



Darwin Initiative Annual Report

Important note:

To be completed with reference to the Reporting Guidance Notes for Project Leaders:
it is expected that this report will be about 10 pages in length, excluding annexes



Submission Deadline: 30 April 2013

1. Darwin Project Information

Project Reference	19-016
Project Title	Leveraging markets to conserve mangrove biodiversity and alleviate poverty in Madagascar
Host Country/ies	Madagascar
UK contract holder institution	Blue Ventures Conservation
Host country partner institutions	Direction Régionale de l'Environnement et des Forêts, Centre National de Recherche Océanographique
Other partner institutions	Honko Mangrove Conservation and Education
Darwin Grant Value	£226,839
Start/end dates of project	1 July 2012 – 30 June 2015
Reporting period (eg Apr 2010 – Mar 2011) and number (eg Annual Report 1, 2, 3)	July 2012 – March 2013 Annual Report 1
Project Leader name	Dr. Alasdair Harris
Project website	http://blueventures.org/conservation/blue-forests.html
Report authors, main contributors and date	Frances Humber, Garth Cripps, Kate England, Aude Carro, 15 April 2013

2. Project Background

Millions of coastal people in the Western Indian Ocean (WIO) depend on mangrove forests for goods and services vital to their livelihoods. Madagascar's 5,600 km coastline includes the second largest extent of mangroves in the WIO that form a safety net for coastal communities suffering from income and resource-related poverty. These "blue forests" sequester significant amounts of carbon dioxide and support high levels of unique biodiversity. For the coastal communities along Madagascar's west coast, who are amongst the poorest and most vulnerable to climate change in the world, livelihoods are dependent on numerous goods and services directly associated with healthy, intact mangrove ecosystems.

Promotion of voluntary carbon projects is a key strategy in Madagascar's national policy on climate change (Politique nationale de lutte contre le changement climatique 2011) for mitigating threats and promoting development. This, combined with the high ecosystem services value of Madagascar's mangroves, as well as the imminent threat to them, has led Blue Ventures' (BV) to research the capacity of mangroves to reduce carbon dioxide emissions and to develop the basis for Payments for Ecosystem Services (PES) projects which will secure the future of these critical ecosystems. BV projects supported by Darwin are taking place in three locations, as summarised in Figure 1.



Figure 1. An overview of sites where BV is conducting research and carrying out activities with the support of the Darwin Initiative.

Ambaro and Ambanja Bays

A national assessment of mangrove dynamics carried out by BV in 2012, showed that the Ambaro and Ambanja Bays have amongst the highest mangrove deforestation between 1990 and 2010. Within these vast bays of the Northwest, over 5,600 hectares, or 18.7%, of mangroves, were lost between 2000 and 2010 (Figure 2, Annex 3).

The greatest threats to mangroves in Ambaro and Ambanja Bays are illegal charcoal production and logging for house and fence construction. Satellite imagery and field observations showed a concentration of these activities in three communes that straddle the peninsular between the two bays (Figure 2, Annex 3).

The project aims to reduce mangrove deforestation and degradation in the Ambaro and Ambanja Bays through integrated community management of mangroves and the establishment of market-based financial mechanisms based on carbon offsets and the sustainable production of charcoal, but also other PES opportunities such as mangrove fisheries and eco-tourism, providing communities with long-term economic incentives for conservation.

The project has started up in two pilot sites (Figure 3, Annex 3) covering an area of approximately 14,771 ha, amongst which 2,529 ha were mangrove forests in 2010 (Blue Ventures, 2013), with the aim of replicating successful experiences in other communities within the two bays.

Velondriake (Bay of Assassins)

The Velondriake locally-managed marine area (LMMA) was created by local communities in 2006 and consists of 676 km² of community-managed protected area managed by the Velondriake Association, a committee based north of the Bay of Assassins and comprised of representatives from 25 villages.

The project has begun in the Bay of Assassins (Figure 1) in the commune Befandefa, which included 1,360 ha of mangroves in 2010 (Blue Ventures 2013). The ten communities of the Bay of Assassins have been actively involved in local mangrove conservation and sustainable fisheries management since 2004 and have operated community-run sea cucumber and seaweed aquaculture farms since 2006.

Ambondrolava

The Ambondrolava mangrove complex lies adjacent to Madagascar's dry spiny forest ecoregion and comprises a mangrove forest and associated brackish wetlands along a north-south lagoon, fed by water from the Mozambique Channel. The surrounding marine environment includes the coral reefs of the Bay of Ranobe. The total project area includes 500 ha of mixed mangroves and brackish wetland dominated by reeds. The spiny forest adjacent to the project area is all but completely lost to *hatsake* (slash and burn agriculture) and overexploitation for wood, and much of these pressures have been displaced to the mangrove forest which is used for subsistence (timber, fuel) and commercial uses (timber, charcoal production).

BV is acting as the technical adviser and coordinator of a Plan Vivo mangrove forest carbon project, in partnership with NGO Honko Mangrove Conservation and Education, and the local community-based natural resource management committee, the Mamelolo Honko Vondrolona Ifotony (VOI) Bureau.

3. Project Partnerships

The Centre National de Recherche Océanographique (CNRO) is Madagascar's leading Institution in the field of marine and coastal ecosystem research. BV and the CNRO have signed a partnership agreement in February 2013 to facilitate collaboration on research projects. Within this project, the CNRO will collaborate with BV on research on the impact of mangrove deforestation on fishery resources, the impact of mangrove temporary reserves on mud crab (*Scylla serrata*) stocks, as well as mangrove carbon stock measurement and monitoring.

UNIMA (Aqualma) is a major shrimp exporter that has achieved a French sustainable certification for its shrimp aquaculture. It is also well recognised for the sustainable development actions taken in carrying out its aquaculture business, including community development projects in mangrove areas. BV has established a partnership with UNIMA and they will provide logistical support to replicate successful community-based mangrove management experiences from the Ambaro and Ambanja Bays to future northwestern project sites.

