



Darwin Initiative Annual Report



Darwin Project Information

Project Ref Number	EIDPO033
Project Title	Integrating local communities and science: management of La Amistad (Costa Rica-Panama)
Country(ies)	Costa Rica, Panama
UK Contract Holder Institution	Natural History Museum, London
Host country Partner Institution(s)	Instituto Nacional de Biodiversidad de Costa Rica (INBio)
Other Partner Institution(s)	The Nature Conservancy (TNC) Bribri Community (Costa Rica) Bribri Community (Panama) Cabecar Community (Costa Rica) Kekoldi Community (Costa Rica) Universidad de Costa Rica (UCR) Autoridad Nacional del Ambiente de Panamá (ANAM) Sistemanacional de áreas de conservación de Costa Rica (SINAC) Universidad Autónoma de Chiriquí (UNACHI)
Darwin Grant Value	£90,999
Start/End dates of Project	1st September 2009 to July 31 2011
Reporting period (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	1 st September 2009 to 30 st April 2010 AR1
Project Leader Name	Alex Monro
Project website	http://www.inbio.ac.cr/pila-darwin/paginas/avances/extension.html
Author(s) and main contributors, date	Frank González, Alex Monro, Oscar Chacón, Jorge Cole, Vilma Obando, Yesenia Villalobos. April 30, 2010.

1. Project Background

PILA is a UNESCO world heritage site of 4,000 km² of tropical moist, premontane, montane, cloud forest and paramo vegetation straddling Costa Rica and Panama. It is managed by a Binational Commission and surrounded by a buffer-zone in which local communities live and through which entry to the park is mediated. The original Darwin project found evidence of hunting and agricultural incursions (field observations, remote-sensed data). Currently of low to moderate impact these are chronic and an indication of the local communities in the buffer-zone's struggle for economic survival. Two future risks also became apparent: the planned construction of up to five hydroelectric plants outside of the buffer-zone, and the impacts of climate change on the high elevation (3000 m+) areas of the park. In 2008 UNESCO considered the designation of PILA as a Park in Peril. A UNESCO fact-finding mission reported in 2009 that PILA lacked a coherent management plan and that indigenous and non-indigenous stakeholders were not sufficiently involved in the management of the Park. This project seeks to address the above by using the tools generated as part of project 15-027 and working with the Binational Commission responsible for the management of PILA.

