

CCB Project Implementation Report (PIR) – Chaco-Pantanal

Cover Page

Project name	The Paraguay Forest Conservation Project Reduction of GHG emissions from deforestation and forest degradation in the Chaco-Pantanal ecosystem
Project location	Bahia Negra District, Alto Paraguay, Paraguay
Project proponent	Swire Pacific Offshore Operations (Pte) Ltd. Contact details: 300 Beach Road, #12-01 The Concourse, Singapore 199555, REPUBLIC OF SINGAPORE. General Manager Corporate Social Responsibility: Simon Bennett Phone: +65 6309 3632 Email: simon.bennett@swire.com.sg
Auditor	TÜV SÜD South Asia Pvt. Ltd. Environmental Technology, Carbon Management Service Contact details: Solitaire, I.T.I. Road, Aundh, Pune- 411007, India Lead Auditor: Sebastian Hetsch Phone: +49 89 5791 3055 Email: sebastian.hetsch@tuev-sued.de
Project start date, GHG accounting period, lifetime	25 th February 2011, GHG accounting period & lifetime – 20 years
Project implementation period of this PIR	25 th February 2011- 31 st August 2015
History of CCB status	Validation – RA-VAL- CCB-015605, effective 11 July 2012.
Relevant CCB standards edition	2 nd Edition
Summary of benefits generated to date	Climate: Conservation actions implemented have generated 50,113 tCO ₂ -e emissions reductions in the period under review Community: 4,745 hectares of forest have been conserved through the project. The Yshir community have regained management control over the

	<p>conserved area of forest, which is of cultural importance to them and provides ecosystem services with the landscape. The Union of the Communities of the Yshir Nation (UCINY) has received financial support through the project. Members of the Yshir community have been employed through the project and taken part in conservation activities and activities to understand the High Conservation Values of the area.</p> <p>Biodiversity:</p> <p>As a result of conservation actions implemented in the period under review forest cover within the project area has been maintained and ecological connectivity promoted with the landscape. Retention of a significant area of natural habitat has contributed to retaining high conservation values in a landscape where those values are under threat.</p>
<p>Gold level criteria and exceptional benefits generated</p>	<p>Climate:</p> <p>The maintenance of ecological and social resilience to climate change by maintaining a healthy ecosystem and the ecosystem services it provides. This is achieved through the maintenance of the project area.</p> <p>Community:</p> <p>Financial support to UCINY benefits the community as a whole. Additionally, ecosystem services, for example hydrological regulation, benefit the community, especially the poorer and more vulnerable groups.</p> <p>Biodiversity:</p> <p>The conservation of, a Key Biodiversity Area (KBA) containing vulnerable species.</p>
<p>PIR version completion date and number</p>	<p>Tobich CCB PIR v1 – 16.09.15</p>

Project Implementation Information

As required under the CCB Project Design Standards Second Edition, this PIR reports on project delivery of net climate, community and biodiversity benefits against the validated design and monitoring plan, for evaluation by an independent, accredited auditor (TUV Sud). It describes, in detail and for each CCB Standards criterion and indicator that requires an activity or process, how the project has been implemented over the first 4-year 6-month period (25.02.11 – 31.08.15) of the project life, including assessment of impacts and any changes to project design.

These criteria and indicators are numbered as set out in the validated project design document.

GENERAL SECTION

G1.4. Carbon Stocks and Methods

While stratification remains unaltered, information on carbon stocks has been substantially improved through re-inventory. This is described in the Climate section below.

G3: Project design and goals

G3.1 Project objectives

The stated project objective is to secure an area of threatened Quebracho forest, thereby continuing to sequester the carbon that would otherwise be emitted by planned clearance on the forest frontier. This has been achieved through the purchase of the Tobich project area. In the process the following benefits identified in the PDD have been obtained:

- Gross emission reductions attributable to this action are estimated at 463,682 tCO₂-e over the project lifetime, with net benefits of 198,238 tCO₂-e after accounting for leakage, uncertainty and the risk buffer. This gain has been validated under VCS guidelines and makes a significant contribution to the overall emissions reduction target from all actions to be taken under the Paraguay Forest Conservation Project of 840,000 tCO₂e over 20 years.¹
- The area, of a habitat type poorly represented in the protected area system and at risk, has been conserved along with its biota.
- Local communities have regained influence over the management of the area.

