



Darwin Initiative Main Project Half Year Report (due 31 October 2015)

Project Ref No	22-013
Project Title	Conserving pine woodland biodiversity in Belize through community fire management
Country(ies)	Belize, UK
Lead Organisation	TIDE, University of Edinburgh
Collaborator(s)	University of Belize Environmental Research Institute, Government of Belize Forest Department International Institute for Environment & Development
Project Leader	Dr Neil Stuart (UE) and Mario Muschamp (TIDE)
Report date and number (e.g., HYR3)	HYR 1
Project website	http://www.tidebelize.org/project/terrestrial/darwin-initiative-community-fire-management-project
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).

Progress on the project has been good. The project started on 1st April 2015 with the three members of staff from Toledo Institute for Development & Environment (TIDE) who are employed by the project (Muschamp 50%, Requena 40%, Williams 25%) commencing project activity.

Project Co-ordination and Monitoring (UoE)

0.1 *1st Project Partners Meeting 25/08/2015* at TIDE, Punta Gorda. Meeting attended by Neil Stuart, (UoE); Mario Muschamp, TIDE; James Lord, TIDE; Elmar Requena, TIDE; Melissa Luna, TIDE; Joe Villafranco, TIDE; Danielle Terry, TIDE; Lee McLoughlin, Ya'axche; Dale Gomez, Gomez and Sons; Ryan Moore, TIDE. Telephone input from Dr Elma Kay and Kathya Castaneda, ERI. The meeting reviewed progress to date against the Logframe for year 1, set timelines and agreed budgets for activities due to commence in months 6-12. Most activities were reported to be on schedule.

0.2 *1st Project Steering Group Meeting 27/08/2015* at Government of Belize Forest Department Offices, Belmopan, Belize. Attended by Oswaldo Sabido, consulting forester; Kathya Castaneda, Co-ordinator of National Ranger Training Programme, ERI; Elmar Requena, Mario Muschamp and James Lord (TIDE project staff); Neil Stuart, UoE; Rasheda Garcia, Head of Protected Areas Program (Forest Department); Eugene Waite, Forest Dept, Project Manager of Key Biodiversity Areas (KBA) Project; Lee McLoughlin, Ya'axché Conservation Trust. The steering group has been successfully assembled and the meeting identified scope for synergies between two other major projects taking place at this time in Belize – Ya'axche's Fire Management Project (Caribbean Climate Change Centre and GIZ) and the Forest Department led KBA project (GEF).

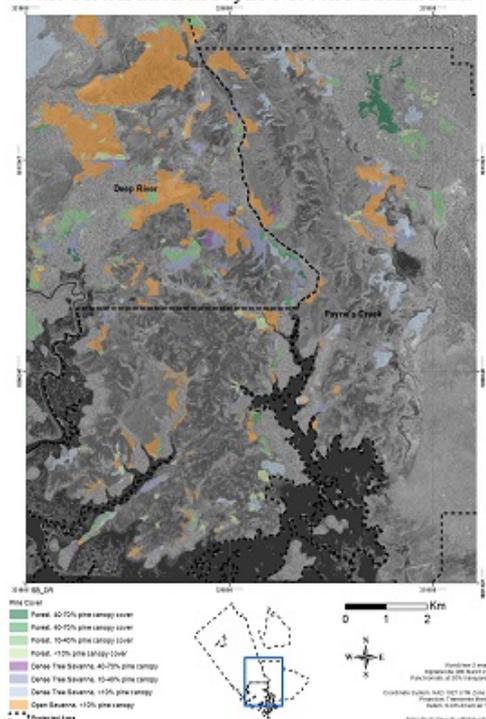
Output 1 – Biodiversity and Resource Baselines – Activities:

1.1 Reconnaissance surveys of pine stocks in PCNP to identify where sustainable extraction may be commercially viable (UoE)

The distribution of pine stocks in PCNP was completed using satellite imagery and ground truthing and preliminary results from this activity indicate that pine stocks in PCNP are not commercially viable at the present time (max of 200 ha from 750 ha).

