



Darwin Initiative Main/Post/D+ Project Half Year Report (due 31 October 2016)

Project Ref No	21-009
Project Title	Biodiversity conservation through poverty alleviation: enabling sustainable forestry in Belize
Country(ies)/Territory(ies)	Belize
Lead Organisation	Oxford University
Partner(s)	Belize Forest Department, University of Belize - Environmental Research Institute
Project Leader	Prof. Yadvinder Malhi
Report date and number (e.g., HYR3)	HYR3
Project website/ Twitter/ Blog/ Instagram etc	https://www.youtube.com/channel/UCRYsdpeA9VxPr0qinZ7sZ EQ/feed
Funder (DFID/Defra)	DFID

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).

Ref. Output 1 - Activity 1.1 (a), (b), (e) : On 1st July 2016 a training was provided to private sector and government forest managers in sustainable forestry standards, forest survey techniques, and effective reporting and publication of forest data at the Rio Bravo Conservation and Management Area. This training was provided as part of the continuous support provided to agencies utilising the post-harvest assessment (PHA) methodology developed by the Darwin SUSFOR project. The training covered criteria and indicators for sustainable forest management, forest sampling methods, and how to draft a report on the post-harvest assessment. The training lasted 2 days and a total of 17 persons participated. One day was spent in the classroom and the second day carrying out field sampling. Appendix 1 shows the sign-up sheet for the training.

Ref. Output 1 - Activity 1.4 : Stakeholders have been engaged electronically and in person on one-on-one basis but due to other commitments, the wider group of forest management/ research stakeholders have not been able to meet in one room. This is typical for this type of working group but does not indicate a lack of interest from stakeholders. Advances planned for the next quarter include the drafting of a terms of reference for the working group/committee.

Ref. Output 2 - Activity 2.1 : Though population survey data has been gathered from other leveraged activities, the analysis of the data is not yet complete for *Swietenia macrophylla*. This activity is expected to be completed in the next quarter.

Ref. Output 2 - Activity 2.2 : Up to the end of 2015/2016 there were 4 long-term forest monitoring plots re-measured (8, 9, 10, and 19). In the first half of 2016/2017 an additional 9 plots (11, 12, 13, 20, 21, 22, 25, 26, 37) were re-measured and restored for a total of 13 of the planned 15 to date. In August 2016, Belize was struck by Hurricane Earl which put a halt on further re-measurements until conditions with roads improved in the dry season in 2017.

Ref. Output 2 - Activity 2.3 : Through this half year measurements continued on the intensive forest monitoring plots with focus being placed on the Las Cuevas and Hillbank plots. However, in August 2016 Belize was struck by Hurricane Earl which not only caused major road damage, preventing fieldwork for a month or more, but also damaged the intensive plots

and disrupted some of the on-going experiments. This put a damper on measurement frequency but with some restoration work the plots will be up to speed with measurements in the first quarter of 2017. The team was very busy trying to conduct field work in the post-hurricane forests and remained so up to December 2016. This caused some further delays in the activities and will necessitate a project extension and a change request to the budget. Appendix 2 shows pictures of the post-hurricane forest in the intensive plots.

Ref. Output 2 - Activity 2.5 - The Version 3 generalized growth and yield model and spreadsheet tool was further updated with improvements based on user feedback. Further improvements are envisioned for the upcoming quarter, including improved outputs and improved flexibility of user interaction.

Ref. Output 2 - Activity 2.8 - Due to the hurricane, this activity was not possible in this half year as the forests being surveyed were mostly hurricane damaged and would not provide for a good video story. With the planned project extension and change request, it is envisioned that this will take place at the end of the 2017 calendar year during the same period August to December when communities and companies are conducting forest surveys for the next logging year 2018.

Ref. Output 4 - Activity 4.2 - Early on in the year in the month of April a workshop was held for community forestry groups to introduce them to the improved sustainable forestry system developed under the SUSFOR project. The communities were introduced to concepts of sustained-yield, yield modelling, economic forecasting and organizational efficiency. Appendix 3 shows the agenda and sign-up sheet for this work shop.

Ref. Output 4 - Activity 4.3 - As with other activities, the hurricane caused an unforeseen delay in the execution of this activity and this will be pushed back to the next quarter.

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.

Hurricane Earl in August 2016 caused severe damage across much of Belize and resulted in tens of millions of dollars worth of damage to infrastructure and forests. Many of the project plots were affected and the team was occupied with restoration activities for much of the time since August 2016 to present. This caused unforeseen delays and expenses that will necessitate a re-budget and project extension to the end of 2017 in order to complete the outstanding activities under the SUSFOR project. Stakeholders are very much looking forward to the final outputs of the project and with this in mind a change request will be submitted shortly.

