



## Darwin Initiative Annual Report



### Darwin Project Information

Project Ref Number	17028
Project Title	Conserving the Ruipa Corridor: facilitating cohesive management between diverse stakeholders.
Country(ies)	Tanzania
UK Contract Holder Institution	Society for Environmental Exploration/Frontier
Host country Partner Institution(s)	University of Dar es Salaam
Other Partner Institution(s)	
Darwin Grant Value	£128,735.00
Start/End dates of Project	1 July 2009 – 1 July 2012
Reporting period	1 July 2009 - 30 Apr 2010, annual report number 1
Project Leader Name	Andrew Bamford
Project website	<a href="http://www.frontier.ac.uk">www.frontier.ac.uk</a>
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### 1. Project Background

The Kilombero Valley is situated between the Selous Game Reserve and the Udzungwa Mountains and is an integral part of the Greater Selous Ecosystem (WWF 1992). The valley is of national importance to conservation and water management (WWF 1992), is a migratory route for many large mammal species, and was designated as a Ramsar site in 2002. However, the valley has little or no protected status, with parts receiving marginal protection as a Game Controlled Area and as Forest Reserves. Agricultural immigration has proliferated over the past decade due to the fertility of the region, the availability of grazing land for pastoralists and increased infrastructure through the area including the TAZARA railway. This has led to extensive habitat fragmentation and degradation which has closed the majority of traditional migratory routes for large mammals within the last twenty years, leaving only two remaining viable corridors between Selous and Udzungwa: the Nyanganje Corridor and the Ruipa Corridor (Jones et al. 2007). In addition, during the wet season, when the valley is flooded,

there are few remaining refuges for wildlife on higher ground, leading to increased incidences of human-wildlife conflict.

Preliminary work carried out by Frontier-Tanzania (FT) in 2006-2008 indicated that the Ruipa corridor had suffered extensive human encroachment and habitat degradation, but is still used by migratory species, as well as being an important site for biodiversity within the Valley (FT 2008). However, without decisive action being taken this could result in a complete loss of connectivity between the ecosystems within only a few years (Jones et al. 2007). This will be devastating to populations of large mammals as well as to the unique biodiversity found within the Valley. Furthermore, if migration routes are disrupted this will exacerbate human-wildlife conflict in areas around the former routes (Jones et al. 2007; FT 2008).

The Corridor has a complex matrix of stakeholder ownership with four villages within the Ulanga District, private land ownership by the Kilombero Valley Teak Company (KVTC), hunting companies, and a Game Controlled Area managed by the Wildlife Division. The Frontier-Tanzania Ruipa Corridor project was undertaken to establish collaboration amongst stakeholders in order to prevent adverse effects of anthropogenic impacts resulting in major large mammal population and biodiversity loss.

The Frontier-Tanzania Ruipa Corridor base camp is situated in pristine miombo woodland between the Ifakara-Mahenge road and the Selous Game Reserve. The camp is located approximately 8 km east of the villages of Igombiro or Igota and 25 km west of the Selous border, a prime location to study the interactions between humans and wildlife in the area.

The first year of the project has been concerned with assimilating all recently collected data pertaining to the Ruipa Corridor and refining existing knowledge as well as filling in gaps regarding biodiversity, land use and large mammal movements through the Corridor by carrying out comprehensive surveys and GIS mapping. This work will be continued until July 2010 when, using this data, the process of developing land-use and land management plans will begin in collaboration with each of the key stakeholders in the region.

## **2. Project Partnerships**

### **Project partnerships:**

This project has provided an excellent opportunity for the Society for Environmental Exploration (SEE) / Frontier to strengthen its relationship with host country partners at the University of Dar es Salaam. The Society for Environmental Exploration and the University of Dar es Salaam have been conducting collaborative research into biodiversity conservation and environmental issues since July 1989 under the title of Frontier-Tanzania, one component of which is the Tanzania Savanna Programme, based in the Kilombero Valley. SEE / Frontier have continued to report its findings to the university who are very supportive of the programme. A number of meetings have been held with members from SEE / Frontier's in-country team and UK head office and Professor Howell and Doctor Ismail from UDSM. As well as discussing the progress of the project, ways of improving communication between the two organisations were developed, strategies for promoting the work (such as an open day at the university) were considered and plans were discussed for students from the University to be trained in surveying and monitoring techniques by SEE / Frontier in the coming year in order to ensure the longevity of implementation after the end of the project.