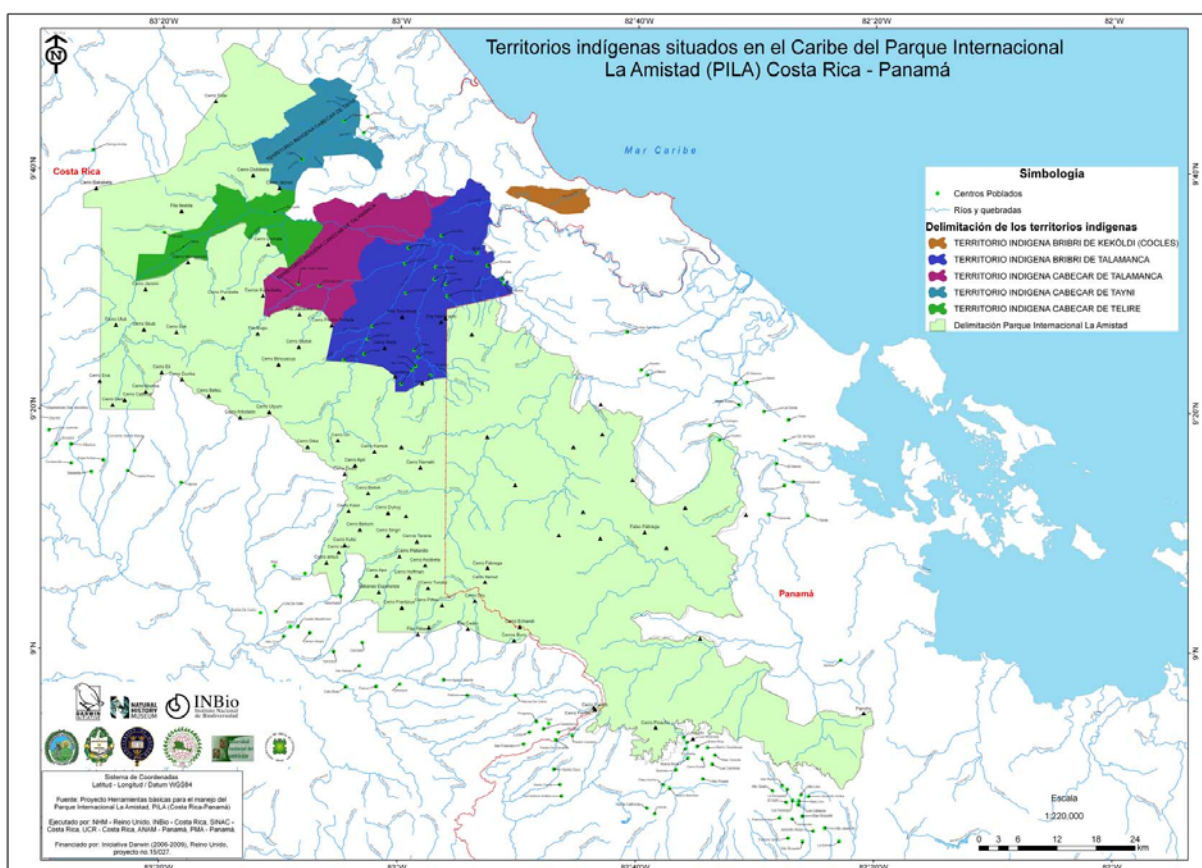


Fig. 1. Caribbean communities in PILA's buffer zone participating in training courses (grey blue, green, purple, dark blue).

2. Project Partnerships

INBio: Coordinates activities with and between the other partners in Costa Rica and Panama. Substantial negotiation over several months was required with our partner communities. Although this was initially brokered by TNC, the Directors of INBio were crucial in hosting a visit by community leaders in November 2009.

TNC: TNC, together with Carlos Borge a Costa Rican anthropologist brokered our initial contact with the Bribri community through their regional headquarters at Shiroles in Costa Rica. Through this community we were able to broker agreements with the Cabecar, Yorkín-Guabo

and Kekoldi communities. TNC are also providing matching funds to support a suite of training modules to be held in the second year of the project. Their participation, in particular by Jorge Cole has been invaluable, facilitating consultation processes and identifying the appropriate channels for negotiation.

Bribri community (Costa Rica): Asociación de desarrollo del Territorio Indígena Bribri (ADITIBRI) the Bribri government represents 12 of the communities included in this project and has provided diplomatic support for our negotiation with our other indigenous collaborators and is allowing us to use the infrastructure present at Shiroles, the Bribri 'capital' for the teaching of all of the course modules. Eighteen members of these communities were selected to participate in the course. Three course modules have already been taught there to date. ADITIBRI is aware of the importance of maintaining strategic alliances with other indigenous groups in the territory and it is this which enabled us to include students from these communities in the training programme.

Bribri Community (Panamá): Asociación Unión Guabo-Dacle Bribri-Panamá (ASOGUADABRI), which represents the El Guabo community selected one participant from communities in Costa Rica and Panama.

Cabecar community: Cabecar have strong historical and cultural links with the Bribri community. The Cabecar government which represents the Gavilán Canta selected four candidates to participate in the training courses.

Kekoldi community: Asociación de Desarrollo Integral Kekoldi (ADIKEKOLDI), selected one participant.

ANAM- Chiriquí: Provided the logistic support for identifying key-sites for foot patrols of the Panamanian PILA border that will be used to assess border integrity.

SINAC: SINAC has facilitated negotiations between the project and the Binational Commission. They have also processed the research permits for the fieldwork.

UCR: The University of Costa Rica is providing the herpetological component of the training course in the form of Eduardo Boza.

UNACHI: The participation of this institution is expected for specific activities that would be executed in the next months.

3. Project progress

3.1 Progress in carrying out project activities

Activity: Assessment of the main threats to PILA undertaken in consultation with local communities, park authorities, national governments and NGOs

Indicator: Local community awareness of the biodiversity value of PILA and its buffer zone assessed through workshops at the beginning and end of the project.

