

# GREATER MADIDI-TAMBOPATA LANDSCAPE: GOVERNANCE FOR ADAPTIVE MANAGEMENT AND SUSTAINABLE LIVELIHOODS ACROSS NATIONAL BOUNDARIES



Workshop on Life Plan in Copacabana de Antaquilla

Photo: Oscar Loayza/WCS

Scaling up Conservation Success with SCAPES  
A Program of the Wildlife Conservation Society  
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**Abbreviations**

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| AIDER     | Asociación para la Investigación y Desarrollo Integral<br>(Association for Integral Research and Development)  |
| ANMI(N)   | Área Natural de Manejo Integrado (Nacional)<br>([National] Natural Area of Integrated Management)  |
| APIAT     | Asociación de Pequeños Industriales Agroforestales Tumupasa<br>(Association of Tumupasa Small Agro-Forestry Industries)                                      |
| BSNP      | Bahuaja Sonene National Park   |
| CCBA      | Climate, Community and Biodiversity Alliance   |
| CIDOB     | Confederación de Pueblos Indígenas de Bolivia<br>(Confederation of Indigenous Peoples of Bolivia)  |
| CIMTA     | Consejo Indígena de Mujeres Takana (Takana Indigenous Women's Council)   |
| CIPTA     | Consejo Indígena del Pueblo Takana<br>(Takana Indigenous People's Council, Bolivia)  |
| CMPPC     | Conferencia Mundial de los Pueblos sobre el Cambio Climático<br>(Global People's Conference on Climate Change)   |
| CPILAP    | Central de Pueblos Indígenas de La Paz<br>(Confederation of Indigenous Peoples of La Paz)  |
| CRTM      | Consejo Regional Tsimane' Mosekene<br>(Tsimane' Mosekene Regional Council)   |
| CS-NY     | Conservation Support-New York  |
| DGBAP     | Dirección General de Biodiversidad y Área Protegidas<br>(General Biodiversity and Protected Areas Directorate)   |
| FUNDESANP | Fundación para el Desarrollo del Sistema Nacional de Áreas Protegidas<br>(Foundation for the Development of the National System of Protected Areas, Bolivia) |
| FY10      | (USAID) Fiscal Year 2010 (October 1, 2009 – September 30, 2010)  |
| GCP       | Global Conservation Program  |
| GIS       | Geographic Information System  |
| LLP       | Living Landscapes Program  |
| MSC       | Most Significant Change (monitoring and evaluation technique)  |
| NGO       | Non-Governmental Organization  |
| PNANMI    | Parque Nacional y Área Natural de Manejo Integrado<br>(National Park and Natural Area of Integrated Management)  |
| PDD       | Project Design Document  |
| RB-TCO    | Reserva de la Biosfera - Tierra Comunitaria de Origen<br>(Biosphere Reserve – Indigenous Communal Territory)   |
| REDD      | Reducing Emissions from Deforestation and forest Degradation   |
| SCAPES    | Sustainable Conservation Approaches in Priority Ecosystems   |
| SERNANP   | Servicio Nacional de Áreas Naturales Protegidas<br>(National Protected Area Service, Peru)   |
| SERNAP    | Servicio Nacional de Áreas Protegidas<br>(National Protected Area Service, Bolivia)  |
| SNAP      | Sistema Nacional de Áreas Protegidas (National System of Protected Areas)  |
| TCO       | Tierra Comunitaria de Origen (Communal Indigenous Territory)   |
| USAID     | United States Agency for International Development   |
| USFWS     | United States Fish and Wildlife Service  |
| WCS       | Wildlife Conservation Society  |
| ZSL       | Zoological Society of London   |

## I. SUMMARY OF ACTIVITY STATUS AND PROGRESS

### A. Introduction

The bi-national Greater Madidi-Tambopata Landscape is one of the most species-rich regions in the world. The landscape includes a sweeping range of altitudes on approximately 110,000 km<sup>2</sup> of the eastern flanks of the Andes and supports a wide range of species, including spectacled bears, giant otters, jaguars, maned wolves, vicuña and Andean condors. The landscape also contains three protected areas in Bolivia, the Madidi National Park and Natural Area of Integrated Management (PNANMI), the Apolobamba Natural Area of Integrated Management (ANMI) and the Pilón Lajas Biosphere Reserve and Indigenous Communal Land (RBTCO), and two in Peru, the Bahuaja-Sonene National Park and the Tambopata National Reserve.

Ten years of USAID Global Conservation Program (GCP) funding allowed WCS to support the legal recognition of the Takana people's traditional territories, including the Takana Indigenous Communal Territory (Takana TCO). WCS's work with the Takana helped to ensure that significant tracts of natural and semi-natural habitat retain a high conservation value, while sound management of this TCO also helps to maintain the integrity of the adjacent Madidi National Park. WCS-Bolivia has also worked with a second Takana TCO in the Madre de Dios region of La Paz Department, a Lecos TCO near Apolo and a second Lecos TCO near Guanay. WCS has worked to build integrated and participatory planning processes across several jurisdictional and land-use types. This work has helped to ensure that local people's visions are considered in tandem with the conservation goals for the larger landscape. This process gained momentum over the course of the GCP project, as indigenous territory management plans and territorial planning initiatives developed and local government bodies were increasingly included in environmental management and land-use planning decisions.

In the biologically and culturally diverse wilderness of the Greater Madidi-Tambopata Landscape, WCS has two main objectives under SCAPES<sup>1</sup>: 1) to implement systems that allow indigenous community natural product enterprises to become ecologically and financially sustainable; and 2) to build adaptive management capacity to conserve biodiversity, improve livelihoods and maintain flows of ecosystem services within indigenous territories and transboundary protected areas. Overall the program has met Year Two goals, despite some particularly intense weather conditions between December and March in the lowlands of the landscape.

