

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

Project reference	26-002
Project title	Integrating conservation and health in Papua New Guinea's vulnerable rainforests
Country(ies)/territory(ies)	Papua New Guinea
Lead organisation	University of Sussex (UoS)
Partner(s)	<ul style="list-style-type: none"> • New Guinea Binatang Research Centre (BRC) • Wanang Conservation Area (WCA) • Institute of Medical Research (IMR) • International Institute of Environment & Development (IIED)
Project leader	Dr Alan Stewart (Sussex)
Report date and number (e.g., HYR3)	HYR1
Project website/blog/social media etc.	https://twitter.com/Surfaces_PNG

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: Community health and health service provision for Wanang and surrounding communities has been improved, managed by a new community committee with equal gender representation (workstream 1).

1.1 "Collect and analyse qualitative and quantitative health and wellbeing data before and after the health intervention."

We have collected and analysed baseline health data from the communities under ethics approval from Brighton and Sussex Medical School (UK) and the Institute of Medical research (PNG), and expect this to be completed in February. Our novel protocol for these health assessments has been submitted for publication as a journal article in the *British Medical Journal Open* and we expect a decision from the editor soon as peer review has been completed ('*Health service needs and perspectives of remote forest communities in Papua New Guinea: study protocol for combined clinical and rapid anthropological assessments with parallel treatment of urgent cases*'). A further protocol for the ongoing evaluation of health service provision throughout the project has been agreed by the Brighton and Sussex Medical School Research Governance and Ethics Committee.



Fig 1 Supplies being ferried across into WCA (left), for training in malaria testing and trauma care

1.2 "Train Wanang community members in immediate trauma care and evacuation procedures"

Jo Middleton from Brighton and Sussex Medical School trained 12 community members (25% female) in July 2019 in the Wanang village and surrounds. The course (fig 1) was based on existing Wilderness First Aid syllabus but adapted to community need. The course included emergency treatment of trauma, through forest evacuation training, Rapid Diagnostic Tests for Malaria and use of Malaria medication in line with PNG treatment guidelines. A trauma kit and supplies were provided for the village so trained villagers can respond to trauma and evacuation incidents as required.

1.3 not in period

1.4 "Construct Aid Post, equip it, stock it with medicine, and recruit a nurse."

Following meetings with Director of the Provincial Health Authority, and a large Wanang community meeting (both attended by UK and PNG DI project staff), the site and design of the Aid Post Building was agreed in August, and construction (fig 2) is now complete. Stocking and recruitment is underway, and the Health Authority have agreed to support the post operating costs after project end. We had not anticipated this agreement until Y3, so this is very welcome for long-term project sustainability. We expect the Aid Post to be operational from January 2020 or soon afterwards.



Fig 2 Aid Post under construction, Wanang Conservation Area. Right: Co-planning attitudes to conservation survey, University of Sussex.

1.5 "Establish and train community health committee."

Committee established (with equal gender representation) following mass community meeting in August 2019 led by DI project staff from PNG & UK. The Committee has successfully overseen the Aid Post construction.

1.6-7 not in period

Output 2: Wanang conservation Area has been upgraded and expanded with improved attitudes to conservation in new partner communities (workstream 1)

2.1-7 not in period

2.8 "Collect and analyse household survey data on attitudes to conservation in buffer zone communities outside pre-existing WCA boundary and agreements, before and after"

We delayed start of this activity slightly so as to take advantage of DI supported travel to the UK of PNG staff in September. This enabled us at UoS to hold a co-planning day to develop the protocol with 3 PNG staff (including a member of Wanang community itself), as well as a visiting BRC anthropologist based in the Czech Republic, and our Co-I from IIED (fig 2). We expect approval from our ethics committee in January, at which point data collection will be carried out.

Output 3. Knowledge and understanding of the health and well-being benefits of forest conservation amongst school pupils and partner villagers has improved (workstream 2).

3.1 "Produce curriculum and materials for school and community level educational programmes on health and well-being benefits of forest conservation."