How threats are being identified

Threats are being identified through workshops with indigenous groups, indigenous group own assessments of risks, consultation with TNC, ANAM and SINAC together with field observations and the analysis of remote sensed data. To date we have undertaken consultations with indigenous communities, TNC, ANAM and SINAC. Consultation with indigenous groups began with the first post project workshop between INBio, TNC and the indigenous organizations ADITIBRI and ASOGUADABRI was conducted on November 26 and 27, 2009.

Threats identified

Bribri and Cabecares jointly proposed a management plan for the indigenous territories in Talamanca which includes PILA and its Caribbean buffer zone. This proposal included a comprehensive list of threats: agricultural encroachment; the presence of non-indigenous people practicing unsustainable agriculture; the lack of coordination between development

projects in the area; the constant pressure on the Park's natural resources by external and international agents; the lack of participation of local communities in the management of PILA; the lack of an integrated strategy for the protection of PILA; the deterioration of the standard of living of indigenous communities; and little coordination of binational actions for the protection and development of local communities and PILA. At the project workshop ADITIBRI and ASOGUADABRI identified hunting, deforestation for timber and mining as the main risks to PILA and its buffer zone. Mining has also been identified as a risk by TNC. ANAM identified hunting and deforestation together with the absence of sustainable economic development for agriculture as risks.

Activity: Assessment of the integrity of the buffer zone and border of PILA based on patrols and remote sensed satellite data.

Indicator: Change to buffer zone vegetation cover and PILA border based on a comparison of a ground survey and remote sensing to the baseline produced by the main project.

Methodology

Changes in land use will be measured using a synthesis of remote sensed data, grey-literature review for PILA and fieldwork. Activities are divided into three phases.

- Phase 1: the selection of the optimal remote sensed data from SPOT, ASTER and LANDSAT with the requirement that images have less than 20% cloud cover, that 5 years of images can be obtained and that the spectral resolution is sufficient to generate 10 classes; 2) patrols of the border of PILA with its buffer zone using and ground-truthing the preliminary analyses of the remote-sensed data. Sites to patrol will be jointly selected by ASOGUADABRI, ADITIBRI, the project team, ANAM and SINAC.
- Phase 2: processing of remote sensed data to highlight pasture and deforested land cover. This is to be achieved by optimising the contrast of the images by applying a radiometric treatment and by highlighting spectral bands commonly associated with agriculture e.g. those associated with exposed soil. By comparing images over several years we will be able to identify which biodiversity zones are most vulnerable, also which of the threats identified are increasing most rapidly.
- Phase 3: undertake supervised classification of remote sensed data integrating ground-truthed observations from buffer zone patrols. This will provide an indication of the interpretative value of the remote-sensed data and should help inform supervised classifications which seek to distinguish between natural and human disturbance.

Activity: Training courses in providing guide services and participatory biodiversity inventories (leading to national accreditation).

Indicator: Training course provision will be assessed by the course coordinator and the participants themselves following each course, course quality will be ensured by the national accrediting authority.

One of the most important decisions made has been to focus the training component of the project on the indigenous communities whose territories make up the majority of the Caribbean sector of PILA. This required a substantial amount of negotiation and consultation. Indigenous communities have experience of working with TNC but were initially wary of working with INBio because of its involvement in Bio prospecting and remain suspicious of SINAC because of its dependency on MINAE the Costa Rica Government Ministry believed to be considering legalising mining activities in PILA or its buffer zone. The original model for our training programme was based on a pre-existing TNC-INBio-SINAC training programme that had worked well with 'colonial' communities in the Pacific sector of PILA. During the initial consultation, discussion and planning phase of this post-project it became clear that the languages and culture of indigenous communities is very different to those of 'colonials' and that a joint training programme would not be possible. Since a model already exists for working with colonial communities and the buffer zone of the Caribbean sector of PILA is dominated by indigenous communities it was decided to focus the training with indigenous communities. The

course structure and delivery were therefore substantially modified to accommodate the needs of the participants. The course covers nineteen modules and includes the incorporation of a 'Regional Culture' module whose design was assisted by input from anthropologist Carlos Borges, TNC representative Jorge Cole and ADITIBRI. The module was jointly executed by INBio project staff and community Elders. The inclusion of this module is key to the success of this course as indigenous culture is closely associated with the natural world and PILA. For example, all citizens belong to a clan which is associated with an animal or locality within PILA meaning that personal identity is directly linked with the Park and its biodiversity. Refreshing this awareness provides a link that interconnects subsequent course modules but also participants to the course and its ultimate objective.

