



Darwin Initiative Main Project Annual Report

To be completed with reference to the “Writing a Darwin Report” guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2018

Darwin Project Information

Project reference	23-016
Project title	Yerba mate – a market-driven model for conserving Paraguay’s Atlantic Forest.
Host country/ies	Paraguay
Contract holder institution	BirdLife International
Partner institution(s)	Guyra Paraguay , Lauro Raatz S.A, Guayaki, Municipality of Alto Vera and the State Government of Itapúa, Universidad Nacional de Asunción
Darwin grant value	£ 309,244
Start/end dates of project	1 st April 2016
Reporting period (e.g., Apr 2017 – Mar 2018) and number (e.g., Annual Report 1, 2, 3)	Apr 2017 – Mar 2018 Annual Report 2
Project Leader name	Dr Nonie Coulthard
Project website/blog/Twitter	http://www.birdlife.org/americas/partners/paraguay-guyra ; https://twitter.com/guyraparaguay https://twitter.com/BirdLife_News
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1. Project rationale

The principal aim of the project is to provide a pathway to poverty reduction for indigenous and local communities and a sustainable land use model for effective conservation of the Paraguayan Atlantic Forest, a global biodiversity hotspot. The San Rafael ‘Reserve for National Park’¹ is the largest (72,849 ha) and most important remnant of the Atlantic Forest in Paraguay; home to 400 bird species (12 globally threatened), endemic deer, Jaguar and Brazilian Tapir.

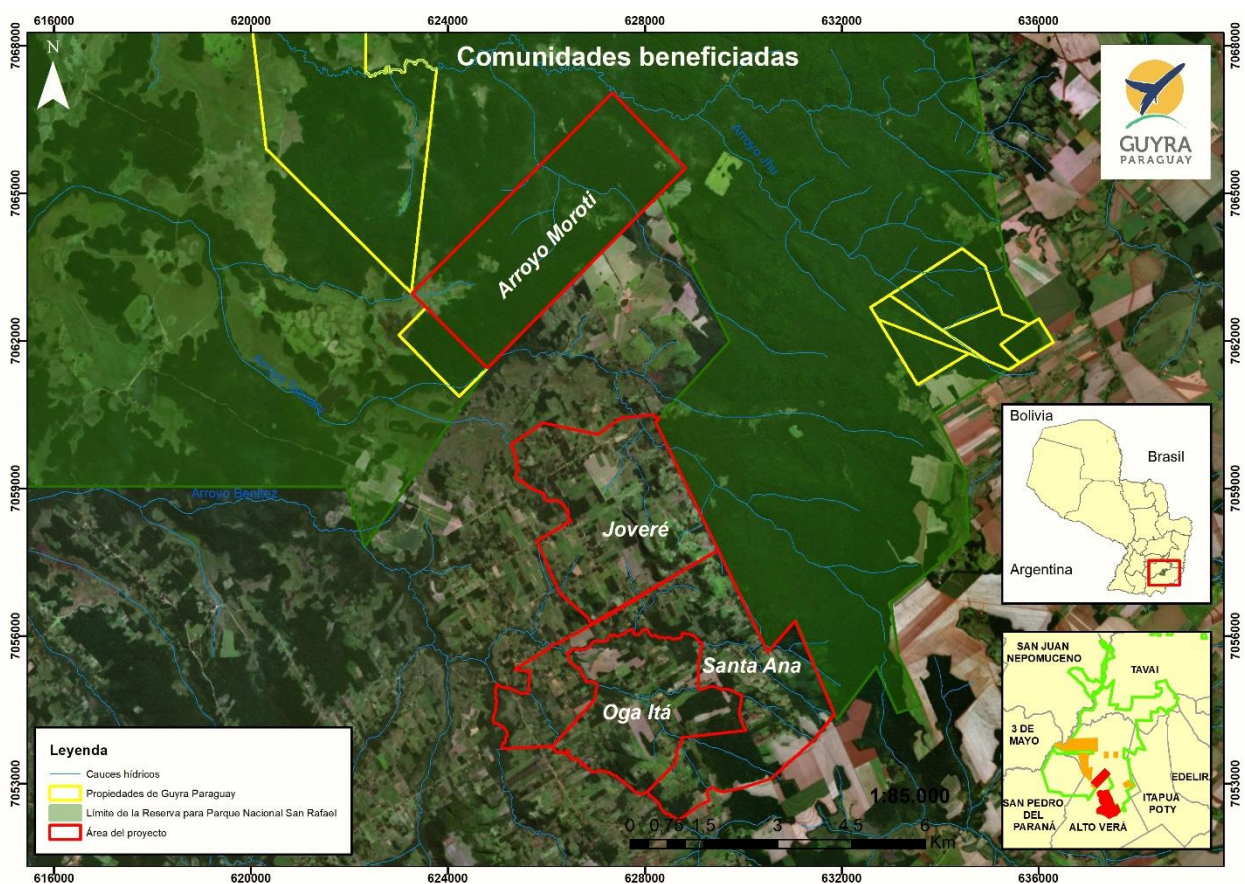
Most Paraguayan Atlantic Forest (AF) lies within Indigenous Peoples’ (IP) ancestral domain. Within the San Rafael ‘Reserve for National Park’, 600 indigenous Mbya Guarani people live in 22 communities, which are all dependent on the forest for products, as well as cultural and ecosystem services. Two of these communities (Arroyo Moroti and Arroyo Claro, 240 people) who were previously transient, settled in 1995, with tenure of c. 1,200 ha. (although the whole Reserve area is claimed as their ancestral territory). In addition, 3 communities of small-landowners (‘*campesinos*’), c.3,000 people, live (legalized) in the Reserve’s buffer zone.

¹ The San Rafael area has been declared as an area “reserved to become a national park”

San Rafael communities live in extreme poverty, lacking basic services such as health, education, and sanitation, and also the technical skills and capacity to access markets and trade goods. They instead rely on subsistence and small-scale cash-crop² agriculture which is inadequate for basic needs and leads to food insecurity and child malnutrition.

As a result, *campesino* communities encroach on the reserve; land clearing for agriculture in the buffer zone exacerbates the threat of forest fires and both indigenous and *campesino* communities are driven to illegal activities (timber cutting for charcoal, marijuana cultivation) affecting c.500 ha of the Reserve to date. This problem is mirrored in a further c. 80,000ha of unprotected AF in Paraguay³, and there is a need for demonstrable solutions and policy to provide livelihoods for forest-dwelling IPs and *campesinos*, alongside forest conservation.

BirdLife/ Guyra Paraguay identified this challenge and possible solutions during more than 15 years working with communities and government departments in San Rafael. The project is addressing these problems and identifying and demonstrating solutions with one Mbya Guarani (IP) community (Arroyo Moroti) and the *campesino* communities of Oga Ita, Santa Ana and Joveré (Starting in Joveré from 2018). (see Map 1).



Map 1. Current community beneficiaries of the project and their location in San Rafael (red lines: these communities; yellow: Guyra Paraguay properties; green: The San Rafael Reserve for National Park)

The project aims to build capacity amongst these communities to develop the cultivation of organic, shade-grown yerba mate, thereby promoting local economic development whilst maintaining the forest. The leaves of native yerba mate (*Ilex paraguariensis*) have been harvested traditionally in South America for centuries, to make “mate” (tea). Predominantly grown with full sun exposure, it can be shade-grown under native trees, adding value to standing forest and supporting biodiversity, including globally threatened species⁴. The higher prices paid for

² Mainly corn (maize) and sesame respectively

³ Data from the Paraguayan Indigenous Institute <http://www.indi.gov.py/> (Instituto Paraguayo del Indígena – INDI)

⁴ Kristina L. Cockle, Marty L. Leonard and A. Alejandro Bodrati (2005) Presence and abundance of birds in an Atlantic forest reserve and adjacent plantation of shade-grown yerba mate, in Paraguay. *Biodiversity and Conservation* 14: 3265–3288

organic, shade-grown yerba (compared with “conventional” non-shade production) compensate for slightly lower yields (and longer time to first harvest) and increased labour.

2. Project partnerships

BirdLife International is the lead partner, providing overall project coordination, through staff of both the Global (Cambridge) and Americas Regional Secretariat (Quito). The main activities are to coordinate the monitoring and evaluation of the project, review progress against project indicators and look for alternative approaches if difficulties emerge; efficiently manage the funds and find new matched funds; oversee reporting and liaison with the Darwin Initiative. In addition, the Secretariat roles include maintaining synergies with other Atlantic Forest conservation projects in the region, and ensuring dissemination and sharing with other biodiversity, sustainable livelihoods/ alternative incomes, community engagement and empowerment programmes within the BirdLife network. The relationship between the BirdLife Secretariat and the national Partner in Paraguay (Guyra Paraguay: GP) is based on over 20 years of support and joint project work. The relationship is very supportive of the in-country work and has developed well in Years 1 and 2. Guyra leads the in-country project implementation and relationships with all other project partners locally and nationally in Paraguay.

In Paraguay, the partnerships at the local level are proving very effective with enthusiastic engagement from local communities invited to participate in the project, and additional communities asking to participate in the shade-grown yerba mate planting and associated project initiatives. The Municipality of Alto Vera and the local mayor are engaged and committed. The project team (10 staff) from Guyra Paraguay support and monitor the work on the yerba mate plantations and associated forest rehabilitation very closely. After 2 years of the project, the beneficiaries have very high confidence in Guyra's work. The presence of the Guyra team in the area is constant, and the local consultant engaged by GP to monitor the evolution of the yerba mate plantations and manage the parcels, as well as train the communities in their management, also visits the plantations and beneficiaries every week of the project.

The private sector partner, Guayaki (<http://guayaki.com/>) is very supportive in providing advice and training on shade-grown, organic yerba mate as well as future marketing, certification and export. In the original proposal, other private sector supporters were proposed (Lauro Raatz S.A.) but this did not yield anything. The support provided by Guayaki more than compensates for this and is greater than envisaged in the proposal. The Guayaki regional manager Nelson Guaray (consultant to the project) regularly monitors the planted plots and helps build capacity through technical assistance, training, and advice on production, sales, and marketing processes under a cooperation agreement between Guyra Paraguay and Guayaki. This also formalizes Guayaki's interest in purchasing the future product and continuing technical assistance, (including beyond the term of the Darwin project funding).

Another private company, Yerba Mate Pajarito, is also providing technical assistance to Guyra and the project, to develop and promote organic and shade-grown yerba mate production and to advise on certification. This company is also exploring the possibility of establishing an “Organic Certified Yerba Mate Dryer of Yerba Mate Pajarito” – which would allow project producers to access a local green-leaf processing service in the initial years of shade-grown yerba mate production. The agreement has not yet been formalized but discussions and joint fundraising efforts are ongoing (to achieve a drying process of sufficiently high quality to meet the requirements of organic certification).

The support from the State government of Itapúa has improved in Year 2. Continuous meetings have been maintained and the "Yerba Mate Forum in Native Forest" was held in September 2017 in Itapúa, with the participation of all the project beneficiaries (see details in Section 3).

Although the original plan for support from INFONA (Instituto Forestal Nacional) as a member of a Project Steering Committee was not achieved, other support has exceeded original commitments, with a donation by INFONA of over 2,000 native tree seedlings of 5 different species to enrich species diversity in yerba mate parcels where natural regeneration and

recovery of native forest species is being promoted. Guyra Paraguay keeps INFONA informed of all activities and other information generated from the project, including results of monitoring of forest cover, and incidents of environmental crimes. A Change Request was made to amend the Log Frame to reflect the new approaches to engaging and raising awareness with government at all levels (see Section 3, Output 4; Section 8. M+E and Annex 2). Paraguay held elections on April 22, 2018. This will inevitably mean changes in government administrations (and a new President of INFONA) but at the time of writing it is not known whether this will help or hinder project and Guyra Paraguay relations with INFONA.

All biodiversity monitoring work is carried out in collaboration with the University of Asunción. Students guided by Dr. Lourdes González are part of the team that collects the information in the field and analyses it with the Guyra science team. The updating of the information for the IBA San Rafael will be incorporated into the BirdLife database, as well as the information on species (submissions to the Red List and updates of their conservation status).

There is no formal Project Steering Committee (it proved impossible to establish this with government engagement as originally proposed). Instead, the Monitoring and Evaluation (M+E) Steering Committee adopted the role of overall project oversight, monitoring and guidance. The M+E Committee is composed of key project staff in BirdLife Secretariats and the national Partner (Guyra Paraguay), together with University staff and consultants involved in all the aspects of project M+E. It met 4 times in Year 2, including a site visit to San Rafael in March 2018, to carry out a project mid-term review, to help identify evidence for the Year 2 Annual report and to respond to some of the Review queries on the Year 1 AR (see Section 8. M+E).

3. Project progress

The majority of Activities and Outputs for Year 2 were completed successfully, except for some aspects of Output 4, where the proposed government collaboration was not forthcoming and other ways to achieve the policy engagement and awareness objectives had to be found (see 3.1 – 3.3 below). Overall progress is very good, especially in relation to the strong and growing engagement and capacity development of both *campesino* and indigenous Mbya Guarani communities, and the increasing confidence in the project and the model of shade-grown yerba mate production. Project communities are implementing yerba mate shade plantations, attending the training offered, and preparing new areas of land to incorporate this cultivation technique, both in the hectares planned for the project and additional areas of their farms. Much of this additional area is old tung⁵ plantations or others where gradual removal of these exotic species and replacement by native tree species (natural regeneration and planting) will also contribute to Atlantic Forest recovery in the long-term. Progress towards the majority of Output and Outcome targets in Year 2 is good, and the Monitoring and Evaluation Steering Committee has met and reviewed progress (including a “mid-term” project site visit) which helped to clarify BirdLife staff roles and reporting at national, regional and global levels, as well as reviewing project progress and all aspects of the M+E Plan. The M+E Committee meetings and site visit also allowed for review and changes to the wording of some Log Frame indicators and targets. This was the subject of discussion with LTSI advisers and submission of a Change Request approved at the end of Year 2. This document reports against the new Log Frame as advised by LTSI. (See also Section 8. M+E and the new Log Frame and rationale for changes at Annex 2).

3.1 Progress in carrying out project Activities

Progress towards the planned Outputs is good, with the majority of activities completed successfully. For more detail and location of supporting evidence see Annexes 1, 3 and 4.

⁵ Tung is a non-native tree from Asia, widely planted as a shade tree and for local and small-scale commercial uses in San Rafael outside the Reserve. <https://www.britannica.com/plant/tung-tree>

Output 1. *Institutional frameworks (CBOs) with the capacity (social and institutional capital) for cultivation, marketing and benefit-sharing of shade-grown yerba mate established through a participatory process among settled Mbya Guarani and campesino communities in San Rafael.*

Activity 1.3 - *Training workshops (on technical aspects of tree care and management; harvesting; processing etc.) for technicians, leaders and members of the indigenous and farmer communities*

Training workshops were carried out to enhance shade-grown yerba mate development in plots of the Indigenous Community of Arroyo Moroti and *campesino* in Oga Ita and Santa Ana. In total, seven more training workshops were carried out. Most of the training is carried out in the field, so that the producers can learn in practice, working particularly intensively with the new producers in Santa Ana, who are learning about shade-grown and organic yerba mate production. In addition to technical visits which provide recommendations specific to each parcel, this year training focused on three topics: pruning for good plant recovery; good soil management and conservation; and crop management under an organic system in order to ensure implementation of the practices that will allow certification. Seven group workshops were carried out, along with 176 visits (all parcels), providing technical recommendations, and building capacity and experience. Trainees included some producers who have mature yerba mate plantations (planted before the project) and new producers who planted shade-grown yerba mate in 2016 and 2017. Eight producers have applied the new techniques learnt to their mature plantations. Excellent results were observed during verification visits, where the knowledge gained and applied by producers, and the healthy state of the plants were manifest. The workshops also opened up a broad discussion about the field work challenges, product prices, productive capacity, and quality of yerba mate. The communities already have a good level of training and management of the yerba and implement all the recommendations that the consultant (Miguel Aquino) is providing. They are very engaged and see shade-grown yerba mate as a viable alternative to improve their quality of life. Currently both men and women are participating in trainings and workshops, and the project staff make particular efforts to ensure attendance of women even though the majority of producers (*campesino*) are men. For the Indigenous Mbya Guarani all activities are organized in family groups, though traditionally men take care of hunting and are more likely to tend to yerba mate in the forest. (See Record sheets from field training workshops (per parcels), example of training assistance sheet and photos/video in Annex 4) .

Activity 1.4 - *Develop participatory community business and enterprise plans, with support from the private sector.*

A first draft of the business plan was developed in Spanish, with support from the consultant and private sector partner, Guyaki. It is divided into two chapters, with basic information about the yerba mate production system and business data including general description, market analysis, competitive scenario, marketing strategy, profit margins and prices. In year 3, Q2 the beneficiaries will meet to discuss and adopt the Plan and agree on the next steps. Versions will be produced in Guarani language and English. The need for certification of shade-grown, organic yerba mate under organic and fair-trade norms has become evident through project implementation (to guarantee premium/ export prices and social benefits/ safeguards). This was not anticipated in the Darwin proposal (or project budget), so the project team is seeking additional funds to help cover the start-up costs (highest during Year 1 certification) and to achieve the initial audits and farm inspections as the first stage towards certification in the Darwin project Year 3. The on-going costs of annual certification are built into the business plan (set against higher prices achieved for premium product) in future years. Additional funds are also being sought for the construction of a local yerba mate dryer to provide project producers with cost-effective access to a local service for production of premium product (instead of traditional drying methods) – which will also be a requirement for future certification. (See Business Plan version 2018 (Spanish) in Annex 4 and Change Request and rationales in Annex 2).