### B. Highlights

- In late October 2010, WCS and CIPTA signed a new collaboration agreement. This is important for two reasons: 1) it is a requisite for continued WCS technical support within the Takana TCO, and 2) it sends a clear message of the valued and trusted roles that WCS contributes to conservation and sustainable development with indigenous lands within the Madidi-Tambopata Landscape.
- In July 2011 the Takana held a public accounting of the finances of CIPTA and all active NRM enterprises. This public accounting is critical for building and maintaining social cohesion (i.e., everyone knows what revenue was generated and what the funds were used for), minimizing risk of rent capture by elites, and promoting transparency in the governance systems evolving within the Takana.

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<sup>1</sup> Sustainable Conservation Approaches in Priority Ecosystems

- Funds to cover the management functions of CIPTA are increasingly being generated internally by taxes levied and paid for by the Takana themselves. The fact that the Takana are willing to finance CIPTA strongly suggests that they perceive their indigenous government as legitimate and providing valued services. This emphasizes the important role that WCS with support of USAID is playing in helping the Takana develop and evolve credible, legitimate and functional local government – effectively establishing a model for the nation.
- With WCS help two proposals from Takana sustainable enterprises received funding from the Indigenous Fund managed by the Bolivian government.
- A recent REDD preparation analysis of deforestation conducted by WCS showed that between 2005 and 2008 rates of deforestation within 5km of the San Buenaventura and Ixiamas road was almost 400% lower than in corresponding areas outside Takana managed indigenous lands.
- The director of the Bahuaja Sonene National Park officially asked WCS to carry out the “2nd Workshop on the Application of the Living Landscape Methodology in the Scope of the BSNP-Puno sector” from March 30<sup>th</sup> to April 1<sup>st</sup> 2011.
- WCS has been providing legal and technical support to implement the co-management agreement between the CRTM and Pilon Lajas Protected Area, which already has resulted in joint patrolling along various rivers inside Pilon Lajas where illegal natural resource extraction is a recent but growing threat.
- In November 2010, the park guards from 6 national protected areas (Apolobamba, Bahuaja Sonene, Madidi, Manuripi Heath, Pilon Lajas and Tambopata) decided to monitor, in a comparable fashion, the following 10 wildlife species: jaguar (*Panthera onca*), Andean condor (*Vultur gryphus*), Andean bear (*Tremarctos ornatus*), giant otter (*Pteronura brasiliensis*), vicuña (*Vicugna vicugna*), lowland tapir (*Tapirus terrestris*), white-lipped peccary (*Tayassu pecari*), black spider monkey (*Ateles chamek*), red howler monkey (*Alouatta sara*), and river turtle (*Podocnemis unifilis*). They also decided which methodologies would be most appropriate and realistic given current resources. Similarly, the park guards decided on a series of human activities that should also be monitored in a standard way across the protected areas and standardized methods for this task including mining, expansion of the agricultural frontier, new settlements, timber extraction and hunting.
- No progress has been possible on development of REDD projects due to the national governments strong stance against the use of market-based mechanisms for financing incentive payments for REDD.

### **C. Challenges**

- The return of La Niña brought unusually heavy rains between December 2010 and March 2011 and extreme flooding in the foothills of the Andes in northern La Paz, where the Takana TCO is located. Villa Fatima, a Takana community previously situated along the Beni River, was washed away, and another Villa Alcira lost 50% of the community. Heavy rains and high water made travelling on roads and rivers in the landscape dangerous causing the delay in several planned activities (see below).

## D. Adaptive Management in Action

- The potential consequences of the conversion of the current TCOs or Indigenous Community Territories to a new legal status, the TIOCs (Territorios Indígenas Originario Campesinos) or Indigenous Peasant Community Territories according to the new Bolivian constitution were discussed in a workshop held in Tumupasa as part of the Community Leaders Council in October 2010. Change in legal status of the TCOs may have serious impacts on the ability of the Takana to retain rights over lands within their traditionally claimed territory. Talking through the ramifications of this change in the law is critical to helping CIPTA and the Takana plan how to respond in ways that secure their rights and ensure that they continue to benefit economically and culturally from their sustainable management of natural resources.
- WCS with CIPTA have developed an updated version of the spectacled caiman management plan. Ninon Ríos, the researcher who several years ago gathered the baseline information on the spectacled caiman in the area has developed the plan with Guido Miranda that will determine sustainable harvest rates for the next four years (2011-2014). Data from the post-harvest census in 2011 demonstrate that current harvest levels are sustainable with spectacled caiman abundance slightly higher than the original censuses conducted in 2001 and 2004. Using baseline and ongoing monitoring information is essential to the adaptive management and sustainable harvest of caiman.

## E. Table of Activity Status

| Activity Number  | Activity Title  | Status   | Page Number |
|--|---|----------|-------------|
| <b>Objective 1:</b> To put in place management systems so that indigenous community natural product enterprises can become ecologically and financially sustainable.   |   |          | <b>6</b>    |
| 1.1  | Takana institutional strengthening for indigenous territory management.   | Delayed  | 6           |
| 1.2  | Managing and monitoring the impact of natural resource management projects in the Takana TCOs.                              | On Track | 8           |
| 1.3  | Developing financial sustainability of indigenous territory management in the Takana TCOs.                                  | Delayed  | 11          |
| <b>Objective 2:</b> To build adaptive management capacity to conserve biodiversity, improve livelihoods and maintain flows of ecosystems services within indigenous territories and transboundary protected areas. |   |          | <b>11</b>   |
| 2.1  | Bolivia and Peru protected area coordination & monitoring.  | On Track | 11          |
| 2.2  | Designing and implementing integrated approach to wildlife and threat monitoring in the Greater Madidi-Tambopata Landscape. | On Track | 14          |
| <b>Objective 3:</b> Ensure technical and coordination support services for the program.  |   |          | <b>15</b>   |
| 3.1  | Ensure coordination and communication services for the program.   | On Track | 15          |
| 3.2  | Provide ongoing tool development and technical guidance to the program.   | On Track | 15          |