The Management Structure for this project is comprised of members from two key institutions, The Society for Environmental Exploration in the UK, and the University of Dar es Salaam (UDSM) based in Tanzania. There is a team of UK and Tanzanian staff based at the field camp in the Kilombero Valley throughout the duration of this project. The Project Leader is Andrew Bamford, he is based at the field camp in order to ensure effective leadership to the project. Andy holds overall responsibility for the project, project activities and staff in the field. He is supported on camp by Hilary Smith, responsible for training and managing research assistants

and conducting socio-economic surveys, and Billy Fairburn, responsible for logistics and camp management. Danni Ferrol Schulte will be arriving in May 2010 to take over from Hilary as the Senior Research Officer reporting to Andrew and her responsibilities will include the management of socio-economic survey work, interactions with local villages, environmental education and research assistant training and management. In terms of local staff, Sebastian Ngasoma and Nizar Kilale both report to Andrew and assist the work on camp by conducting data collection, translation for socio-economic surveys, meetings and workshops and expertise in bird work.

In the UK SEE / Frontier office Sam Fox is the Project Manager with overall responsibility for managing SEE / Frontier's involvement with the project in terms of facilitating logistics, resources, staff, equipment, historical data and information, external contacts and any other operational aspects. Elise Belle is the Project Coordinator and oversees the scientific aspects of the project, including the methodologies, data analyses, report writing and publication of scientific articles. Eiblis Fanning, who is SEE / Frontier's Managing Director, provides technical advice as required.

At UDSM the In-Country Coordinator is Professor Kim Howell who is responsible for UDSM's involvement with the project including technical advice, identification, in-country support and the dissemination and communication of project information and activities within the host country.

WCS-Tanzania is our main collaborator responsible for facilitating workshops within the region. Other collaborators include all stakeholders who will participate in developing and implementing management's plans according to their area of interest in the project, and BTC and WWF who are providing expert advice and support.

The management structure has remained much the same over the reporting period, although there have been some changes of staff, including the Project Leader. The Project Leader is now based in the field rather than in the UK office in order to better lead the project. In SEE / Frontier's UK office the Head of Operations is now the Project Manager, and the Research and Development Manager is the Project Coordinator.

Relationships are managed directly via email through weekly situation reports and via telephone with fortnightly telephone calls to the field. Meetings are carried out in person involving all senior staff members twice a year.

As well as our partnership with UDSM, we have continued the development of other partnerships to support this project. Frontier-Tanzania has a long-standing working relationship with the Kilombero Valley Teak Company (KVTC), and their continued support in this project has been instrumental. As the major private landowner in this area it has been vital that KVTC cooperate with the project aims. They have continued to demonstrate their willingness to ensure their land is managed sustainably and the corridor area is preserved. They have also provided useful data such as GIS maps of their lands and weather data and their input and support in terms of logistics and regional advice has been much appreciated.

Frontier-Tanzania has worked with the Ulanga District Office continuously over the last ten years of working in the region. Meetings between the District Natural Resources Officer, Project Leader and Project Manager revealed that the district office remains enthusiastic about supporting the project. The District Office will be able to implement management plans following the initial report and workshops this year as they are currently writing or updating land use plans for a number of villages situated within the corridor.

Meetings were also held between the Project Leader, Project Manager and WWF's Kilombero Valley office. Although WWF is not a formal partner, WWF's local representative in the Kilombero Valley was extremely keen to support this project through offering advice based on his considerable local experience and expertise in land management planning.

WCS continue to be committed to facilitating participatory workshops following the initial technical report. Further meetings will be held to make arrangements for this in the second half of 2010.