Instead of commercial extraction of pines in PCNP stocks will be built up using Integrated Fire Management to control intense late season wildfire and maximise natural regeneration.

Pine Distribution in Payne's Creek National Park



Area (ha) Pine Canopy Closure	Protected Area			Grand Total
	Deep River	Payne's Creek	Swasey Bladen	
High >70%	113	56	153	321
Med 40-70%	3077	142	1723	4941
Low 10-40%	585	10	625	1220
Sparse <10%	4380	542	1578	6500
Grand Total	8155	750	4078	12983

1.2 Assess the distribution, abundance and productivity of palmetto palm in PCNP, Deep River Forest Reserve and Swasey Bladen Forest Reserve; (UoE)

The distribution of palmetto was estimated in all three protected areas from Worldview satellite imagery (2 m resolution) and verified by limited ground trothing. Deep River has the greatest extent of palmetto of 854 hectares but this is over a much wider area and only occupies 4% of the PA. Payne's Creek National Park has a much smaller 386 ha of palmetto covering 3% of the PA and is less accessible due to lack of roads and inaccessible terrain. Swaysey Bladen has 710 ha of palmetto covering 12% of the PA. Results confirm that Swaysey contains the highest percentage of palmetto cover and also best accessibility due to greatest number and distribution of roads.

Field surveys in April and May showed most palmetto plants were flowering and showing signs of good productivity. During the last ground truthing exercise in May however major escaped fires in Swaysey and Deep River Forest Reserves burnt many of the flowers leading to a significantly reduced overall palmetto seed production for 2015



1.3 Develop protocols for monitoring Caribbean pine and palmetto palm (TIDE)

Protocols for monitoring of Caribbean pine and Palmetto are being developed with assistance from the ERI and Rick Anderson of the Everglades National Park Service (NPS). The schedule calls for these protocols to be finalized and field tested during the last quarter of year one (Jan-Mar 2016). At the Partner Meeting at FD on 27/8, it was proposed that a small working group of Elmer Requena, Percival Cho, Oswaldo Sabido and Rick Anderson be convened before December to review existing protocols, with a view to producing draft protocols for monitoring the two species by 31st March.

1.4 Establish/refine protocols for monitoring key conservation targets in line with the National Biodiversity Monitoring Program; (ERI / TIDE)

Protocol for monitoring of Birds is complete with monthly monitoring underway. Protocols for monitoring Large Mammals are being tested (camera traps) with ERI and PANTHERA and the protocol will be completed during the last quarter of year one (Jan-Mar). Protocol for monitoring of Yellow headed parrots is complete with assistance from the Yellow Head Parrot Working Group and baseline sampling to determine population status is planned for the last quarter of year one (Jan-Mar).



Camera Trapping focusing on jaguars



Yellowhead Parrot nest monitoring in PCNP

1.5 Establish biodiversity and wildfire baselines against which effects of fire control and sustainable harvesting will be monitored (TIDE, FD)

Not yet started. TIDE plan to work with Rick Anderson, formerly of NPS, in December to specify the protocols for monitoring the pine and palmetto and to choose representative photo-point monitoring sites for monitoring of fire effects. The selection of monitoring sites will enable both biodiversity and effect of wildfire to be monitored, achieving 1.5.

Output 2 – Training in biodiversity monitoring (ERI)

1.7 Develop materials for monitoring biodiversity in pine woodlands for the National Training Program in PA Management (NTPPAM). This activity will be led by the ERI. A meeting was held with Ivanna Waight (IW) (UB-ERI, Monitoring Officer) on 28th August. ERI have agreed to co-ordinate the publication and dissemination of the protocols for monitoring plant, animal and bird biodiversity in pine woodlands, as part of the National Biodiversity Monitoring programme led by the ERI. IW agreed to co-ordinate the shortlisting of species to be monitored and agree this with ER of TIDE by October, with a view to producing draft protocols by December 2015.

Output 3 – Training in fire management (TIDE)

2.1 Consultation meetings with local communities

Meetings were held in Bladen and Trio Villages, where the communities agreed to be more responsible when using fire and signalled willingness to participate in the project and receive the necessary training in fire management to address problems they face from wild fires. We attempted a meeting in Bella Vista Village but the turnout was very poor and so we are planning to reach that community through meetings with community groups and influential persons in the community.