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: Yes (via email in Oct 2016)

Formal change request submitted: Not yet as re-budgeting has taken a while since restoration activities have been ongoing up to now. Change request expected to be submitted December 2016.

Received confirmation of change acceptance Yes/No

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: £>5,000

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?

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.

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 send your **completed report by email** to Eilidh Young at 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: 22-035 Darwin Half Year Report**

Appendix 1

PHA Training

Date: 1st July 2016
 Rio Bravo Conservation and Management Area

Name of participant	Organisation/GOB Department/NGO	Contact	E-mail
Lenox Aguado	Forest Department	-	alvaradol@yaho.com
Denver Cayetano	UB ERI	632-8628	dcayetano@ub.edu.bz
Erwin Gillett	F.D	631-4107	gillett_erwin@yahoo.com
Ion Armstrong	F.D	615-2852	ionarmstrong15@yaho.com
Edrin Navas	PFB	6216309	
Luis Chi	PFB		
Richard Balan	PFB	626-7210	richardbalan415@quail.com
Elias Hernandez	PFB	626-2268	
Eric Cowich	PFB	665 2477 or	662 3292
Rudy Balan	F.D	633 8616	rudybalan@yahoo.com
Marlon Mar	FD	702-2765	marlonmar3@quail.com
Lewis Usher	FD	6050484	Usher-frank@yahoo.com
Cesar Ramirez	PFB-Assistant forester	6532567	Cesar Ramirez June 22 2016 @Gmail.com
Raul Chun	F.D	702 2765	raulchun.oic@forest.gov.bz
Marcos Corado	P.F.B	635.4741	rc
Mercedes Valdez	F.D	665-6411	delta-sfm@forest.gov.bz
Erman Lopez	F.D	634-1615	gee-lopez@yaho.com

Appendix 2



Bridge on the access road to the Las Cuevas plots was washed out by Hurricane Earl in August 2016.



Darwin Forest Biologist (left) and field assistant (right) survey the damage after Hurricane Earl.



Hurricane Earl disrupted several of the ongoing intensive experiments including monthly litter fall collection and necessitated some costly repairs.



Hurricane Earl disrupted ongoing intensive measurements including stem respiration. A tree with a stem collar seen here toppled over by the hurricane.

Appendix 3



DARWIN INITIATIVE SUSTAINABLE FORESTRY (SUSFOR) PROJECT

WORKSHOP/TRAINING SIGN-UP SHEET

Workshop on introduction to community forestry in the context of CITES

Machaca Forest Station, Toledo

Wednesday, April 27, 2016, 10 am to 4 pm

Name	Position	Organization	Signature
Pedro Teul	Chairman	Quiche Itz	<i>[Signature]</i>
Maximiliano Mayrin	Member	Rax wo quiduc	<i>[Signature]</i>
Martin Sam	Secretary	Quiche Itz	<i>[Signature]</i>
Antonio Casul	Vice Chairman	Rax wo, Quiche	<i>[Signature]</i>
Martin Cus	Community Organizer	SATIUM	<i>[Signature]</i>
Aurelio Sho	Project Coordinator	SATIUM	<i>[Signature]</i>
Raul Chun	Forest Officer	JD	<i>[Signature]</i>



DARWIN INITIATIVE SUSTAINABLE FORESTRY (SUSFOR) PROJECT
Workshop on introduction to community forestry in the context of CITES

Machaca Forest Station, Toledo

Wednesday, April 27, 2016, 10 am to 4 pm

Agenda

Time	Activity	
10:00 - 10:15	Welcome Remarks	SATIIM
10:15 - 10:45	How the CITES Convention functions in relation to timber trade	Dr. Percival Cho
10:45 - 11:00	Baseline situation in communities	Dr. Percival Cho
11:00 - 12:00	Steps to carrying out sustainable forestry in communities	Dr. Percival Cho
12:00 - 13:00	Lunch	Dr. Percival Cho
13:00 - 13:30	The stock survey and APO	Dr. Percival Cho
13:30 - 14:00	The harvest operations	Dr. Percival Cho
14:00 - 14:30	Monitoring of felling	Dr. Percival Cho
14:30 - 15:00	The post-harvest audit	Dr. Percival Cho
15:00 - 15:30	Concluding remarks	Dr. Percival Cho