Honko Conservation and Education (Honko) is a NGO based at the Ambondrolava project site, where they undertake education and mangrove forest management, and aim to grow social capital. They possess mangrove reforestation expertise and local knowledge. BV established a partnership with Honko to provide technical support and funding to cover the initial Plan Vivo project development costs. BV and Honko finalised a MoU to define the roles and responsibilities of both parties for the Plan Vivo project. While the partnership is promising for the implementation of a Plan Vivo project, staff turnover in Honko has presented challenges. Consequently BV has had to provide significant support to Honko to, for example, hold workshops, conduct socioeconomic studies, train community members in carbon monitoring, and conduct participatory mapping. BV expects Honko to build their internal capacity to implement a Plan Vivo project, as BV's role should strictly be as a technical coordinator of the project, and this has been communicated to the directors of the partner organisation.

Other Collaboration

The project has established new links with local and international organizations involved in biodiversity conservation in the Ambaro and Ambanja Bays. These include: the Comité de Réflexion et d'Action pour le Développement et l'Environnement du Sambirano (CRADES), a local federation working with forty five forest management associations in the Ambanja district; the NGO l'Homme et l'Environnement, which has mangrove conservation; the Wildlife Conservation Society (WCS), which runs an environmental education program in Ambaro Bay; the Service d'Appui à la Gestion de l'Environnement (SAGE); and finally with the Office Régional du Tourisme de Nosy Be (ORTNB) and its Ambanja branch, the Groupement des Opérateurs Touristiques du Sambirano (GOTS).

The project has established links with the Direction Régionale de l'Environnement et des Forêts (DREF) and the Mamelon Honko VOI community management association to conduct awareness-raising regarding local laws (dina) to protect natural resources in the Ambondrolava project area. BV provided technical expertise for five village-level workshops on dina and management rights. The project has also examined the feasibility of alternative fuelwood plantations with WWF Madagascar and a local NGO focused on terrestrial reforestation, Ho Avy, with plans to work with these organisations to implement agroforestry or terrestrial wood plantations.

A new partnership is being developed between BV and WWF Madagascar and Western Indian Ocean region. The objective of this partnership will be to conduct a feasibility assessment for blue carbon in the Tsiribihina Delta, western Madagascar.

4. Project Progress

4.1 Progress in carrying out project activities

Output 1. Communities have clear and uncontested land and user rights to their customary mangrove areas; and give their Free Prior & Informed Consent to use these areas for a forest carbon project

Activity 1.1 Consultation & project development with the communities so as to fulfil the conditions of gaining their Free, Prior and Informed Consent (FPIC) for the implementation of a forest carbon project

Consultation and project development in Ambaro and Ambanja Bays was carried out at several levels, taking the following steps:

- Initial consultation workshops within each commune with management association presidents, commune mayors and communal section presidents to assess mangrove status, deforestation agents and drivers and management association (CLB) status in each target commune (three workshops).
- Consultation meetings with communal section presidents and community leaders to assess dependency on mangroves and the status of mangroves, further investigate deforestation agents and drivers and initiate a community-based project formulation process in each potential participating community (fourteen meetings).
- Commune level dissemination meetings with the management association presidents, commune mayors and communal section presidents to present the analysis and participative appraisal carried out by the BF team; as well as to discuss the challenges and opportunities of each potential participating community so as to define a roadmap for collaboration between BV and the communities (three meetings).
- A district level workshop with district authorities, government technical services, NGOs, the private sector, management association presidents, mayors of the three participating communes and president of each of the participating communal sections, to present the Blue Forests project, including its REDD+ component, the diagnosis carried out in the three communes, the criteria used for the selection of the two pilot sites and the road map for collaboration. Participants were given opportunities during this workshop to express their views on the project development and their comments were taken into account to draft a second roadmap for collaboration between BV and the communities.

The Blue Forests project was presented and discussed at meetings of the Velondriake association in October 2012 and at the Velondriake general assembly in February 2013. In addition, participative appraisals using focus groups and key informant interviews have been conducted so far in five of the ten Bay of Assassins villages to gather information on causes of mangrove deforestation and to develop community plans for mangrove conservation.

Courtesy visits were conducted at the regional and district levels to engage government authorities on the Plan Vivo project in Ambondrolava. Communities in Ambondrolava have completed participatory mapping exercises to outline past, present and anticipated future land use, as well as a basis for defining future management of the area. BV and Honko have held a meeting with the Mamelon Honko VOI to fully explain Plan Vivo and the implications to them of participating in a carbon project.

Activity 1.2 Detailed analyses of land tenure and use rights of the potential mangrove areas with both the government cadastral services and the local communities; and resolution of conflicts

In Ambaro and Ambanja Bays, the detailed analysis of land tenure and use rights over mangrove will be achieved with local communities through a participatory mapping campaign to be carried out from mid-April to early May 2013. Land-use and land-cover categories, as well as the land tenure and use rights regimes under which each falls, will be defined by focus groups (elders, women, fishermen/farmers and charcoal producers) and subsequently delineated and confirmed in Google Earth.

BV has investigated tenure rights in the project area at Ambondrolava using key informant interviews and by acquiring government cadastral records.

Official tenure and ownership of the Bay of Assassins is complex, with several overlapping official and traditional tenures and official planned land uses. Here BV have created a terms of reference to conduct an analysis of official tenure and ownership and is currently seeking a Malagasy consultant to undertake this. In complement to this analysis of formal tenure and ownership, the project will carry out a detailed analysis of traditional land tenure and use rights with local communities using participatory mapping in June 2013.

Activity 1.3 Establishment of legal user and carbon rights for community members participating in the project

In Ambanja and Ambaro Bays, the management of all mangrove forests in the project area was transferred to community management association called Communautés Locales de Base (CLB), in accordance with the Malagasy law on the transfer of natural resource management rights (Loi GELOSE, 1996). Community members participating in the project have a legal user right over mangrove through these CLBS. However, in the project area most community members are not properly involved in CLB management decisions and do not fully consider themselves as CLB members. The project is working to ensure that all community members participating in the project become full members of the CLBs and are equally represented on their boards.