Activity 1.5 - *Training of the communities on farm and business management, focused on marketing and commercialization.*

In addition to discussions and consultation over the business plan (see 1.4 above), training workshops have included management of money and discussions of the requirements under certification (which include the establishment and management of a community fund and mechanism for equitable distribution of benefits). Training was also addressed in the “Yerba

Mate Forum on Native Forests” (in Alto Verá, Itapúa), which led to interest from additional producers and communities, to learn about the project and shade yerba mate. (see 3.3 below and training materials, participant lists, lectures from the Forum in Annex 4). In Year 3, a national programme ‘Más Vale Saber’ (<https://www.masvalesaber.edu.py/>) will be used.

Activity 1.6 - Meetings, negotiation and agreements with the companies committed to and interested in the purchase of the product

Initial negotiations were carried out with companies interested in the product. The principal one is Guayaki, project partner providing the main business support to the project. It is committed to purchasing a portion of the future shade-grown yerba mate produced by the beneficiaries (first harvests in 2020) and also organic (but “conventional” – not shade) yerba mate being grown by beneficiaries for harvest in Year 3 of the project (2018). A cooperation agreement was signed between Guyra Paraguay and Guayaki (see Annex 4. *Agreement between Guyra Paraguay and Guayaki.pdf*), committing the company to the exchange of technical information and technical visits for training and enhancement of shade-grown yerba mate production at San Rafael. It does not explicitly bind the sale of the product to the company but formalizes Guayaki’s interest in purchasing some of the product and promoting technical assistance, (including beyond the term of the Darwin project funding). The advice from Guayaki is that producers should also keep open the possibility of selling some of the product to other buyers in order to maximise their revenues.

The support from the private sector has been extremely encouraging with 5 enterprises interested in buying shade-grown organic yerba mate leaves or products (processed leaves, oil) for different markets (tea, cosmetics): Guayaki SRP (in USA); LUSH (Brazil); Abu Khuzam (Lebanon: through the BirdLife International Partner SPNL); Yerba Mate Pajarito (Paraguay) and Yerba Mate Montana (USA) who are interested in visiting the project in July 2018 to assess the parcels and evaluate the possibilities of purchasing yerba mate from project producers. (See Table 1 below). Guayaki and Yerba Mate Montana are interested in buying only yerba mate leaves and understand that negotiations will also be carried out with other purchasers. Currently, producers also sell the leaves and the stems (in Spanish *palos*) of (conventional) yerba mate for local consumption and use. A total of seven kilograms of organic yerba mate samples were harvested in Oga Ita in Year 2, dried locally using the traditional method, and samples were sent to LUSH (UK and Brazil) and other potential buyers for their assessment.

Table 1: Interest from potential private sector purchasers in yerba mate from project producers

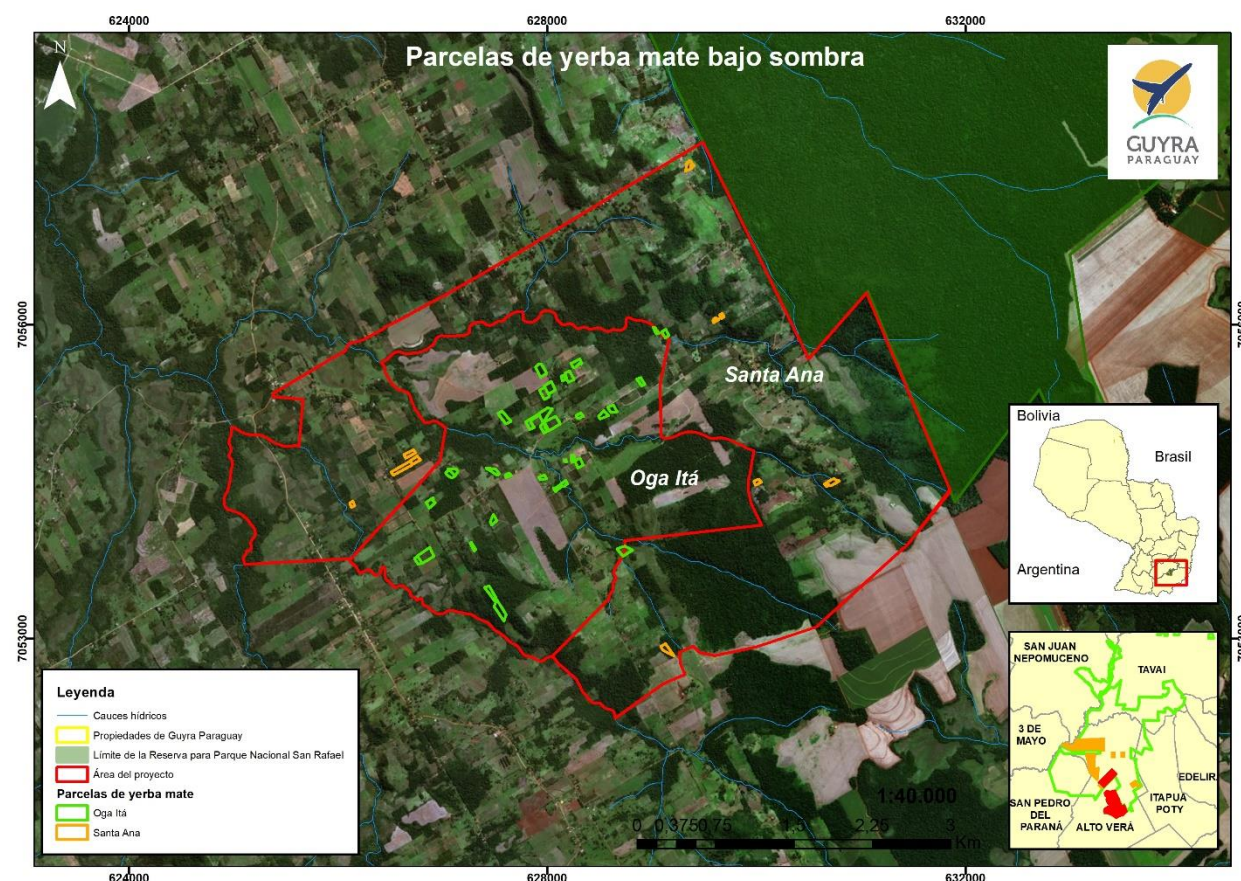
Potential buyers	Enterprise type	Type of interest product	Date of contact	Pros	Obstacles	Opportunities
Guayaki SRP http://guayaki.com/	Organic, fair trade yerba mate company	Processed yerba mate for the mate tea and soft drinks production	March 2016	Formal interest in buying the product	Organic and fair-trade certification needed; product needs to pass through the yerba mate industry	
Rawad Abu Khuzam	Yerba mate traders from Argentina to the Lebanon and other countries	Final product for mate tea	October 2016		Requires an intermediary enterprise to make the exportation	
Yerba Mate Pajarito http://www.pajarito.com.py/	Organic and conventional yerba mate company	Processed yerba mate for the mate tea production	January 2017		No interest in buying organic product produced by different producers because of the lack of control over crop management	Renting their certified yerba mate dryer to sale to Guayaki

Output 2. *Shade-grown yerba mate is being grown in 50ha of indigenous peoples' and campesino forested lands increasing incomes, and restoring/ maintaining habitat suitable for threatened Atlantic forest endemics*

Activity 2.2 - *Planting of 10 ha of yerba mate in the communities of Arroyo Moroti (and Arroyo Claro); 40 ha in the farmer communities.*

New communities have been incorporated and some revisions made to the planned ha of planting for each community. This was justified by the positive response from other communities, an assessment of the status of the initial target plots of beneficiaries (some of which were not suitable for developing shade-grown production), and above all, the overall goal of the project team to benefit as many communities residing in and around the Atlantic Forest as possible.

To date, the indigenous (Mbya) community of Arroyo Moroti has planted 9.5 ha (c. 28,000 seedlings), with 119 beneficiaries, and plan to increase this by 0.5 ha in Year 3. The plan for planting by other Mbya families in Arroyo Claro was dropped early in Year 2 because their plots are surrounded by intensive soybean plantations, meaning that yerba mate produced there cannot fulfil the requirements of organic certification. Three campesino communities are now involved: Oga Ita, where 15 ha has been planted, using 74,700 seedlings so far; Santa Ana with suitable forest where 2.5 ha was planted using 9,300 seedlings (close to Oga Ita - See Map 2), and Joveré where 23 ha of planting is planned for Year 3. Not all seedlings develop well, and some replanting is necessary, especially in the first 2 years, until the seedlings are established.



Map 2. *Shade-grown yerba mate parcels planted in campesino communities Santa Ana (orange) and Oga Ita (green)*

Activity 2.5 - *Monitor biodiversity in the parcels of production of yerba mate*

The monitoring sites were surveyed four times during 2017, to capture seasonal variation. A total of 9 reptile and amphibian species were recorded; 6 amphibians and 3 reptiles representing 17% of the amphibian species and 11.5% of the reptile species recorded in San Rafael (Guyra Paraguay's Biodiversity Data Base, 2018). 3 species were recorded from the forest, with

Physalaemus cuvieri recorded exclusively at that habitat however, it commonly occurs in open areas (Mijares, Rodriguez and Baldo 2010) and we expect to identify this frog from other biogeographic zones with continued monitoring. Only one species was recorded from the border, a lizard named *Stenocercus caducus*. A total of 88 bird species were recorded: 41 in the forest; 49 at the forest edge and 43 in open areas. 17 endemic species were recorded, 16 of them in forest. Greater species diversities were observed in forest edge and open areas. It is anticipated that more species will be recorded with continued sampling effort as the level of species diversity has not yet reached the predicted asymptote. Sixteen families of flora were recorded at Oga Ita, (the most abundant species are *Lonchocarpus leucanthus* and *Balfourodendron riedelianum*). At Arroyo Moroti, 18 families were recorded, (most abundant: *Guarea kunthiana* and *Pereskia* spp.). Similar species richness was observed at both study sites. Baselines for floral distribution have now been established at the different communities, making it possible to properly assess forest regeneration and the contribution of shade-grown yerba mate production to biodiversity conservation in the future (estimated 5 years).

Biological monitoring continues in 2018 (February data have not yet been analysed). These will be included, together with data from Year 3 in all the data analysed together for the final report and scientific publications. (See Annex 4: Biodiversity Monitoring Report; “*Birds in Yerba Mate parcels*” (presentation in Yerba Mate Forum) and photos).

Activity 2.6 - Monitor livelihoods and wellbeing impacts, based on participatory indicators identified at household and/or community level, and against a year 1 baseline.

Socio-economic data collection continued with repeat visits by the consultant to both Mbya (Arroyo Moroti) and campesino (Oga Ita and Santa Ana) communities to establish ‘baselines’ for basic needs and various forms of capital. A preliminary Capacity assessment report was completed following workshops with Arroyo Moroti and Oga Ita communities) in September 2017. Data collection was carried out with the support of 2 student interns from the National University of Asunción. Santa Ana was also visited but results from this community are not included in the preliminary reports. The socio-economic consultant reported to the March 2018 meeting of the M+E committee on the preliminary assessments of various forms of capital (natural, social, financial) and the differences between the indigenous and campesino communities. Communities are giving positive feedback about their own assessments of wellbeing and other actual or potential future benefits of the project in relation to all forms of capital, but no analysis has been carried out yet. Further visits were planned to all 3 project communities in Yr 2 and the consultant was due to submit reports by end of Year 2, but these are still awaited. Guyra is chasing the reports and analysis and these will be on the agenda for the next M+E Steering Committee meeting in Q2 Year 3 to ensure that the process is on track to monitor changes in wellbeing and capacity attributable to the project interventions. In Year 3 the new *campesino* project community of Joveré will also be included in the Socio-economic monitoring and basic needs assessments. (See Annex 4: Capacity Assessment and Socioeconomic Monitoring Preliminary Reports).

Activity 2.7 - Monitoring of the forest cover through satellite images; monitor incidences of environmental crimes and other threats.

Initially, landscape monitoring (using satellite imagery) was carried out at 3-monthly intervals. Preliminary analyses showed that significant changes in forest cover are not identifiable over this time period, so the frequency has been reduced to 6-monthly. Threats associated with illegal activities are monitored on the ground by ranger patrols of the Guyra Reta Reserve Complex and combined with data gathered from flyovers done monthly by PRO COSARA (a conservation NGO working in the reserve). In order to improve efficiency in reducing illegal activities, regulating agricultural encroachment and trying to prevent catastrophes, (e.g. forest fires), PRO COSARA, the Ministry of Environment (through the Secretary of Environment (SEAM)), INFONA and Guyra Paraguay are collaborating on patrols and data sharing. Serious fires in 2017 affected the Arroyo Moroti area and destroyed between 5 and 7 ha of forest.

Overall, the monitoring results showed a decrease in 7ha of forest cover at Arroyo Moroti, (a direct result of the fires in Spring 2017, combined with an increase in farming). At Oga Ita, land

use change decreased in relation to the first quarter of 2017, but an increase of mechanized agricultural land use was detected. At Santa Ana, a decrease of about 7ha of the forest cover was detected but the reasons for this were not clear and require follow-up ground verification, investigation and interpretation. Mechanized agricultural land use didn't increase in this area, probably because the steep terrain and stony soils are not suitable for mechanized farming.

A total of 34 illegal activities were detected in the reserve by the PRO COSARA overflights; 13 of these correspond to illegal logging, 8 to deforestation, 6 to forest fires, 4 to trail opening and wood extraction, 2 to illegal crops and 1 to illegal wood trafficking. Rangers continue to liaise and share information and report illegal activities. A BSc student of Forestry Engineering, (National University of Asunción) is carrying out a study: "Socioeconomic factors that influence forest cover change in the Reserve for National Park San Rafael" whose results will also be used to improve the joint plans for threat reduction. (See Threats Monitoring Reports in Annex 4).

Output 3. *Evidence-based guidelines on cultivation of shade-grown yerba mate are developed for farmers and agricultural agencies.*

Activity 3.1 *Document the approach used for monitoring of biodiversity*

The Biodiversity Monitoring Plan and results (see 2.5 above) were discussed in detail at meetings of the M+E Steering Committee. Prof. Lourdes González from NUA, a key project partner, gave an update in October 2017 on studies being carried out by 4 Bachelor students which are contributing valuable research information and providing students with professional training in biodiversity monitoring. One student thesis was successfully presented in July and posters on amphibian and reptile research developed under the project were presented at the Herpetology Congress in Salta, Argentina in September. Some preliminary results of the fauna monitoring were presented at the "Yerba Mate Forum on Native Forests" (see 3.3), to demonstrate the species richness in the yerba mate parcels and the importance of conserving biodiversity. Producers responded positively to the concept and expressed interest in finding out what biodiversity exists on their land. The monitoring (especially of birds) at the yerba mate parcels also provoked interest among representatives of the National Institute of Yerba Mate of Argentina. They mentioned that some bird species feed on shade-grown yerba mate which passes through their digestive tract, after which the seeds are ready to germinate in the forest. Thus, birds are working as dispersers and stimulators of the germination of yerba mate seeds. This was very interesting for the project team and a potential research topic was identified.

Activity 3.3 *Provide training on shade yerba mate to government technicians and development NGOs working around forest in Itapúa*

The first "Yerba Mate Forum in Native Forest" was held in September in Itapúa, Alto Verá to train Project beneficiaries and share experiences with yerba mate production experts. Fourteen lecturers collaborated in the forum, from government institutions, the National Yerba Mate Institute (Argentina), the National University of Asunción, private enterprises and the Yerba Mate Centre. Lectures included the shade-grown yerba mate system, best practices, organic production, yerba mate traceability, and seedling production. The Municipality of Alto Vera supported the forum and were a key collaborator (including the provision of a bus to transport participants to visit shade-grown yerba mate parcels). 112 participants attended, from various cities, from agronomic schools, government institutions, agronomic cooperatives, producers' groups, universities and NGOs, (89 men, 23 women). Materials with technical information were distributed by the lecturers and by Guyra Paraguay. The forum was a moment to bring exposure to the Project and the shade-grown yerba mate system, as evidenced by the numerous publications on shade grown yerba mate, the Project and the forum itself in more than 5 different media outlets. It was also a great opportunity for meetings between small producers, representatives of the Ministry of Agriculture and Livestock, and large yerba mate enterprises, providing an informal dialogue space for identifying needs between the different groups. It also made the project visible in the yerba mate sector, which will be a great help to effect change with the authorities (Output 4) and encourage business. (See list of papers, publicity and media outputs in Annex 3; and documents in Annex 4).

Output 4. *Government policy promotes shade-grown yerba mate as an appropriate, market-driven approach to conserve Atlantic Forest biodiversity in the long-term.*

Activity 4.2 *Meetings with government authorities to promote the farming of shade grown yerba mate as a market-based approach supporting the conservation of Atlantic Forest biodiversity*

Great advances were made in terms of involvement by the Municipality. A Declaration of Municipal Interest in the Project from Governorate of Itapúa was signed, also a Cooperation Agreement from Municipality of Alto Verá for the Yerba Mate Forum and the cooperation of INFONA to carry out joint training with the beneficiaries of the project. A second declaration of interest was also signed by the Departmental Board of Itapúa. Project results and levels of community participation are more visible each year, and new communities took part in the exchange of experiences workshops with INFONA and Centro Yerbatero, addressing topics such as yerba mate seedlings production, planting, corrective pruning, and harvest (see 1.3 and Annexes 3 and 4).

Twelve meetings were held with government institutions, including the Ministry of Women, the Itapúa Governance, the Ministry of Agriculture and Livestock, and the Paraguayan Institute of Agricultural Technology, to present the project and seek declarations of interest (See Table 2, below). These meetings raise visibility and ensure that relevant authorities are kept informed of project activities to develop the shade-grown yerba mate model, and also create an opportunity to lobby for the inclusion of the project in public policies. Support and technical assistance were requested from Ministry of Women representatives, who showed great interest in collaboration and provided contacts of leaders of Alto Vera Municipality's Rural Women Department under the Governance of Itapúa. A Cooperation Agreement between Guyra Paraguay and the Paraguayan Institute of Agriculture (IPTA) is being drafted, covering technical exchange on yerba mate, the implementation of research (on native yerba mate varieties) and communications support for project activities. Strengthening of links with IPTA will support wider engagement with other institutions who are working with yerba mate.