G3.2. Project Activities

G3.2.1. Secured management control of threatened forest

The project start date of February 25 2011 (which is also the start-date for this review period) was marked by the start of negotiations between the seller and Guyra Paraguay to the exclusion of other

¹ These emission reductions represent a revision of those detailed in the original VCS Project Description. Deviations from the project description described in the climate section below were detailed in Monitoring Report 02 and validated at second verification. However, a revised Project Description has been requested by the Verified Carbon Standard and the second verification report will be issued once the revised Project Description has been finalized. Monitoring Report 02 and the revised Project Description are held by the project auditors TUV Sud.

potential buyers, and thus the lifting of threat. The transaction itself took place on May 23rd 2011. The legal documents also specified steps that then had to be followed – as this process predated validation it is described in the PDD (relevant sections in italics below):

- *The land was to be bought by Guyra Paraguay, which initially assumes all property rights from the seller. This took place.*
- *The intent is to manage the area in perpetuity to conserve the quality of its forest cover, the carbon stored in living matter, dead matter and soils, and its importance for biodiversity and the cultural identity of the Yshir. Management will be in collaboration with the Chamacoco-Yshir via UCINY and using funds channelled through the Paraguay Forest Conservation Project. This is explicitly set out in the legal documents pertaining to the purchase (See Annexe 1 - Project Area Notarised Purchase Agreement).*
- *Property rights to the carbon were to be offered to Swire Pacific Offshore. This has been duly offered and accepted, with VCUs accruing from project activity already being transferred to Swire Pacific Offshore to retire against unavoidable emissions from its international operations (See Annexe 2 and 3).*
- *Following the transfer of carbon rights to Swire Pacific Offshore, Guyra Paraguay is to give an indivisible 50% share in ownership of the area to the Chamacoco-Yshir and transfer full ownership within a 20 year period (i.e. within the project life). The area will then become a community heritage reserve, under customary management and retaining its natural and cultural qualities. This is in process but not completed (See Annexe 8 pages 15-17, minutes of communications with UCINY). It remains a legal obligation to do so though (See Annexe 1 Project Area Notarised Purchase Agreement) and, although it is acknowledged that this process takes time, it is anticipated that the process will be completed in the near future. However:*
- *Meanwhile, the area was to be managed jointly by Guyra Paraguay and the Yshir under an agreement reflecting the guidelines set out under the PFCP Project Description Document. A joint management agreement has been made (Annexe 4) and a joint management plan is being elaborated. The Yshir have, however, been participants in management operations throughout the period.*

G3.2.2. Land and conservation management

The PDD states that the management objective for the land is to retain its present natural and cultural qualities – i.e. protective management to maintain its ecological integrity and that principal project activities therefore centre on:

- *Survey, research and monitoring, to quantify, understand and track those qualities. Survey (which informs the climate, social and biodiversity baselines) and monitoring are in place (see monitoring sections below).*
- *Protection, against external threats to those qualities. This has been maintained through tracking remote imagery backed by regular visits, primarily to undertake survey and monitoring work but also demonstrating management presence.*

- *Capacity-building, to allow the Yshir to develop and demonstrate their management skills in scientific conservation management.* Community members have been integral to all field teams to date.
- *Optimisation of project benefits, especially leverage for wider biodiversity conservation and community gains beyond the project area boundary.* The project has provided leverage for two further major initiatives designed to promote landscape connectivity across the Chaco, funded respectively through the Global Environmental Facility and the Arcadia Foundation.

Central to the strategy is that the Yshir, organised under UCINY, assume full ownership and management of the project area within the project life. Shared ownership will therefore be backed up by:

- *A shared management agreement drawn up between Guyra Paraguay and UCINY, stating the joint aim to maintain the area in perpetuity under a conservation regime that retains its biodiversity and cultural values.* This has been done (Annexe 4).
- *A management plan, developed jointly by Guyra Paraguay and UCINY, based on the principles set out in this PDD and with provision for regular update and review at appropriate intervals.* This plan remains under development in collaboration with the Yshir, but the basic management precepts, all protective, are in place and applied.
- *An operating budget, maintained in real terms over the 20-year project life.* The operating budget has been maintained over the period, providing for:
 - *Guyra Paraguay project staffing.* In the event it has proved unnecessary to cover a single staff member based in Bahia Negra, the budget instead being spread among several staff members travelling up from Asuncion as required. This is a more flexible arrangement and works well.
 - *A regular income stream equivalent to 1 US\$/yr per ha of project area over the project life to the Yshir via UCINY, to be used at their discretion for purposes improving quality of life of the general community.* Payments of US\$4,745 per annum have been made to UCINY throughout the period.
 - *A field operations budget for supplementary staff, survey and monitoring activity.* The project budget has covered the all the necessary work throughout the period.