Community meeting Trio Village, May 2015



Community Meeting Bladen Village, May 2015

2.2 Develop materials to train community members in fire management

This activity is being led by TIDE, with dissemination via the University of Belize ERI. Materials for training of community members in fire management are presently being developed with assistance from Rick Anderson a Fire Expert from US-NPS Florida. To date materials for the S130 focusing *Basic fire behaviour* have been completed and are working on the S190 focusing on *Fuels* and how they influence fire behaviour and managing the fire etc. A meeting was held between TIDE and Kathya Castenada (Training Co-ordinator) of the ERI (27/8/2015) to agree the format, duration and methods of assessment for the S130 course; ERI expects to take delivery of this material by December in order to produce it in a format suitable for delivery within the National Training Program in PA Management (NTPPAM) in 2016.

2.9 Convene meetings between TIDE, FD, Agriculture Dept., NAVCO and DAVCO to agree improvements to governance of rural fire use.

A meeting was held in Punta Gorda on 27/8 to discuss local governance of agricultural fire with representative of District Village Councils (DAVCO) and the Maya Leaders Alliance and also with local logging concessionaires from Deep River FR. A second meeting was held in Belmopan on 28/8 with the Forest Department and Agriculture Department to review current legislation and difficulties in implementing the present permit system for agricultural burning. Senior representatives from both government departments including Belarmino Esquivel, the Director of Agricultural Extension welcomed the idea of giving more authority to rural community leaders for the implementation of certain section of the Agriculture Fires Act especially the issuing of permits for burning. Escaped agricultural fires were recognised by both departments as a major cause of forest degradation and deforestation in Belize.

In the meeting of 28/8 we were informed about an open consultation on the revision of the Food and Agriculture policy and it was realised that nothing pertaining to fire was to be included in the new policy. We were invited to write to Mr. Ricardo Thompson, the person in charge of the policy revision, requesting them to include into the new Policy aspects on agricultural fire management as proposed in the National Wildland Fire Policy and Strategy. TIDE made this submission to Ministry of Agriculture on 6th September 2015.



2a. Give details of any notable problems or unexpected developments 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.

1. TIDE's implementation of activities requiring significant spending was delayed for approximately three months due to cash flow problems at the start of the project. Payments to TIDE for project activities are made on a reimbursement basis. Under normal circumstances, TIDE would be able to use available funds to cover the expenses before being reimbursed. However, a delayed disbursement from another major project resulted in TIDE having insufficient cash in the bank to cover these costs. This problem has now been resolved and TIDE is able to proceed with project spending. During months 1-6 we were unable to pay TIDE by electronic bank transfers. This problem has also now been resolved and payment of salaries for period 3 was made electronically.
2. Recruitment of the UK Darwin Project Officer was completed successfully during months 1-6. The selection process involved developing a job description, advertising and receiving applications from 15 candidates, taking up references, shortlisting and interviewing 3 applicants and communicating the outcomes to all the candidates. The successful candidate, Cathy Smith was previously working for Birdlife and was only able to take up the position on 1st October 2015. Whilst the Project Officer post is funded at 50% time pro-rata for each of the 3 years of the project, LTS were consulted and agreed that the project officer will work full time from October-March this year and then will work part-time for the remaining two years of the project. This then has no implication for budget or timetable of activities since the same amount of work will be completed by the end of year 1.

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

Yes, discussed with LTS: Agreed that Project Officer would be 100% time on project from October 2015-March 2016, part-time thereafter. Cash flow and e-payment issues resolved.

Formal change request submitted: No

Received confirmation of change acceptance

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: £

3b. If yes, then you need to consider your project budget needs carefully as it is unlikely that any requests to carry forward funds will be approved this year. If you anticipate a significant underspend because of justifiable changes within the project and would like to talk to someone about the options available this year, please indicate below when you think you might be in a position to do this and what the reasons might be:

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

no