Guyra Paraguay was invited to participate in an informal meeting of the National Interdisciplinary Yerba Mate Joint Commission (by invitation of Cornelio Núñez, director of the Project of Rural Sustainable Development (PRODERS)). The Commission addresses yerba mate issues on the national scale. Guyra cannot be part of the Commission because it is not a government institution but regular attendance by Guyra may be permitted and will provide a very useful collaboration for the project with the Commission and its institutions (Ministry of Agriculture (MAG), the National Institute of Food and Nutrition (INAN), the National Institute of Technology, Standardization and Metrology (INTN), the National Institute of Quality and Health of Seeds (SENAVE)).

Table 2: Meetings held with government representatives in Year 2

Topic	Participants	Dates
Project presentation to the Alto Verá Municipality	Hernán Ariel Dávalos (Mayor), Daniel Espínola Jara, Rodrigo Zárate, Edder Ortíz	March 2016
Project presentation to the National Institute of the Indigenous	Aldo Zaldívar Amarilla (Minister), Rodrigo Zárate, Fabiana Benítez, Evelyn Brítez	07/11/2016
Project presentation to the National Forestry Institute	Victor Yambay (President of the Infona), Rodrigo Zárate, Fabiana Benítez, Evelyn Brítez	14/11/2016
Project presentation to the Paraguayan Institute of Agriculture	Sonia Ramírez, Alberto Yanosky, Rodrigo Zárate, Evelyn Brítez	03/05/2017
Project presentation to representatives of the Programme for Rural Development from the Ministry of Agriculture	Sonia Ramírez (IPTA), Cornelio Núñez (President of PRODERS), Evelyn Brítez	May 2017

Project presentation to the Ministry of Women	Claudia García (Vice Minister), Zunilda Pereira (Manger of the Rural Women Area), Evelyn Brítez	06/07/2017
Project presentation to the Municipal Board of Alto Verá	Daniel Espínola Jara, Evelyn Brítez, Miguel Aquino, Members of the Municipal Board	June 2017
Project presentation to the Itapúa Governance	Arnoldo Wiens (Governor), Rodrigo Zárate, Marcelo Arévalos, Lorena Sforza	June 2017
Project presentation to the Ministry of Agriculture	Mario León (Vice Minister), Evelyn Brítez	19/09/2017
Project presentation to the INFONA's technicians and staff	Raquel Bordón, Lorenzo Duarte, Evelyn Brítez, Rodrigo Zárate	22/11/2017
Seeds donation reception at the INFONA's Office	Sergio Villasanti, Víctor Escurra, Evelyn Brítez	21/11/2017
Planning of a training workshop (with INFONA) about yerba mate production, harvest and formation pruning to be carried out on April 26th 2018	Lorenzo Duarte, Víctor Escurra, Rodolfo Ruiz, Evelyn Brítez	01/03/2018

Activity 4.4 *In line with advocacy plan, provide information to and lobby the National Forestry Institute to have the project's lessons and approach included in the next five-year plan (2019-2024)*

(Note: Output indicators (and relevant Activities Year 3) have been revised (see 4.1 – 4.3 below). We report here on efforts to achieve the original Activities/ Outputs and difficulties encountered in Year 2):

In 2017 a letter requesting a declaration of interest was sent to the National Forestry Institute (INFONA). To declare an interest, INFONA requested a Forest Management Plan for the project area specifying the yerba mate farming programme in the forest. This is a requirement under the National Forestry Law 422/97 and Resolution 02/07 for all parcels of more than 50 hectares (which includes the Guyra-Arroyo Moroti property in the project). This represents a new commitment (with no Darwin budget available) so the project team are seeking other funds to cover costs of preparation of the Plan in Year 3. A study of the floristic composition, the legal title of the property, other documents and maps need to be collated. The project team will complete the floristic inventory as part of the biological monitoring, but a consultancy is needed to complete the Plan to the requirements of INFONA.

It is not possible to include shade-grown yerba mate in the next INFONA 5-year plan (as this has already been formulated). In addition, the status and institutional "home" of shade-grown yerba mate need to be clarified – it is currently classed as an agricultural crop as it is not "conventionally" grown under forest. INFONA need to be convinced of its potential as a shade-grown crop before they will recognize it as a forest product and an integral part of a forest conservation strategy. (See also indicator 0.5 in Section 3.3 below).

The Presidential Elections in April 2018 had an as yet unknown impact on government and institutions like INFONA and their capacity and willingness to engage. Relationships between several conservation NGOs and INFONA are in crisis, due to the release of a Presidential Decree (7702/17) that modifies the article 42 of the National Forestry Law (422/73) and enables land use change in producers' legal forest reserves, with the option of buying certificates of environmental service offsets (Law 3001/05) or foresting with 60% of native species. Several national NGOs disagree with the new Decree, which puts in danger the last forest remnants outside protected areas and would result in biodiversity loss. Guyra Paraguay is trying to maintain good relationships with INFONA in order to keep on working jointly and continue with advocacy for public policies, but a list of legal complaints to this new law has been presented in order not to jeopardize the conservation of the Atlantic Forest through land use changes.

The Output 4 indicators and related activities for Year 3 were changed in the Change Request (see Annex 2 for new Log Frame and rationales for the Change Request).

3.2 Progress towards project Outputs

During the second year of the project, progress towards all 4 Outputs has been good. The changes to Output indicator wording are shown in red type below. (See Annex 2 for revised Log Frame and Change Request rationale).

Output 1. *Institutional frameworks (CBOs or other culturally appropriate social/ family groups) with the capacity (social and institutional capital) for cultivation, marketing and benefit-sharing of shade-grown yerba mate established through a participatory process among settled Mbya Guarani and campesino communities in San Rafael.*

Capacity in terms of the practical skills needed for production of shade-grown yerba mate has been developed through ongoing training from the start of the project. This is delivered through the technical assistance provided by Guayaki as well as the weekly technical assistance of the project technician Miguel Aquino. All CBOs, groups and individuals involved in the project have improved knowledge of planting, management and harvest of shade-grown yerba mate.

Indicator 1.1: *By the end of year 1, communities have established organizations regarding yerba mate production, with culturally-appropriate and equitable representation from women and men*

Legally constituted producers' organizations of *campesino* communities in Oga Ita and Santa Ana are established and recognized by the Municipality of Alto Verá. These 2 communities have been involved in the project from Year 1. Joveré communities will be part of the project in Year 3. An informal producers' association is currently functioning in Joveré and the process to achieve legal recognition will be carried out in Year 3. The CBOs are well-organized, with an established Producer's Committee and active Neighbourhood Commission collaborating well with the project. In Arroyo Moroti, the project is following the communities' own customs and norms, working with family groups who represent and make decisions for the whole community.

Indicator 1.2: *By the end of year 1, capacity needs assessment of CBO members for shade-grown yerba mate cultivation, management and marketing completed*

Capacity needs assessments of the producers in the Oga Ita community and the indigenous Mbya community (Arroyo Moroti) were carried out in Year 2. The assessment was aimed at identifying capacity gaps, as well as the institutional dynamics (project / community / market) that create challenges for local development. This was done from a resource-based perspective: natural capital and social capital, the level of organization, and what additional resources are needed to facilitate progress in a demanding market for yerba mate. Levels of Natural Capital were assessed in relation to cultivation of corn, sesame and tung plantations, and Social Capital predominantly through inventory of household appliances, motorcycles, and mobile phones.

The assessment highlighted how communities (including women) have come together in their understanding and support for the production of shade grown yerba mate. The communities acknowledge that a combination of their traditional knowledge on yerba mate production and the techniques learned through systematic pruning and parcel management will lead to greater production. There is increasing awareness of the value of the forest, and the negative effects of tree felling, as they begin to appreciate that the forest affords a natural protection against prolonged droughts by retaining moisture, as well as providing natural nutrients for organic production. The importance of organic yerba mate has been highlighted as a way to generate a safe income at the level of family production. Socially, the assessment highlighted the importance of educating children in natural resource management. Educating the whole family unit in the importance of growing yerba mate leads to improved cultural bonds and work ethics. The assessment suggests that the level of natural capital within the communities will remain constant or improve, as yerba mate plantations take over from citrus fruit farming (historically a main source of income) and Tung forests which are coming to the end of their productive life. (See preliminary socio-economic monitoring reports, Indicator 2.6 and Annex 4).

Indicator 1.3: *By the end of year 2, CBOs have developed plan(s) for production and marketing of shade yerba mate being grown by communities in San Rafael.*

The Business Plan, developed collaboratively by technical experts, project partners, and the beneficiaries, lays out the differences between conventional yerba mate production and organic

and shade-grown - highlighting the advantages of the shade-grown product. (See current version in Annex 4). The plan analyses production cost, total investment and possible return on this investment. The financial model is dependent on shade-grown “organic” yerba mate being sold at a premium price. The original project assumption was that this could be achieved without certification because yerba mate from San Rafael forest is known by reputation to be “organic” and to contribute to forest conservation. However, it is now clear that the market chain is more complicated, with the different methods of production and drying requiring consideration and the different products fetching very different prices in the local/ national and export markets. The advice from the project consultants (Guayaki) and other producers and buyers is that certification (Fair Trade and organic) will be required to access the higher prices and export markets. The ongoing annual costs of certification are built into the Business Plan for the long-term future (to be covered by sales at premium prices for shade-grown yerba mate). Unfortunately, the start-up costs of audits and other requirements for initial certification are costly and were not included in the original Darwin project plan and budget, so co-funding is being actively pursued. The plan has also highlighted the need for an industrial drying plant to produce the higher quality product.

Output 2. *Shade-grown yerba mate is being grown in 50ha of indigenous peoples’ and campesino forested lands increasing incomes and restoring/maintaining habitat suitable for threatened Atlantic forest endemics.*

Indicator 2.2: *By the mid-point of Year 3, 50ha of shade-grown yerba mate have been established (10ha at indigenous community of Arroyo Moroti; 40ha at campesino communities).*

A total of 27 ha of shade-grown yerba mate was planted in Years 1 and 2. The potential project parcels at Arroyo Claro proved to be too degraded or too close to significant areas of soybean plantation (which means they would not qualify for organic status) so the remaining 23 hectares will now be planted in Joveré (*campesino* community) in Year 3, to achieve the 50 ha project target (10ha in Arroyo Moroti; 40ha at *campesino* communities).

Indicator 2.3: *From middle of year 2 to end year 3, yerba mate farmers from San Rafael make 2 visits: one to the Ache of Kue Tuvy and one to an Mby’a Guarani community in Brazil, for peer-to-peer learning*

In Year 1, project communities visited the indigenous Aché of Kue Tuvy to observe the success of shade-grown yerba mate and learn from their experiences. The original proposal included 2 more visits to the same community, but the first visit was so successful (and the budget is limited) so this is now reduced to one further exchange in Year 3. This will be to visit indigenous producers in Brazil also supported by the private sector partner Guayaki, who have offered to host the visit at no cost to the project – making some savings within the original project budget.

Indicator 2.4: *By first/ second quarter of year 3, the importance of retaining Atlantic Forest habitat has been demonstrated through biodiversity surveys (in forest, forest-edge and on-farm plots and all seasons) and the presence of forest-dependent species; to feed into the guidelines (Output indicator 3.2) and to act as a baseline for long-term biodiversity and habitat monitoring in San Rafael*

Biodiversity and habitat monitoring of forest, forest-edge and on-farm plots continued in Year 2 in all seasons and is based on three target groups: birds, amphibians/ reptiles, and plants. The results of the biodiversity monitoring will feed into the evidence-based guidelines for managing shade-grown yerba mate as part of the Atlantic Forest conservation strategy (Output 3.2). They will also act as a baseline for long-term biodiversity and habitat monitoring by Guyra Paraguay in San Rafael, which will continue beyond the 3-year term of the Darwin project funding and help to monitor longer-term impacts and state of the forest and biodiversity in and around the Reserve.

Indicator 2.5: *Threats to the forest in areas occupied/used by participating Mbya Guarani and campesino communities (>7000 ha) reduced by EOP, compared with Yr 1 baseline. Measures include: at least 5% reduction in rate of forest loss/ land use change from illegal and unsustainable activities (encroachment by marijuana/ other farms, timber cutting and forest fires).*

This indicator was the same as Outcome indicator 0.3 in the original project proposal Log Frame and is reported against under the Outcome, so it has been removed from Output 2. (see Section 3.3; Indicator 0.3 and revised Log Frame, Annex 2).

Indicator 2.6: *By the end of year 3, participating communities (over 1,000 people) are benefitting from increased community capacity, improved production and progress towards certification and sale of certified shade-grown yerba mate products. Direct project beneficiaries are 340 individuals (producers and their families - indigenous and campesino). Estimates of harvest and sale in year 3 (organic, conventional yerba mate from project producers in Oga Ita) are 20,600 kgs. (70% at approx. 0.21 USD/ kg.; 30% (leaves only) at 2.5 USD/ kg.). The predicted future price of certified, shade-grown product is at least 2.5 USD per kg. – first harvests in 2020*

Project beneficiaries are supported to manage their existing “organic” (but not yet certified) yerba mate plantations and to convert these to shade-grown (through planting native trees on-farm – and also gradually removing exotic, non-native trees, mainly “Tung”, which currently provide shade in some areas). Some harvest from these organic plantations will be possible in 2018, providing additional income to the farmers and demonstrating that the model for shade-grown yerba mate is viable. The estimate of harvest and sale in year 3 (organic yerba mate from project producers in Oga Ita and Santa Ana) is 20,600 kilos (the bulk at approx. 0.21 USD per kg., with 30% (leaves only) at up to 2.5 USD/ kg.) The company Guayaki has agreed to purchase all the projected harvest in Year 3. Shade-grown yerba mate plants need to mature for around five years before full harvest. The first yerba mate planted in the course of this project will be ready for harvest from 2020/ 21. The predicted future price of certified, shade-grown product is 2.5 USD per kilo (at least 30% of the shade-grown harvest (the best quality leaves) to be sold at this price with the remainder (stems) marketed at a lower price). The number of individual participating beneficiaries under Indicator 2.6 was reduced from 3240 to 1000 as part of the Change Request (end of Year 2) because the project is now working with only 4 communities (*campesino*: Oga Ita, Santa Ana and Jovéré; *Mbya Guarani*: Arroyo Moroti). Of these 1000 participants, 340 will be direct beneficiaries of the training and capacity building (project producers and their families) but the project impact will also be to improve the livelihoods and wellbeing of wider communities in the influence zone of the project. (See revised Log Frame and rationales in Annex 2).

Indicator 2.7: *By the end of the project, communities are reporting capacity and wellbeing benefits (increases in social and natural capitals and progress towards meeting identified basic necessities through yerba mate production, certification, sales and marketing). [Socio-economic consultation and examples seen elsewhere (peer-to-peer learning visits) suggest initial priorities will be for food, education, solar panels, health care and improved water supplies. Increases in financial capital (incomes/ dividends) from sales of certified organic, shade-grown yerba mate will be post-project].*

This is a Year 3/ EOP indicator, but good progress towards the revised target was achieved in Year 2. The change in the indicator wording is to reflect the fact that communities will not have incomes from shade-grown yerba mate to invest by EOP (see revised Log Frame and rationale Annex 2). Communities are already reporting improved capacity and well-being from project involvement and are seeing the benefits from yerba mate incomes (conventional) and shade-grown (other communities and peer-to-peer learning). They are convinced by the model of shade-grown yerba mate providing future incomes and are very committed to its production as a long-term livelihoods and wellbeing strategy. (See 3.1, Activity 2.6, above and section 8, M+E).

Output 3. *Evidence-based guidelines on cultivation of shade-grown yerba mate are developed for farmers and agricultural agencies.*

Indicator 3.2: *By middle of year 3, evidence-based guidelines on shade yerba mate produced and consulted on with relevant agencies and other stakeholders, and 2 awareness-raising/lesson-sharing workshops held (involving government administrations and agencies, NGOs, CBOs, producers and academics, etc.) from across Paraguay’s Atlantic Forest region*

The evidence-based guidelines will be ready for consultation with relevant agencies and other stakeholders by Q3 of year 3. A monitoring programme has been established, management techniques have been defined and are being monitored (weekly by the consultant). The guidelines will be based on experience gained throughout the project, the monitoring programme, fieldwork, input from consultants and implementation of techniques and tests that are being evaluated. The first draft guidelines are due from Guyra Paraguay by December 2018.

Output 4. *Government policy promotes shade-grown yerba mate as an appropriate, market-driven approach to conserve Atlantic Forest biodiversity in the long-term.*

For various political and other reasons beyond the influence of the project or Guyra Paraguay, some of the original Log Frame targets (and MoVs) for Outputs (4.1-4.3) and related Outcome indicator 0.5 could not be achieved. (see 3.3; Outcome indicator 0.5 below). The project team has developed new ways to achieve the government engagement and policy objectives and new Output 4 indicators and targets were agreed at end of Year 2 (See Annex 2 Log Frame and rationales). The Year 2 progress and some of the difficulties with the original activities and targets are explained in detail in section 3.1 above. The new indicators and targets are listed below and Section 3.3. (Indicator 0.5) explains how the revised Output 4 indicators and progress towards these new targets are still expected to contribute to achieving the project Outcome by EOP.