## II. DESCRIPTION OF PROGRESS ON SITE-BASED OR POLICY INITIATIVES

### A. Key Short- and Long-term Program Objectives for the Site

Poorly planned, large-scale development projects and timber extraction across the Greater

Madidi-Tambopata Landscape in Bolivia/Peru threaten to overtake significant progress in establishing good governance systems that support indigenous peoples' land tenure rights and capacity to manage their lands. We are working to align conservation and development objectives by raising the value of intact forest and the incentives for forest conservation through ecological and economic monitoring systems that ensure sustainability through adaptive management and, when favorable, eco-certification of indigenous enterprise products. Our prior work in this transboundary landscape positions us extraordinarily well to address this challenge to biodiversity conservation and sustainable local livelihoods. In the Greater Madidi-Tambopata Landscape, WCS is continuing to refine and share lessons learned on gathering and using resource monitoring information to adaptively manage governance systems for effecting conservation, and to scale up these systems for use by other groups, nations and the broader conservation and development communities.

This project contributes to the overarching SCAPES goal of conserving biodiversity and securing the livelihoods of the rural poor by ensuring that governance authorities, from indigenous communities to national agencies, have the tools and resources necessary to effectively adapt their management plans and actions as identified threats are brought under control and unforeseen threats appear. By building the capacity of indigenous communities and protected area agencies to track, synthesize and review the effectiveness of their actions, and adapt them when conditions change, WCS continues to contribute to the social, financial and ecological sustainability of the natural resource enterprises of the Takana and other indigenous communities, and to the improved management of protected areas. These two key actions are fundamental for this vast transboundary landscape to meet the challenge of sustainability.

## **B. Summary of Progress for Site**

WCS has two main objectives in the Greater Madidi-Tambopata Landscape: 1) to implement systems that allow indigenous community natural product enterprises to become ecologically and financially sustainable; and 2) to build the adaptive management capacity of local governance authorities (whether indigenous communities or national agencies) to conserve biodiversity, improve livelihoods and maintain flows of ecosystem services within indigenous territories and transboundary protected areas. In general, the program is on track despite some particularly intense weather conditions between December and March in the lowlands of the landscape.

## **C. Activity Description**

**OBJECTIVE 1: To put in place management systems so that indigenous community natural product enterprises can become ecologically and financially sustainable**

### ***Activity 1.1 - Takana institutional strengthening for indigenous territory management***

In October 2010, Wildlife Conservation Society (WCS - Kantuta Lara and Robert Wallace), worked with CIPTA (Consejo Indigena del Pueblo Takana or Takana Indigenous Council) to facilitate the renewal of the institutional partnership framework agreement between CIPTA and WCS, which concluded in September 2010. In October 2010 an assembly of Takana community leaders was held in Bella Vista to prioritize and reschedule pending activities delayed due to CIPTA's internal conflict (mid-April to late August 2010) and evaluate the performance of CIPTA leaders. The new institutional partnership framework agreement was signed in late October

2011, and a detailed plan of activities was developed with CIPTA's directorate in Tumupasa in January 2011, planning activities related to WCS as well as activities with other partners and funding sources. Renewing and extending the formal agreement between WCS and CIPTA is important for two reasons: 1) it is a requisite for continued WCS technical support within the Takana TCO, and 2) it sends a clear message of the valued and trusted roles that WCS contributes to conservation and sustainable development with indigenous lands within the Madidi-Tambopata Landscape.

With the signing of the new agreement WCS continued our investment in the technical and institutional strengthening processes within CIPTA supporting regular technical and council meetings, reviewing and commenting on successful administrative reports, and working with the leadership on technical reports. To provide time for the CIPTA directorate to: a) participate fully in meetings with the National Land Authority to advance the Takana II land titling process and b) negotiated with potential buyers for the caiman hides that were harvested during 2010, the Takana annual meeting in the community of Las Mercedes in the Takana II Indigenous Territory was postponed until early July 2011.

During this assembly, the community productive associations (>25 sustainable natural resource business initiatives) of the two Takana indigenous territories held public accounting on their commercial activities. CIPTA presented reports and work plans as a way of promoting fiscal transparency of each management activity in the Takana Tierra Comunitaria de Origen (TCO) or indigenous territory. This public accounting is critical for building and maintaining social cohesion (i.e., everyone knows what revenue was generated and what the funds were used for), minimizing risk of rent capture by elites, and promoting transparency in the governance systems evolving within the Takana. Critically, this process has revealed which community management activities have readily available accounting information and which have been paying the self-imposed tax on earnings in support of CIPTA. The assembly also agreed that natural resource management initiatives must undergo audits when changing the legal representatives of the initiatives which normally occur every two to four years.

CIPTA's administration continues to move toward self-sustainability. WCS support through SCAPES and the Blue Moon Fund, is now augmented by income coming from the community self-imposed "tax" on earnings from the Takana productive associations (mainly from the forestry associations), as well as from income obtained from CIPTA's forest management plan. That taxes are levied and paid shows how CIPTA is seen as a valuable and trusted representative organization by the Takana people, and that funds are perceived to be needed to support the management functions provided to the Takana by CIPTA. This emphasizes the important role that WCS with support of USAID is playing in helping the Takana develop and evolve a credible, legitimate and functional local government – effectively establishing a model for the nation.