At the time of writing the PDD it was envisaged that funds would flow through a long-term management fund. In the event this arrangement was considered unnecessary and funds are instead transferred directly from the project proponent, Swire Pacific Offshore, under an agreed long-term financing contract. A US\$1 million grant from the Global Conservation Fund levered by the project has, however, been used to establish a Capital Fund administered by World Land Trust to support management in the San Rafael area. This fund is structured to allow sub-funds dedicated to other specified areas, including the Chaco-Pantanal, should further contributors be identified.

G3.4. Implementation Schedule

Actions have departed from the schedule to reach milestones in project implementation in the following areas:

- *Milestone 3 - completion of the carbon inventory using appropriate VCS approved methodology, in October 2011.* This was indeed achieved, but improvements were deemed highly desirable. The entire inventory was therefore re-executed, refined and broadened to

include other eligible carbon pools within the project scope. The process is described in the VCS first and second verification reports and has been included in a revised VCS PD as described in footnote 1 above. This process took place in stages through the period of this PIR, being concluded in 2015.

- *Milestone 4 - completion of the CCB and VCS validation process, by April 2012.* The CCB PDD and VCS PD are dated May 2012 while the validation dates are 11 July 2012 and 24 November 2012 respectively.
- *Milestone 5 - formal donation of shared ownership to UCINY and the start of full project activities, as defined under an agreed management framework - March 2011.* As noted above, activities with the participation of UCINY and community members did start in March 2011 following the principles set out in PDD and backed by legal obligations. The agreement was not, however, formalized until 2013 and the donation of shared ownership is still in process.
- *Annual verification for the first five years of project life.* This proved both unnecessary and difficult to accommodate with other work, hence postponement to the present time.

G3.5. Risks and Risk Mitigation

The risk analysis has been revised as part of the revision of the VCS PDD (See Annexe 7A-B). While individual scores are revised, overall risk rating remains low.

G3.6. Maintenance of High Conservation Values

According to the PDD, project activities are aimed at maintaining the status quo on the project area, thus maintaining its High Conservation Values. This has been achieved for the forested habitats throughout the period, which remain unaltered and intact. An area of palm savannah was affected by grass fire in 2012. This was controlled and its impacts on carbon stocks calculated as insignificant under the VCS reporting, demonstrating operational capacity to deal with fire risk. Furthermore, fire is a regular occurrence in palm savannah and the outbreak does not effect HCVs unless the burn impacts on the forest, which did not happen.

Tobich remains the only project instance in the grouped project boundary. Further project instances are under active consideration, however, and actions alongside the project to promote greater landscape connectivity via the protected area network have been established. These are grant-supported and also involve World Land Trust and Guyra Paraguay operating in partnership with financial backing from the Global Environmental Facility (GEF) and Arcadia Foundation.

G3.7. Permanence of Project Benefits

As intended in the PDD, the area is treated as a private reserve under shared management with the community within the existing complex of Guyra Paraguay private protected areas and statutory national parks in the eastern Chaco/Chaco-Pantanal area. This status is permanent, secured by the terms of the purchase agreement (Annexe 1) and the land titles underpinned by the contractual arrangements for long-term financial support.

G3.8. Stakeholder Participation

Regular consultations with community members have been ongoing and a full social monitoring plan has been drawn up (Annexe 10²). This is reported in more detail below.

G3.9. Communications

The community has been informed of the planned verification of the project through UCINY. The Spanish summary of the PIR has been provided to UCINY, along with key project documentation, for communication with the community. Procedures for accessing full project documentation will be communicated to the community via UCINY. Additionally, the community will be informed via UCINY of the opportunities to comment under the CCBA public comment period and directly to the verifiers during their site visit, and how to comment, and of the relevant audit firm / auditor details. Communication with other stakeholders is carried out as required in the PDD.

G4.3. Orientation and Training

The PDD states that training of Yshir community members in protected area management is in-service, with participation in carbon inventory and monitoring as a priority area. This procedure has been followed throughout the period, in both the (re)executed carbon inventory and in biodiversity and social monitoring.

CLIMATE SECTION³

The Net Positive Climate Impact as set out in the CCBA PDD was calculated according to the REDD-MF methodology. As noted, the carbon inventory (G1.4) and emissions reductions (G3.1) have been revised in the intervening period. This occurred as follows:

Baseline Carbon Stocks

An internal quality control check by the proponent in October 2012, addressing issues raised during validation, identified errors in the initial calculation of carbon stock values. This resulted in a revision of the carbon stock values and corresponding emissions reductions. This is detailed in VCS Monitoring Report 01. During verification, the audit team reviewed the field evidence for the new carbon stock numbers as well as their underlying calculations and concluded that the new analysis was both more accurate and much more conservative. This is duly noted in the Verification Report, as an important deviation from the original PD.