Indicator 4.1: *Government are engaged with project, consulted and using project and Guyra Paraguay evidence, guidelines and policy proposals to strengthen national Atlantic Forest conservation and endorse shade-grown yerba mate as a model for forest conservation management and sustainable financing*

Indicator 4.2: *By end of year 3, Itapua State government has consulted with Guyra Paraguay and endorsed the draft project guidelines concerning biodiversity conservation and the production of shade-grown yerba mate in Atlantic Forests.*

Indicator 4.3: *By end of project, the shade-grown yerba mate model of Atlantic forest conservation is included in a Forest Management Plan for the Guyra Paraguay and Mbya Guarani-owned forest property (100 ha) and approved by INFONA as a “project of interest”*

3.3 Progress towards the project Outcome

Outcome: *Shade-grown yerba mate reduces forest degradation at San Rafael, provides a poverty reduction route for 5 communities, and a sustainable land use model for an additional c.80,000 ha of Paraguayan Atlantic Forest.*

Progress towards the Outcome is good. The 5 Outcome indicators relate to end of project (EOP) targets for: community benefits (livelihoods and wellbeing); community capacity and empowerment; reductions in threats to and illegal use of Atlantic Forest resources; increase in area of indigenous forest land managed sustainably for yerba mate and biodiversity; and a policy lobby to establish the shade-grown yerba mate production as an economically sustainable production model and component of the Atlantic Forest conservation strategy. The wording of indicators has been changed in the revised Log Frame – to make them more relevant measures of progress towards the Outcome and in some cases more realistically achievable by EOP. (See Section 8. M+E and revised Log Frame with rationales (Annex 2)). Changes are shown in red in the indicator statements below.

0.1 By end of project, settled Mbya Guarani (120 people) and 3 campesino communities (1000 people) in San Rafael have improved wellbeing (as defined by the communities, and compared to year 1 baseline) and 50 ha of shade-grown yerba mate in production, with markets and buyers identified (first shade-grown harvests in 2020) and first audits and farm inspection completed towards organic and Fair-Trade certification.

The original proposal and indicator 0.1 related to 5 communities and higher numbers of individuals. In practice, the project has been able to work with only one indigenous community (the Mbya Guarani of Arroyo Moroti) and 3 *campesino* communities: Oga Ita and Santa Ana in Years 1 and 2 and Joveré (engagement of producers in Year 2; selection of parcels and planting of yerba mate and native trees in Year 3). This is due to a combination of factors as previously reported: difficult terrain and field work conditions, the time taken to find and engage communities with sufficient areas of suitable farm land with forest (or the potential to re-forest) and who wish to commit to the long-term perspective of shade-grown yerba mate production, and the challenges of achieving organic and fair trade certification and direct financial benefits which will not be realized for several years.

However, the reduced numbers for communities in the indicator do not affect progress towards the overall Outcome and the development of the model of shade-grown yerba mate that provides a route to poverty alleviation and sustainable land use. The experience and learning in shade-grown yerba mate production will be extended among other communities in the project area who have shown interest, helping to reduce poverty in San Rafael and demonstrating a sustainable production model that can also contribute to wider Atlantic Forest conservation. The commitment of the project beneficiary communities is excellent. They are implementing all the management measures suggested and developed by project technicians and advisors, including private enterprise project partner (Guayaki), which is providing technical support and training.

Shade-grown “organic” yerba mate grows more slowly (under trees) than the “conventional” method and the time to first harvest takes longer (5 years minimum for shade-grown). There will be no harvest of yerba mate planted during the Darwin project (planting of shade-grown seedlings has taken place in all years 2016 to 2018) and therefore no actual incomes from shade-grown yerba mate (*the original indicator suggested that incomes would be derived from yerba mate planted during the project*). However, project beneficiary producers are also being supported to manage existing “conventional” plantations (which are organic though not yet certified) and to gradually convert these to shade-grown (planting indigenous trees on-farm – and removing exotic non-native trees, mainly “Tung” which currently provide shade in some areas). Some harvest from these plantations will be possible in 2018 and will help to develop the model of yerba mate providing additional incomes to farmers. The company Guayaki (supporting the project) has agreed to purchase all the projected harvest in 2018.

Under the socio-economic monitoring, baselines have been collected and repeat consultations with most communities carried out in Year 2, to assess basic needs and the various measures of wellbeing, including different forms of “capitals” (natural, social and financial) and capacity. Although the analysis of the socio-economic monitoring has not yet been provided by the consultant, some preliminary data are available and show very positive assessments of improvement in some of the measures of wellbeing, together with expectations (from communities and technical advisers) of enhanced incomes as a result of the project activities. Based on (current) sesame cultivation alone, an average income per (*campesino*) family is around 1,800 US\$ / year, but when families start the harvest and marketing of yerba mate the predicted annual family incomes increase to 4,000 to 6,000 US\$ (depending on the type and quality of production and drying and the markets targetted).

The original project assumption was that premium prices for yerba mate could be achieved without certification because production from San Rafael forest is known by reputation to be “organic” and to contribute to forest conservation. However, the market chain is more complicated than this, with varying methods of production, drying and different products sold in local, national and export markets at very different prices. The advice from the project consultants and other producers and buyers is that certification (Fair Trade and organic) will be required to access the higher prices and export markets. Fair Trade or equivalent certification is also beneficial to the communities as it establishes committees and processes for managing and distributing community benefits equitably. The ongoing annual costs of certification are being built into the Business Plan for the long-term future (to be covered by sales at premium prices for shade-grown yerba mate). But the start-up costs of audits and other requirements for initial certification were not included in the original Darwin project plan and budget. In addition, some other related costs have been identified (possible need for an industrial drying plant to produce higher quality product and government requirement for a Forest Management Plan (FMP) for yerba mate in forest properties over 100 ha – including areas of the Atlantic Forest Reserve and Darwin project area jointly-owned by the Arroyo Moroti (indigenous) community and Guyra Paraguay). Guyra Paraguay are seeking other funds to help with some of the start-up certification costs (preliminary audits, farm inspections and FMP consultancy).

Additional benefits from the Darwin project support during its lifetime include the capacity built among producers and communities for current and future yerba mate production (0.2, below).

0.2 By end of project, participating communities have increased capacity for cultivation of shade mate, and for collective negotiation and marketing of their produce, through strengthened and

empowered CBOs or other culturally appropriate social/ family groups representing shade-yerba producers.

Almost all the project support and activities with both indigenous and *campesino* communities relate to capacity building of different kinds, with producers, for better yerba mate management, harvest and production; including new and developing techniques for shade-grown yerba mate; development of markets and agreements with buyers; community organization/ cooperation and money management; awareness raising and visits to other examples of successful yerba mate production contributing community benefits elsewhere in Paraguay and the region. The progress on all these aspects has been excellent and the measures of achievement against this indicator are seen in terms of the engagement and levels of learning achieved in all training activities (ongoing project progress monitoring); community responses and feedback under the socio-economic monitoring and the growing interest and contacts from other communities and private sector companies interested in buying the future product.

0.3 Threats to the forest in areas occupied/used by participating Mbya Guarani and campesino communities (>7000 ha) reduced by EOP, compared with year 1 baseline. Measures include: at least 5% reduction in rate of land use change from illegal and unsustainable activities (encroachment by marijuana or other farms, timber cutting and forest fires).

The wording of this indicator was changed under the March 2018 Change Request. It was poorly worded in the original Log Frame and the change was proposed both to clarify what can be measured (land use changes from satellite imagery, overflights and ground verification; incidence of illegal incursions and fires recorded by ranger patrols) and to make the targets more realistic and achievable by end of project. It was not clear what the original % reduction target related to and some of the proposed measures (levels of hunting) could not be recorded because of the difficult security situation in the region (as reported in Year 1 AR). The rationale remains that the provision of economic alternatives to unsustainable practices (such as extensive soybean or small-scale conventional crops) will reduce the levels of deforestation and rate of changes in land use and that this will be demonstrated by the end of the project. Illegal activities are also being monitored by rangers and the increases in patrols and surveillance, coupled with the investment of time and effort in the cultivation of yerba mate are anticipated to move communities away from illegal activities. If this effect spreads beyond the beneficiaries of the project, other nearby communities who see the positive impact of the shade-grown yerba mate cultivation may also replicate this economic model and replace illegal activities with yerba mate production. This is clearly not an easy achievement, in an area where there are diverse communities and levels of conflict between different groups of incomers and “residents”. But the project is achieving significant changes in behaviours and attitudes and staff are optimistic that this will underpin a long-term reduction in threats. The analysis of land use change is also complicated by the incidence of large fires in 2017 which caused significant forest loss in some areas (and may or may not have been deliberate caused by communities in the area).

0.4 By end of project, 50 ha of indigenous/ campesino forest land in San Rafael shows how management can generate income (yerba mate) and retain suitable habitat for threatened Atlantic forest biodiversity, as demonstrated by biodiversity surveys (forest, forest-edge and on-farm) and presence of forest-dependent species.

The target of 50 ha of shade-grown yerba mate to be planted in San Rafael and managed for shade-grown yerba mate production and forest conservation is expected to be achieved (by end of project). This is through a combination of planting and management directly in Atlantic Forest in the Reserve (indigenous community) and enhancement of forest areas (native tree planting in parcels with yerba mate) on *campesino* farms outside the Reserve, as follows:

Community		Planted ha at year 3
Arroyo Moroti	Mbya Guarani	9.5 (probably 10 ha)
Oga Ita	Campesino	15 ha

Santa Ana	Campesino	2.5 ha
Joveré	Campesino	Between 22.5-23.5 ha

The biodiversity monitoring does not measure “before and after” impacts of the project on biodiversity (is unlikely that any changes attributable to the project would be detectable within a 3-year project with tree planting etc. only completed in Year 3). The purpose is to help to develop the “model” that shows that retention of forest and planting of trees in farmland (with shade-grown yerba mate) both contribute to maintaining Atlantic Forest biodiversity and forest-dependent endemics (compared with open farmland cleared for soya bean farms etc.). The biodiversity monitoring is also part of much longer-term Atlantic Forest biodiversity monitoring at San Rafael by Guyra Paraguay and partners, which will continue beyond the 3-year term of the Darwin project funding and help to monitor longer-term impacts and state of the forest and biodiversity in and around the Reserve. The issue of incomes is discussed above under Indicator 0.1. The monitoring results (project progress and development of yerba mate production; socio-economic and biodiversity monitoring) will feed into development and demonstration of the model of shade-grown yerba mate contributing to incomes/ wellbeing of communities *and* conservation of Atlantic forest biodiversity. They will also contribute to achievement of the overall Outcome through input to the evidence-based guidelines and awareness-raising/ dissemination of the shade-grown model of yerba mate cultivation (Output 3).

0.5 By end of project, the shade-grown yerba mate model has been accepted by government as an evidence-based component of the Atlantic Forest conservation model and included in a Forest Management Plan for the Guyra Paraguay and Mbya Guarani-owned forest property (100 ha) approved by INFONA as a “project of interest”.

For various political and other reasons beyond the control and influence of the project or Guyra Paraguay, some of the original Log Frame targets (and MoVs) for Outcome 0.5 and related Outputs (4.1-4.3) cannot be achieved, particularly at national level. The project has tried various routes to direct government and policy engagement, but these were not successful, and the project is now finding other ways to achieve the same objectives and progress towards the Outcome (see also Outputs 4.1- 4.3 above). The Log Frame indicator changes (together with activities and MoVs) were made to reflect this situation and the efforts in Year 3 will be to achieve the new targets. The situation is complicated by the fact that yerba mate is an agricultural crop, therefore under Ministry of Agriculture (MAG). But INFONA is the responsible agency for forests and forest strategies. There were also national elections in April 2018 resulting in many changes in administrations with unknown implications. The Comisión Nacional Mixta de yerba mate has proposed that yerba mate in forests should come under INFONA through an Inter-Ministerial Agreement (INFONA-MAG), in order to clarify the status of yerba mate as a non-timber forest product or an agricultural product. Guyra Paraguay cannot be part of the Comisión Nacional Mixta de yerba mate because this is not open to NGO membership. MAG suggested that Guyra could attend meetings, but this was not supported either. MAG is keen to benefit from the production of a (shade-grown) yerba mate manual/ guidelines – which is a Darwin project output (Output 3), so they will be engaged through this process. The timing is not right for the project model of shade-grown yerba mate to be incorporated into the next Forest Strategy and INFONA are unconvinced about the concept of shade-grown yerba mate as a forest conservation/ management model. (They require scientific evidence of the shade-grown methods working). At State level, Itapúa State Municipality has collaborated and offered support to Guyra/ the Darwin project (e.g. for transport). There is no strategy or policy mechanism to feed into at this level. Hence the project approach at all levels is to engage government by raising awareness, demonstrating the community benefits (of shade-grown yerba mate and forest conservation), developing the model and the evidence (including the science), sharing learning and disseminating outputs. This includes the preparation of the Forest Management Plan (required by INFONA) for the jointly owned Guyra Paraguay/ Mbya Guarani property at San Rafael, if additional funding can be obtained for this. There is no overall Project Steering Committee as originally envisaged (also to engage government) but the Monitoring and Evaluation Steering Committee involves BirdLife International and Guyra Paraguay project staff/ project stakeholders and consultants/ University staff who support the various M+E strands; see Section 8. M+E).

3.4 Monitoring of assumptions

Assumption 1: *Indigenous communities and campesinos continue to be receptive to the project*

Comments: The acceptance of the project and levels of engagement and participation by communities still remain very positive. The dedication and effort put in to the work in the plantations of yerba mate is totally satisfactory. The beneficiary communities of the project invest all the necessary time and effort to attend and put into practice the training, they are totally participative, and they trust in the project team and the partners. Additional neighbouring communities wish to join the project after being informed about it and the project team is confident that communities will continue to be receptive for the whole duration of the project and after it ends (ensuring sustainability of the approaches and impact).

Assumption 2: *San Rafael is not threatened by new impacts that advance too quickly for the project to address, such as property invasion by squatters*

Comments: At the moment, both deforestation and illegal activities do not appear to be increasing in the project area but the pressures remain (and other areas of forest close to San Rafael are experiencing repeated invasions and conflict). 39 cases of irregular activities have been detected, involving 10 hectares in the project area. The project approach continues to be to engage communities in more sustainable practices which can also support livelihoods and to demonstrate that the model of shade-grown yerba mate and forest conservation can work in practice.

Assumption 3: *Local and national authorities continue to provide appropriate political support for the conservation of San Rafael and Atlantic Forest*

Comments: National government support has been weaker than expected, (See 3.3) but the project has been very well received by local and regional government, establishing support and commitments through declarations of interest and participation/ support to project activities and communities. The Log Frame Change Request at end of Year 2 (see Annex 2) took account of Review comments on the YR1 Annual Report and the difficulties encountered with national government/ agency engagement and set out more achievable EOP targets and advocacy and awareness-raising plans to meet this challenging context of weak national government support.

Assumption 4: *Development of the NFI (INFONA) strategy proceeds as planned*

Comments: Incorporating the shade-grown yerba mate production model as part of the national Atlantic Forest Conservation Strategy will not be achieved during the project. (See 3.3, indicator 0.5, above). The project approach in Year 3 is to work with communities, private sector and government at all levels to demonstrate and advocate for sustainable practices which can also support livelihoods and to build the evidence base to show that the model of shade-grown yerba mate, contributing to both livelihoods and forest conservation works in practice.

3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

The project impact is: *Policy-driven cultivation of shade-grown yerba mate within and around Paraguay's Atlantic Forests provides a market-driven, culturally and environmentally appropriate land-use that reduces poverty, respects indigenous peoples' rights and conserves biodiversity.*

As noted in the first Annual Report (and AR Review), direct project impacts on biodiversity and poverty alleviation will only be demonstrable after the end of the project and all 5 Outcome indicators relate to end of project targets. (Outcome: *Shade-grown yerba mate reduces forest degradation at San Rafael, provides a poverty reduction route for 5 communities, and a sustainable land use model for an additional c.80,000 ha of Paraguayan Atlantic Forest*).

The planting and care of shade-grown yerba mate, associated forest rehabilitation and protection; monitoring; community engagement and capacity building; establishment of private sector support and future marketing options, have all made good progress and all support the sustainable land use model of shade-grown yerba mate and forest conservation. The project is

successfully raising awareness and providing the evidence base for the model. This is working very effectively at community level and more widely in Itapua State. This is evident from the engagement of the producers (indigenous and *campesino* communities) to commit to the long-term and work hard to produce shade-grown yerba mate (even though the direct benefits and income will not be realized for a minimum of 5 years after planting). The strong private sector support (notably from Guayaki) and commitments to help the San Rafael producers achieve a certified product and access export markets are another significant factor. This (and the exchange visits to see other producers supported by Guayaki already achieving and investing incomes from shade-grown yerba mate) has given the communities around San Rafael the confidence in the model and the continuing support of Guyra Paraguay and the private sector (both of which will continue beyond the Darwin project period).

The “policy-driven” aspects of the Impact statement have not yet been achieved and several of the Log Frame changes at end of Year 2 relate to this (Output 4 indicators/ activities – see Section 3 and Annex 2). These are for reasons outwith the project’s control – the weak political will at national level on the part of INFONA to engage with the project; the lack of clarity about the status of yerba mate in policy terms (it is an agricultural crop but INFONA is responsible for forests: some kind of inter-Ministerial agreement for shade-grown (forest) yerba mate has been proposed but there is not likely to be rapid progress on this at government level in the project lifetime). Finally, elections in 2018 and the difficulties between INFONA and environmental NGOs, (challenging the government proposal to reduce forest protection outside reserves) make it a very difficult context to engage government fully in the project and in development of national policy to support shade-grown yerba mate (see section 3.1 Activity 4.4). The Log Frame revisions were therefore proposed to shift the focus towards awareness-raising and gathering/strengthening the evidence-base for the shade-grown yerba mate model (by end of project). In addition, the costs of achieving “start-up” certification; for industrial drying of the San Rafael yerba mate (to achieve the necessary product quality); and the Forest Management Plan now required by INFONA for the jointly owned Guyra Paraguay-Arroyo Moroti part of the Reserve were all unforeseen at the start of the project. Solutions are being found to all of these (with good potential for additional funding from donors and additional private sector support) but these have all required significant input and attention by the project team in Year 2.