In January 2010 the Project Manager conducted a field visit to meet with all the major stakeholders and collaborators involved within this project. It quickly became clear that the relationships Frontier-Tanzania have developed over the past 20 years are one of the key strengths of these partnerships. All partners and collaborators were very positive and supportive in terms of the project and most had at least some previous experience working with Frontier-Tanzania. The variety of partners and collaborators ensures that this project has an excellent base of local experience and expertise, supported by Frontier's experience and skills in data collection and project facilitation. One challenge identified was a lapse in communication between Frontier-Tanzania and UDSM over previous years as UDSM were less involved in recent projects. However, the Darwin Ruipa Corridor project has proven an ideal opportunity to address this and it has been agreed that communication will be further improved through quarterly meetings with field staff, biannual meetings with a representative from the London office and monthly email updates.

### **Other Collaboration**

Frontier-Tanzania have conducted a number of meetings with the Belgian Technical Cooperation (BTC) to discuss the progress of their project to develop and implement an integrated management plan for the Kilombero Valley Ramsar Site. Unfortunately, this project has been somewhat delayed and it seems the main challenge faced has been a lack of adequate baseline data. This reinforced Frontier's plans to ensure data has been compiled into a full technical report and gaps have been adequately filled before proceeding to the next stage and beginning the process of developing management plans. BTC and Frontier-Tanzania will continue to share lessons learned and challenges throughout both of their project and will attend both stakeholder workshops and meetings.

Through the involvement of all key stakeholders awareness is being created and long-term interest in participatory collaboration is being established, essential for sustainable long-term objectives. By compiling a full technical report of findings based on data collected in the and around the Ruipa Corridor over the last two years the partnership is able to support local villages, the district office and private landowners by providing the information and resources needed to address Article 10 (sustainable use of components of biological diversity). This report will be achieved by July 2010, following which management planning will start and will be a participatory process to ensure long-term implementation and sustained collaboration between stakeholders. Capacity building of key stakeholders in biodiversity monitoring will ensure that skills learned are incorporated into future activities, in particular, specific training (BTEC) will begin for local district officers and stakeholders. Specifically, capacity building of local communities will minimise the costs of conservation and provide incentives for management plan continuation. In doing such the project will aid in the implementation of the CBD with respect of article 12 (scientific and technical education), article 7 (identification and monitoring of biological diversity) and article 13 (public education and awareness), and in the implementation of the CMS. The manuals and publications will produce a legacy that can be applied to a wider audience.

The project does not currently have a strong link with the CBD focal point however this is being pursued.

### **3. Project progress**

Although the project was initially delayed by one quarter and so started in July 2009 rather than April 2010, this was agreed by LTS. This delay has had no negative impact on the project and good progress has been made, inline with planned activities and outputs for the first 9 months.

## 3.1 Progress in carrying out project activities

**Output 1.** Significantly improved knowledge of the Ruipa Corridor, in terms of biodiversity, large mammal migration and land-use, disseminated to stakeholders and scientific community.

Activity 1.1 Ground surveys to map large mammal movement through the corridor.

Frontier has been gathering data on large mammal abundance in a sample area of the Ruipa corridor since January 2008. In general the mammal movement within and across the Kilombero Valley is not well understood and as the remaining corridors are under increasing anthropogenic pressures, the miombo woodlands fringing the valley are likely to increase in importance as wildlife refuges. In order to monitor wildlife movement and abundance in the bordering woodland regions of the valley, a set of 24 permanent transects were established in the miombo woodland close to the edge of the floodplain and these have been monitored every 3 months looking for tracks and signs of large mammals. By the end of April 2010 each transect will have been monitored in 10 consecutive 3 month periods, revealing the temporal patterns of abundance of migratory mammals in the corridor area. The results of this monitoring are currently being prepared for submission to a peer-reviewed scientific journal, and will also be included in a Frontier technical report that will be disseminated to stakeholders. In brief, the monitoring shows seasonal fluctuations in mammal abundance at the study site, suggesting seasonal movements. Peak movement activity appears to occur around May each year. In May 2010, data on spatial abundance of migratory mammals throughout the corridor will again be gathered. This activity has been carried out using the planned methodology; it is ongoing and will be repeated for the duration of the project and as part of the post-project monitoring.