Modules undertaken during the reporting period include Regional Culture module, the Environmental Interpretation and the Natural History of Plants which involved the participation of indigenous experts in traditional Bribri medicine.

Selection of course participants.

Together with ADITIBRI the INBio team defined the criteria for the selection of course participants. Criteria were that potential participants had to be a member of an indigenous community and resident within a community territory. Participants did not need to have completed the minimum certificate of education for Costa Rica but did need to be able to read and write. They also needed to have at least intermediate level Spanish and be fluent in either Bribri or Cabecar and be available for the course dates (Thursday to Sunday). The course dates were decided by ADITIBRI and reflect the fact that participants need to tend their crops during the week.

Course evaluation.

The course program and modules are being evaluated by the students themselves. Evaluations of the participants by the INBio through an informal exam is undertaken for each module

3.2 Progress towards Project Outputs

Outputs	Measurable indicators	Important assumptions
1. Main risks to the biodiversity and livelihood value of PILA identified and plans to mitigate those risks in place.	A report and action plan submitted to the Binational Commission and agreed.	Threats to the biodiversity and livelihood value of PILA identified as part of the original project are real That the sustainability of PILA depends on the local communities living in the buffer zone surrounding the park
2. Local communities' capacity to generate livelihoods from the park improved by providing them with the capacity to work as guides or parataxonomists for ecotourists, park authorities and researchers improved.	32 members from 4 communities trained and given accreditation guides Over half of the local communities within the buffer zone surrounding PILA are obtaining revenue by acting as guides with PILA Number of tourists that use PILA has increased by 1/3	Ecotourism in PILA will continue to grow as it has over the last three years. That PILA represents a valuable resource to local communities and one which can be used sustainably or not
3. Local communities' awareness of the national, regional and global biodiversity value of PILA and its buffer zone increased.	Local communities perceptions of PILA's biodiversity value assessed prior and subsequent to training.	Local communities recognise buffer zone as important to ensuring PILA's survival Local communities understand the national, regional and global importance of biodiversity and ecosystem services

4. Revised management plan for PILA, which recognises the central role of local communities and includes an action plan for the mitigation of the main risks to PILA implemented.	Revised management plan agreed by the Binational Commission.	Binational Commission continues to be the main vehicle for the transnational management of PILA All Binational Commission members continue to be project partners or associates
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1. Main risks to the biodiversity and livelihood value of PILA identified and plans to mitigate those risks in place.

In August 2009 at a meeting with ADITIBRI in Shiroles the Bribri community identified what they saw as the main risks to PILA in published(?) proposal for the management of PILA. This identified a number of threats relating to the governance of PILA as identified above which included the composition of the Binational Commission, a lack of consultation with indigenous communities and a lack of coordination of development projects in the area. One material threat identified is the alleged issuing of an exploration licence in PILA to look for mineral deposits. The location of this concession is believed to include a number of 'sacred grounds' and the granting of such a license is deeply unpopular with the indigenous communities on cultural and environmental grounds. Including indigenous community representatives in the Binational Commission and using the biodiversity zone map to provide data on the biodiversity resource at these sites should provide a basis for mitigating these threats.

2. Local communities capacity to generate livelihoods from the park improved by providing them with the capacity to work as guides or parataxonomists for ecotourists, park authorities and researchers improved.

24 people from 14 communities from the four main indigenous groups were selected to be trained as local tourist guides. The original proposal was to train a total of 32 community members. This number was reduced to 24 because of the difficulty of obtaining participants who would be willing and able to commit to the duration of the training course.

Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Year 1 Total	Year 2 Total	Number planned for this reporting period	Total planned from application
6A	32 people was the number of slots offered for participants, but only 24 people was able to participate in the local guide training program, Despite the tremendous effort made by ADITIBRI supporting the recruiting.	24		24	32
6B	Number of training weeks to be provided	3		3	12
7	One manual was prepared for one of each taught course: Regional culture, Environmental interpretation and Natural History of plants (See annex 4-6).	3		3	10
8	Alex Monro visited CR during a week, for participate to the first fieldtrip for assessment the PILA buffer zone and the border, in the Rio Bananito basin in march, 2010.	8		8	16

9	Activities for achieve this output are being executed: - 1 fieldtrip to PILA buffer zone and border) - participation in the last 2 meetings of the PILA's Binational Comission, in order to consider the impact of the project over the PILA's Plan of management.	1		1	1
10	"El policultivo indígena de talamanca y la conservación de la naturaleza" By the antropologist Carlos Borge, its production was supported by TNC is a work that going to be printed by Editorial INBio as a product generated by the project	1		1	0
11B	Number of papers to be submitted to peer reviewed journals	0		1	1
14A	First workshop in november 26 th 27 th in INBio with partiicipation of INBio, TNC, ADITIBRI and ASOQUADABRI	3		3	6
14B	Frank González participated in the second Darwin Initiative Regional Workshop in Rio de Janeiro, Brazil; November, 2009, introducing the post-project.	1		1	2
15A	The Costa Rican daily Newspaper La Nación is preparing an article about the most relevant activities of the project, which should be published in may, 2010	0		0	1
15B	Number of local press releases in host country(ies)	0		0	3
16A	Number of newsletters to be produced	0		0	6
16B	Estimated circulation of each newsletter in the host country(ies)	0		0	36
16C	Estimated circulation of each newsletter in the UK	0		0	12
17A	Number of dissemination networks to be established	1		0	1
17B	Number of dissemination networks to be enhanced/ extended	1		1	3
New-project specific measures					

Table 2 Publications

Type (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £
NA	NA	NA	NA	NA

3.3 Progress towards the project purpose and outcomes

24 people from the Bribri and Cabecar indigenous communities from the Caribbean region of Costa Rica and Panama are being trained as local guides, all of them with the possibility of being certified by the national tourism authorities. In addition, developing parataxonomist skills among the participants will help with the activities of monitoring and assessment of PILA and its buffer zone using the information developed as baseline for the main project.

3.4 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

The most important aspect to evaluate, in order to understand the impact of the project in relation to biodiversity of PILA, is the opportunity for to show to this communities the alternatives they have for obtain benefits directly from the natural resources that they have in this protected area and its buffer zone, wich belong to them, and the role they play obtaining benefits from PILA in a sustainable way toward to maintain the same benefits for the future generations.

4. Monitoring, evaluation and lessons

Communication between INBio, the Natural History Museum and other stakeholders has improved compared to the original project. Lessons learned about communication, and dealing with the different cultures in the three collaborating countries countries has been an important part of this.

5. Actions taken in response to previous reviews (if applicable)

NA

6. Other comments on progress not covered elsewhere

This project is building on efforts that TNC has been making for several years with respect to the integration of local communities into a network with a shared agenda decision-making apparatus. The lack of integration of local communities in the management of PILA has been identified as a risk to PILA by UNESCO, TNC and this project. One way of encouraging such integration is the establishment of a unified vision amongst at least the indigenous communities so that the Binational Commission receives unambiguous input from these communities. The training course and extensive discussion and negotiation which have preceded have gone some way to developing such a network. .

7. Sustainability

NA

8. Dissemination

Information about the post-project is being published in the project's website (<http://www.inbio.ac.cr/pila-darwin/paginas/avances/extension.html>). Also, all the data generated during the first field expedition for the assessment of key-sites of the Pila border and buffer zone are being process for free access on the web.

9. Project Expenditure

Table 3 Project expenditure during the reporting period (Defra Financial Year 1 September 2009 to 31 March 2010)

10. **OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes.**

The inclusion of indigenous groups in the project has been a major achievement as it signifies the establishment of a relationship between the main resource of biodiversity data and taxonomic knowledge and the main users of biodiversity and stewards of PILA. Establishing this relationship was not easy and required a considerable amount of time and negotiation at the highest levels within the indigenous Governments and INBio. Jorge Cole of TNC believes that because of the close relationship between the natural world and Bribris-Cabecar culture that these training courses are having a profound impact on these communities.