The revised figures were estimated from above-ground tree biomass and its associated below-ground biomass only. They omitted important carbon pools in this forest type despite their being within the project scope - above-ground non-tree woody biomass (i.e. woody vegetation with dbh 1-10 cm), its associated below-ground biomass, dead wood and litter. Furthermore, estimated carbon stocks in three strata – ancient stream-lines (paleocauce), palm savannah and the low forest-palm savannah transition – were based on secondary sources.

The inventory, while certainly conservative, was therefore unrealistically low. In order to increase accuracy, the inventory was therefore repeated to account for these pools using a more robust methodology and including direct measurement of all strata. Organic soil carbon remains unaccounted for however and, in the absence of timber use, harvested timber products represent a zero pool. This work was undertaken through July-August 2013, in preparation for the 2nd VCS verification audit. It is described in detail in VCS Monitoring Report 02, with Standard Operating Procedures derived from Winrock International's Terrestrial Carbon Measurement Standard Operation Procedures (Version 2012). The revised inventory data (Annexe 5) is used in the quantification of GHG removals and emissions from the second project year onwards (see Annexe 6) and supersedes with greater precision the estimates previously given in the original VCS PD and Monitoring Report 01. The calculations were carried out using the latest versions of the relevant VCS modules. Modules that were updated were:

CP-AB (VMD0001) – Estimation of carbon stocks in the above- and below-ground biomass in live tree and non-tree pools, v1.1.

BL-PL (VMD0006) – Estimation of baseline stock changes and greenhouse gas emissions from planned deforestation, v1.2.

³ All publicly available VCS documents referenced in this section can be found at http://www.vcsprojectdatabase.org/#/project_details/953. Other documents are held by the project auditors TUV Sud.

LK-ASP (WMD0009) – Estimation of emissions from activity shifting for avoided planned deforestation and planned degradation, v1.1

Deforestation Rate

During the revision undertaken at the second verification, as part of the effort towards greater precision, opportunity was also taken to increase the number of proxy areas from six (as in the PD) to twelve. The data and the adjusted deforestation rates are also given in Annexe 6.

The carbon inventory and emissions reductions for the first monitoring period (2011/12) do not include an adjustment for the inclusion of the additional carbon pools, or the change in deforestation rate, but are the values verified at the first verification.

As noted in 3.1 above, deviations from the project description were detailed in Monitoring Report 02 and validated at second verification. However, a revised Project Description has been requested by the Verified Carbon Standard and the second verification report will be issued once the revised Project Description has been finalized.

The results given in the revised VCS PD include re-assessments of:

- Positive Net Climate Impact (CL1.4)
- Determination of Leakage Extent (CL2.1);
- Climate impact monitoring (CL3.1 and CL3.2)

CL1. Net Positive Climate Impacts

CL1.4. Positive Net Climate Impact

The revised gross benefit through the 20 year project is to avoid emissions from the reduction in carbon stocks in all pools of 463,682 tCO₂-e over the Project lifetime. Following REDD-MF methodology and as set out in the revised VCS project description, this gross benefit is discounted for leakage (40% - 185,475 tCO₂-e, using REDD-MF module LK-ASP), uncertainty (12% - 33,602 tCO₂-e, using module X-UNC) and for the VCS risk buffer (10% - 46,369 tCO₂-e). Net benefits attributable to the project therefore amount to 198,238 tCO₂-e (see Annexe 6 Net Emissions Calculations).

The net benefit to the end of the period under review is to avoid the emission of 50,113 tCO₂-e. The period under review is 25/2/2011 to 31/8/2015 (4.5 years), therefore the calculation is as follows: emission reductions for years 1 to 4 + 50% of emission reductions for year 5 = 43,746 + (12,734 * 50%) = 50,113 tCO₂-e (See Annexe 6 “Net Emissions Calculations”, also annexed to the revised PD⁴).

Year 1 has been verified as avoiding 7,601 tCO₂-e emissions - See Verification Report http://www.vcsprojectdatabase.org/#/project_details/953. The revised VCS Project Document shows the projected emissions reductions for the project lifetime and the period to 31/8/2015 (See Annexe 6 “Net Emissions Calculations”, also annexed to the revised PD⁵).