We evaluated existing (limited) subject coverage in the PNG curriculum, discussed with PNG teachers, and have a pack in development using experienced BRC educational staff. Piloting will be carried out in Q4 rather than Q3, but we do not expect this to introduce delay to subsequent stages.

3.2-6 not in period

Output 4. New evidence has been produced on the interlinkages between logging, forest conservation, health, well-being, and livelihoods in PNG, and tropical rainforests globally (work stream 3)

4.1-3 not in period

Output 5: Capacity has been expanded, and gender balance improved, in PNG environmental and health research (workstream 4)



Fig 3 Wilderness First Aid advanced training course for BRC staff and students

5.1 “Train 14 para-ecologists over 3 years in biodiversity survey methods. Total 280 person-days of training.”

The first 6 of the new PNG cohort completed an intensive 3-week training course in July across tropical and marine habitats, and will continue to receive progressive training and evaluation over the period. As per our original timetable, the intensive training will be repeated with further intake in the next two Julys.

5.2 “Train 25 BRC staff and students in ‘Wilderness First Aid - Advanced’ . Two courses at BRC HQ and field sites for a total of 25 BRC staff and students (all PNG nationals, 25% female).”

12 BRC staff and students completed the course in July (Fig. 3), receiving certificates from the Emergency Care and Safety Institute of the American Academy of Orthopaedic Surgeons. It was only possible to involve 2 females, so it was decided to run only one course in 2019, with a second (15 further participants) in 2020 enabling longer run-in for female recruitment (a challenge in PNG biology).

5.3 “Train 5 BRC & 1 IMR research staff in UK. 1-month intensive training in: biodiversity survey; conservation project evaluation; ecology; microbiology; evidence synthesis and meta-analysis; rapid anthropological assessments; health research. Visits to partner institutions.”

Two BRC para-ecologist staff (both male) visited Europe in September-October 2019: Jonah Damen (botanist and member of the Wanang village community) and Kenneth Pokam (botanist). They received two weeks intensive training in the UK, visiting Sussex and Oxford universities and other institutions. They also had an additional 4 weeks training in Malaysia and the Czech Republic, at no additional cost to the DI project. Specific activities included:

- Participation in a 1-day attitudinal survey workshop at Sussex
- One day of training in Monitoring & Evaluation techniques, led by our collaborator Dr Emilie Beauchamp (IIED)
- Visits to local temperate habitats in Sussex and introduction to ecological field techniques
- Visit to the Millennium Seed Bank at Wakehurst Place to observe seed curation techniques and discuss mutual research interests with Kew staff
- An introduction to various ecological sampling and experimental techniques with collaborators in the Zoology Department at Oxford University, including visits to significant ecological sites such as Wytham Wood
- Two-week visit to Danum Valley, Borneo to work with the 50ha forest dynamics plot team, organised by Dr Tom Fayle, Imperial College London, long-term collaborator with BRC
- three-week visit to the Czech Academy of Sciences and the Zoology Department at the University of South Bohemia in the Czech Republic, as long-term partners of BRC, facilitated by former DI-sponsored Masters students now studying for PhDs. They visited a number of local study sites

including a 25ha CTF forest dynamics plot and various manipulative field experiments. They also received training in insect and plant identification, taxonomy and eco-physiology

- They gave talks on PNG, BRC, Wanang and their research interests at the Universities of Sussex, Oxford and South Bohemia.



Fig 4 Kenneth Pokam and Jonah Damen visiting Wytham Woods, Oxford; Kenneth giving seminar on PNG and BRC research at Oxford University.

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.

No notable problems. Overall, the project is on track. No budget changes expected. In addition to expected activities and outputs we were invited to write a piece on the DI project for *Sustainability Science* (Springer), submitted in June (*'Rationale, experience and ethical considerations underpinning integrated actions to further global goals for health and land biodiversity in Papua New Guinea'*). The article in part arose as a result of discussions on ethics and project framing caused by the need to respond to questions from DEC during stage 2 of our application.

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~~/No ~~n/a~~

Formal change request submitted: ~~Yes~~/No ~~n/a~~

Received confirmation of change acceptance ~~Yes~~/No ~~n/a~~

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

No

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 R23 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 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**