Due to the natural disasters mentioned above as well as the difficulty in identifying a credible auditor with experience in rural and remote settings, CIPTA's audit process had to be rescheduled to start in late August 2011. This process will allow for a formal evaluation of the development of CIPTA's administrative and organizational capacities during the last five years of activities. As a final draft of the administration manual produced jointly by CIPTA and WCS has already been approved in a Takana General Assembly, it is appropriate to wait for the results of the audit before making any changes that may be needed, and then publish the official version for use by CIPTA and the Takana community productive associations. We hope this process will strengthen the long-term independent financial and institutional security of the Takana.

In mid February 2011 in Tumupasa, Rob Wallace, Guido Miranda and Kantuta Lara participated in a planning meeting with CIPTA and important coordination decisions were made such as the date and place for the pending Takana Advisory Meeting at the Las Mercedes community in the Takana TCO II in early July. A more detailed three-month activity planning was carried out, including the dates and places to resume the fieldwork to gather data for the update of the Takana Strategy, as well as planning the implementation of the new curriculum for Takana schools on the participatory hunting and fishing monitoring by school children.

The fieldwork activities for the update of the Takana Life Plan and formal documentation of the results of 10-years of work in the area have been delayed due to severe weather conditions and a reduced number of Takana leaders in the CIPTA directorate due to illness and other personal reasons. These activities will resume at the end of September 2011 and fieldwork will be completed by December 2011. Zulema Lehm and Kantuta Lara have conducted two workshops on lessons learned from the 10-year process with the Takana and the results will be incorporated in the forthcoming books summarizing the Takana indigenous territory management experience.

The potential consequences of the conversion of the current TCOs or Indigenous Community Territories to a new legal status, the TIOCs (Territorios Indígenas Originario Campesinos) or Indigenous Peasant Community Territories according to the new Bolivian constitution were discussed in a workshop held in Tumupasa as part of the Community Leaders Council in October 2010. Three different viewpoints came to the fore. Some thought that among the options within the new constitution *indigenous autonomies* were the best alternative; while others thought that *indigenous districts* could fit better; and finally *indigenous municipalities*. These options will be further discussed in the delayed process to update the Takana Life Plan.

### ***Activity 1.2 - Managing and monitoring the impact of natural resource management projects in the Takana TCOs***

The WCS technical team, through SCAPES support, helped Takana natural resource based businesses apply for enterprise development funds from the Indigenous Fund managed by the Bolivian government. The proposals of a handicrafts and a livestock enterprise were successful and funding was approved. Both projects are currently starting activities.

The non-forestry related Takana community productive proposals that were successfully approved in early 2010 by the PUMA Foundation were, Villa Alcira ecotourism, Macahua ecotourism, Carmen del Emero/San Antonio del Tequeje/Cachichira cacao production, and Takana II paiche harvest. However, it took longer than expected to complete the legal paperwork required by PUMA, as a result contracts with the PUMA Foundation were not signed until October 2010. These initiatives have subsequently received their first funds and with technical support from WCS staff, Kantuta Lara and Guido Miranda, have worked on their annual work plans and organized their work team acquiring equipment and office space. At the same time the nine Takana timber associations (Carmen Pecha, Santa Rosa de Maravilla, San Pedro, APIAT, Santa Fe, AGROFORT, El Carmen, Tres Hermanos and Cachichira) worked on their PUMA Foundation proposals at the Proposal Preparation Schools, organized and technically supported by the CIPTA-WCS partnership. Nonetheless, at the end of 2010 the forest associations decided not to sign agreements with the PUMA Foundation due to excessive delays in the funding process.

In the case of the paiche (*Arapaima gigas*) harvest project, Guido Miranda and Lilian Painter

worked with four post-graduate students of the Haas business school on the development of a specific business plan for this invasive species, and the final document was finished near the end of the last fiscal year. Over the last six months the document has been translated into Spanish and was officially presented at the beneficiary communities in Takana TCO II.

A draft management plan for paiche sustainable harvest has been produced by WCS staff in consultation with the Takana communities and CIPTA and is currently under review with CIPTA and the relevant Bolivian governmental office (DGBAP) before formal submission in late-August 2011. An extensive monitoring plan for the species has been designed by the WCS research team and CIPTA as well as the communities, and is currently being implemented in the rivers of the Takana TCO II. This monitoring plan will provide reliable data about population ecology and the actual distribution of the species in Takana TCO II water bodies, allow for fishing quotas to be established, and create a solid monitoring system with the participation of local fishermen. The objectives of this initiative are to provide additional income from selling paiche meat, as well as control the effects of this damaging fish predator on native fish communities and potentially on the ecosystem. As this is a managed harvest to reduce impacts on native species as well as generate income for local communities there will be complex tradeoffs to administer in order to meet these two objectives. Nevertheless, there are two key considerations that should mean striking a balance is realistic: 1) given previous experiences with invasive freshwater fish and resources available it will be impossible to completely eliminate paiche from Bolivian rivers; and 2) adult paiche are massive – between 100 and 250 kg and as such even small scale harvest provides significant amounts of paiche meat to sell at market.

Important achievements have been made on the development of the integrated monitoring plan in the Takana productive enterprises, especially with the forestry associations, where primary indicators have already been selected during a workshop held in Ixiamas in early November 2010. During this event all five Ixiamas Takana Forestry Associations participated (San Pedro, Santa Fe, Macahua, Carmen Pecha and Santa Rosa de Maravilla). Guido Miranda, Kantuta Lara, and CIPTA's ex-natural resource coordinator, Felsy Gonzales who recently resigned from his position for personal reasons, conducted the workshop and developed specific work plans assigning people for gathering data on the agreed upon indicators.