In Velondriake, the Velondriake Association has applied for official protected area status through the Malagasy government. As managers of the protected area, the Velondriake Association will have management rights over the mangroves of the Bay of Assassins within the protected area. Pending the results of the cadastral analysis described in *Activity 1.2*, the project aims to gain formal user rights for those forest areas outside of the protected area using the GELOSE law to transfer management rights to the communities.

In Ambondrolava, the management of the mangrove forests and associated wetlands were transferred to the participating community using the GELOSE law.

Additionally, BV has conducted a thorough review of the national status for carbon ownership, as well as tenure and use rights over mangrove ecosystems. The project has also met with ministry officials responsible for forest management in order to define what mechanisms the project should use to gain community user rights and allow for the sustainable use of mangroves while respecting the wide range of national regulations governing mangrove forests.

Output 2: The carbon stocks and harvestable timber of the community mangroves have been measured and are being accurately monitored

Activity 2.1 Development of a measurement & monitoring plan which meets the requirements of the selected approved methodology for the generation of carbon offsets

The project has established a carbon stock measurement plan that meets the requirements of the Verified Carbon Standard's approved methodology VM0009. In addition to the preliminary carbon measurements done in 2012, new measurements will be done to provide accurate carbon stock estimates in the different areas defined under VM0009 (project accounting area, project reference area, proxy area, agent and market leakage areas).

An initial mangrove variability and carbon stock survey was conducted in Ambondrolava by BV. One BV staff member from the Velondriake LMMA and three local community members also participated in these measurements. The results of these surveys have been included a Plan Vivo project proposal and have been used to calculate an initial estimate of potential carbon revenues with a CDM methodology.

Activity 2.2 Creation & training of female monitoring teams in the use of appropriate forest inventories, carbon stock measurements and monitoring protocols

BV and Honko are undertaking social assessments to analyse the existing capacity of women's groups and a concept model to design interventions for capacity building in the local women's association.

Activity 2.3 Stock measurements, continuous monitoring and analysis of the data; integration into management plans; and continued technical support & quality control by BV scientists

In Ambaro and Ambanja Bay, community mangrove carbon stocks were measured in 2012 and are currently under revision using updated allometric equations to provide for more accurate estimates.

BV has completed initial carbon stock measurements in the Ambondrolava mangrove complex, preliminary mapping of deforestation based on satellite imagery has been done, and participatory mapping of deforestation has been completed. BV intends to conduct a participatory mapping and community monitoring campaign in July - August of 2013 to create more accurate estimates of past and current rates of deforestation.

Output 3. Communities are producing sustainable charcoal and timber*

Activity 3.1 Training of the community participants in sustainable harvesting and improved management; initial timber harvesting according to sustainable quotas and planned rotations

BV is currently developing a concept model for Ambondrolava that will be used to plan community training sessions and has developed and distributed posters and comics to promote improved mangrove forest management.

Activity 3.2 Establishment and maintenance of mangrove nurseries by female teams

Female candidates have been identified in several participating communal sections in Ambaro and Ambanja Bays. The nursery teams' formation will start in May/June 2013 so as to be operational when community management plans are established in September 2013.

BV is currently working with Honko to re-start their *sonneratia* and *ceriops* mangrove nurseries, first through consultation with the Mamelu Honko VOI and the establishment of a nursery committee that will be a subset of the women's association in Ambondrolava.

Output 4: Communities have established mangrove A/R, SFM and conservation areas; and are competently managing these areas

Activity 4.1 Development of a measurement & monitoring plan which meets the requirements of the selected approved methodology for the generation of carbon offsets (this monitoring will include mangrove planting, timber harvesting & charcoal production)

A charcoal value chain analysis and sustainable mangrove charcoal production system study is currently being undertaken in the two pilot sites at Ambaro and Ambanja Bay. The result of this six-month study will allow for the formulation of a mangrove charcoal production scheme to be piloted in one site from October.

In Ambondrolava, workshops are planned for May 2013 to conduct a participatory evaluation of the existing management plan, ensuring that a renewed management plan (proposed upon renewal of the community management contract (GELOSE) in June of 2013) is community-led.

Output 5: The requirements for a forest carbon project that will generate carbon offsets are fulfilled

Activity 5.1 Consultation with the government & Designated National Authority (DNA) in the project development; gaining of DNA support for the project – REDD

BV has engaged government officials at both local and national levels, presenting the different project activities and ensuring that these fit into the evolving national REDD+ framework. The project will meet with the Designated National Authority and the National Office of the Environment in Antananarivo to present the Mamelu Honko Plan Vivo project and submit the Project Idea Note for evaluation by the Designated National Authority at the end of April 2013.

Activity 5.3 Production of a draft Project Design Document and monitoring reports

BV has finalised and submitted a Project Idea Note (PIN) (Annex 3, attachment) for evaluation to the Plan Vivo Foundation in March 2013. Additionally, the proposal for a Plan Vivo project has been provided to and presented to the DREF and Mamelu Honko VOI. This PIN provides the basis for a Project Design Document.

4.2 Progress towards project outputs

The project is 75% into the Year 1 planned activities with significant progress having been made on key proposed outputs. We expect to attain all proposed outputs by the end of Year 1.