⁴ The revised Project Description is held by the project auditors TUV Sud.

⁵ The revised Project Description is held by the project auditors TUV Sud.

CL2. Offsite Climate Impacts ('Leakage')

CL2.1. Determination of Leakage Type and Extent

The leakage calculation was revised due to the knock on effects of the revisions made to the carbon inventory and emissions reductions calculations. The basic approach remains the same with a proportional leakage factor of 0.4 used to calculate activity shifting leakage.

CL2.2. Leakage Mitigation Measures

Guyra Paraguay has continued to promote livestock production approaches and techniques compatible with retention of natural habitat and ecological quality. It is working with the US Forest Service and various national institutes to advance with good practices of grazing in the project zone. Additionally, Guyra Paraguay and La Secretaría del Ambiente (SEAM) launched a program for the promotion of Natural Chaco Beef to improve production of meat in the Chaco from areas which have not been subject to deforestation.

Guyra Paraguay continues to work closely with the relevant Paraguayan authorities in order to improve their control capacity and at the same time is working on capacity building in environmental units within the Municipality of Bahia Negra to reinforce monitoring skills at a local level. It has also digitalized 274 environmental licenses issued by SEAM and will compare the legalized / planned deforestation with the current patterns of deforestation to understand illegalities and non-compliance with the law.

Guyra Paraguay is working closely with the private sector (ARP - Rural Association of Paraguay and FEPAMA – the Federation of Timber Producers) to contribute to climate change policies at the national level.

These activities continue to be supplemented by other activities promoting forest protection and conservation of natural habitats, particularly involving the local community: employment and training opportunities for community members in conservation management, not only through this project but in conservation management in all Guyra Paraguay reserves in the region; inclusion of the community funding component of the project to provide a reliable income stream supporting actions benefitting the Yshir community; support for the Bahía Negra Environmental Youth group

CL2.3. Carbon Benefit Deductions for Leakage

The full deduction of 50,351 tCO₂-e is made - 40%, using REDD-MF module LK-ASP (leakage for years 1 to 4 + 50% of leakage for year 5 = 44,400 + 5,951 = 50,351).

CL3. Climate Impact Monitoring

CL3.1. Monitoring Plan

During the period under review the monitoring plan was refined as follows:

The monitoring plan was refined in Monitoring Report 01 to address observations made during the validation process. This included removal of parameters that were not required plus insertion of parameters that were measured but not specifically cited in the plan. These changes brought improved clarity to the documentation of monitoring procedures and were implemented subsequent to project validation, in advance of initial credit verification.

Further refinement of the monitoring plan is reflected in Monitoring Report 02 and the revised PD. Parameters relevant to the additional carbon pools accounted for in 2013 have been added to the lists of data available at validation and monitored parameters and refinements were made according to audit's protocol provided during the second verification. Values have been updated throughout the monitoring plan to reflect results of the revised inventory. The list of data and parameters monitored has been reformatted to conform to the VCS v3.3 template.

Members of the Yshir community participate in all carbon related field measurements.

Monitoring:

The image sequence below shows that forest cover remains unaltered during the period under review. A fire in 2012 was assessed to be insignificant (see Monitoring Report 02) using the relevant VCS methodology and no other natural disturbance has been noted during the period under review. This supports the net benefit to the end of the period under review of 50,113 tCO₂-e, as noted in CL1.4 above, and in compliance with the VCS monitoring plan.

