



**Darwin Initiative/D+ Project
Half Year Report
(due 31st October 2019)**

Project reference	Main project 26-024
Project title	<i>Improving indigenous Bolivian Chiquitano people's livelihoods through sustainable forest management</i>
Country(ies)/territory(ies)	Bolivia and Brazil
Lead organisation	Royal Botanic Gardens, Kew, United Kingdom
Partner(s)	NGO Fundación Amigos de la Naturaleza, Santa Cruz, Bolivia Museo de Historia Natural Noel Kempff Mercado, Universidad autónoma, Gabriel Rene Moreno, Santa Cruz, Bolivia
Project leader	<i>Bente B. Klitgård</i>
Report date and number (e.g. HYR3)	<i>HY1. From project start date 2nd July to 30th September 2019</i>
Project website/blog/social media etc.	<i>See project comms report in the supplementary material.</i>

1. Outline progress over the last 6 months (April – Sept) against the agreed baseline timetable for the project (if your project has started less than 6 months ago, please report on the period since start up to end September).

Output 1. Five indigenous smallholder communities in the Chiquitano dry forest ecoregion apply best practices to build climate resilience and sustainable forest management.

Activity 1.1. The resilience of the five indigenous pilot communities of the project in the Municipalities of San José de Chiquitos and Roboré in the Department of Santa Cruz, Bolivia was preliminary evaluated. Twenty indicators¹ were used, which are grouped into: (1) Landscape diversity and ecosystem protection, (2) Biodiversity (including agrobiodiversity), (3) Knowledge and innovation, (4) Governance and social equity, and (5) Livelihoods and well-being. Studies have been identified on annual family income carried out in communities of similar characteristics (indigenous people dedicated to family farming) in municipalities neighbouring the project area. Based on the methodology used in these studies, the baseline of income will be raised in the selected communities in the coming weeks.

Activity 1.2. The selection of species that will be harvested in the five indigenous pilot communities was made based on four specific criteria: ecological, socio-economic, commercialization and market, and socio-technological. Under these criteria, three species were selected for the development of pilot harvesting experiences in the selected communities, these being: *Dipteryx alata* Vogel (almendra chiquitana), *Copaifera langsdorffii* Desf. (Copaibo) and *Pterodon emarginatum* Vogel (pesoé). An exhaustive bibliographic review and an initial field diagnosis of the potential of the species to be harvested in the pilot indigenous communities have been carried out. This analysis indicates that the abundance and distribution of the selected species is enough for own consumption and for commercialization. Based on this, a sampling method has been designed for the study area, to obtain detailed information on the status of the population of each species and potential for sustainable use. Field work will begin with the participation of members of the selected communities in the coming weeks.

Activity 1.4. This activity has begun with raising awareness in the communities about the sustainable management of the forest. Further advances have been limited as this activity depends on the progress of activity 1.2., which is delayed by the fire emergency (more details in section 2.a.).

Output 2. Indigenous smallholder communities of the Chiquitano dry forest ecoregion are organised in a community forest enterprise and sign mutually beneficial agreements with three companies and take measures to share benefits in a fair and equitable way to develop sustainable value chains based on biodiversity products.

Activity 2.1. The questionnaire is being developed to establish the baseline of the initial level of awareness of local authorities and community leaders.

Activity 2.2.b. To initiate this activity, the progress of activity 1.2 was required. Now that preliminary information is available on the potential for exploitation of the three selected species, the process of contracting the market research consultancy will begin.

Activity 2.5 Independent meetings have been held with companies and communities to begin the process of building alliances for the marketing of forest products. This activity began earlier than scheduled, while other activities of the project could not be advanced.

Output 3. Priority species, habitats, and sites for plant conservation in the Chiquitano dry forest ecoregion identified, documented and published; plant dataset shared with Bolivian partners and biodiversity centres; and national capacity to assess plant conservation priorities built through training of scientists and pre- and post-graduate students.