4.3 Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for reporting period	Total planned during the project
Established codes								
1A	Number of people to submit thesis for PhD qualification (in host country)							
1B	Number of people to attain PhD qualification (in host country)	0	0	2			0	2
2	Number of people to attain Masters qualification (MSc, MPhil etc)	2	2	2			0	6
3	Number of people to attain other qualifications (ie. Not outputs 1 or 2 above)							
4A	Number of undergraduate students to receive training							
4B	Number of training weeks to be provided							
4C	Number of postgraduate students to receive training	4	4	4			0	16
4D	Number of training weeks to be provided	24	24	24			0	72
5	Number of people to receive at least one year of training (which does not fall into categories 1-4)	3	4	4			0	4
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	2 women 2 men					10 women 10 men	30 women 30 men

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for reporting period	Total planned during the project
6B	Number of training weeks to be provided	1					1	5
7	Number of (ie different types - not volume - of material produced) training materials to be produced for use by host country							
8	Number of weeks to be spent by UK project staff on project work in the host country	2					2	18
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country	0					0	1
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording	0					0	1
11A	Number of papers to be published in peer reviewed journals	0					0	3
11B	Number of papers to be submitted to peer reviewed journals							
12A	Number of computer based databases to be established and handed over to host country							
12B	Number of computer based databases to be enhanced and handed over to host country							
13A	Number of species reference collections to be established and handed over to host country(ies)							
13B	Number of species reference collections to be enhanced and handed over to host country(ies)							
14A	Number of conferences/ seminars/ workshops to be organised to present/disseminate findings	2					2	3

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for reporting period	Total planned during the project
14B	Number of conferences/seminars/workshops attended at which findings from Darwin project work will be presented/ disseminated.	0					0	3
15A	Number of national press releases in host country(ies)	0					0	3
15B	Number of local press releases in host country(ies)	1					0	6
15C	Number of national press releases in UK	0					0	3
15D	Number of local press releases in UK							
16A	Number of newsletters to be produced	2					2	6
16B	Estimated circulation of each newsletter in the host country(ies)							
16C	Estimated circulation of each newsletter in the UK	3000 people						10,000
17A	Number of dissemination networks to be established							
17B	Number of dissemination networks to be enhanced/ extended							
18A	Number of national TV programmes/features in host country(ies)							
18B	Number of national TV programmes/features in UK							
18C	Number of local TV programmes/features in host country(ies)	0					0	3
18D	Number of local TV programmes/features in UK							
19A	Number of national radio interviews/features in host county(ies)	0					0	8
19B	Number of national radio interviews/features in UK							
19C	Number of local radio interviews/features in host country(ies)							

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for reporting period	Total planned during the project
19D	Number of local radio interviews/features in UK							
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)							
21	Number of permanent educational/training/research facilities or organisations to be established and then continued after Darwin funding has ceased							
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased							
23	Value of resources raised from other sources (ie in addition to Darwin funding) for project work	£401,800					£368,159	£300,000

Table 2 Publications

Type (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £
Comic and poster	Arovy ty Ala Honko (protect the mangrove)	Blue Ventures, Honko Mangrove Conservation and Education	http://blueventures.org/conservation/blue-forests.html	£100
Report	Mamelo Honko Project Idea Note	Blue Ventures	Attached in annex 3	£500

4.4 Progress towards the project purpose and outcomes

Over this first three quarters, BV has built a solid foundation for project activities in two target areas (Amobondrolava and Ambaro/Ambanja Bay) having achieved much in the way of community engagement, communication of the project to local and regional authorities, and set the stage for future planned project outcomes, including further training of community members in project monitoring and reforestation.

Indicators are adequate for measuring project success.

4.5 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

The project has only been running for nine months and so, as of yet, no measurable impacts have been made on biodiversity, sustainable use, or equitable sharing of biodiversity benefits. Educational initiatives aimed at sustainable mangrove management have been conducted in Ambondrolava, but we have not yet measured the impacts of these actions.

5. Monitoring, evaluation and lessons

The project uses project monitoring documents to monitor and evaluate its progress. These are referenced on a weekly basis and completed at the end of the month to gauge what has been achieved on each planned project outcome. Each output is derived to measure time spent on each activity, number of outputs produced, or number of goals reached. Indicators include the number of updates sent, number of workshops held, number of individuals attending workshops, and number of management plans produced.

While undergoing the opening of a new office in Ambanja, we have learnt that communication between project teams at different sites is key to continually monitoring project success. As such, we have integrated weekly meetings between project sites into our workplan. There is a need to more frequently reference the proposed project outcomes against planned activities in order to ensure that activities are contributing to the project purpose.

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

This is the first report.

7. Other comments on progress not covered elsewhere

The viability of the model that the project aims to develop depends largely on the volume of carbon offsets that particular conservation activities can bring about, and the opportunity cost of these conservation activities to the project stakeholders. While mangrove forests have attracted a great deal of attention because of the high amounts of carbon dioxide that they sequester, most of this carbon is locked up in the sediment. Quantifying this so as to generate reliable estimates of carbon offsets still requires research at each of the sites that make up this project.

In addition to still having to scientifically quantify the soil carbon component, the project must achieve strong community buy in and ensure that the immediate opportunity costs of local people are offset. The quantification of carbon offsets and their validation against a third party standard will take a number of years. Furthermore, mangrove forest carbon projects take place within significant international policy and market uncertainty.

The project has a number of strategies to mitigate these risks, including:

- Developing community management strategies to provide sustainable mangrove goods and services to local markets that present immediate demand and opportunities. These include the sustainable management of mangrove fisheries and eco-tourism. By developing several income streams from local markets, the project will gain community buy in and offset their short term opportunity costs, so allowing the long term development of the forest carbon projects.

The project is working at sites that present a range of ecological and socioeconomic conditions, possessing differing opportunities for mangrove reforestation and conservation. As such the project is minimising the risk that the carbon stock measurements show that a particular site will not actually generate enough carbon offsets to make it viable.

8. Sustainability

The project has made considerable progress in building the profile of the project within Madagascar by engaging both national and local government, as well as two Malagasy research institutes (ESSA Foret and the IHSM), and working with local NGOs and community management associations in the project's implementation. In 2012 the project was invited to participate in the development of Madagascar's national Monitoring, Reporting and Verification (MRV) for REDD+ and has since attended two national MRV meetings. We have also contributed to the drafting of Madagascar's REDD Preparation Plan; and have contributed the carbon stock measurements and deforestation data produced by the project to a national assessment of forest carbon stocks. These efforts have been reinforced by the attendance of newspaper and television journalists at key meetings of the project.