During 2011 the number of forestry associations that have signed up for the development of indicators has risen to seven: AGROFORT, APIAT & El Carmen in Tumupasa, and Santa Rosa de Maravilla, Macahua, Carmen Pecha and San Pedro. All of these forestry associations are found along the San Buenaventura – Ixiamas road within the Takana TCO, a priority area for conservation action given the forthcoming World Bank funded road improvements scheduled for 2012. In summary, the seven participating forestry associations have selected a total of 25 to 28 economic, environmental and social indicators (see Appendix 1) using and adapting a shopping list of indicators developed at the WCS funded and organized 3rd Community Natural Resource Management Encounter in 2009 where more than 40 projects worked on a suite of potential indicators.

Over the last six months WCS technicians Telma Solares and Magali Mendoza have assisted the associations in pulling together existing data on these indicators so that a retroactive database can be constructed for each association. To date and on average, more progress in systematizing existing data has been made on social indicators (70-80%), than environmental indicators (50-80%) and economic indicators (20-60%). It is important to mention that the development of the economic indicators and the subsequent systematization of the data have provoked serious and necessary discussions within a couple of the forestry associations regarding the transparency of benefit distribution.

Similar workshops will be conducted with the spectacled caiman management group focused on socio-economic indicators as, in this case, all the biological and environmental indicators have already been defined and agreed upon. Meanwhile WCS has developed an updated version of the spectacled caiman management plan. Ninon Ríos, the researcher who several years ago gathered the baseline information on the spectacled caiman in the area has developed the plan with Guido Miranda that will determine sustainable harvest rates for the next four years (2011-2014). Data from the post-harvest census in 2011 demonstrate that current harvest levels are sustainable with spectacled caiman abundance slightly higher than the original censuses conducted in 2001 and 2004.

For the tourism initiatives, in early March 2011, a workshop was held in San Miguel del Bala to select the indicators that best fit their initiative. The resulting 37 economic, environmental and social indicators are both practical and informative, and were eagerly supported by the community members with a data collection process already 70% complete. The same indicator selection process has now taken place in the second Takana tourism initiative at the Villa Alcira ZIP Canopy Tour, which selected 28 indicators and is now beginning the retroactive data collection process.

A performance monitoring indicators workshop with the cacao association of Tumupasa has also been conducted in the last six months and the association is now retroactively applying the selected economic, environmental and social indicators. We have received requests to extend this support to the broader Takana cacao initiative involving five other communities, as well as letters of interest from non-Takana communities between Yucumo and Ixiamas. The latter request will be evaluated based on funding opportunities since it represents more than twenty communities involved in cacao production in the region.

Following a coordination meeting with the schoolteachers of the Takana schools, we selected pilot schools where the new curriculum on the participatory hunting and fishing monitoring by school children will be tested. Pilot schools are Buena Vista, a village located close to the main road near the town of San Buenaventura, San Miguel del Bala, a community on the Beni River located close to Rurrenabaque, the main town in the area, San Silvestre (Napashi) a small community near Tumupasa, and Carmen del Emero, another community on the Beni River which is located far from the urban areas of Rurrenabaque. The criteria for selecting these places were the number of students in each school and stratification across the landscape.

Over the last 6 months these four community schools have been testing the methodology and the curricula and preliminary reports are now available for the three most accessible community schools: Buena Vista, San Miguel del Bala and San Silvestre. The distance to Carmen del Emero has delayed activities slightly with respect to the other three test sites. In summary, the activities that were classroom based were successful in the three schools, although some modifications are required before finalizing the curricula. Activities were less successful when students were required to interview adults in the communities regarding wildlife, natural resources and hunting and fishing. These results have just been collated and meetings with CIPTA and community leaders are necessary to assess how to address these shortfalls. Low reported incidence of hunting may reflect the fact that in Buena Vista and San Miguel del Bala because of their proximity to the major towns of San Buenaventura and Rurrenabaque families have access to and thus consume purchased meat of domesticated animals. In the case of San Miguel del Bala their commitment to ecotourism may have manifest a reluctance to hunt wildlife that is now the basis of their community business. As such a full review of the method should wait until reports from Carmen del Emero have been gathered given that this relatively large yet

remote community is known to rely heavily on wildlife for protein consumption.

***Activity 1.3 - Developing financial sustainability of indigenous territory management in the Takana TCOs***

No progress has been possible on development of REDD projects due to anti-market government policies. A non-market based donor payment approach to climate mitigation is being developed in collaboration with local partners. In that light, in March 2011 WCS completed a final draft of a deforestation analysis of the Takana TCO, which is currently being revised and added to by senior staff, Robert Wallace and Lilian Painter before presentation to CIPTA in late August 2011. Deforestation rates between 2005 and 2008 in forests within 5km of the San Buenaventura and Ixiamas within the Takana TCO were almost 400% less than rates in corresponding areas outside the TCO.

In May 2011, with WCS funds, botanist Freddy Zenteno began implementation of carbon plots across the lowland portion of the landscape including the Takana TCO to obtain accurate estimates of above ground and soil carbon levels in the different forest types. This fieldwork is scheduled to finish in September 2011 and data will then be analyzed in La Paz for availability by the end of December 2011.

In the interim we are working with CIPTA to explore how best to manage REDD funds should they eventually materialize. We also continue our work with the Bolivian government through the relevant Vice Ministries to ensure participation in regional and specific proposals. Lilian Painter has also been developing a working relationship with the Office of Mother Earth in the Foreign Affairs Ministry following up on a meeting with the new Vice Minister of Foreign Affairs and the Swiss donor agency. The Vice Ministry is very interested in the Takana and CIPTA example and how this might be linked to a forthcoming position on a non-market based mechanism for recognizing the contribution of local actors in reduced deforestation.