Despite these issues, Guyra Paraguay and the project team still expect to achieve (by end of project), the establishment of at least 50 hectares of shade-grown yerba mate in and around the Reserve for San Rafael National Park, together with associated forest/ biodiversity conservation and restoration activities in the same sites; all helping to develop the model of linked environmental, and community social and financial sustainability. The monitoring programmes are building a substantial evidence base of the model working in practice (for community livelihoods and wellbeing and in support of biodiversity conservation).

The strength of the local approaches, commitment and confidence of the communities and the consistent, long-term NGO (Guyra Paraguay) and private sector support all give the best prospects for achieving the sustainable model, despite the challenging policy context and weak (national) government support. Given the current political uncertainties, these approaches give the best prospects for the development of the shade-grown yerba mate model, for dissemination, promotion and wider uptake of successful approaches. This will also provide the evidence base to strengthen the advocacy efforts of Guyra Paraguay in approaches to government to obtain full recognition and endorsement of shade-grown yerba mate as a sustainable land use model in Atlantic Forests, supporting conservation management and a poverty reduction route for communities in and around the Protected Areas.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

Most Paraguayan Atlantic Forest lies within Indigenous Peoples’ ancestral domain, within San Rafael, 600 Mbyá Guarani people live in 22 communities, forest-dependent for products, cultural and ecosystem services. The project aims to empower local communities (indigenous and *campesino*) living in San Rafael, a still well-preserved extension of Atlantic Forest but with strong deforestation pressure for extensive agriculture (mainly soybean) and other illegal activities

(timber cutting for charcoal, marijuana farming). The project is currently involving one indigenous community and three campesino communities that are benefiting from the training and learning of shade-grown yerba mate cultivation, from improving and expanding their plantations, and from increasing their wellbeing and livelihoods. Training has led to improved management techniques and producers have started learning about the processes necessary to certify their product (in order to export the product(s) and obtain premium prices). Therefore, the project makes a positive contribution to the following relevant SDGs: 1. Ending all forms of poverty; 2. Ending hunger and achieving food security and improved nutrition; 3. Good Health and well-being 15. Protecting, restoring and promoting sustainable use of terrestrial ecosystems. In addition, indirect impacts are anticipated in relation to SDG 8.2 (higher levels of economic productivity achieved by value-addition); 12.2 (sustainable management and efficient use of natural resources), and 12.8 (having the relevant information and awareness to live in harmony with nature).

5. Project support to the Conventions, Treaties or Agreements

The development of the project in Year 2 continues to help Paraguay comply with its National Strategy for Biodiversity Conservation and the Aichi Targets. Guyra Paraguay has a long-term relationship with the CBD/ABS/ITPGRFA/CITES focal points, (all within the Secretariat of the Environment (SEAM)) and supports Government in achieving biodiversity conservation outcomes. The Executive Director of Guyra Paraguay has a well-established relationship with the focal point. San Rafael, and wider Atlantic Forest conservation, is always a topic in discussions. The project supports preservation of Atlantic Forest which is a specific Paraguayan National Biodiversity Strategy and Action Plan (NBSAP) priority. It works with both the settled, indigenous Mbya Guarani and the *campesino* farmers outside the Reserve, respecting ancestral and cultural rights and supporting communities to identify their needs and develop alternative livelihoods. All stages of this process are carried out consultatively and transparently, and in culturally appropriate ways, working with or supporting establishment of community decision-making structures (indigenous family groups of Mbya Guarani and CBOs among the *campesino*) for sharing benefits. Thus, it also contributes to the Nagoya Protocol at national level.

This is possible thanks to the cultivation of shade-grown yerba mate; an alternative of sustainable, organic farming, that will benefit the local communities economically, improving their income and livelihoods, and conserving the Atlantic Forest and biodiversity, threatened by persistent deforestation for extensive crops and other activities. Through these two objectives and all the development of the project in San Rafael with the local communities, the Aichi Targets are being achieved: AT5/ENPAB-Sustainable forest management; AT7/ENPAB-Agricultural Resources; AT11 /ENPAB-Conservation of natural resources in situ; AT12/ENPAB-Threatened species; AT14/ENPAB-Urban and rural development; AT15/ENPAB-Degraded ecosystems restoration and contribution to carbon stocks; AT18/ENPAB-Indigenous territories, and contributing to the SDGs; especially Goals 1, 2, 3 and 15.

6. Project support to poverty alleviation

The project is working to provide the project beneficiaries (producers and communities) with a long-term, environmentally and economically sustainable activity. Shade-grown yerba mate will provide the communities with an opportunity to sell and export products with added value, making sustainable use of resources with a level of income higher than that produced by other crops or “conventional” (non-shade) yerba mate. A successful model of certification and export (currently being developed with private sector support) will enable communities to realise the benefits associated with sustainable production and marketing. Communities are already expressing confidence and increases in wellbeing and view shade-grown yerba mate as a contributor to various forms of capital (natural, social, financial). Over the longer term this will directly enhance livelihoods (incomes) for the project producers and their communities, and potentially encourage wider adoption of sustainable practices in the region to support Atlantic Forest conservation, providing a model and route to poverty alleviation for the targeted San Rafael communities.

In Year 2, a remarkable achievement is that the project can already guarantee a national market through Guayaki (private yerba mate marketing company) which provides technical assistance

and has committed to buy part of the “organic” (not yet certified) production at San Rafael. This is from yerba mate on project producers’ farms which was planted before the start of the project - estimated at 20,600 kgs from 18 producers in Oga Ita and Santa Ana in 2018, with a predicted income of c. 4,300 USD – or potentially 18,500 USD if 30% (leaves only) can be sold at a premium price; rising to a total of 40,000 kg in 2020, including first harvests from project-planted yerba mate. If this is also certified it will also achieve premium prices. Conventional (non-shade) yerba mate is currently sold at 0.21 US\$ per kilogram while organic, shade yerba mate is sold at 2.5 US\$/kg. In addition, through work on the Business Plan and discussions with potential future buyers (Guayaki and Yerba Mate Pajarito), estimates of longer-term production and sales have now been produced. If the project target of 50ha of shade-grown yerba mate planting is achieved, together with organic certification, (and average time to harvest, c. 5 years after planting) the annual production estimates for ‘project producers’ rise to at least 100,000 kgs. by 2023.

7. Project support to gender equality issues

The project makes efforts to open opportunities for and promote rural women in all activities, particularly training and capacity building. Both men and women (*campesino* community) can have land titles and their own properties and project beneficiaries include both women and men who are property owners as well as married couples/ families where they work together. In the indigenous community, (Arroyo Moroti) all decision-making is between family groups and the Cacique (community head) and women participate jointly with other members of the community. All benefits are shared (including with other indigenous communities who might move into their area). In *campesino* communities, the men tend traditionally to be in charge of yerba mate parcels (planting and maintenance) but women can take on more responsibility, especially during the harvest and selection and packing of leaves (and this accords them high status).

In Year 2, three women in the *campesino* communities of Oga Ita and Santa Ana started to manage their own yerba mate parcels with encouragement and support of the project. There is no restriction on women being part of the CBOs established in *campesino* communities for yerba mate management and marketing but there are currently no women in this position. In Year 3, a Peace Corps volunteer working in Oga Ita with women’s groups and organic gardens for food will also support the project and help to increase women’s engagement in training and other project activities. A small (0.5ha) “women-only” parcel for the indigenous community may also be trialled (this has worked effectively with the indigenous Aché community visited by producers in Year 1).

At national level, the first “Yerba Mate Forum in Native Forest”, was held in Itapúa, Alto Verá, in September 2017, where 23 women participated out of 112 attendants. In July 2017, Guyra staff held a meeting with the Ministry of Women, at which they requested support and technical assistance from Ministry representatives (Vice Minister and Manager of the Rural Women Area). They showed great interest in collaboration and provided contacts of leaders of Alto Vera Municipality’s Rural Women Department under the Governance of Itapúa. Guyra Paraguay are still advancing this engagement and collaboration but it is expected to have a very positive impact on the empowerment of the women of the project.

8. Monitoring and evaluation

Field monitoring of all activities continued in Year 2 with weekly visits by project staff and consultants to work with communities and monitor progress with yerba mate planting, cultivation and pruning as well as other activities (indigenous tree planting in yerba mate parcels and specific training events). This regular contact and the field and training reports and maps (collated by Guyra Paraguay), plus frequent visits from Guyra Paraguay project management and monitoring staff provide very effective project progress monitoring and assessments of progress in building capacity of San Rafael communities to produce shade-grown yerba mate.

The specific elements of the overall M+E programme carried out by Guyra Paraguay staff or external consultants are: **Socio-economic monitoring and Capacity assessments** (consultant Enrico Bragayrac and students); **Biodiversity monitoring** (Guyra Paraguay staff with support from University of Asunción professor Lourdes Gonzalez and student research projects/ theses); **Land use change and threats monitoring** (Guyra Paraguay staff and collaboration with PRO

COSARA (NGO) and SEAM (government agency) on data sharing, overflights and ranger patrols). Progress under each of these strands of the M+E Plan is reported on in Section 3 under the relevant activities, outputs and indicators and the monitoring reports and relevant publications and presentations are listed in Annexes 3 and 4. The progress overall is good, with baselines established and further data collection and analysis now underway (see Section 3.3 and Annexes 3 and 4). There are two areas that need attention and will be the main agenda for the next M+E Steering Committee. These are the Socio-economic monitoring and Capacity assessments, for which the consultant has not yet provided detailed reports and analysis (due by end of Year 2) and the need for English summaries of the main findings of each of the monitoring programmes.

Oversight and evaluation of all aspects of the M+E programme are carried out by the Monitoring and Evaluation Steering Committee, composed of Project Manager and support Project Officer (BirdLife Americas Secretariat, Quito); Project Leader (BirdLife Global Secretariat, Cambridge), together with the National Coordinator and in-country Project Manager (Guyra Paraguay). Additional Guyra Paraguay staff and national experts also attend as needed and by invitation.

As noted in the Year 1 AR Review, the lack of any meetings of the M+E Steering Committee in Year 1 was a weakness (even though communication and reporting between Paraguay, Quito and Cambridge was good, despite the language and time zone differences). This was corrected in Year 2, with three meetings of the Committee in September and December 2017 and March 2018, plus a site visit and “mid-term review” carried out by the Committee, also in March 2018.

The March 2018 meetings and site visit allowed the Project Leader and Quito Project Officer to see the project in the field and hear from communities and staff about progress and their perceptions. It also allowed for a review of the project Log Frame indicators and targets which was then developed into a Change Request submitted to LTSI and approved in April 2018. There were several purposes to this (to clarify targets/ indicators which were not clear; to modify some original targets which were over-ambitious or based on unrealistic assumptions; to respond to changes external to the project which mean that the original targets cannot be achieved). In particular, the original assumption that incomes from shade-grown yerba mate would be realized within the project time frame was incorrect (it takes an average of 5 years from planting to first harvest and most of the project beneficiaries planted their first shade-grown yerba mate during the project). It has also become clear during implementation that a certified product will also be needed to access export markets and obtain premium prices. Some of the original policy outputs cannot be achieved in the current context of weak (national) government support (to forest conservation in general) and lack of clarity about the status of yerba mate as a forest product. The revised Log Frame and detailed rationales for all changes are in Annex 2.

9. Lessons learnt

- The value of the constant support that project technicians are giving to the beneficiary communities, helping them to identify problems and find solutions, to ensure that they keep up their plantations with the necessary management, to improve the management practices and with this their production, to encourage all participants and to show them the importance and the great resource that the shade-grown yerba mate provides.
- Regarding yerba mate cultivation, the need of being adapted to climate variability and to the growth response of yerba mate under shade to this variability. More seedlings were needed to replant the losses and thus cover the planted hectares with the planned plant density (this has increased costs of seedlings purchase).
- The importance of keeping records of all of the management activities carried out at the parcels to secure the traceability of the product and certification under the organic and fair-trade norms, which will allow the product to compete for a premium market and will be the surplus boost for the producers to conserve forested areas.
- The importance of planning strategies for the attainment of the funds for the construction of a yerba mate industry and the organization of the activities for its operation.

- The importance of sharing experience and difficulties with other people, organizations and managers of yerba mate production. In addition to the visits made to the Ache Koe Tuvy community last year (2017), the participation in the Yerba Mate Forum in Native Forest and in the South American Yerba Mate Congress (III International Symposium of Yerba Mate and Health & I technology fair of the Yerba Mate Industry) was very important because these were places where an information and learning exchange between the beneficiaries of the project and others could take place, where the impacts and benefits of shade-grown yerba mate production could be analysed collectively.
- The results of biodiversity monitoring will help to demonstrate that well-conserved forests harbour forest-dependent species, but the biodiversity impact of yerba mate plantations and the recovery of degraded areas can only be demonstrated in the long term. However, biodiversity monitoring conducted under the project will constitute a baseline in order to demonstrate the project impact in the long term.

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

Queries in the Year 1 AR Review were the need to clarify the roles of BirdLife International (and the M+E Committee) and the rate of maturity of yerba mate and the project's harvesting plan.

The roles of BirdLife International (Global Secretariat Cambridge and Americas Secretariat, Quito) are laid out in Section 2 "Partnerships" and the specific individual roles in project oversight and the M+E Steering Committee are detailed in Section 8. M+E, above. BirdLife International continues to bring important monitoring, evaluation, and coordination roles to the project partnership. Site visits for evaluation were made in Year 1 (Project Manager from Quito) and in Year 2, (Project Leader from Cambridge and Project Officer, Quito). This means that all BirdLife members of the M+E Committee have now visited the project area and met communities and stakeholders, to undertake monitoring and facilitate reporting. Year 2 also saw 3 other (Skype) meetings of the M+E Committee (BirdLife International and Guyra staff and consultants/ experts), which also responds to Year 1 AR Review comments. The production of English summaries of key M+E reports and results has not been done and this will be a priority for the M+E committee, together with obtaining the analysis of the socio-economic monitoring data, in first half of Year3.

On the topic of shade-grown yerba mate harvest, the first harvests of seedlings planted during the project (and income generation from sales) will not happen during the project. Shade-grown yerba mate requires 5 years growth to full harvest (some leaf prunings can be taken in earlier years if growth progresses sufficiently). This is part of the trade-off of longer growing time for a higher sale price. There will be some harvest of yerba mate in project Year 3 – grown by project producers in parcels which were planted before the start of the project and are now being managed with project support (including planting of indigenous shade trees). Although this is not certified, it is considered "organic" and the private sector project partner, Guayaki will purchase the whole harvest in 2018, helping to provide some immediate incomes to those producers and to develop the model of incomes derived from shade-grown and "organic" product.

In addition, it has become apparent through project implementation that the producers will need to achieve certification of their production in order to obtain premium prices and exports. This is a time-consuming process (and the initial costs of audits and inspections are high and were not included in the Darwin project budget, so additional funds are now being sought to cover this). The Log Frame Change Request was made in response to these and other issues (including doubts about the feasibility of achieving some of the original Output 4 policy targets in the project timeframe and current political context – also queried in previous AR Review). (See revised Log Frame and rationales in Annex 2 and more detail of relevant activities and Outputs in Section 3).

11. Other comments on progress not covered elsewhere

The project is expanding its coverage in Year 3 to new areas/ communities to be incorporated into shade-grown yerba mate cultivation, principally in the community of Joveré on the edge of the San Rafael Reserve. Initial selection of the project communities was based on Guyra's past relations and experience working at San Rafael and the perceived feasibility and expressed

interest from the selected communities to achieve combined conservation and social/ livelihood goals. The same approach will apply in potential expansion areas in Joveré with the aim of reaching the target of a total 50ha of shade yerba mate planted by project communities.

Illegal activities (cultivation, logging, etc.), while not as dangerous a threat as in previous years, continue to be a risk in the project influence area for the project staff most involved in conducting field activities. Nevertheless, community cooperation remains high in those communities where there are project interventions, despite the significant levels of logging and deforestation that continue around them. (See Threats Monitoring reports in Annex 4).

The project rationale still holds: that deforestation represents the greatest threat to the success of the shade-grown yerba mate production, so that it is in communities' own interests to guard against this and to collectively support (the project and collaborators'/ administrations') efforts to combat illegal and destructive activities. This support is needed both for regulation/ enforcement and also awareness-raising and demonstration of the benefits of the shade yerba mate/ forest conservation model and dissemination of learning and best practices among wider communities.

12. Sustainability and legacy

At regional level, the project and its activities have a high profile and good engagement with local government (Alto Vera Municipality), private enterprise and other stakeholders implicated in yerba mate production and Atlantic Forest conservation. The activities initiated will continue after the duration of the Darwin project funding and will be self-sustaining over time, (through generation of new/ enhanced incomes which are dependent on maintaining forest cover and forest biodiversity). Once the model of shade-grown yerba mate providing sustainable livelihoods and forest conservation is demonstrated to be effective and the guidelines, best practice and learning are disseminated effectively, it is anticipated that impacts will spread beyond the project area and help to support wider community livelihoods and Atlantic Forest conservation.

Local level support for the project is very high and additional *campesino* communities have come forward throughout implementation to request to join and plant shade-grown yerba mate and rehabilitate farmland through tree planting. Community level partnerships and capacity building are supported by Guyra Paraguay who have a long-term commitment to Atlantic Forest conservation and sustainable development for communities at San Rafael. This forms a sound basis for sustainability of the project impacts, even when national policy influence is hard to achieve and subject to the vagaries of changing administrations and bureaucracies.

Support and engagement from private sector project partners such as Guayaki is strong, including support to raising awareness and building capacity of producers through learning about the requirements of certification, marketing and negotiation for sales of yerba mate and providing information and introductions to national and export markets. The continuing focus on sound science and developing the evidence base through monitoring of project impacts (socio-economic/ capacity building indicators; land use change and threats; forest biodiversity and habitats) is also important, as the project continues to provide evidence and positive justification for the linked biodiversity conservation and livelihood approach and the resultant co-benefits.