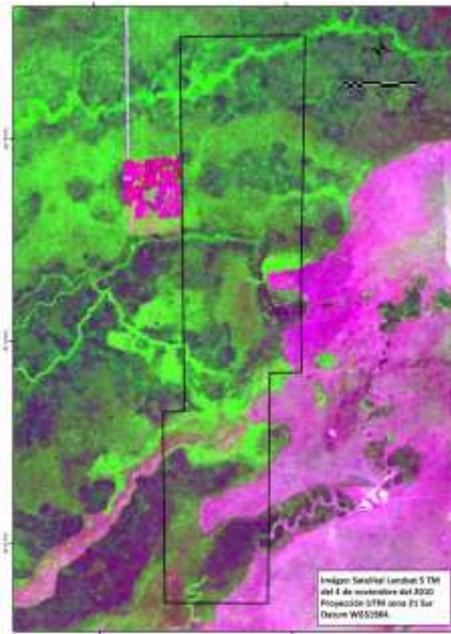


Figure 1 - Tobich project area – 4th Nov 2010

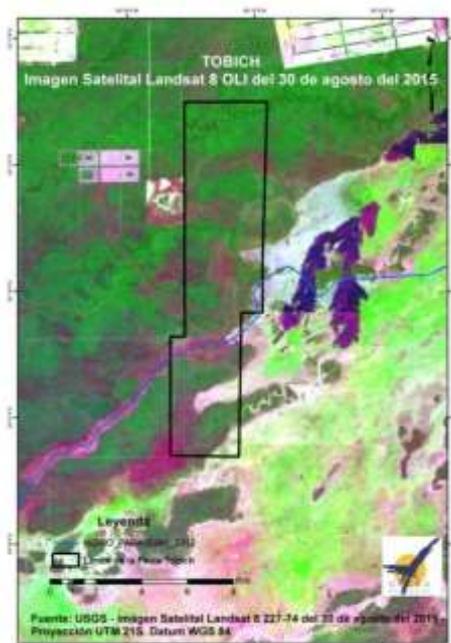


Figure 2 – Tobich project area - 30th Aug 2015

CL3.2. Development of Full Monitoring Plan

The monitoring plan was detailed in the original VCS PD and has been refined during the period under review as detailed in CL3.1 above. The PIR and relevant annexes are to be posted on the WLT and Guyra Paraguay websites and stakeholders made aware via their representative organizations. A member of the local community, works as the “Jefe de Area - Estacion Biologica Los Tres Gigantes” for Guyra and is in charge of communications. The development of a website for the Yshir is in process.

COMMUNITY SECTION

CM1. Net Positive Community Impacts

CM1.1. Community Impact Estimates

The indicators are designed to demonstrate the net benefit to participants in terms of their natural, financial, social, human and physical capital (See Annexe 9).

Natural Capital	Feb 2011	Cumulative to 31/8/2015
Hectares of land secured for the conservation of its forest cover, stored carbon, biodiversity and characteristics of cultural importance to the Yshir-Chamacoco and for traditional use by the Yshir-Chamacoco	0	4,745
Transfers of project land to Yshir-Chamacoco through the Union of the Communities of the Yshir Nation (UCINY)	0	0 – process initiated (section 3.2.1)
Number of beneficiaries of the ecosystem services conserved	0	Yshiro community members Total: 1,915 (1,012 males and 903 females)
Financial Capital		
Payments made to UCINY (\$)	0	\$18,980 (\$2,372.50 accrued)
Payments to community members employed during the project (\$)	0	\$8,045
Social Capital		
Payments made to UCINY (\$)	0	\$18,980 (\$2,372.50 accrued)
Number of activities that the money given to UCINY funded	0	Attended 8 proceedings before the Instituto Paraguayo del Indígena (INDI) and authorities; 4 meetings of the UCINY Council of Leaders
Human Capital		
Number of visits, and specific efforts, in which the community was involved <ul style="list-style-type: none"> • Carbon • Biodiversity 	0	7 2
Number of visits by the forest officer	0	10

Number of activities undertaken to enhance knowledge of the HCV in the forest and palm savannah <ul style="list-style-type: none"> • Carbon • Biodiversity 	0	2
Physical Capital		
Hectares of land secured for the conservation of its forest cover, stored carbon, biodiversity and characteristics of cultural importance to the Yshir-Chamacoco and for traditional use by the Yshir-Chamacoco	0	4,745
Transfers of project land to Yshir-Chamacoco through the Union of the Communities of the Yshir Nation (UCINY)	0	0 – process initiated (section 3.2.1)

Additionally, as noted in G3.2.1, a shared management agreement drawn up between Guyra Paraguay and UCINY, stating the joint aim to maintain the area in perpetuity under a conservation regime that retains its biodiversity and cultural values has been signed (Annexe 4).

A possible negative impact noted in the PDD is social divisiveness, perhaps stemming from one Yshir community deriving more benefits from the project than another. This risk has been mitigated by working through UCINY, which represents all the communities concerned, and this issue was not raised during the social review carried out during the period under review (Annexe 8).

The results show net social benefit to community members participating in the project over early 2011 (immediate pre-project) conditions.

CM1.2 Impact on HCVs

The conservation of forested land, threatened with conversion, has enhanced the Yshir's access to an area of cultural significance. The Yshir can use Tobich for traditional uses, for example, cultural ceremonies.

Further, the conservation of forested land has contributed to the conservation of regional ecosystem services (for example, hydrological regulation) and has thus benefited the Yshir (see biodiversity monitoring).