A further measure of increased biodiversity conservation activity brought about by the project is the development of a BV-WWF partnership to develop a blue carbon project in the extensive Tsiribahina-Manambolo mangrove complex. This project builds upon the initial experiences gained thanks to Darwin's support, and was initiated during a regional blue carbon workshop held by BV and WWF in April 2013. Fifty attendees, including regional government officials, conservation and development NGOs and community representatives gave their formal support to the project.

By providing Malagasy staff with close tutoring and supporting their attendance at external training workshops, by integrating Malagasy post-graduate research students into the project, and by providing significant support and training to local communities so that they are able to carry out project activities, we are ensuring that there is a viable exit strategy in terms of Malagasy human capacity. The development of sustainable financing from REDD+, as well as PES leveraging local markets, should ensure the project has a viable financial exit strategy.

9. Dissemination

Dissemination activities have targeted the full range of stakeholders affected by the project, from local people participating in the project to national government officials involved in REDD+, and fisheries and forestry management. The project has also sort to widen its dissemination to the general public beyond these immediate stakeholders by inviting local journalists to key meetings and the use of digital newsletters, blogs, and tweets. The project has used a number of media to communicate its activities according to the target audience, including the use of newsletters, cartoons, photographs, the BV website and related blue carbon portals, and presentations. We are currently developing videos on key aspects of the project to use for training and dissemination within participating communities.

Though the project activities are site-based, by integrating our work into the national REDD+ effort we hope to ensure its wider dissemination beyond the lifetime of the Darwin funding.

10. Project Expenditure

Table 3 project expenditure during the reporting period (1 April 2012 – 31 March 2013)

Item	Budget	Expenditure	Variance/ Comments
Staff costs specified by individual			2.7%
Overhead costs			None
Travel and subsistence			37% variance. Our project team in Ambanja and Ambaro Bay did not move into place until the beginning of the third quarter, leading to fewer funds spent on travel than expected in Y1.
Operating costs			53% variance. Opened up a new project office which required significant expenditure on office supplies.
Capital items/equipment (specify)			100% variance. Because the Ambaro and Ambanja teams were not in place until the beginning of the third quarter, it was not possible to start plantation activities in Y1.
Others: Consultancy			
Others (please specify)			100% variance. Need to conduct a feasibility assessment prior to purchasing mobile phones.
TOTAL			

11. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

I agree for LTS and the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)

The project has built a solid foundation for mangrove conservation and through community engagement in the first three quarters of Year 1. A significant amount of project planning, research, and collaboration and communication with local partners and national agencies has installed this foundation at multiple sites on Madagascar's west coast. At the local level, our team has engaged community members through workshops, focus group discussions, and formal meetings to communicate the objectives of our project and collect ideas for community-led design plans. The results of these meetings have culminated in information which will feed into the development of alternative activities to mangrove deforestation and activities to improve mangrove forest management. To raise the profile of the project at the regional and national levels, Blue Ventures has engaged key actors including the Direction Régionale de l'Environnement et des Forêts, Ministère de la Pêche et des Ressources Halieutiques, Madagascar's national Monitoring, Reporting and Verification for REDD+ working group, and the climate change focal point for Madagascar. Much of our work in the field over the past 9 months, or first 3 quarters of Year 1, are documented in our blogs found here on our website: <http://blog.blueventures.org/projects/blue-forests-2/>

Images of our team in the field can be obtained by contacting Fran Humber.

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2012-2013

Project summary	Measurable Indicators	Progress and Achievements April 2012 - March 2013	Actions required/planned for next period
<p>⇒ Goal: Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>			
<p>Purpose Coastal communities are earning income from the sale of carbon credits, charcoal and timber that they supply through mangrove reforestation and sustainable forest management, so enabling them to improve their livelihoods and conserve mangrove forests in the long term.</p>	<ul style="list-style-type: none"> • Increase in household revenues (male, female) from charcoal, timber and carbon credits* • Area (ha) of restored and conserved mangrove forest that is under effective community management 		
<p>Output 1. Communities have clear and uncontested land and user rights to their customary mangrove areas; and give their Free Prior & Informed Consent to use these areas for a forest carbon project</p>	<ul style="list-style-type: none"> • Area (ha) with secure title (RFRs and GCFs) • Number of individuals (male, female) with formalised user & carbon rights 	<p>Significant progresses were made toward gaining communities' Free, Prior and Informed Consent. Several consultation meetings have been conducted in all three project areas. The next period will see the negotiation of carbon rights and the adaptation of current formal mangrove user rights to reflect mangrove integrated management systems that take into account local community livelihoods.</p> <p>In Ambondrolava, BV has worked with the local community association to maintain their secured management rights over 2500 ha of terrestrial and mangrove areas. Approximately 250 people are estimated to hold formal use rights in this area.</p>	
<p>Activity 1.1 Consultation & project development with the communities so as to fulfil the conditions of gaining their Free, Prior and Informed Consent (FPIC) for the implementation of a forest carbon project</p>		<p>Two project pilot sites were identified in Ambanja and Ambaro Bays and communities informed of the REDD project development through a series of 20 local meetings and workshops in the project area. BV will support communities in further defining their mangrove community management project, including its REDD financing component, from April to September 2013.</p> <p>Five focus group discussions and 10 key informant interviews, as well as inclusion of the project in 2 association meetings has occurred in Velondriake.</p> <p>Three courtesy visits were conducted in cooperation with Honko Mangrove Conservation and Education at the commune and regional-level to propose a Plan Vivo mangrove carbon project. One workshop was held at with the local community association to conduct a participatory planning exercise, and one workshop was conducted with regional authorities to introduce the project.</p>	