13. Darwin identity

The project is widely promoted locally, nationally, regionally and internationally through presentations, radio, newspaper and magazine articles, and blogs and articles on web sites and social media (see Annex 3). In Year 2, project participation in the Yerba Mate Forum and the South America Yerba Mate Congress in Brazil were important ways to promote the Project and Darwin support for this important initiative in San Rafael (see photos, presentations: Annex 4). The Darwin logo and acknowledgement of UK government funding are used on all project promotion, reports and publications and in presentations to stakeholders and project partners.

14. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2017 – 31 March 2018)

Project spend (indicative) since last annual report	2017/18 Grant (£)	2017/18 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)			-178.34	
Consultancy costs			-108.67	
Overhead Costs			0.04	
Travel and subsistence			-169.35	
Operating Costs			185.00	
Capital items (see below)			-	
Monitoring & Evaluation (M&E)			28.53	
Others (see below)			333.00	
TOTAL			90.19	

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2017-2018

Project summary	Measurable Indicators	Progress and Achievements April 2017 - March 2018	Actions required/planned for next period
<p>Impact</p> <p>Policy-driven cultivation of shade-grown yerba maté within and around Paraguay's Atlantic Forests provides a market-driven, culturally and environmentally appropriate land-use that reduces poverty, respects indigenous peoples' rights and conserves biodiversity.</p>		<p>The project's impact has progressed significantly, through communities' commitment and successful shade-grown yerba mate cultivation in San Rafael. In total, more than 50 hectares of shade-grown yerba mate will be managed at San Rafael. To date, 27 hectares have been planted and capacity building of the communities for shade-grown yerba mate cultivation, management and marketing are being achieved through training, guidance and sharing experience from other communities and the private sector. The remaining 23 hectares will be planted by communities during 2018. Together with associated forest/biodiversity conservation and restoration activities in the same sites, this is all contributing to the development of the model of linked environmental, and community social and financial sustainability.</p> <p><i>More detail in Section 3.5: Impact</i></p>	
<p>Outcome</p> <p>Shade-grown yerba mate reduces forest degradation at San Rafael, provides a poverty reduction route for 4 communities, and a sustainable land use model for additional c.80,000 ha of</p>	<p>0.1 By end of project, settled Mbya Guarani (120 people) and 3 campesino communities (1000 people) in San Rafael have improved wellbeing (as defined by the communities, and compared to year 1 baseline) and 50 ha of shade-grown yerba mate in production, with markets and buyers identified (first shade-grown harvests in 2020) and first audits and farm inspection completed towards organic and Fair-Trade certification.</p>	<p>The majority of planned Activities and Outputs for Year 2 have been completed successfully, except for some aspects of Output 4. Overall progress toward the Outcome as well as the majority of the Outputs in Year 2 is very good, especially in relation to the strong and growing engagement and capacity development of both <i>campesino</i> and indigenous</p>	<p>Priorities for attention in Year 3 include:</p> <ul style="list-style-type: none"> - Ensure formal incorporation of best practices and lessons learned from this project into policy processes and local knowledge, per the terms of Indicator 0.5

<p>Paraguayan Atlantic Forest.</p>	<p>0.2 By end of project, participating communities have increased capacity for cultivation of shade mate, and for collective negotiation and marketing of their produce, through strengthened and empowered CBOs or other culturally appropriate social/ family groups representing shade-yerba producers.</p> <p>0.3 Threats to the forest in areas occupied/used by participating Mbya Guarani and campesino communities (>7000 ha) reduced by EOP, compared with year 1 baseline. Measures include: at least 5% reduction in rate of land use change from illegal and unsustainable activities (encroachment by marijuana or other farms, timber cutting and forest fires).</p> <p>0.4 By end of project, 50 ha of indigenous/campesino forest land in San Rafael shows how management can generate income (yerba mate) <i>and</i> retain suitable habitat for threatened/target Atlantic forest biodiversity, as demonstrated by biodiversity surveys (forest, forest-edge and on-farm) and presence of forest-dependent species (see indicator 2.4).</p> <p>0.5 By end of project, the shade-grown yerba mate model has been accepted by government as an evidence-based component of the Atlantic Forest conservation model and included in a Forest Management Plan for the Guyra Paraguay and Mbya Guarani-owned forest property (100 ha) approved by INFONA as a “project of interest”.</p>	<p>communities. There is also an increasing confidence in the project and the model of shade-grown yerba mate production. This is reflected in planting and maintenance, attendance at all trainings, and their preparation of new areas of land to incorporate the shade-grown techniques, both in the hectares planned for the project and additional areas of their farms, contributing to long-term Atlantic Forest restoration. The Monitoring and Evaluation Steering Committee has met and reviewed progress, including a “mid-term” site visit. This helped clarify staff roles and reporting at national, regional and global levels including the M+E Plan, while allowing for review and revision of some Log Frame indicators and targets.</p> <p><i>More detail in Section 3.3; 6. Poverty alleviation; 8. M+E;</i></p> <p><i>Supporting evidence in Annexes 3 and 4 (Dropbox folder).</i></p>	<ul style="list-style-type: none"> - Adjust and scrutinize biodiversity monitoring results to examine how reforestation and yerba mate are impacting the forest - Frequently monitor planting progress to make sure final target of 50 ha is reached (Outcome Indicators 0.1, 0.4) - Monitor the outlook for yerba mate production and merchandising, ensuring adequate planning so that expected social and economic benefits for communities are in fact realized post-EOP - Make preparations to be able compare baseline information with new ecological and socioeconomic results that will be measured for change - Consolidate partnerships with existing and newly-incorporated yerba mate growers and policy collaborators, as well as capacity-building efforts, in order to cement long-term impact
<p>Output 1. 1. Institutional frameworks (CBOs or</p>	<p>1.1 By the end of year 1, communities have established organisations regarding yerba mate production, with culturally-appropriate</p>	<p><i>More detail (ALL OUTPUTS) in Sections 3.1, 3.2;</i> <i>Supporting evidence in Annexes 3 and 4 (Dropbox folder).</i></p>	

<p>other culturally appropriate social/family groups) with the capacity (social and institutional capital) for cultivation, marketing and benefit-sharing of shade-grown yerba mate established through a participatory process among settled Mbya Guarani and campesino communities in San Rafael.</p>	<p>and equitable representation from women and men.</p> <p>1.2 By the end of year 1, capacity needs of CBO members for shade-grown yerba mate cultivation, management and marketing completed.</p> <p>1.3 By the end of year 2, CBOs have developed plan(s) for production and marketing of shade yerba mate being grown by communities in San Rafael.</p> <p>1.4 By the end of year 3, community/CBO representatives (women and men) have received training in numeracy, literacy and basic accounting, to support fair and effective engagement in markets.</p> <p>1.5 By middle of year 3, the CBOs are in direct discussion with private sector buyers concerning their shade yerba mate.</p>	<p>1.1: Legally-constituted producers' organizations in Comunites (Oga Ita, Arroyo Moroti and Santa Ana) have been supported with a cultural consciousness in mind. They are well-organized and collaborate with other local committees. Joveré will be part of this effort during Year 3.</p> <p>1.3: Production and marketing plan developed in a participatory manner. Along with the business plan, plans describe the financial differentials between conventional yerba mate and organic, shade-grown production. The final business plan will take shape as more is learned and recorded about the cultivation process. Due to market complexity, price competition, and options of production and processing, organic certification is being built into the Business Plan. But other start-up costs of audits and other requirements for initial certification were not included in the original Darwin project plan so we are looking at co-funding. In addition, we are helping producers figure out the assumption of related costs e.g. an industrial drying plant to produce higher quality product.</p> <p>1.4: This will be completed in year 3.</p> <p>1.5: Discussions are in a preliminary planning stage, under the guidance of Guayaki and the communities under their cooperation agreements. Guayaki entertains the idea of being just 1 of several buyers.</p>
<p>Activity 1.1. Presentation of the approved project to the communities and local authorities, including description of: objectives, plans and timing, legal constitution, register of documents and list of participating community members</p>	<p>Already completed</p>	
<p>Activity 1.2. Production of the legal contract and placing orders with providers of yerba mate seedlings</p>	<p>Already completed</p>	
<p>Activity 1.3. Training workshops (on technical aspects of tree care and management; harvesting; processing etc.) for technicians, leaders and members of the indigenous and farmer communities</p>	<p>7 additional training workshops for crop management and pruning done for Arroyo Moroti and Oga Ita during Year 2. Participating producers are those with mature yerba mate plantations and new ones who planted shade-grown mate in 2016. Eight producers already applied the new techniques. Positive results revealed during verification visits. The workshops also opened the opportunity for discussion among men and women (even though most campesino and the majority of indigenous producers are men) about the field work challenges, product prices, productive capacity, and quality of yerba mate.</p>	

<p>Activity 1.4. Develop participatory community business and enterprise plans, with support from the private sector.</p>	<p>Important progress was made despite 1st year setbacks: a draft business plan divided into two chapters was developed. A meeting with the beneficiaries during the Third Year would socialize the Plan, to agree on content and establish next steps. The certification process is essential, so the technical team of the project is looking for funds to bring yerba mate under the organic, fair-trade norms, in addition to the writing of the Forest Management Plan.</p> <p>See Annex 4 for documents</p>
<p>Activity 1.5. Training of the communities on farm and business management, focused on marketing and commercialization</p>	<p>Training of the communities and monitoring of the success of yerba mate plantations were carried out during Year 2, building capacity by identifying needs along the way. Also, parcel cleaning and good state of the crops was verified, as well as the lack of pests. Training covers a variety of topics, heavily focused on field work for learning through practice, especially with new producers in Santa Ana. About 7 group workshops completed so far, and 176 parcel visits. Training was addressed in the “Yerba Mate Forum on Native Forests” (in Alto Verá). The number of people of different unions that showed interest in producing shade-grown yerba mate at their parcels was encouraging</p>
<p>Activity 1.6. Meetings, negotiation and agreements with the companies committed to and interested in the purchase of the product</p>	<p>First approaches and negotiations have been realized with companies interested in the purchase of the product. Mainly Guayaki, who is committed to purchase part of the production and also the currently organic production that beneficiaries have (not shade-grown but still organic). An agreement with Guayaki has formalized their support to producers, in technical and socioeconomic terms.</p> <p>See Annex 4 for documents</p>
<p>Output 2. Shade-grown yerba mate is being grown in 50ha of indigenous peoples’ and campesino forested lands increasing incomes and restoring/maintaining habitat suitable for</p>	<p>2.1 By end of month 9, communities have decided on locations for shade-grown yerba production and have planted 25 ha.</p> <p>2.2 By mid-point of Year 3, 50ha of shade-grown yerba mate have been established (10ha at indigenous community of Arroyo Moroti; 40ha at campesino communities).</p> <p>2.3 From middle of year 2 to end year 3, yerba mate farmers from San Rafael make 2 visits: one to the Ache of Kue Tuvy and one to an</p> <p><i>More detail (ALL OUTPUTS) in Sections 3.1, 3.2; Supporting evidence in Annexes 3 and 4 (Dropbox folder).</i></p> <p>2.1: Complete, no activity in Year 3</p> <p>2.2: Several factors slowed the increase in planting area: Last year 19 hectares were planted. During the second year, and after the decision to go bit-by-bit, newly-incorporated communities contributed 8 ha more, raising the current total to 27 ha. The other 23 pending hectares will be established in Joveré (Campesino Community) during year 3, thus achieving planting 50 ha, totalling 10ha in Arroyo Moroti; 40ha at campesino communities.</p> <p>2.3: During the first year a successful visit for communities to observe success and lessons learned from the Ache of Kue Tuvy. 3 additional were planned, but</p>

<p>threatened Atlantic forest endemics.</p>	<p>Mby'a Guarani community in Brazil, for peer-to-peer learning.</p> <p>2.4 By first/ second quarter of year 3, the importance of retaining Atlantic Forest habitat has been demonstrated through biodiversity surveys (in forest, forest-edge and on-farm plots and all seasons) and the presence of forest-dependent species; to feed into the guidelines (Output indicator 3.2) and to act as a baseline for long-term biodiversity and habitat monitoring in San Rafael</p> <p>2.6 By the end of year 3, participating communities (over 1,000 people) are benefitting from increased community capacity, improved production and progress towards certification and sale of certified shade-grown yerba mate products. Direct project beneficiaries are 340 individuals (producers and their families - indigenous and campesino). Estimates of harvest and sale in year 3 (organic, conventional yerba mate from project producers in Oga Ita) are 20,600 kgs (70% at approx. 0.21 USD/ kg.; 30% (leaves only) at 2.5 USD/ kg.). The predicted future price of certified, shade-grown product (leaves) is at least 2.5 USD per kg. – first harvests in 2020</p> <p>2.7 By the end of the project, communities are reporting capacity and wellbeing benefits (increases in social and natural capitals and progress towards meeting identified basic necessities through yerba mate production, certification, sales and marketing). [Socio-economic consultation and examples seen elsewhere (peer to peer learning visits) suggest initial priorities will be for food, education, solar panels, health care and improved water supplies. Increases in</p>	<p>we have decided that 2 visits are enough: one to Ache of Kue Tuvy (Year 1) and the second one being planned over the border in Brazil, where visits to plantations with indigenous communities more experienced with yerba mate (Mbya Guarany) will be beneficial. Guayaki can bear the brunt of the cost of this exchange, during Year 3.</p> <p>2.4: This indicator has been revised since the purpose of the biodiversity monitoring is to help to develop the “model” that shows that retention of forest and planting of trees in farmland (with shade-grown yerba mate) both contribute to maintaining Atlantic Forest biodiversity and forest-dependent endemics (compared with open farmland cleared for soya bean farms etc.). Therefore, we are establishing a biodiversity indicator comparing forest, forest-edge and on-farm plots during 4 seasons through the presence of forest-dependent species for 3 taxonomic groups. Results will feed into the project guidelines (Output 3) while serving as a baseline against further Guyra/partner monitoring.</p> <p>2.6: Data and trends confirmed by Guyra Paraguay, see Section 3.1 for more detail</p> <p>2.7: Notable progress during Year 2. While income to invest is not yet available, communities are already reporting capacity and wellbeing benefits from project involvement and are seeing the benefits from yerba mate incomes (conventional) and shade-grown (other communities and peer-to-peer learning). They are convinced by the model of shade-grown yerba mate providing future incomes and a promising well-being pathway</p>
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	financial capital (incomes/ dividends) from sales of certified organic, shade-grown yerba mate will be post-project].	
Activity 2.1. Visit to the beneficiaries and identification of the sites allocated for production		Already completed
Activity 2.2. Planting of 10 ha of yerba mate in the communities of Arroyo Claro and Arroyo Moroti; 40 ha in the farmer communities		<p>Arroyo Moroti (indigenous Mbya community) has planted 9.5 ha with around 28,000 seedlings, and 119 beneficiaries, although the aim is to increase this 0.5 ha during Year 3. Campesino Communities include Oga Ita (15ha, 74,700 seedlings so far), Santa Ana (suitably forested 2.5 ha, 9,300 seedlings) and Joveré where the plantation is planned for Year 3, 23 ha. Not all seedlings develop well and replanting (which increases seedling figures) is necessary every year to cut losses.</p> <p>The forest/ parcels at Arroyo Claro were not considered suitable for organic shade-grown yerba mate (surrounded by soybean which would have made organic production impossible) so they are no longer involved in the project</p>
Activity 2.3. Exchange visits with the community Aché of Kue Tuvy		See Section 3.2
Activity 2.4. Review and develop biodiversity monitoring protocols (building on existing) and methods for threat monitoring, and establish baselines		No modifications during Year 2-3
Activity 2.5. Monitor biodiversity in the parcels of production of yerba mate		Data from the four seasons of 2017 have been analysed. Biological monitoring continued during 2018 and the first campaign of 2018 was carried out in February. Data from this campaign was not included in the report and will be included and analysed for the next report. Section 3.1 and Annex 4 (Biodiversity monitoring reports) includes more detail.
Activity 2.6. Monitor livelihoods and wellbeing impacts, based on participatory indicators identified at household and/or community level, and against a year 1 baseline		<p>See updates on Socioeconomic reporting in Section 3 and Annex 4.</p> <p>Reports due from consultant by end Year 2 have still not been received – a priority for M+E Steering committee to obtain and check in first half of Year 3</p>
Activity 2.7. Monitoring of the forest cover through satellite images; monitor incidences of environmental crimes and other threats		Preliminary analyses showed that changes in the forest cover are not significant at 3-month intervals at satellite level, so the frequency of analyses has been reduced to 6-months. Threat monitoring has also been supported by ranger patrols of the Guyra Reta Reserve Complex and data interpretation from flyovers done monthly by PRO COSARA. The most significant losses of forest cover within communities (just a few of the dozens of irregularities detected across San

		Rafael) are due to fire incidents and land use change, with long-term conclusions yet to be made. Rangers will continue to share information and report illegal activities through regular meetings
Activity 2.8. Develop the process for harvest and sale of organic/shade yerba mate		No major progress, see Indicators change
Activity 2.9. Documentation of benefits of the commercialization of yerba mate		No major progress, see Indicators change
Output 3. Evidence-based guidelines on cultivation of shade-grown yerba mate are developed for farmers and agricultural agencies.	3.1 By end of year 1, a research and monitoring programme has been established at the demonstration farms to improve knowledge on effective management of shade yerba, which maximises biodiversity value, yerba mate productivity and other ecosystem service benefits. 3.2 By middle of year 3, evidence-based guidelines on shade yerba mate produced and consulted on with relevant agencies and other stakeholders, and 2 awareness-raising/lesson-sharing workshops held (involving government administrations and agencies, NGOs, CBOs, producers and academics , etc.) from across Paraguay's Atlantic Forest region. 3.3 Journal article on factors affecting biodiversity in shade yerba submitted to open access journal by year 3	<i>More detail (ALL OUTPUTS) in Sections 3.1, 3.2; Supporting evidence in Annexes 3 and 4 (Dropbox folder).</i> 3.1: Ongoing as knowledge is gathered and demonstration plots have been maintained. Work by producer organization, collaborators, and the achievement of a best practices manual could catalyse these efforts in Year 3 (see next indicator) 3.2: Draft evidence-based guidelines, based on 3 years of tests, techniques, evaluation, and consultation with relevant agencies and other stakeholders will be ready in December 2018. A monitoring programme has been established, management techniques have been defined. 3.3: Following discussions between staff members it is hoped that an article will be ready for publication by EOP
Activity 3.1. Document the approach used for monitoring of biodiversity		Meetings of the Project M+E Steering Committee were held in October, December and March by Skype in Asunción. Progress on implementing the M+E Plan and a more detailed review of targets are underway. Biodiversity Monitoring methods are detailed in reports. (See Annex 4)
Activity 3.2. Develop a guidance/manual document about the process of production and commercialization of shade grown yerba mate		Initial progress, described in Section 3.2
Activity 3.3. Provide training on shade yerba mate to government technicians and development NGOs working around forest in Itapua		Completed, held in September 2017. It made the project visible in the yerba mate sector, which will be a great help to effect change with the authorities and encourage business collaboration.