The conservation of the land, as reflected in the monitoring in CM1.1 above, indicates that these values, which have been identified by the Yshir as important as noted throughout the PDD, have been conserved. Further involvement of the Yshir in surveying the area is reflected in the monitoring indicators above. Some of these activities were aimed at developing knowledge of HCV's at the project site and this process is aimed toward developing additional indicators of HCVs of community importance. As the Yshir participate in biodiversity monitoring, as detailed in B3.1 below, this

process will continue and the biodiversity monitoring will include species of importance to the Yshir which are HCVs of community importance.

CM2. Offsite Stakeholder Impacts

CM2.1-CM2.2 Offsite Stakeholder Impacts

No negative off-site community impacts have been noted, see CM1 above.

CM2.3 Negative Impacts on Other Stakeholder Groups

The development of Tobich is now not possible. However, this is offset by retaining a measure of environmental quality within a landscape that is likely to be fundamentally altered in the foreseeable future.

CM3. Community Impact Monitoring

CM3.1. Community Monitoring Plan

The community monitoring plan has been finalised (Annexe 10⁶), with indicators monitored since 2010/11. This has been developed with reference to the CCBA Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects (2011) and includes monitoring of High (Social) Conservation Values.

A full five year review of the social element of the project is presented in Annexe 8. This sits alongside Annexe 9 which reflects the project indicators to year five. This report stems in part from a recent monitoring exercise undertaken with the Yshir on-site in the community, and includes a more detailed analysis of salient points related to the indicators reflecting the Yshirs' assessment.

The PIR and relevant annexes are to be posted on the WLT and Guyra Paraguay websites and stakeholders made aware via their representative organizations.

CM3.2. Monitoring Plan for HCVs

See CM1.2

CM3.3. Development of Full Monitoring Plan

The community monitoring plan has been finalised as detailed in CM3.1 above.

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http://www.guyra.org.py/index.php?option=com_k2&view=item&layout=item&id=893&Itemid=292&lang=es

BIODIVERSITY SECTION

B1. Net Positive Biodiversity Impacts

B1.1. Biodiversity Impact Estimates

Positive biodiversity impacts have come from two sources:

- Maintenance original vegetation cover through the protection of the Quebracho forest, along with the conservation of endangered species, important conservation targets inadequately captured by the existing protected area system. The project component conserves a significant tract of Quebracho forest, supplementing the Guyra Paraguay private reserves on the Rio Negro and the area within the Fortin Patria property. Other areas within the proposed extension of the Rio Negro National Park can no longer be considered secure.
- Improvement in ecological connectivity in the wider context of conservation management in Alto Paraguay. The lands secured form part of the broader complex of protected areas in the region with project actions contributing to the larger effort. This area covers over 1 million ha. Positive project impacts are thus elevated to landscape and even ecosystem level, in an area (Dry Chaco, Chaco-Pantanal, Pantanal, Río Paraguay) of extremely high conservation value and exposed to extreme threat. This applies to the project as it stands, with the expectation of yet greater benefits through the multiplier effect of its demonstration value.

Furthermore, no convincing negative biodiversity impact can be identified to set against these benefits.

At this time, the baseline has been established using previous field data. The initial fully comprehensive biological monitoring will be carried in October 2015 as detailed in the biodiversity monitoring plan. The first re-assessment has not been made; hence no trend can be established. Nonetheless, the two indicators above are fulfilled: positive impacts for ecosystems and the landscape have been achieved as a result of the avoided deforestation; species and ecosystems defined as HCVs, and within IBAs, are present and thus positive impacts on these, in comparison to baseline, would have been achieved. These are all positive values.

B1.2. Impact on HCVs

As noted, retention of a significant area of natural habitat retains high conservation values in a landscape where those values would have been seriously eroded by clearance and transformation.

B2. Offsite Biodiversity Impacts

No Negative offsite biodiversity impacts have been identified. If vegetation cover is lost, this would negatively impact the landscape in terms of soil degradation, water quality and fire incidence. Protecting the ecological process helps to maintain the habit and prevents these impacts.

B3. Biodiversity Impact Monitoring

B3.1. Biodiversity Monitoring Plan

Guyra Paraguay has finalised the monitoring plan (Annexe 12⁷), using criteria derived from the formal HCV system to identify and monitor Important Bird Areas/Key Biodiversity Areas across the country, as well as the formal Rapid Ecological Assessment methodology, including as a key component, satellite monitoring of land use change, droughts or floods and fire. These give both baselines and an objective, measurable system for monitoring both temporally at a given site and spatially between sites. They will therefore be applied to the project site and used as the monitoring system, with formal re-assessments at 5 year intervals allowing direct comparison of performance in terms of threat alleviation spanning the pre- and post-implementation periods. This will be maintained throughout the 20 year project life.