I agree for LTS and the Darwin Secretariat to publish the content of this section.

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2008/09

Project summary	Measurable Indicators	Progress and Achievements April 2009 - March 2010	Actions required/planned for next period
<p>Goal: Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>		<p>This project is attempting to consolidate the efforts that for several years TNC has been doing regarding the integration of local actors in a network with a common agenda that allowing them to make decisions impacting and generating positive actions towards a comprehensive management of their territories. This would allow the impact of threats to the park is minor and resolved in the best way.</p>	<p><i>(do not fill not applicable)</i></p>
<p>Purpose To increase the capacity and ability of local communities to use PILA in a sustainable manner whilst ensuring that the central role played by local communities in PILA's continued survival is recognised by national and binational authorities.</p>	<p>Majority of local communities able to increase their revenue through the provision of local guides.</p> <p>The management plan for PILA explicitly recognises the central role played by local communities in the park's survival is operational.</p>	<p>With 24 people selected, 15 local communities from the PILA buffer zone are represented into the local guide training course.</p>	<p>3-4 People from the course will be selected to participate as a parataxonomists, collaborating with the scientists in the field with the activities for the assessment of Pila buffer zone and the border.</p> <p>Participation of communities in the meetings of the PILA's binational commission</p>
<p>Outputs 1. Main risks to the biodiversity and livelihood value of PILA identified and plans to mitigate those risks in place.</p>	<p>A report and action plan submitted to the Binational Commission and agreed.</p>	<p>Activities</p>	
<p>Activity 1.1 Assessment of the main threats to PILA undertaken in consultation with local communities, park authorities, national governments and NGOs</p>		<p>Participation of Frank González and Nelson Zamora from INBio in the last 2 meetings of the Binational Commission, in order to assist in decisions in matters related to determine the main threats to the park and the situation of PILA to UNESCO.</p> <p>1 workshop with ADITIBRI and ASOGUADABRI for consultation about the main threats identified by the local communities.</p>	
<p>Activity 1.2 Assessment of the integrity of the buffer zone and border of PILA based on patrols and remote sensed satellite data</p>		<p>1 expedition for the assessment of the PILA buffer zone in the area of Río Bananito basin.</p>	

Project summary	Measurable Indicators	Progress and Achievements April 2009 - March 2010	Actions required/planned for next period
		A group of participants from INBio, ANAM, universities and people from local communities being trained is being selected to participate of the second fieldtrip for the patrol of the PILA border in July, 2010.	
Activity 1.3 Establish an action plan to mitigate the threats identified through actions 1.1 and 1.2 and as part of the main project.		NA	
Output 2. Local communities' capacity to generate livelihoods from the park improved by providing them with the capacity to work as guides or parataxonomists for ecotourists, park authorities and researchers improved.	32 members from 4 communities trained and given accreditation guides Over half of the local communities within the buffer zone surrounding PILA are obtaining revenue by acting as guides with PILA Number of tourists that use PILA has increased by 1/3	24 people of 15 communities from the 4 indigenous groups in the Caribbean of PILA buffer zone are being trained as local guides, learning techniques for help with the biodiversity monitoring activities, continuing with the activities developed as a baseline for the main project. NA	
Activity 2.1. Training courses in providing guide services and participatory biodiversity inventories (leading to national accreditation)		Outstanding students in the course are being selected as part of the team to participate in the patrol and surveillance in the buffer zone and its border. Such persons shall be selected by the INBio, in collaboration with ADITIBRI and ASOQUADABRI, especially given the expectations of these organizations concerning the people they want to choose.	
Output 3. Local communities' awareness of the national, regional and global biodiversity value of PILA and its buffer zone increased.	Local communities' perceptions of PILA's biodiversity value assessed prior and subsequent to training.	Training activities has been developed attempting to create awareness about the PILA's biodiversity value.	
Activity 3.1 Public awareness and dissemination activities to raise awareness within the local communities of the national, regional and global biodiversity value of PILA and their buffer zone		NA	
Output 4. Revised management plan for PILA, which recognises the central role of local communities and includes an action plan for the mitigation of the main risks to PILA implemented.	Revised management plan agreed by the Binational Commission.	NA	
Activity 4.1 Action plan (1.3 above) incorporated into the PILA Management Plan through consultation and workshops with the Binational Commission		NA	
Activity 4.2 The central role of local communities in the sustainable use and survival of PILA to be clearly stated in the PILA Management Plan and representatives of local community associations to be given membership of the Binational Commission		NA	