Activity 3.4. Publication of articles about the factors that affect biodiversity in the process of production of yerba mate		To be determined in Year 3. See presentation “Birds in Yerba Mate parcels” (Presentation to Yerba Mate Forum, 2018) in Annex 4
Activity 3.5. Production of a short video on community-based production of shade yerba mate and biodiversity conservation, local livelihoods and indigenous culture, for showing national, regionally and internationally.		Year 3 activity
<p>Output 4.</p> <p>Government policy promotes shade-grown yerba mate as an appropriate, market-driven approach to conserve Atlantic Forest biodiversity in the long-term.</p>	<p>4.1 Government are engaged with project, consulted and using project and Guyra Paraguay evidence, guidelines and policy proposals to strengthen national Atlantic Forest conservation and endorse shade-grown yerba mate as a model for forest conservation management and sustainable financing.</p> <p>4.2 By end of year 3, Itapua State government has consulted with Guyra Paraguay and endorsed the draft project guidelines concerning biodiversity conservation and the production of shade-grown yerba mate in Atlantic Forests.</p> <p>4.3 By end of project, the shade-grown yerba mate model of Atlantic forest conservation is included in a Forest Management Plan for the Guyra Paraguay and Mbya Guarani-owned forest property (100 ha) and approved by INFONA as a “project of interest”</p>	<p><i>More detail (ALL OUTPUTS) in Sections 3.1, 3.2; Supporting evidence in Annexes 3 and 4 (Dropbox folder).</i></p> <p>For reasons beyond the control of Guyra Parguay, some of the original Log Frame targets for Outputs (4.1-4.3) and related Outcome indicator 0.5 could not be achieved. The project team has developed new strategies for public-sector engagement, justifying the need for new indicators and targets for Output 4 as of Year 2’s end. More detailed progress is explained in Section 3.1 and see Annex 2 for Log Frame revisions and justification (Change Request).</p>
Activity 4.1. Draw up an advocacy and communications plan for different audiences		No new changes for Year 2-3
Activity 4.2. Meetings with government authorities to promote the farming of shade grown yerba mate as a market-based approach supporting the conservation of Atlantic Forest biodiversity		Great advances were made in terms of Municipality Involvement. A Declaration of Municipal Interest in the Project from Governorate of Itapúa was signed, also a Cooperation Agreement from Municipality of Alto Verá to carry out the yerba mate forum and the cooperation of INFONA to carry out the training plan with the beneficiaries of the project. A second declaration of interest was also signed by the Departmental Board of Itapúa. Also, project results and levels of community participation are more visible each year: twelve meetings were held with different government institutions, including the Ministry of Women, who

	showed great interest in collaboration and provided contacts of leaders of Alto Vera Municipality's Rural Women Department. <i>See Annexes 3 and 4 (Dropbox).</i>
Activity 4.3. Through provision of information, meetings and proposed text, lobby authorities of the Governorship of Itapúa for the inclusion of the production model of shade grown yerba mate as a state policy to conserve biodiversity	Work will be dedicated to this as before, but with emphasis in Year 3 on new Output targets (there are no policy mechanisms for incorporating yerba mate at State level)
Activity 4.4. Prepare Forest Management Plan for Guyra Paraguay and Mbya Guarani – owned property at San Rafael	In 2017 a letter requesting the declaration of interest from were sent to INFONA, for which they requested a Forest Management Plan for the project area specifying the yerba mate farming programme. The development of this plan spanning across from Year 2, which requires many background assessments, and also requires new funds to develop. The project team will complete the floristic inventory of the parcels as part of the biological monitoring, however to complete other specific documents a consultancy is needed.
Activity 4.5. Provide information to and lobby the National Forestry Institute to use and help promote the project's lessons, approach and evidence-based guidelines to establish the shade-grown yerba mate model as part of an Atlantic Forest conservation strategy (Paraguay and regionally)	New strategies to be emphasized in Year 3 (see revised Indicators and targets above and in Log Frame Annex 2). Public institution activities have been influenced by an important political moment, the Presidential Elections of April 2018. We cannot foresee the impact it will have on regional governments, as well as institutions like INFONA, but we are preparing for changes and continue promoting the project. Relationships between conservation NGOs and the INFONA are in nearly in crisis, due to forestry law modifications, enabling land use change in producers' legal forest reserves and removing protection outside protected areas.

Annex 2: Project’s full current logframe as presented in the application form (unless changes have been agreed)

LOGICAL FRAMEWORK - *revisions agreed (Change Request dated 25th April 2018) and shown in red type – see rationales appended after revised Log Frame in this Annex 2*

Darwin projects will be required to report against their progress towards their expected outputs and outcomes if funded. This section sets out the expected outputs and outcomes of your project, how you expect to measure progress against these and how we can verify this.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Policy-driven cultivation of shade-grown yerba maté within and around Paraguay’s Atlantic Forests provides a market-driven, culturally and environmentally appropriate land-use that reduces poverty, respects indigenous peoples’ rights and conserves biodiversity.			
<p>Outcome: 30 words</p> <p>Shade-grown yerba mate reduces forest degradation at San Rafael, provides a poverty reduction route for 5 communities, and a sustainable land use model for additional c.80,000 ha of Paraguayan Atlantic Forest.</p>	<p>0.1 By end of project, settled Mbya Guarani (120 people) and 3 campesino communities (1000 people) in San Rafael <i>have improved wellbeing (as defined by the communities, and compared to year 1 baseline) and 50 ha of shade-grown yerba mate in production, with markets and buyers identified (first shade-grown harvests in 2020) and first audits and farm inspection completed towards organic and Fair-Trade certification.</i></p> <p>0.2 By end of project, participating communities have increased capacity for cultivation of shade mate, and for collective negotiation and marketing of their produce, through strengthened and empowered CBOs <i>or other culturally appropriate social/ family groups</i> representing shade-yerba producers.</p> <p>0.3 Threats to the forest in areas occupied/used by participating Mbya Guarani and campesino communities (>7000 ha) <i>reduced by EOP, compared with year 1 baseline. Measures include: at least 5% reduction in rate of land use change from illegal and unsustainable activities (encroachment by marijuana or other farms, timber cutting and forest fires).</i></p> <p>0.4 By end of project, 50 ha of indigenous/campesino forest land in San Rafael shows how management can generate income (yerba mate) <i>and retain suitable habitat for threatened/target Atlantic forest biodiversity, as demonstrated by biodiversity surveys (forest, forest-edge and on-farm) and presence of forest-dependent species</i> (see indicator 2.4).</p>	<p>0.1 Household/community income and wellbeing survey reports (livelihoods and wellbeing measures identified through participatory surveys, focus groups and qualitative methods)</p> <p>0.2 Constitution and registration documents; Capacity assessment report from CBO; reports of harvests/yields of yerba mate</p> <p>0.3 Reports of threat monitoring surveys <i>and land use change analyses</i></p> <p>0.4 Report of on-farm biodiversity surveys; area of managed</p>	<p>Indigenous communities and campesinos continue to be receptive to the project</p> <p>San Rafael is not threatened by new impacts that advance too quickly for the project to address, such as property invasion by squatters</p> <p>Local and national authorities continue to provide appropriate political support for the conservation of San Rafael and Atlantic Forest</p>

	<p>0.5 By end of project, the shade-grown yerba mate model has been accepted by government as an evidence-based component of the Atlantic Forest conservation model and included in a Forest Management Plan for the Guyra Paraguay and Mbya Guarani-owned forest property (100 ha) approved by INFONA as a “project of interest”.</p>	<p>shade-grown mate; order/sale agreements with companies; draft evidence-based guidelines for shade-grown yerba mate (see Output 3)</p> <p>0.5 Records of government input and attendance at project awareness-raising and training events; draft Forest Management Plan for Guyra/ Mby'a Guarani property; published INFONA statement of “project of interest”.</p>	
<p>Outputs:</p> <p>1. Institutional frameworks (CBOs or other culturally appropriate social/ family groups) with the capacity (social and institutional capital) for cultivation, marketing and benefit-sharing of shade-grown yerba mate established through a participatory process among settled Mbya Guarani and campesino communities in San Rafael.</p>	<p>1.1 By the end of year 1, communities have established organisations regarding yerba mate production, with culturally-appropriate and equitable representation from women and men.</p> <p>1.2 By the end of year 1, capacity needs of CBO members for shade-grown yerba mate cultivation, management and marketing completed.</p> <p>1.3 By the end of year 2, CBOs have developed plan(s) for production and marketing of shade yerba mate being grown by communities in San Rafael.</p> <p>1.4 By the end of year 3, community/CBO representatives (women and men) have received training in numeracy, literacy and basic accounting, to support fair and effective engagement in markets.</p> <p>1.5 By middle of year 3, the CBOs are in direct discussion with private sector buyers concerning their shade yerba mate.</p>	<p>1.1 Registration documents, constitution and membership lists</p> <p>1.2 Capacity assessment report</p> <p>1.3 Business plans</p> <p>1.4 Training course attendance certificates</p> <p>1.5 Minutes of meetings between CBOs and buyers</p>	<p>The local CBOs establish themselves with sufficient capacity and remain viable and engaged</p> <p>IPs and campesinos remain committed and interested in the cultivation and marketing of shade yerba mate</p>

<p>2. Shade-grown yerba mate is being grown in 50ha of indigenous peoples' and campesino forested lands increasing incomes and restoring/maintaining habitat suitable for threatened Atlantic forest endemics.</p>	<p>2.1 By end of month 9, communities have decided on locations for shade-grown yerba production and have planted 25 ha.</p> <p>2.2 By mid-point of Year 3, 50ha of shade-grown yerba mate have been established (10ha at indigenous community of Arroyo Moroti; 40ha at campesino communities).</p> <p>2.3 From middle of year 2 to end year 3, yerba mate farmers from San Rafael make 2 visits: one to the Ache of Kue Tuvy and one to an Mby'a Guarani community in Brazil, for peer-to-peer learning.</p> <p>2.4 By first/ second quarter of year 3, the importance of retaining Atlantic Forest habitat has been demonstrated through biodiversity surveys (in forest, forest-edge and on-farm plots and all seasons) and the presence of forest-dependent species; to feed into the guidelines (Output indicator 3.2) and to act as a baseline for long-term biodiversity and habitat monitoring in San Rafael</p> <p>2.5 Removed (as it was the same as indicator 0.3 in original Log Frame – which relates to threats under Outcome)</p> <p>2.6 By the end of year 3, participating communities (over 1,000 people) are benefitting from increased community capacity, improved production and progress towards certification and sale of certified shade-grown yerba mate products. Direct project beneficiaries are 340 individuals (producers and their families - indigenous and campesino). Estimates of harvest and sale in year 3 (organic, conventional yerba mate from project producers in Oga Ita) are 20,600 kgs (70% at approx. 0.21 USD/ kg.; 30% (leaves only) at 2.5 USD/ kg.). The predicted future price of certified, shade-grown product (leaves) is at least 2.5 USD per kg. – first harvests in 2020</p> <p>Baseline: 14,000kg “conventional production” (16 producers) sold in 2017/ Year 2 for c. 2,940 USD</p> <p>2.7 By the end of the project, communities are reporting capacity and wellbeing benefits (increases in social and natural capitals and progress towards meeting identified basic necessities through yerba mate production, certification, sales and marketing). [Socio-economic consultation and examples seen elsewhere (peer to peer learning visits) suggest initial priorities will be for food, education, solar panels, health care and improved water supplies. Increases in financial capital</p>	<p>2.1 Maps and satellite images</p> <p>2.2 On-site farm surveys</p> <p>2.3 Photographic/video diary of visits</p> <p>2.4 Reports on biodiversity surveys</p> <p>2.5 Reports on success of planting (yerba mate and native tree seedlings for forest restoration on farms)</p> <p>2.6 Farm and sales records kept by CBOs/ family groups</p> <p>2.7 Report of community wellbeing surveys and/or evidence of changes in community/ family social, natural, financial capitals</p>	<p>Existing Mbya Guarani mechanisms for distributing benefits equitably across the community are applied to the benefits from shade-grown yerba mate</p>
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	(incomes/ dividends) from sales of certified organic, shade-grown yerba mate will be post-project].		
3. Evidence-based guidelines on cultivation of shade-grown yerba mate are developed for farmers and agricultural agencies.	<p>3.1 By end of year 1, a research and monitoring programme has been established at the demonstration farms to improve knowledge on effective management of shade yerba, which maximises biodiversity value, yerba mate productivity and other ecosystem service benefits.</p> <p>3.2 By middle of year 3, evidence-based guidelines on shade yerba mate produced and consulted on with relevant agencies and other stakeholders, and 2 awareness-raising/lesson-sharing workshops held (involving government administrations and agencies, NGOs, CBOs, producers and academics, etc.) from across Paraguay's Atlantic Forest region.</p> <p>3.3 Journal article on factors affecting biodiversity in shade yerba submitted to open access journal by year 3</p>	<p>3.1 Report of research survey and design protocols</p> <p>3.2 Draft guidelines document (printed and in PDF form); workshop attendances and evaluation reports</p> <p>3.3 Confirmation email from journal</p>	Government and other stakeholders are receptive to the research findings and management recommendations from the project and endorse and support the awareness-raising workshops.
4. Government policy promotes shade-grown yerba mate as an appropriate, market-driven approach to conserve Atlantic Forest biodiversity in the long-term.	<p>4.1 Government are engaged with project, consulted and using project and Guyra Paraguay evidence, guidelines and policy proposals to strengthen national Atlantic Forest conservation and endorse shade-grown yerba mate as a model for forest conservation management and sustainable financing.</p> <p>4.2 By end of year 3, Itapua State government has consulted with Guyra Paraguay and endorsed the draft project guidelines concerning biodiversity conservation and the production of shade-grown yerba mate in Atlantic Forests.</p> <p>4.3 By end of project, the shade-grown yerba mate model of Atlantic forest conservation is included in a Forest Management Plan for the Guyra Paraguay and Mbya Guarani-owned forest property (100 ha) and approved by INFONA as a "project of interest"</p>	<p>4.1 Attendance lists/ feedback forms from project awareness-raising etc. meetings/ conferences</p> <p>4.2 Uptake/ use and comments on draft evidence-based guidelines on shade yerba mate in Atlantic Forest (by Government and stakeholders in Atlantic Forest conservation)</p> <p>4.3 Published Forest Management Plan and INFONA statement of "project of interest"</p>	<p>Government remains committed to conservation of Atlantic Forest and to finding innovative solutions for engaging IPs in protected areas.</p> <p>Indigenous Peoples communities in other Atlantic forest PAs are interested in learning from the project.</p>

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

Output 1: Institutional frameworks (CBOs) with the capacity (social and institutional capital) for cultivation, marketing and benefit-sharing of shade-grown yerba mate established...

- 1.1 Presentation of the approved project to the communities and local authorities, including description of: objectives, plans and timing, legal constitution, register of documents and list of participating community members
- 1.2 Production of the legal contract and placing orders with providers of yerba mate seedlings
- 1.3 Training workshops (on technical aspects of tree care and management; harvesting; processing etc.) for technicians, leaders and members of the indigenous and farmer communities
- 1.4 Develop participatory community business and enterprise plans, with support from the private sector.
- 1.5 Training of the communities on farm and business management, focused on marketing and commercialization
- 1.6 Meetings, negotiation and agreements with the companies committed to and interested in the purchase of the product

Output 2: Shade-grown yerba mate is being grown in 50ha of indigenous peoples' and campesino forested lands increasing incomes and restoring/maintaining habitat suitable for threatened Atlantic forest endemics.

- 2.1 Visit to the beneficiaries and identification of the sites allocated for production
- 2.2 Planting of 10 ha of yerba mate in the communities of Arroyo Claro and Arroyo Moroti; 40 ha in the farmer communities
- 2.3 Exchange visits with the community Aché of Kue Tuvy
- 2.4 Review and develop biodiversity monitoring protocols (building on existing) and methods for threat monitoring, and establish baselines
- 2.5 Monitor biodiversity in the parcels of production of yerba mate
- 2.6 Monitor livelihoods and wellbeing impacts, based on participatory indicators identified at household and/or community level, and against a year 1 baseline
- 2.7 Monitoring of the forest cover through satellite images; monitor incidences of environmental crimes and other threats
- 2.8 Develop the process for harvest and sale of organic/shade yerba mate
- 2.9 Documentation of benefits of the commercialization of yerba mate

Output 3: Evidence-based guidelines on cultivation of shade-grown yerba mate are developed for farmers and agricultural agencies.