Work carried out through 2011-14 has contributed to the establishment of baseline data and is based on both collections and published work (Annexe 13). Forest cover in the project zone was monitored annually as detailed in the VCS Monitoring Reports 01 & 02 and quarterly since January 2013 as detailed in Annexe 14. This has been extended to include the Yshir communities in the vicinity of Bahia Negra. As detailed in section CM1.1 above, 4,745 hectares have been secured for conservation at the project site, while leakage is calculated at 40% according to the VCS methodology applied. Therefore, a net positive benefit is achieved as indicated in section B1.1 above with hectares *additionally* conserved accruing over the project life.

The initial fully comprehensive biological monitoring will be carried in October 2015 as detailed in the biodiversity monitoring plan. As part of the monitoring plan, people from the Yshir community will take part in the field work and receive training in monitoring techniques. Also, the monitoring will be enriched with traditional knowledge and include species of importance to the Yshir as biological indicators for the community.

B3.3. Development of Full Monitoring Plan

The biodiversity monitoring plan has been finalised as detailed in B3.1 above. The PIR and relevant annexes are to be posted on the WLT and Guyra Paraguay websites and stakeholders made aware via their representative organizations.

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http://www.guyra.org.py/index.php?option=com_k2&view=item&layout=item&id=893&Itemid=292&lang=es

Gold Level Section

GL1. Climate Change Adaptation Benefits

The issues identified in the PDD were to maintain ecological and social resilience to climate change by maintaining a healthy ecosystem and the ecosystem services it provides. Given that the project area maintains these characteristics, these objectives can be considered achieved.

GL2. Exceptional Community Benefits

The World Bank classes Paraguay as a medium development country, but with marked inequalities of wealth in which the Yshir community is towards the bottom end of the scale as described in the PDD. This situation remains unchanged.

Benefits are channelled through UCINY which, through its organisation as the council of leaders of the communities concerned, ensures that benefits are equitably distributed, directed towards the consensus on priorities, and present no barriers preventing benefits flowing to poorer households. Additionally, negative project impacts have not been noted for any community members (Annexe 8).

It was noted during the social monitoring that the abundance of fish, on which the poorer and more vulnerable groups rely, has decreased in the area. Project actions which promote hydrological integrity in the area would mitigate this to an extent.

GL3. Exceptional Biodiversity Benefits

- Two globally vulnerable species have been noted on the project area – Lowland Tapir *Tapirus terrestris* and Giant Armadillo *Priodontes maximus*. The population levels have not been determined but an area of 4700 ha is likely to be large enough to support several individuals, particularly when remaining connected to contiguous habitat as provided for in the regulations for land clearance.
- The Río Negro National Park and its extension are an Important Bird Area and thus also a Key Biodiversity Area (KBA). The southern border of the IBA is artificial, following the line of the road (Linea 1) into Bahía Negra – it was designed to cover the protected area complex and its proposed extensions as they stood at the time of the IBA designations. The project site is located immediately to the south, shares the ecological characteristics of the IBA and will also be treated as part of the same larger protected area complex.

These characteristics were identified in the PDD and remain uncompromised.

Changes to Project Design

Biodiversity Monitoring

The detailed monitoring methodology and frequency of field monitoring were changed as the finalized monitoring plan was developed, with the initial biodiversity field monitoring scheduled for October 2015. Reasons for this were threefold: firstly, the detailed monitoring operations were delayed to an extent as VCS validation and verification were pursued; secondly a new biodiversity monitoring officer was employed by the project and finalized the plan according to methodologies of her preference; thirdly monitoring operations were streamlined according to need.

As the changes involved substituting one technically appropriate field monitoring methodology for another to achieve the same aim, as baseline data has been built up during the project implementation, and as remote monitoring consistently proves net positive impacts on biodiversity against baseline and the maintenance of the identified High Conservation Values in the project zone, the changes are considered minor and in conformance with the CCB Standards criteria and indicators.

Community Monitoring

Similarly, the detailed monitoring methodology was changed as the finalized monitoring plan was developed. This is because monitoring operations were streamlined according to need. Again, as the changes involved substituting one technically appropriate monitoring methodology for another, with project impacts remaining the same, and the finalized plan producing a credible estimate of impacts and demonstrating that no relevant HCVs will be negatively affected by the project, the changes are considered minor and in conformance with the CCB Standards criteria and indicators.