Project summary	Measurable Indicators	Progress and Achievements April 2012 - March 2013	Actions required/planned for next period
Activity 1.2 Detailed analyses of land tenure and use rights of the potential mangrove areas with both the government cadastral services and the local communities; and resolution of conflicts		<p>In Ambaro and Ambanja Bays, detailed analysis of land tenure and use rights over mangrove will be achieved with local communities through a participatory mapping campaign to be carried out from mid-April to early May 2013. Land-use and land-cover categories, as well as the land tenure and use rights regimes under which each falls, will be defined by focus groups (elders, women, fishermen/farmers and charcoal producers) and delineated in real-time on Google Earth.</p> <p>In Velondriake, BV is seeking a consultant to undertake an analysis of public ownership regimes in the project area.</p> <p>In Ambondrolava, tenure rights were assessed through the acquisition of governmental documents and key informant interviews at the village level.</p>	
Activity 1.3 Establishment of legal user and carbon rights for community members participating in the project		All project participants have formal mangrove user rights. During the next period, the project will ensure that all community participants are equally represented at management association boards and will negotiate and formalize carbon rights. An analysis of national policy affecting tenure regimes for mangroves and carbon has been completed.	
Output 2. Communities have established mangrove A/R, SFM and conservation areas; and are competently managing these areas	<ul style="list-style-type: none"> • Area of mangrove planted • Area of mangrove under SFM and conservation regimes • % of sites implementing clear management plans and which have sustainable harvesting quotas & rotations set according to output 4 • Participative monitoring shows a decrease in uncontrolled harvesting of mangroves 	Significant progress will be made during the first half of the next period in formulating community mangrove management plans integrating SFM and A/R, and through the participatory evaluation of existing management plans.	
Activity 2.1 Establishment of community management plans, zonings and sustainable harvest quotas		During the first half of the next period, BV will support the formulation and implementation of community mangrove management projects defining mangrove management plans, zones and quotas for exploitation.	
Activity 2.2 Establishment and maintenance of mangrove nurseries by female teams		Female candidates have been identified in several participating communal sections. The nursery team's formation will start in Ambaro and Ambanja Bay in May/June 2013 so as to be operational when community management plans are established in September 2013.	
Activity 2.3. Mangrove planting and maintenance of seedlings by female teams		In Ambaro and Ambanja Bay and Ambondrolava, plantation activities will start up from September 2013. In Velondriake, planning and consultation for plantation activities will start in August 2013.	

Project summary	Measurable Indicators	Progress and Achievements April 2012 - March 2013	Actions required/planned for next period
3. Communities are producing sustainable charcoal and timber*	<ul style="list-style-type: none"> All participants have been trained in SFM and improved charcoal production % of sites where timber is harvested according to the sustainable quotas & rotations defined in the management plans Number of improved charcoal production units in place 	<p>Significant progress will be made in Ambaro and Ambanja Bay during the first half of the next period in assessing and implementing a suitable sustainable mangrove charcoal production system.</p> <p>In both Velondriake and Ambondrolava, existing community records of timber extraction will be collated to establish a baseline for extraction levels, and monitor the impacts of project activities on these baselines.</p>	
Activity 3.1. Training of the community participants in sustainable harvesting and improved management; initial timber harvesting according to sustainable quotas and planned rotations		<p>A charcoal value chain analysis and sustainable mangrove charcoal production system study is currently being undertaken in the two pilot sites of Ambaro and Ambanja Bay. The result of this six-month study will allow for the formulation of a mangrove charcoal production scheme to be piloted in Pilot Site 1 from October 2013.</p> <p>In Ambondrolava, educational efforts will aim to improve knowledge regarding sustainable mangrove management among community members. Subsequently, the existing management plan will be evaluated with community members.</p>	
Activity 3.3. Linking of sellers to urban buyers through simple mobile phone messaging		<p>The feasibility of this system is currently being assessed as part of a charcoal value chain analysis and sustainable charcoal production study in Ambaro and Ambanja Bays. The results of this study will allow for piloting this system in Pilot Site 1 from October 2013.</p>	
4. The carbon stocks and harvestable timber of the community mangroves have been measured and are being accurately monitored	<ul style="list-style-type: none"> % of community management units that have been trained to take carbon measurements and have a functioning monitoring team Biomass and soil carbon measurements have been taken at all sites Quality controls by BV scientists show less than 10% error in the carbon stocks measurements for all sites % of sites for which complete monitoring reports are archived in a central project database 	<p>Initial carbon stock measurements were carried out for the Ambaro/Ambanja Bays. Community-based monitoring system and quality controls will be developed during the second half of the next period.</p> <p>An initial carbon stock inventory has been completed in the Ambondrolava mangrove complex, preliminary mapping of deforestation based on satellite imagery is done, and some participatory mapping of deforestation has been completed. The team intends to conduct a participatory mapping and community monitoring campaign in July - August of 2013 to create more accurate estimates of past and current rates of deforestation.</p>	

Project summary	Measurable Indicators	Progress and Achievements April 2012 - March 2013	Actions required/planned for next period
Activity 4.1. Development of a measurement & monitoring plan which meets the requirements of the selected approved methodology for the generation of carbon offsets (this monitoring will include mangrove planting, timber harvesting & charcoal production)		A carbon stock measurement plan meeting the requirements of the selected approved methodology (VM0009) was developed. The monitoring plan will be developed early in the next period and implemented from October 2013 so as to be operational by the end of 2013.	Two additional staff members have received training in carbon stock measurements, and are expected to train more community members in carbon stock monitoring in Ambondrolava and Velondriake in July and September of 2013, respectively.
Activity 4.2. Creation & training of female monitoring teams in the use of appropriate forest inventories, carbon stock measurements and monitoring protocols		Monitoring teams will be created in Ambaro and Ambanja Bays early during the next period and training will start in October 2013.	Community outreach will be conducted in July 2013 in Ambondrolava to select female candidates for monitoring, reforestation, and nursery teams.
5. The requirements for a forest carbon project that will generate carbon offsets are fulfilled	<ul style="list-style-type: none"> • The government & Designated National Authority (DNA) support the project & are involved in its development • A Project Idea Note (PIN) & business plan prove the viability of the carbon project • A draft Project Design Document (PDD) is written 	The methodology for the project in Ambaro and Ambanja Bays has been selected and its requirements taken into account in planning project activities.	A methodology has not yet been selected for Velondriake as further consultation is needed at the community level, expected to occur in July through September 2013.
Activity 5.1. Consultation with the government & Designated National Authority (DNA) in the project development; gaining of DNA support for the project		A first consultation with the DNA is planned in May/June 2013 to present the PIN for the Ambaro/Ambanja Bays.	A first consultation with the DNA is planned for early May 2013 to present the PIN for Ambondrolava.
Activity 5.2. Production of a Project Idea Note (PIN) and business plan based on actual monitoring; submission to investors / funders		A PIN is under development for the Ambaro and Ambanja Bays; a first version will be released in May 2013.	A Project Idea Note has been produced for Ambondrolava and was submitted for evaluation to the Plan Vivo Foundation in March 2013.