Annex 2 Project's full current log frame

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal:</p> <p>Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>			
<p>Sub-Goal:</p> <p>To ensure that the biodiversity and livelihood value of PILA's forests continues to be well conserved and sustainably used by the local communities that live within PILA's buffer zone.</p>	<p>Land patrols and satellite data confirm that the buffer zone and border of PILA are maintained.</p> <p>The management plan of PILA recognises the central role of local communities and the need for sound scientific knowledge to underpin decision-making.</p>	<p>Data submitted to the Binational Commission and included in the minutes of the Commission meetings.</p> <p>Data published online and where appropriate in a peer-reviewed publication in Costa Rica or Panama.</p> <p>A revised management plan is published by the Binational Commission in which the role of local communities and scientific data is explicitly stated.</p>	
<p>Purpose</p> <p>To increase the capacity and ability of local communities to use PILA in a sustainable manner whilst ensuring that the central role played by local communities in PILA's continued survival is recognised by national and binational authorities.</p>	<p>Majority of local communities able to increase their revenue through the provision of local guides.</p> <p>The management plan for PILA explicitly recognises the central role played by local communities in the park's survival is operational.</p>	<p>Number of guide-days in year following training included in DI annual report.</p> <p>Management plan published and available online.</p>	<p>The way in which local communities use PILA plays a determining role in the Park's survival</p> <p>That local communities have a central role to play in PILA's management</p>

<p>Outputs</p> <p>1. Main risks to the biodiversity and livelihood value of PILA identified and plans to mitigate those risks in place.</p>	<p>A report and action plan submitted to the Binational Commission and agreed.</p>	<p>Report published online and included in Annual Report</p>	<p>Threats to the biodiversity and livelihood value of PILA identified as part of the original project are real</p> <p>That the sustainability of PILA depends on the local communities living in the buffer zone surrounding the park</p>
<p>2. Local communities' capacity to generate livelihoods from the park improved by providing them with the capacity to work as guides or parataxonomists for ecotourists, park authorities and researchers improved.</p>	<p>32 members from 4 communities trained and given accreditation guides</p> <p>Over half of the local communities within the buffer zone surrounding PILA are obtaining revenue by acting as guides with PILA</p> <p>Number of tourists that use PILA has increased by 1/3</p>	<p>1a Training workshop reports and evaluation</p> <p>1b Report and evaluation summary by project coordinator</p>	<p>Ecotourism in PILA will continue to grow as it has over the last three years.</p> <p>That PILA represents a valuable resource to local communities and one which can be used sustainably or not</p>
<p>3. Local communities' awareness of the national, regional and global biodiversity value of PILA and its buffer zone increased.</p>	<p>Local communities' perceptions of PILA's biodiversity value assessed prior and subsequent to training.</p>	<p>1a report of assessment produced</p>	<p>Local communities recognise buffer zone as important to ensuring PILA's survival</p> <p>Local communities understand the national, regional and global importance of biodiversity and ecosystem services</p>
<p>4. Revised management plan for PILA, which recognises the central role of local communities and includes an action plan for the mitigation of the main risks to PILA implemented.</p>	<p>Revised management plan agreed by the Binational Commission.</p>	<p>Revised management plan available online and appended to final report.</p>	<p>Binational Commission continues to be the main vehicle for the transnational management of PILA</p> <p>All Binational Commission members continue to be project partners or associates</p>

Activities (details in work plan)

1.1 Assessment of the main threats to PILA undertaken in consultation with local communities, park authorities, national governments and NGOs