Activity 3.1a. The IUCN extinction risk assessment course for 10 Bolivian botanists is three months behind schedule due to the unavailability of a qualified Spanish-speaking IUCN trainer. The course is being planned for end January 2020 to coincide with the following activities:

- a) 3.1b verifying the remaining 75 IUCN extinction risk assessments with local experts;
- b) 3.2 publishing and launching the book “Threatened Plants of Lowland Bolivia” in Santa Cruz, Cochabamba and La Paz.
- c) 3.5 teaching a 1 /1/2 day course in TIPAs and IUCN criteria and methodology in plant conservation for the biology pre- and postgrad students at Facultad de Ciencias Agrícolas UAGRM in Santa Cruz.

Activity 3.1b. IUCN extinction risk assessments of 125 species and habitat assessments of the Chiquitano ecoregion were verified with eight regional experts in a three-day workshop 7th -10th August. The final versions of those assessments are planned to be submitted to IUCN by January 31st 2020 in time for IUCN’s next refresh of the online global red list.

Activity 3.2. The book “Threatened Plants of Lowland Bolivia” is currently being edited, reviewed and typeset by the authors, the publishers, FAN, and Kew.

Activity 3.3. Until end of August the botanical team had visited and verified the majority of the potential TIPAs sites flagged up by the project data on endemic, rare, threatened species and habitats in the Chiquitano ecoregion. Other potential sites were visited in October – the report on those is pending. Until the end of September, during the site visits a total of 512 botanical collection were made. Each of these collections will be duplicated in at least the Bolivian National Herbarium in La Paz, the Herbarium in Santa Cruz and Kew’s Herbarium for safeguarding. *Please see map Figure 1.*

Activity 3.4a. A desk study of 1,000 socio-economically useful species of the Chiquitano ecoregion undertaken, and 50 top-useful species were prioritised for IUCN extinction risk assessment based on their number of uses and number of common names, both of which have proven effective indirect measures of usefulness in previous studies. Data is being gathered at Kew for these 50 extinction risk assessments.

Activity 3.6. Two fully funded undergraduate thesis projects were developed to feed into project. Competition and interviews were held, and two bright students selected, who both happened to be female.

Output 4. TIPAs sites of the Chiquitano dry forest Ecoregion incorporated into subnational action plans on conservation and sustainable development. Local authorities, officials and rangers equipped with strategic knowledge, tools and capabilities for the effective management IPAs and protected areas.

Activity 4.1. Aug. 7 all partners held a ½-day inception workshop for ca. 50 invited stakeholders including the press - with presentations of the Darwin project by Ruth Delgado from FAN (the two livelihoods components) and Bente Klitgård (the two plant conservation components). An immediate result of the workshop was the formation of a Santa Cruz department-wide forum for the Chiquitano ecoregion initiated by the local government representative, bringing all Chiquitano stakeholders together under one umbrella for the first time. *Please see project comms and leaflets Figures 2 and 3.*

Activity 4.6. October 2nd - 5th the project was presented at the IV Bolivian Botanical congress in Santa Cruz. Oral presentations: Ruth Delgado (FAN) presented the livelihoods components in a symposium on ethnobotany. Rosie Clegg and Bente Klitgaard (Kew) presented the TIPAs components in a symposium on plant conservation. *Please project comms and Figure 4.*

Reference:

¹ UNU-IAS, Bioversity International, IGES and UNDP (2014) Toolkit for the Indicators of Resilience in Socio-ecological Production Landscapes and Seascapes (SEPLS).