Annex 2 Project's full current logframe.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal:</p> <p>Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>			
<p>Sub-Goal:</p> <p>Conservation of Madagascar's mangrove habitats and their associated biodiversity</p>	<ul style="list-style-type: none"> • Deforestation rates for natural forest habitats of the coastal districts of western Madagascar • % of charcoal and timber that comes from the deforestation of natural forests of the coastal districts of western Madagascar 	<ul style="list-style-type: none"> • Existing CI-MEFT-USAID National deforestation analysis for 1990-2000-2005; present BV & literature analyses of mangrove deforestation; future national deforestation analyses that CI-MEFT plan to undertake • Existing CI, USAID & WWF reports on timber & charcoal consumption in coastal areas; future participative appraisals & research 	
<p>Purpose</p> <p>Coastal communities are earning income from the sale of carbon credits, charcoal and timber that they supply through mangrove reforestation and sustainable forest management, so enabling them to improve their livelihoods and conserve mangrove forests in the long term.</p>	<ul style="list-style-type: none"> • Increase in household revenues (male, female) from charcoal, timber and carbon credits* • Area (ha) of restored and conserved mangrove forest that is under effective community management 	<ul style="list-style-type: none"> • Sales figures of charcoal and timber (from participative appraisals done to establish mangrove management plans & uses; project records of sales) • Household revenues, disaggregated by sex • Project GIS, land titles and community management contracts 	<ul style="list-style-type: none"> • Sustainable mangrove timber and charcoal is competitive with those from other sources • Adequate, long term market demand exists for such carbon offsets (or strong donor commitment to REDD+ continues)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Outputs*</p> <p>1. Communities have clear and uncontested land and user rights to their customary mangrove areas; and give their Free Prior & Informed Consent to use these areas for a forest carbon project</p>	<ul style="list-style-type: none"> • Area (ha) with secure title (RFRs and GCFs) • Number of individuals (male, female) with formalised user & carbon rights • Decrease in the incidence of forest exploitation by outsiders 	<ul style="list-style-type: none"> • Government cadastral records • Land titles and community conservation contract agreements • Project GIS • Community management association records 	<ul style="list-style-type: none"> • No significant land disputes exist so that uncontested ownership can be established • If there are land disputes, these can be resolved • The legal formalisation of user and carbon rights using existing instruments does not marginalise women
<p>2. Communities have established mangrove A/R, SFM and conservation areas; and are competently managing these areas</p>	<ul style="list-style-type: none"> • Area of mangrove planted • Area of mangrove under SFM and conservation regimes • % of sites implementing clear management plans and which have sustainable harvesting quotas & rotations set according to output 4 • Participative monitoring shows a decrease in uncontrolled harvesting of mangroves 	<ul style="list-style-type: none"> • Participative maps in community management contracts; project GIS of community management areas • Planting & maintenance schedule; project GIS of planted areas • Community monitoring data books 	<ul style="list-style-type: none"> • Residents can forego immediate exploitation of mangroves long enough to begin earning from A/R and SFM • The community participants agree to robust enough management plans • Growth cycles of target mangrove tree species allow adequate production of seedlings within project schedule
<p>3. Communities are producing sustainable charcoal and timber*</p>	<ul style="list-style-type: none"> • All participants have been trained in SFM and improved charcoal production • % of sites where timber is harvested according to the sustainable quotas & rotations defined in the management plans • Number of improved charcoal production units in place 	<ul style="list-style-type: none"> • Training workshop reports • Carbon monitoring for each site; verification of rotational harvesting by BV project staff; checked monthly • Existence & use of improved kilns within the target sites as verified by BV staff; project reports 	<ul style="list-style-type: none"> • The combination of individual ownership of A/R and SFM plots with the collective management associations is effective in preventing unsustainable harvesting
<p>4. The carbon stocks and harvestable timber of the community mangroves have been measured and are being accurately monitored</p>	<ul style="list-style-type: none"> • % of community management units that have been trained to take carbon measurements and have a functioning monitoring team • Biomass and soil carbon measurements have been taken at all sites • Quality controls by BV scientists show less than 10% 	<ul style="list-style-type: none"> • Training workshop reports & Standard Operating Procedures • Carbon stock calculations • Quality Control reports • Project archive; 1st measurements taken by month 9; monitoring checked monthly 	<ul style="list-style-type: none"> • Adequate project finance can be gained from carbon revenues or other sources to support long term monitoring

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	error in the carbon stocks measurements for all sites <ul style="list-style-type: none"> • % of sites for which complete monitoring reports are archived in a central project database 		
5. The requirements for a forest carbon project that will generate carbon offsets are fulfilled	<ul style="list-style-type: none"> • The government & Designated National Authority (DNA) support the project & are involved in its development • A Project Idea Note (PIN) & business plan prove the viability of the carbon project • A draft Project Design Document (PDD) is written 	<ul style="list-style-type: none"> • Formal letter of support from the government (DNA) for the project • Project Idea Note & business plan submitted to investors • Draft Project Design Document 	<ul style="list-style-type: none"> • A suitable approved methodology specific to mangroves is available by 2014 (this process has already begun, and a CDM A/R methodology has been recently approved) • Formal government support to the project is not jeopardized by changes in government
<p>Note: * - these project outputs will not necessarily be fully realised within the three years of the requested funding given that forest carbon projects normally work on a 5-year verification cycle and can take several years to be developed; 1st generation planted trees will take several years to attain a harvestable size</p>			

Annex 3.