**OBJECTIVE 2: To build adaptive management capacity to conserve biodiversity, improve livelihoods and maintain flows of ecosystems services within indigenous territories and transboundary protected areas**

***Activity 2.1 - Bolivia and Peru protected area coordination & monitoring***

In Peru, the director of the Bahuaja Sonene National Park (BSNP) officially asked WCS to carry out the “2nd Workshop on the Application of the Living Landscape Methodology in the Scope of the BSNP-Puno sector” from March 30<sup>th</sup> to April 1<sup>st</sup> 2011. The objectives of this workshop were to review and validate the conceptual model developed in May 2010 and build the associated monitoring framework. The workshop included the participation of 43 participants including several mayors from the Upper Tambopata watershed districts (Putinapunco, San Juan del Oro, Yanahuaya) as well as the BSNP management committee representatives, local population, institutions and NGOs including the Puno Regional Government, universities and productive cooperatives. The conceptual model developed in May 2010 was validated and its associated monitoring framework developed.

One of the activities identified in the conceptual model was documentation of existing information about the park. Therefore, we are supporting the development of a biodiversity database for the BSNP that will be used for the monitoring of key fauna species such as peccaries, tapir, spider monkey, jaguar, giant river otters, and macaws, among others. We

began this process in September 2010 with the collation of four years of data from the park rangers' control and vigilance reports provided to us by the BSNP. We completed the documentation of four years of biodiversity information contained in these reports in January 2011.

In December 2010, the Tambopata National Reserve with the help of AIDER provided us with copies of the patrolling reports including biodiversity and threats information from the guard parks of this protected area. We systematized extraction reports of Brazil nuts submitted by the concessionaries to the Tambopata National Reserve from 2008, 2009 and 2010.

At the invitation of AIDER we are developing the monitoring plan for the Tambopata National Reserve (TNR) and the Bahuaja Sonene National Park – Madre de Dios sector, the area of the management contract that AIDER signed with SERNANP – Protected Areas National Service. WCS staff participated in the park guards annual meeting held from March 17<sup>th</sup> to 20<sup>th</sup> where the monitoring framework and indicators list was presented. We explained the importance of the role park guards play in protected area monitoring systems. Moreover, park guards validated the indicators and data sheet that will be used by them to gather monitoring data, defined the patrolling routes related to the monitoring system and we highlighted the importance of gathering good quality data for the monitoring system. The monitoring plan was delivered to AIDER in May 2011 and once AIDER and SERNANP approves it, WCS will assist in its implementation through the strengthening of the technical capacities of the TNR and AIDER. We systematized all the information available in the BSNP office to be used as a baseline for the monitoring plan. Unfortunately, there is almost no information that can be used for the monitoring plan underlining the need to develop a realistic monitoring plan for the park.

WCS supported the update of the TNR management plan, which was approved by Presidential Resolution on July 27<sup>th</sup>. The management plan was developed using a revised version of the conceptual model and associated monitoring framework developed in 2009 in WCS led workshops.

In addition, we are developing a field guide for the park guards of the BSNP and the TNR. The field guide has gone to press and includes full color plates of the landscape species and monitoring targets with an explanation of the indicators related to the species and threats that the guard parks need to gather to feed into the TNR monitoring system. This field guide also includes the data sheet validated by the guard parks. The 500 printed copies will be distributed between BSNP and TNR as well as the Amarakaeri Communal Reserve (ACR) so they can test if the field book can be used in the ACR. A course for the park guards of ACR will be held from August 17<sup>th</sup> to 19<sup>th</sup>. WCS will be in charge of teaching the monitoring topics.

Meanwhile in partnership with the BSNP office, and based on the conceptual model and the monitoring framework, in May 2011 we began developing a complementary monitoring plan for the BSNP-Puno sector not covered under the AIDER agreement.

We have also begun supporting the general monitoring system for the SINANPE (Peruvian Protected Areas System) that is being developed by SERNANP (the Peruvian National Protected Areas Authority). This monitoring system is a simplified version of WCS' Living Landscape Approach and we have begun developing, in close coordination with SERNANP, a step-by-step technical manual of the methodology as a tool for the implementation of the monitoring system by protected area managers. Between late August and December 2011, WCS will support the development of the management plans of Calipuy National Reserve, Calipuy Comunal Reserve and Pampas Galeras National Reserve using the Living Landscape

Approach. Although these protected areas are not located in the Amazon Andes region, WCS decided to support the development of these management plans because this is the first step to apply the Living Landscape Approach across the SINANPE.

Meanwhile in Bolivia, between January and March 2011, after confirming that the framework agreement between SERNAP and WCS had been approved and signed by the appropriate authorities, Oscar Loayza has been working on developing work plans and renewing agreements with SERNAP, with grassroots organizations such as CRTM Regional Tsimane'-Moseten Council and protected areas in northern La Paz located within the Landscape such as the Apolobamba National Natural Area for Integrated Management, Pilon Lajas Biosphere Reserve and Indigenous Territory (TCO) and Madidi National Park and Natural Area for Integrated Management. With each protected area, the partnership will produce adapted integrated monitoring programs such as the one produced for Apolobamba during 2010. The monitoring programs will allow monitoring of the activities included in their management plans and will be developed through consultation meetings between technical staff, indigenous leaderships and the communities inside the protected areas through communal workshops, as was the case for Apolobamba.

In July 2011 Madidi and Pilon Lajas started the design of their own integrated monitoring program based on the experience gained so far in Apolobamba. Due to standard administrative procedures, and the new Pension Law (retirement) there has been a delay in consolidating and agreeing on an implementation work plan, as well as a delay in having the team of professionals up and running. The monitoring team is composed of a coordinator, Rodrigo Tarquino, who is based at SERNAP office, and field technicians; a team of two for Apolobamba, and three people for Pilon and Madidi together, two biologists and one sociologist in charge of the socio-environmental component. Advances have been made in structuring the technical monitoring team that is currently in charge of implementation.

