purulha. We hiked the 3km to La Cumbre de Panimaquito and then spent the afternoon looking at potential overlooks, and hiking and birding trail opportunities in the area. There was more discussion about the community structure, outside support for ecotourism, and key stakeholders in the area.

On Friday, April 30, Chon and Jackson met with eight members of the Ecotourism Committee from 8am until noon. Jackson presented a two-hour training session on ecotourism in general, including the definition, guiding principles, potential positive and negative effects and ecotourism project planning. The committee and Jackson also discussed the opportunities and challenges of developing ecotourism at Pena del Angel based on the three-day assessment I made of the area. FDN employee Eduardo Mayen picked us up at around 3pm and we arrived back in San Jeronimo at around 6pm.

On Saturday, May 1, Mayen and Jackson visited several regional tourism opportunities in the communities of San Jeronimo, Salama, San Miguel, San Gabriel and Rabinal. In the evening, Mayen, Arden Anderson and Cesar Tot, Director of Sierra de Las Minas Biosphere Reserve, arrived in San Jeronimo where we had dinner together and discussed the changes to the agenda for the upcoming week.

On Sunday, May 2, Mayen, Anderson, Tot and Jackson had breakfast together and discussed further the agenda for the upcoming week and talked about the ecotourism projects at Sierra de las Minas B.R. After breakfast, Mayen, Anderson and Jackson met with Mario Lemus, owner of Posada Montana del Quetzal,

a private protected area with lodging and conference accommodations. Mayen, Anderson and Jackson then headed north to Coban where we met with Tot for lunch and discussed further the ecotourism projects at Sierra de las Minas B.R. After lunch, Mayen, Anderson and Jackson met with Randall Petrie Nanne, owner of Country Delights Inn, another private protected area with lodging accommodation. We returned to San Jeronimo in the evening.

On Monday, May 3, Mayen, Anderson and Jackson met with the Director of the Museo Regional del Trapiche in San Jeronimo who is also with the local Grupo Gestor of San Jeronimo. After this, we met with Raul Fernandez, Director of the Salama Tourism Committee. After lunch, Mayen took Anderson to Chilasco for his field visit there and Jackson stayed at the hotel in San Jeronimo to write notes and catch up with paperwork.

On Tuesday, May 4, Mayen dropped Jackson off in Purulha in the morning for a meeting with the mayor of Purulha, Sebastian Castro Garcia. Jackson then met up with Mauricio Chon, FDN resource guard for the Matanzas District, and visited several local tourism attractions in the Purulha area including Cueva de Chicoy, a local women's huipil weaving group, and the Quetzal Biotope Reserve. At the Quetzal Biotope Reserve Jackson and Chon met with Giovanni Lopez, Director of the Biotope. That evening Anderson and Jackson worked on the preparation for the Ecotourism Guides Training Course they were scheduled to give on Thursday, May 6.

On Wednesday, May 5, Jackson and Anderson worked the entire day at the hotel in San Jeronimo in preparation for the Ecotourism Guides Training Course to be given the following day to 15 guides from Pena del Angel, Chilasco and Albores.

On Thursday, May 6, Jackson and Anderson trained 15 guides in the following ecotourism themes: conservation issues and problems, ecotourism, guide preparation, visitor services, basic environmental interpretation and resource protection. The Training Course started at 9am and lasted until 1pm. After lunch with the entire group, Mayen, Jackson, Anderson and several others left San Jeronimo for the capital, Guatemala City. That evening Jackson worked on the Pena del Angel summary presentation for the USAID and FDN meeting the following day at USAID headquarters.

On Friday, May 7, the four-member DOI team and FDN employees Igor de la Roca, Cesar Tot and Herberth Reiche met with USAID staff Anne Dix, Mario Aragon and Carey Yeager. The meeting at USAID headquarters in Guatemala City lasted from 9:30 am to 11:30 am, approximately. In the afternoon Jackson worked on the final ecotourism evaluation report for Pena del Angel.

On Saturday, May 8, the four-member DOI team returned to the USA.

Appendix II: References

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APPENDIX III: Materials Provided to FDN staff

The following materials were provided to Eduardo Mayen, FDN Matanzas District Coordinator:

Brochu, Lisa, and Tim Merriman. 2002. Interpretacion Personal: Conectando su Audiencia con los Recursos Patrimoniales. InterpPress Publications.

Lechner, Larry. 2004. Planificación, Construcción y Operación de Senderos en Áreas Protegidas.

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APPENDIX V: DOI-ITAPS Project Follow-up

There are many opportunities to utilize DOI-ITAPS expertise to provide continuation to the recommendations outlined in this report. These opportunities include the following:

- Provide road design recommendations and/or road repair project oversight to the municipality of Purulha to improve the farm-to-market access road between Purulha and Pena del Angel.
- Prepare or assist in the creation of an **Ecotourism Management Plan** for Pena del Angel utilizing the LAC framework
- Prepare or assist in the creation of a **Business and Training Plan** for the Ecotourism Center and Ecotourism Committee of Pena del Angel.
- Prepare or assist in the creation of the **Sierra de Las Minas/Quetzal Biotope Biological Corridor Management Plan** utilizing the LAC framework.
- Prepare or assist in the creation of a **Tourism Strategy Plan for Las Verapaces** utilizing LAC.
- Provide specific trail layout design specifications and trails construction and maintenance training for the trails mentioned on page 10 of this document.
- Provide an extended ecotourism guide training including components on environmental interpretation, trail design and maintenance and visitor services.

APPENDIX VI: Photo Journal

**DOI-ITAPS Ecotourism Evaluation Photo journal of Pena del Angel site
April 24 – May 8, 2004**



1. View of the Panima River Valley from a potential lookout near La Cumbre de Panimaquito. The village of Pena del Angel is located at the head of this valley.



2. View of the Panima River as seen from the Pena del Angel Ecotourism Center.



3. View of Pena del Angel canyon as seen from potential trail destination and “Big Rock” lookout. The ecotourism center is at the base of the canyon.

4. Cabana Pequena at Pena del Angel Ecotourism Center





5. Inside view of cabana grande, most wood and tile in good shape. Notice the good condition of the blonde “hormigo” wood compared to the darker “palo de sangre” wood on the left side of picture.



6. Part of the 3 km of bad road between Pena del Angel and Purulha. This section of road has been impassable by vehicles for the past 3 years due to frequent erosion problems caused by bad road location and inadequate maintenance.



7. A view of the 70-year old wood bridge as seen from the Ecotourism Center along the Panima River.



8. Members of the Pena del Angel Ecotourism Committee, except for the guy in the red shirt on the left, that's me.