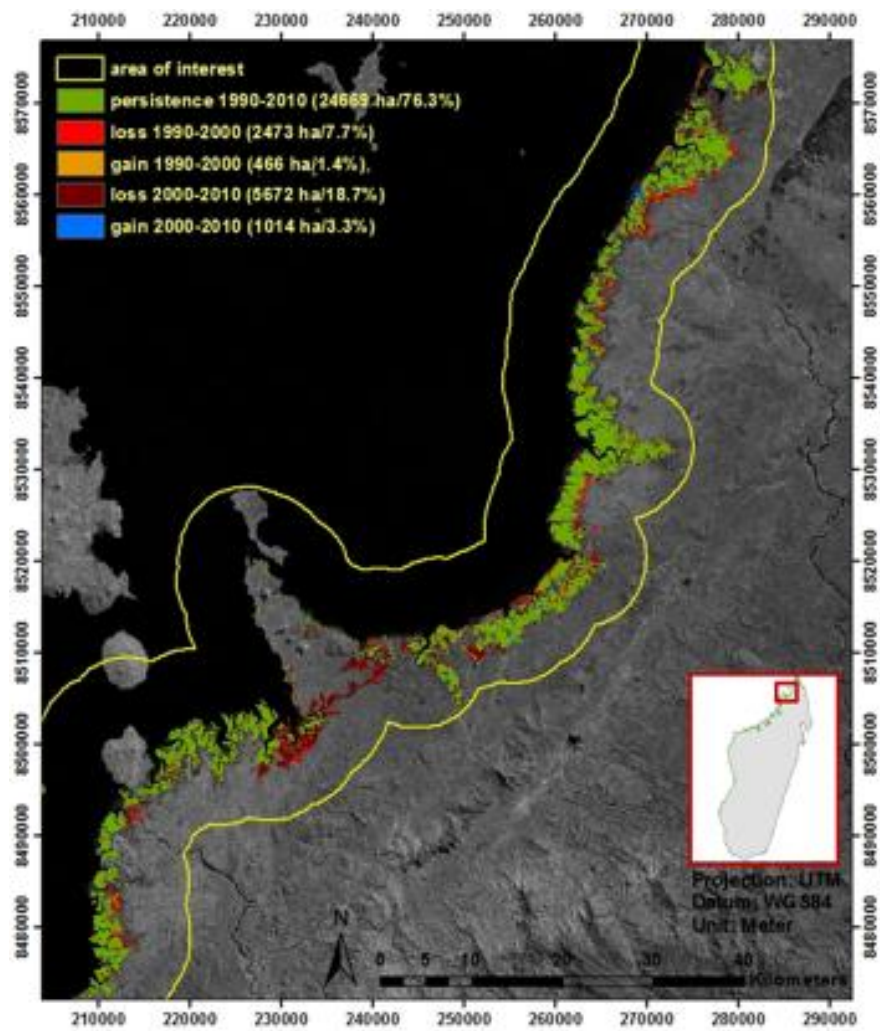


Figure 2. Mangrove dynamics in the Ambaro and Ambanja Bays from 1990-2000 and 2000-2010. Blue Venture (2012) and Chandra Giri, USGS 2011.

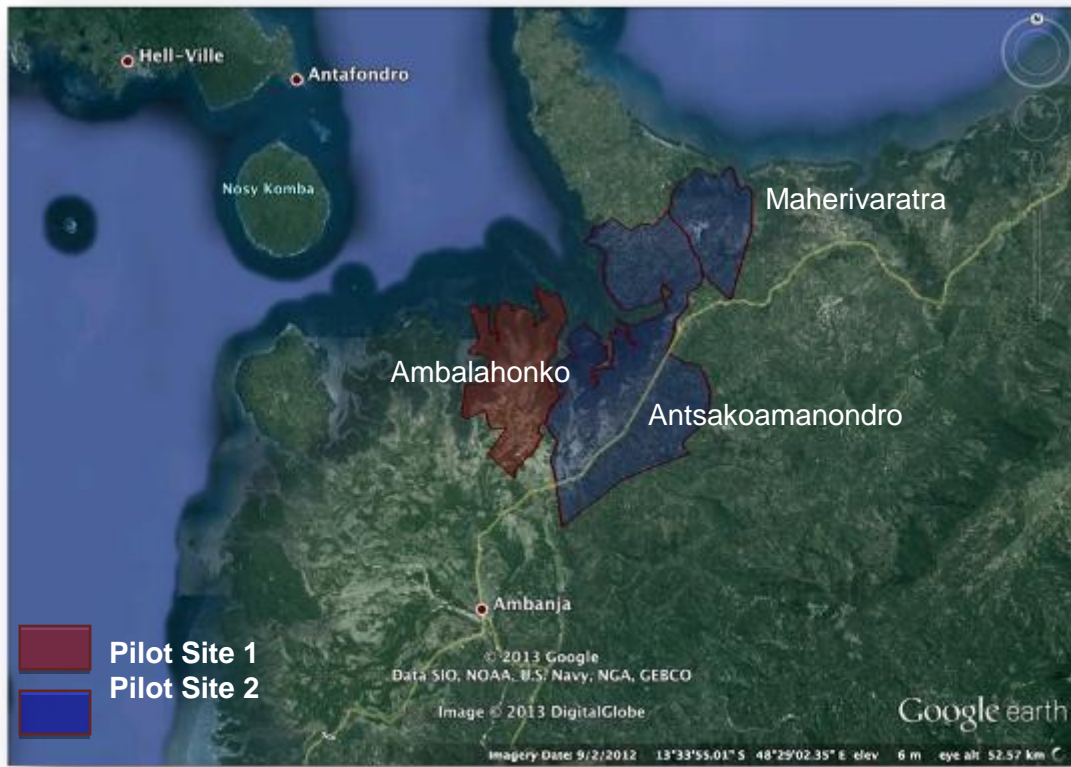


Figure 3. Location of the two pilot sites within the three target communes in Ambaro Bay. Blue Ventures, 2013.

Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	✓
Is your report more than 5MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	NA
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	NA
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.	