- 3.1 Document the approach used for monitoring of biodiversity
- 3.2 Develop a guidance/manual document about the process of production and commercialization of shade grown yerba mate
- 3.3 Provide training on shade yerba mate to government technicians and development NGOs working around forest in Itapua
- 3.4 Publication of articles about the factors that affect biodiversity in the process of production of yerba mate
- 3.5 Production of a short video on community-based production of shade yerba mate and biodiversity conservation, local livelihoods and indigenous culture, for showing national, regionally and internationally.

Output 4: Government policy promotes shade-grown yerba mate as an appropriate, market-driven approach to conserve Atlantic Forest biodiversity in the long-term.

- 4.1 Draw up an advocacy and communications plan for different audiences

- 4.2 Meetings with government authorities to promote the farming of shade grown yerba mate as a market-based approach supporting the conservation of Atlantic Forest biodiversity
- 4.3 Through provision of information, meetings and proposed text, lobby authorities of the Governorship of Itapúa for the inclusion of the production model of shade grown yerba mate as a state policy to conserve biodiversity
- 4.4 Prepare Forest Management Plan for Guyra Paraguay and Mbya Guarani – owned property at San Rafael
- 4.5 Provide information to and lobby the National Forestry Institute to use and help promote the project's lessons, approach and evidence-based guidelines to establish the shade-grown yerba mate model as part of an Atlantic Forest conservation strategy (Paraguay and regionally)

Annex 2a: Rationales for Log Frame changes

Darwin Change Request 2018 – yerba mate Log Frame indicators

Draft for discussion with LTSI – 16th April 2018

The proposed changes relate to 4 key elements of the original Log Frame, as follows (with rationale for these changes). In each case we are suggesting that the original Outcome statement is valid (and the overall project model and rationale is the same) but there is a need to revise the indicators and targets because of new understanding or external changes that have occurred during implementation or to make the targets more realistic within the project timescale. The project “model” of shade-grown, “organic” yerba mate contributing to both livelihoods (poverty reduction for two groups of communities – indigenous people and settler farmers) and forest biodiversity conservation in the San Rafael Atlantic Forest remains valid. This is based on the shade-grown yerba mate commanding higher prices than “conventional” (non-shade production), with communities then able to invest this “dividend” in community and social benefits.

However:

1. (**Outcome 0.1 and 0.2**) Shade-grown “organic” yerba mate grows more slowly (under trees) than the “conventional” method and the time to first harvest takes longer (5 years minimum for shade-grown). There will be no harvest of yerba mate planted during the Darwin project (planting of shade-grown seedlings has taken place in all years 2016 to 2018). However, project beneficiary producers are also being supported to manage existing “conventional” plantations (which are organic though not certified) and to gradually convert these to shade-grown (planting indigenous trees on-farm – and also gradually removing exotic non-native trees, mainly “Tung” which currently provide shade in some areas). Some harvest from these plantations will be possible in 2018 and will help to develop the model of yerba mate providing additional incomes to farmers. The company Guayaki (supporting the project) has agreed to purchase all the projected harvest in 2018. Additional community benefits from the Darwin project support to this production include the capacity built among producers for better (and shade) yerba mate management, harvest and production; development of markets and agreements with buyers; community organization/ cooperation and money management; awareness raised and visits to other examples of successful yerba mate production contributing community benefits elsewhere in Paraguay and the region.

2. **(Outcome 0.1 and 0.2)** The model is dependent on shade-grown “organic” yerba mate being sold at a premium price. The original project assumption was that this could be achieved without certification because yerba mate from San Rafael forest is known by reputation to be “organic” and to be contributing to forest conservation. However, the market chain is more complicated than this, with varying methods of production, drying and different products sold in different (local, national) and export markets at very different prices. The advice from the project consultants (Guayaki) and other producers and buyers is that certification (Fair Trade and organic) will be required to access the higher prices and export markets. Fair Trade or equivalent certification is also beneficial to the communities as it establishes committees and processes for managing and distributing community benefits equitably. The ongoing annual costs of certification are being built into the Business Plan for the long-term future (to be covered by sales at premium prices for shade-grown yerba mate). But the start-up costs of audits and other requirements for initial certification were not included in the original Darwin project plan and budget. In addition, some other related costs have been identified (possible need for an industrial drying plant to produce higher quality product and government requirement for a Forest Management Plan (FMP) for yerba mate in forest properties over 100 ha – including areas of the Atlantic Forest Reserve and Darwin project area jointly-owned by the Arroyo Moroti (indigenous) community and Guyra Paraguay). Guyra Paraguay are seeking other funds to help with some of the start-up certification costs (preliminary audits, farm inspections and FMP consultancy). (Or if the donor prefers to fund forest management and biodiversity monitoring, this may then be the subject of another Change Request to Darwin to move some of the Darwin budget towards audits and developing the certified “model”, with external funds covering forest management and monitoring etc. in Year 3).
3. **(Outcome 0.3 and 0.4)** Both the threats and the biodiversity monitoring indicators were poorly worded in the original Log Frame. For threats, the wording change is suggested to clarify what can be measured (land use changes from satellite imagery and ground truthing; incidence of illegal incursions and fires recorded by ranger patrols) and more realistic targets for end of project. For biodiversity monitoring, the intention is not to measure “before and after” impacts of the project on biodiversity (because it is unlikely that any changes attributable to the project would be detectable within a 3-year project with tree planting etc. only completed in Year 3). The purpose of the biodiversity monitoring is to help to develop the “model” that shows that retention of forest and planting of trees in farmland (with shade-grown yerba mate) both contribute to maintaining Atlantic Forest biodiversity and forest-dependent endemics (compared with open farmland cleared for soya bean farms etc.). The biodiversity monitoring is also part of much longer-term Atlantic Forest biodiversity monitoring at San Rafael by Guyra Paraguay and partners, which will continue beyond the 3 year term of the Darwin project funding and help to monitor longer-term impacts and state of the forest and biodiversity in and around the Reserve.
4. **(Outcome 0.5)** For various political and other reasons beyond the control and influence of the project or Guyra Paraguay, some of the original Log Frame targets (and MoVs) for Outcome 0.5 and related Outputs (4.1-4.3) cannot be achieved. The project team has explored and developed new ways to achieve the government engagement and policy objectives. The proposed changes in wording of indicators and targets reflect these new directions and targets that are potentially achievable by end of project.

The project has tried various routes to direct government engagement. It is complicated by the fact that yerba mate is an agricultural crop, therefore under Ministry of Agriculture (MAG). But INFONA is the responsible agency for forests and forest strategies. There are also national elections in April 2018 so many changes are likely in administrations. The **Comisión Nacional Mixta de yerba mate** has proposed that yerba mate in forests should come under INFONA through an Inter-Ministerial Agreement (INFONA-MAG), in order to clarify the status of yerba mate as a non-timber forest product or an agricultural product. Guyra Paraguay cannot be part of the **Comisión Nacional Mixta de yerba mate** because this is not open to NGO membership.

MAG suggested that Guyra could attend meetings, but this has not been supported either. MAG are keen to benefit from the production of a (shade-grown) yerba mate manual/ guidelines – which is a Darwin project output, so they will be engaged through this process. The timing is not right for the project to feed in to the next Forest Strategy and INFONA are unconvinced about the concept of shade-grown yerba mate as a forest conservation/ management model (and will need to see scientific evidence of the shade-grown methods working). At State level, **Itapua State Municipality** has some involvement in agriculture/ development but usually just take funds and run their own projects. They collaborate and offer small support to Guyra/ the Darwin project (e.g. transport). There is no strategy or policy mechanism to feed into at this level. Hence the project approach at all levels is to engage government by raising awareness, demonstrating the community benefits (of shade-grown yerba mate and forest conservation), developing the model and the evidence (including the science), sharing learning and disseminating outputs. There is no overall Project Steering Committee but the Monitoring and Evaluation Steering Committee involves BirdLife International and Guyra Paraguay project staff/ project stakeholders and consultants/ University staff who support the various M+E strands; has met 4 times in Year 2 and reviewed all the M+E progress (including inputting to the suggested changes to Log Frame indicators and this Change Request).

Nonie Coulthard (Darwin Project Leader)

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
3	Number of people to attain other qualifications (Degree)	Females	Paraguay		2			
4C	Number of postgraduate students to receive training	Both	Paraguay	6	5			
5	Number of people to receive at least one year of training	Male	Paraguay		1			
14A	Number of conferences/seminars/ workshops to be organised to present/disseminate findings	Both	Paraguay		1			
14B	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	Both	Paraguay		1			
23	Value of resources raised from other sources (e.g., in addition to Darwin funding) for project work		World Land Trust (USA)	£16.040				
23	Value of resources raised from other sources (e.g., in addition to Darwin funding) for project work		Tokyo Gala Dinner (funds from private donors in Japan)		£8.900			

Table 2

Publications

Title	Type	Detail	Gender of Lead Author	Nationality of Lead Author	Publishers	Available from
Entrega de plantines de yerba mate (*)	Website	Daniel Espínola, 2017	Male	Paraguay	Guyra Paraguay, Asunción	https://guyra.org.py/entrega-de-plantines-de-yerba-mate/
Foro de Producción de Yerba Mate Bajo Sombra	Radio's Website	Lidia Samudio	Woman	Paraguay	Puhoe.com Caronay	http://puhoe.com/2017/08/09/foro-de-produccion-de-yerba-mate-bajo-sombra/
Foro de producción de yerba mate asociada al monte nativo	Website				mx.fievent.com	https://es-mx.fievent.com/e/foro-de-produccion-de-yerba-mate-asociada-al-monte-nativo/11570302
Foro de producción de yerba mate asociada al monte nativo	Website				allevents.in	https://allevents.in/events/foro-de-produccion-de-yerba-mate-asociada-al-monte-nativo/879896872158029#
Invitan al "Foro de Producción de Yerba Mate Asociada al Monte Nativo"	Radio's Website				La Cadena del Sur Itapúa	http://www.cadenadelsuritapua.com/post.php?id=133
Foro sobre cultivo de yerba mate	Newspaper	Juan Augusto Roa, 2017	Male	Paraguay	Diario Abc Color, Asunción	http://www.abc.com.py/edicion-impresa/interior/foro-sobre-cultivo-de-yerba-mate-1627086.html
Foro sobre cultivo de yerba mate	Website	Juan Augusto Roa, 2017	Male	Paraguay	Pressreader, Asunción	https://www.pressreader.com/paraguay/abc-color/20170830/282097751842324
Foro sobre producción de yerba mate en montes nativos de Alto Verá	Online channel (youtube)	Itapúa en Noticias, 2017			Itapúa en Noticias, Encarnación	https://www.youtube.com/watch?v=tvM4oJs8s5I
Organizan foro de cultivo de yerba mate	Newspaper	Juan Augusto Roa, 2017	Male	Paraguay	Diario Abc Color, Asunción	http://www.abc.com.py/nacionales/organizan-foro-de-cultivo-de-yerba-mate-1626883.html
Producirán yerba mate dentro de bosques nativos en Alto Verá	Online newspaper	Itapúa en Noticias, 2017		Paraguay	Itapúa en Noticias, Encarnación	http://itapuanoticias.tv/produciran-yerba-mate-dentro-de-bosques-nativos-en-alto-vera/

Foro sobre producción de yerba mate en montes nativos de Alto Verá	Online newspaper	Itapúa en Noticias, 2017		Paraguay	Itapúa en Noticias, Encarnación	http://itapuanoticias.tv/foro-sobre-produccion-de-yerba-mate-en-montes-nativos-de-alto-vera/
Foro sobre cultivo de yerba en Alto Verá	Newspaper	Juan Augusto Roa, 2017	Male	Paraguay	Diario Abc Color, Asunción	http://www.abc.com.py/edicion-impresa/interior/foro-sobre-cultivo-de-yerba-en-alto-vera-1628909.html
Foro de Producción de Yerba Mate Asociada al Monte Nativo	Website	Procosara 2017			Procosara, Alto Verá	http://procosara.org/es/noticias/Otras-Actividades (down in the webpage)
Foro sobre cultivo de yerba mate en Alto verá	Website				Nearural.com	http://www.nearural.com/cross-h/OMwElcross.html
Foro sobre cultivo de yerba mate en Alto Verá, Itapúa	Website				Worldnews.com	https://article.wn.com/view/2017/08/30/Foro_sobre_cultivo_de_yerba_mate_en_Alto_Vera_Itapua/
Foro de producción de yerba mate asociada al monte nativo	Website	Unidad de Difusión, Agronomía, UNA, 2017			Unidad de Difusión, Agronomía, UNA, San Lorenzo	Was published but now the link has expired because the event has finished http://www.agr.una.py/Difusion/promociones.html
Foro sobre producción de yerba mate en montes nativos de Alto Verá	Website	Paraguay News, 2017			Paraguay News	Was published but now the link has expired because the event has finished http://paraguay.shafaqna.com/ES/PY/215389
Relevamiento de datos para el monitoreo biológico del Proyecto “Yerba Mate”	Website	Daniel Espínola and Evelyn Brítez, 2017	Male & Female	Paraguay	Guyra Paraguay, Asunción	https://guyra.org.py/relevamiento-de-datos-para-el-monitoreo-biologico-del-proyecto-yerba-mate/
Yerba mate – Operativo Ka’a 2017 (*)	Website	Daniel Espínola, 2017	Male	Paraguay	Guyra Paraguay, Asunción	https://guyra.org.py/yerba-mate-operativo-kaa-2017/
Excelente evolución de plantines de yerba mate bajo sombra en la Reserva para Parque Nacional San Rafael (*)	Website	Evelyn Brítez, 2017	Female	Paraguay	Guyra Paraguay, Asunción	https://guyra.org.py/excelente-evolucion-de-plantines-de-yerba-mate-bajo-sombra-en-la-reserva-para-parque-nacional-san-rafael/

¡Inscripciones abiertas para el Foro de Producción de Yerba Mate Asociada al Monte Nativo!	Facebook	Guyra Paraguay, 2017			Guyra Paraguay, Asunción	https://www.facebook.com/permalink.php?story_fbid=1359004847501130&id=153106734757620
Foro sobre cultivo de yerba mate en Alto Verá, Itapúa	Radio's Website	Radio Cumbre, 2017			Radio Cumbre, Caronay	http://www.radiocumbre.com.py/index.php/actualidad/item/3426-foro-sobre-cultivo-de-yerba-mate-en-alto-vera-itapua
Elaboración de estrategias para la comercialización de yerba mate orgánica para preservar el Bosque Atlántico	Website	Evelyn Brítez, 2017	Female	Paraguay	Guyra Paraguay, Asunción	https://guyra.org.py/elaboracion-de-estrategias-para-la-comercializacion-de-yerba-mate-organica-para-preservar-el-bosque-atlantico/
INFONA and Guyra Paraguay Meeting Summarize	Note in the Website				Instituto Nacional Forestal	http://www.infona.gov.py/index.php/noticias/proyecto-yerba-mate-bajo-sombra
Almuerzo de fin de año con los beneficiarios del Proyecto Yerba Mate	Website	Daniel Espínola Jara, 2017	Male	Paraguay	Guyra Paraguay, Asunción	http://guyra.org.py/almuerzo-de-fin-de-ano-con-los-beneficiarios-del-proyecto-yerba-mate/
Avances con el plan de negocios de yerba mate bajo sombra (*)	Website	Evelyn Brítez, 2017	Female	Paraguay	Guyra Paraguay, Asunción	http://guyra.org.py/avances-con-el-plan-de-negocios-de-yerba-mate-bajo-sombra/
Limpieza de parcelas de Yerba Mate (*)	Website	Daniel Espínola Jara, 2017	Male	Paraguay	Guyra Paraguay, Asunción	http://guyra.org.py/limpieza-de-parcelas-de-yerba-mate/
Dictan cursos de capacitación para producción de yerba mate	Website	Evelyn Brítez, 2017	Female	Paraguay	Guyra Paraguay, Asunción	http://guyra.org.py/dictan-cursos-de-capacitacion-para-produccion-de-yerba-mate/
Guyra Paraguay, presentó al INFONA los proyectos de producción de yerba mate bajo sombra	Website	Evelyn Brítez, 2017	Female	Paraguay	Guyra Paraguay, Asunción	http://guyra.org.py/guyra-paraguay-presento-al-infona-los-proyectos-de-produccion-de-yerba-mate-bajo-sombra/

Las aves en las parcelas de yerba mate orgánica bajo sombra	Online Magazine	Evelyn Brítez, 2018	Female	Paraguay	Guyra Paraguay, Asunción	http://guyra.org.py/uruta-2018/ (Urutaú N°2)
Planifican nuevas capacitaciones a productores indígenas y campesinos sobre proyecto de yerba mate bajo sombra	Website	Evelyn Brítez and Rodolfo Ruíz, 2018	Female	Paraguay	Guyra Paraguay, Asunción	http://guyra.org.py/planifican-nvas-capacitaciones-a-productores-indigenas-y-campesinos-sobre-proyecto-de-yerba-mate-bajo-sombra/
Nuevo voluntario del equipo de Monitoreo de Biodiversidad del Proyecto de Producción de Yerba Mate bajo Sombra	Website	Evelyn Brítez, Viviana Rojas, Hugo Cabral, 2018	Female	Paraguay	Guyra Paraguay, Asunción	http://guyra.org.py/nvo-voluntario-del-equipo-de-monitoreo-de-biodiversidad-del-proyecto-de-produccion-de-yerba-mate-bajo-sombra/
Investigan influencia del estrato arbóreo en la yerba mate bajo sombra	Website	Evelyn Brítez and Cecilia Pizzurno, 2018	Female	Paraguay	Guyra Paraguay, Asunción	http://guyra.org.py/investigan-influencia-del-estrato-arboreo-en-la-yerba-mate-bajo-sombra/

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Have you involved your partners in preparation of the report and named the main contributors	√
Have you completed the Project Expenditure table fully?	√
Do not include claim forms or other communications with this report.	