2a. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

Chiquitano Ecoregion forest fires

It should be noted that the communities and municipalities where the project works have been in emergency due to forest fires in the Chiquitania region during the period July - September 2019. The area burnt in the Department of Santa Cruz amounts to 3.9 million hectares and represents 73% of the total

areas affected by fires nationwide (5.3 million ha). The municipalities where the project is carried out were significantly affected: San José de Chiquitos (265,943 ha) and Roboré (174,395 ha)^{2,3} Between the end of September and the beginning of October, interpretation of satellite images and field evaluation was carried out, and it has been evaluated that it is possible to continue with the activities of the project and that the areas with potential for harvesting were mostly unaffected. With this emergency, some of the project activities have been delayed. Activities 1.4 and 2.2b, which depend on the progress of previous activities and could not be carried out in parallel. *We estimate that the fires will mean a two months setback for project components 1 and 2, as the communities were fighting fires in August and September, when the first project activities were being planned for. This has also affected the budget, as funds meant to be spent in August, September and partly also October have been on hold. Please see project comms and maps of forest fires Figure 5.*

Political unrest in Bolivia following 20th October national elections

Since the national elections on October 20th Bolivia has been sinking into a situation of national unrest, national strike, roadblocks throughout the city of Santa Cruz, and clashes between groups of demonstrators belonging to the two main political factions. At the time of writing there seems to be no solution in sight as what started as a peaceful national strike on Wed 23rd October is developing into national emergency situation⁴. While we hope that a solution to the situation will be found soon, and that the Darwin project staff will be able to move freely and safely between the city of Santa Cruz and the indigenous pilot communities in the east of the department, we are not optimistic that this will happen any time soon. We will, however, be monitoring the situation closely daily, aiming to take up work with communities as soon as it is practically possible and safe for the project staff to travel. This will impact the budget spend and implementation table, and we plan to submit a forma change request in the near future.

IUCN trainer on maternity leave

Activity 3.1a - the 5-day IUCN diploma course in extinction risk assessment for 10 Bolivian professionals had to be postponed until January 2020 due to unavailability of the only qualified Spanish-speaking trainer who will be on maternity leave until December 2019. The course is being planned to take place in Santa Cruz in the period 27.01-31.01 2020.

References concerning the wildfires in the Chiquitania Aug.-Sept. 2019:

²La detección y cuantificación de áreas quemadas al 25 de septiembre de 2019 ha sido realizada por la Fundación Amigos de la Naturaleza a partir de imágenes MODIS e imágenes VIIRS con una resolución espacial de 500 metros.

³FAN. 2019. Reporte de incendios forestales a nivel nacional al 25 de septiembre de 2019. Sistema de monitoreo y alerta temprana de riesgos de incendios forestales (SATRIFO). Santa Cruz, Bolivia. 9 p. <http://incendios.fan-bo.org/Satrifo/reportes/IncendiosNal-FAN-25092019.pdf>

⁴BBC World News 31st. Oct. 2019. "Bolivia's post-election clashes turn deadly as two are killed". <https://www.bbc.co.uk/news/world-latin-america-50248739>

23rd Aug. Science Alert: https://www.sciencealert.com/it-s-not-just-brazil-s-amazon-bolivia-s-vital-forests-are-on-fire-too?fbclid=IwAR0JKMGvxOly3PsbhgXu87PkD_yOMSPSp5SApwIwuPBpO36WLMUaSuM5sV4

2nd Sept. The Guardian newspaper: <https://www.theguardian.com/world/2019/sep/02/bolivia-evo-morales-wildfires-chiquitano>

2b. Have any of these issues been discussed with LTS International and if so, have changes been made to the original agreement?

Discussed with LTS: No, not yet, but will be

Formal change request submitted: No, not yet, but will be

Received confirmation of change acceptance N/A

3a. Do you currently expect to have any significant (e.g., more than £5,000) underspend in your budget for this year?

Yes No Estimated underspend: £ The amount is currently being calculated

3b. If yes, then you need to consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a rebudget Change Request as soon as possible. There is no guarantee that Defra will agree a rebudget so please ensure you have enough time to make appropriate changes if necessary.

4. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?

NO

If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document. Additionally, if you were funded

under R25 and asked to provide further information by your first half year report, please attach your response as a separate document.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also** be raised with LTS International through a Change Request. **Please DO NOT send these in the same email.**

Please send your **completed report by email** to Darwin-Projects@ltsi.co.uk. The report should be between 2-3 pages maximum. **Please state your project reference number in the header of your email message e.g. Subject: 25-035 Darwin Half Year Report**