Intense work was conducted with the CRTM on adjusting, updating and developing institutional regulatory instruments and a natural resource use regulation, as well as administrative manuals and procedures, all conducted both at the territorial leadership level and at the level of each of the 22 communities in a bottom up approach. WCS has been providing continuous legal and technical support to the CRTM and Pilon Lajas in the establishment of common work plans complementing and conciliating the CRTM Life Plan and the Pilon Lajas Protected Area Management Plan to implement the co-management agreement for the Pilon Lajas protected area and indigenous land. CRTM has been finalizing the package of institutional internal regulations and administrative manuals through socializing and adjusting them to the needs and worldviews of the Tsimane Mosetene culture. WCS has been providing legal and technical support to implement the co-management agreement between the CRTM and Pilon Lajas Protected Area, which already has resulted in joint patrolling on different occasions along different rivers inside Pilon Lajas where illegal natural resource extraction is known. The same has happened in the adjacent Takana indigenous territory, where local people from San Miguel del Bala have twice joined the Madidi protection team (on January 9<sup>th</sup> and March 25<sup>th</sup> of 2011) to patrol the area along the Tuichi and Hondo rivers, where illegal commercial fishing activities are known to occur, as well as illegal timber extraction from inside Madidi. On these two occasions, fish to be commercialized at the local market in Rurrenabaque and associated nets were confiscated as well as a boat full of cedar timber.

As part of WCS work in the Apolobamba protected area important advancements have been made in the development of a territorial management plan for the Indigenous Communal Territory of the Marka Cololo Copacabana de Antaquilla. This indigenous territory includes eight

ayllus or communities and it is found entirely within the Apolobamba protected area. This work is being executed within the framework of an agreement between the Marka Cololo Copacabana de Antaquilla and a local NGO called PRODEMA.

A population census at the Marka has been completed and led by local authorities, as well as six Participatory Rural Appraisals in the ayllus: Agua Blanca, Katantika, Antaquilla, Cololo, Nubepampa and Puyo Puyo. As a result a complete diagnostic of the whole Marka was developed based on the collation and analysis of all the information generated. Additionally, maps of the communal access in each ayllu were developed using a compatibility matrix of the different land uses.

On November 29<sup>th</sup> and 30<sup>th</sup> 2010 a workshop for the whole Marka was conducted to formulate the development of a strategic plan, and also the vision, objectives and lines of work that will guide the territorial and organizational development. The final draft of the Indigenous Territory Marka Cololo de Antaquilla Life Plan is in revision with the local original authorities, and by the end of August they will be sending their comments and suggested adjustments for a final correction and presentation at a general assembly as well as at each one of the six ayllus. By the end of November, the document should be under final revision and publication.

Additionally, the native local authorities have started a process of adjustment and update of the Marka Cololo de Antaquilla original statutes and internal regulations to the new national legislation and a series of workshops and open discussions are being organized in the different communities to socialize and gather inputs. WCS is providing technical advice for the process and the aim is to have final documents as well as a draft of a natural resource management regulation by the end of 2011.

### ***Activity 2.2 – Designing and implementing integrated approach to wildlife and threat monitoring in the Greater Madidi – Tambopata Landscape***

As planned and with additional funding from USFWS and the Moore Foundation from November 7<sup>th</sup> – 15<sup>th</sup> 2010 we conducted the 1<sup>st</sup> Monitoring Training Course for Park Guards in Rurrenabaque at the gateway to the Madidi and Pilon Lajas protected areas in Bolivia. In total there were 63 participants from Bolivia and Peru representing 6 National protected areas in the region: Apolobamba, Madidi, Manuripi Heath and Pilon Lajas in Bolivia and Bahuaja-Sonene and Tambopata in Peru, as well as representatives from AIDER, Frankfurt Zoological Society, Tambopata Tourism Guide Association and of course SERNANP (Servicio Nacional de Areas Nacionales Protegidas de Peru) from Peru and in Bolivia three additional national protected areas from the dry valleys of Bolivia (Iñaño, El Palmar and Torotoro), the Rurrenabaque Municipality, the northern La Paz Municipal Association, three indigenous organizations (CIPLA - Lecos, CPILAP- regional La Paz organization, CRTM - Tsimane'-Mostene), and of course SERNAP (Servicio Nacional de Areas Protegidas de Bolivia).

The meeting provided a productive working atmosphere and the commitment and interest of the participants, particularly the park guards, was inspirational. Together the park guards from 6 national protected areas (Apolobamba, Bahuaja Sonene, Madidi, Manuripi Heath, Pilon Lajas and Tambopata) decided to monitor, in a comparable fashion, the following 10 wildlife species: jaguar (*Panthera onca*), Andean condor (*Vultur gryphus*), Andean bear (*Tremarctos ornatus*), giant otter (*Pteronura brasiliensis*), vicuña (*Vicugna vicugna*), lowland tapir (*Tapirus terrestris*), white-lipped peccary (*Tayassu pecari*), black spider monkey (*Ateles chamek*), red howler monkey (*Alouatta sara*), and river turtle (*Podocnemis unifilis*). They also decided which methodologies would be most appropriate and realistic given current resources. Similarly, the

park guards decided on a series of human activities that should also be monitored in a standard way across the protected areas and standardized methods for this task including mining, expansion of the agricultural frontier, new settlements, timber extraction and hunting.