1.2 Assessment of the integrity of the buffer zone and border of PILA based on patrols and remote sensed satellite data

1.3 Establish an action plan to mitigate the threats identified through actions 1.1 and 1.2 and as part of the main project

2.1 Training courses in providing guide services and participatory biodiversity inventories (leading to national accreditation)

3.1 Public awareness and dissemination activities to raise awareness within the local communities of the national, regional and global biodiversity value of PILA and their buffer zone

4.1 Action plan (1.3 above) incorporated into the PILA Management Plan through consultation and workshops with the Binational Commission

4.2 The central role of local communities in the sustainable use and survival of PILA to be clearly stated in the PILA Management Plan and representatives of local community associations to be given membership of the Binational Commission

Monitoring activities:

Indicator 1: Change to buffer zone vegetation cover and PILA border based on a comparison of a ground survey and remote sensing to the baseline produced by the main project

Indicator 2: Training course provision will be assessed by the course coordinator and the participants themselves following each course, course quality will be ensured by the national accrediting authority

Indicator 3: Local community awareness of the biodiversity value of PILA and its buffer zone assessed through workshops at the beginning and end of the project

Indicator 4: Regular reports and updates will be made to the Binational Commission and all Commission meetings will be represented by the project

Annex 3 Course modules and dates

Module	Number of accredited hours	Sequence	Planned dates
Regional culture	30	1	March 18-21.
Environmental interpretation, part 1	10	2	March 26-27.
Botany	46/92	3	April 7-10, 15-18, 22-25, 28-30
Ornithology	50/69	4	May 13-16, 20-23, 27-30.
Mammals	42	5	June 3-5, 10-12.
Herpetology	42/72	6	June 17-19, 24-26. July 1-3.
Entomology	42/66	7	July 15-17, 22-24, 29-31. August 5-7.
Fungi and lichens	29	8	August 19-22.
Monitoring biodiversity	16	9	August 26-28.
Conservation biology	16/20	10	September 9-11.
Environmental interpretation part II	10	11	September 16-18.
Fundamentals of tourism	32	12	September 23-25.
Legislation related to tourism	30	13	October 7-9, 14-16.
Sustainable rural tourism	24	14	October 21-24.
Tour guide ethics	12	15	October 29-30.
Guiding tourists	20	16	November 4-7.
Geography of tourism	18	17	November 11-13.
Cultural heritage and folklore	46	18	November 18-21, 26-27.
First aid	32	19	2011 January 14-17, 21-23.

Annex 4 Course participants

PARTICIPANTS
Andy Gabb Rojas
Angel David Morales Fernández
Chepita Sánchez Morales
Daisy Nineth Fernández Morales
Dalila Díaz Mayorga
Edder Morales Torres
Edeline Gallardo Figueroa
Emmanuel Buitrago Páez
Enel Graciano Morales Meneses
Ever Miranda Romero
Gerardina Mayela Gallardo Ramírez
German Ulises Morales Morales
Héctor Canto Stuart
Jeremías Morales Aguirre
Jesús Bernardo Mora Sánchez
Junior Stemart Mayorga
Juradir Villanueva Díaz
Kathia Espinoza Díaz
Marcos Arturo Mora Torres
Neal Constantino Gabb Rojas
Prudencio Piterson Blanco
Rafael Angel Caravaca Selles
Róger Alberto Blanco Pais
Roldán Ellis Ellis
Sheyka Yuriani Carabaca Carabaca
Sobeida María Morales Morales
Virginio Morales Torres
Yorleny García García

Annex 5 Images from course modules 1-3



Plant natural history module



Plant natural history module



Classroom facilities provided by ADITIBRI at Shiroles

Annex 6 Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line	yes
Is your report more than 5MB? If so, please advise Darwin-Projects@ltsi.co.uk that the report will be send by post on CD putting	
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Much of the supporting documentation is in Spanish and so has not been submitted. It can, however, be submitted on request.
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number	
Have you involved your partners in preparation of the report and named the main contributors	Yes, they have produced the first drafts of this
Have you completed the Project Expenditure table fully?	Copied from Q4
Do not include claim forms or other communications with this report.	