At the end of the meeting the participants underlined the importance of the meeting, of the proposed monitoring activities and of the discussions and time spent together. They also requested that in the future a second meeting to analyze and discuss preliminary results should be planned. We have included this meeting in the monitoring plan agreements signed with SERNAP in late March 2011 (see previous activity) and expect to conduct the workshop in September or October 2011.

### **OBJECTIVE 3: Ensure technical and coordination support services for the program.**

#### **ACTIVITY 3.1**

##### **Ensure coordination and communication services for the program.**

Conservation Support staff (CS-NY) communicate regularly with WCS SCAPES field staff to ensure appropriate development and administration of the WCS SCAPES Cooperative Agreement, Implementation Plans and Performance Measures, as well as proper compliance with USAID regulations. In addition to attending and reporting back on quarterly meetings, CS-NY also serves as a general communication hub regarding issues from the field that need to be brought to the attention of USAID (such as the ongoing political situation in Bolivia), and vice versa. CS-NY staff have also helped to coordinate feedback on learning activities and annual meeting participation.

This year CS-NY staff have played a leadership role in the development of the Natural Resource Governance Assessment learning activity; and were the principal speakers in the first Climate Adaptation learning activity workshop.

#### **ACTIVITY 3.2**

##### **Provide ongoing tool development and technical guidance to the program.**

During FY11, Conservation Support staff (CS-NY) continued to use their technical expertise and their experience in conservation planning, GIS, and performance monitoring to provide direct assistance to WCS SCAPES and to scale up SCAPES learning across WCS and to the broader conservation community.

The success of last year's launch of an online distance-learning introduction to Conservation GIS encouraged CS-NY to work with The Nature Conservancy and Foundations of Success to develop an online course on strategic planning, effectiveness monitoring and adaptive management using the CMP Open Standards for the Practice of Conservation. Story-board and draft scripts have been developed and we expect to launch this course in 6-8 months. CS-NY also continues to support and guide the evolution and roll-out of adaptive management software for conservation projects (Miradi software, downloadable from [www.miradi.org](http://www.miradi.org)).

CS-NY staff completed the first conservation biology distance learning program for pre-college level WCS national staff. The course was designed to provide professional development opportunities for WCS staff unlikely to pursue higher education.

CS-NY recently helped establish a new consortium lead by WCS to coordinate and finance the creation and pilot testing of a new open-source, conservation-commons, user-friendly, law enforcement monitoring software tool. Financed by consortium members (WCS, WWF, ZSL, CITES, North Carolina Zoo and the Frankfurt Zoological Society) the SMART software will provide a user friendly tool for park rangers to plan, implement and monitor the effectiveness of their law enforcement patrols. The consortium has already leveraged \$700,000 (GEF) to support ranger training and pilot testing in Tiger source sites, and \$300,000 (USAID BATS) to support ranger training and pilot testing in Central and East Africa.

CS-NY has continued to scale up the use of ecological and livelihoods monitoring tools developed by WCS with USAID support. Specifically, we have a first draft of a “Decision Tree for Monitoring Wildlife and Assessing the Effectiveness of Conservation Interventions” and continue to work with the Climate, Community and Biodiversity Alliance (CCBA) to identify community-relevant methods for developing baseline and trend data on local livelihoods. We are seeking funding from DFID/ESRC and 3IE to undertake analyses of modified Basic Necessities Surveys (livelihood surveys with a locally relevant index of poverty) at three or four WCS landscapes. Lastly we completed a draft survey of approaches to monitoring illegal extraction of natural resources, and are exploring the development of a standardized approach for field staff to employ the Randomized Response Technique to conduct interviews of illicit natural resource use behavior.

#### **D. Baseline Studies**

With technical support from WCS and financial support from USAID baseline ecological and socio-economic data have been gathered for the majority of Takana natural resource-based enterprises. This year working with the Peruvian Protected Areas Authority we sought to collate all available data that would be useful for monitoring landscape species, threats and park management effectiveness within BSNP. Unfortunately almost no data that would be useful for monitoring has been gathered in the past within this protected area. Baseline assessments will therefore be developed over time as the new monitoring plan is implemented.

### **III. SUCCESS STORIES AND LESSONS LEARNED**

Funds to cover the management functions of CIPTA are increasingly being generated internally by taxes levied and paid for by the Takana themselves. The fact that the Takana are willing to finance CIPTA strongly suggests that they perceive their indigenous government as legitimate and providing valued services. This emphasizes the important role that WCS with support of USAID is playing in helping the Takana develop and evolve a credible, legitimate and functional local government – effectively establishing a model for the nation.

### **IV. NEXT STEP(S) AND PRIORITIES**

Over the next year we will focus on the following next steps:

- 1) Implementation and testing of monitoring plans across all five national protected areas of Bolivia and Peru.
- 2) Implementation and testing of monitoring plans for community natural resource initiatives in the Takana TCOs.
- 3) Completion of Takana Life Plan update in the face of significant imminent threats such as road improvements between San Buenaventura and Ixiamas and also taking into

consideration lessons learned from the systematization of the experience between 2000 and 2011.

## V. PHOTOS



Workshop on monitoring indicators with timber/forest associations in November 2010 in Ixiamas (Photo: Guido Miranda/WCS)



Workshops on Life Plan in Copacabana de Antaquilla (Photos: Oscar Loayza/WCS)



Cacao harvesting in Tumupasa (Photo: Mileniusz Spanowicz/WCS)



Villa Alcira ZIP Line Canopy Tourism Initiative (Photo: Mileniusz Spanowicz/WCS)



Takana handicrafts (Photo: Mileniusz Spanowicz/WCS)

## **VI. OTHER APPENDICES**

Appendix 1. Summary Excel file of monitoring indicators for community natural resource management initiatives of the Takana TCO's