Additionally, species inventories have been gathered for several key taxa, including birds (192 species), and mammals (44 species), and indicator taxa such as amphibians and butterflies (98 species). This is an ongoing process, with the inventories continuously being updated. GIS mapping of land use, including the type of farming (maize, rice, or field currently being cleared or abandoned) and the presence of houses and timber stations, was started in January 2010 and is ongoing.

**Output 2.** Comprehensive Management Plans designed by Frontier-Tanzania for the Ruipa Wildlife Corridor with the participation and agreement of each of the key stakeholders, based on updated knowledge of Corridor biodiversity and threats, operational by April 2010.

Activity 3.1 Gathering of biological and socio-economic data to inform the development of management plans.

The gathering of biological data is reported on under activity 1.1. The gathering of socio-economic data was started in late 2009, visiting villages in the corridor area to conduct interviews and focusing on the respondents' experiences and perceptions of human-wildlife conflicts. 76 interviews were carried out in this way. Since January 2010 interviews have been carried out by visiting farms directly in the corridor area, and were carried out in conjunction with land use mapping of the corridor area. The location of the farmers and the villages where the chairman was interviewed were also mapped. So far over 60 in depth interviews have been carried out, along with 38 briefer interviews in the Mofu area in the northern part of the Ruipa corridor. Although directly visiting farms slows down the rate of data collection, it has several advantages: in addition to land use mapping, it allows interviews to be focused on farmers directly in the corridor area; secondly, in consultations with village councils (see activity 3.2) it had become apparent that a major problem with existing land-management plans is the ambiguous nature of village boundaries. Several village councils noted that many of the farmers on their land had received permission to be there from some other village; the data we have gathered confirms this. Interviews with farmers in 2010 have focused on the farmers' background, future plans, and opinions of wildlife and conservation. Many of the farmers interviewed, especially the ones coming from the more remote farms located in more pristine areas, are recent immigrants to the area, and the increasing human population in the Kilombero Valley is now likely to be the major problem facing the Ruipa corridor. The data

gathered will be written up as part of a Frontier technical report on the viability of the corridor. Data collection is ongoing, and will be continued post-project.

#### Activity 1.2 Development of management plans for key stakeholders.

The creation of land-management plans for stakeholders will be carried out after the data gathering and dissemination stage of the project. As such it is too early in the project timetable for there to have been significant opportunity to carry out this activity. However, the process of developing land management plans was already discussed with partner organisations including WWF, who have expertise in the area, Ulanga District Council, who would ultimately be responsible for putting the management plans in place, and BTC, who also plan to develop management plans for landowners in the Ruipa corridor area as part of their project to conserve the Ramsar site, with whom Frontier will work to ensure the resultant management plans meet the requirements of both projects. Additionally, discussions were held with village councils to discuss the need for and desire to alter existing land-management plans.

#### Activity 3.2 Consultations held in villages to enable the development of management plans for village owned forest.

Consultations have been held with village councils at six of the villages in the corridor area in early 2010. For all of these villages there is an existing land-management plan, put in place by KVTC in 2002. As such, Frontier will be required to modify the existing plan rather than design a new plan. Consultations focused on whether the villagers' feel this plan is working, what modifications they would like to see, and whether it is their opinion that a new plan is required. Several councils replied that the major problem with the existing plan is the ambiguity over village boundaries (see Activity 3.1). There was a perception that some villages take their responsibilities under the existing plan more seriously than others. The lack of boundaries that are clearly defined on the ground means that if one village wishes to follow a plan and, for example, prevent farming in a certain area, other villages may still grant permission to farm on that land. Several of the councils also commented on the lack of enforcement from the District Council, meaning that some villages simply ignore land-management plans. These are problems that will need to be overcome when the plans are modified.

**Output 3.** Environmental awareness raising and capacity building aiming to mitigate human-wildlife conflict through initiation of sustainable deterrent activities; and develop alternative income-generating activities to reduce dependence on forest resources.

#### Activity 1.3 Capacity building workshops aiming to mitigate human-wildlife conflict.

This activity will be carried out after the data gathering phase of the project; specifically after the gathering of socio-economic data is complete (Activity 3.1) which will allow for the identification of the types of and extent of human-wildlife conflict in the area so that the workshops can offer specific advice on the problems farmers in the area face.

#### Activity 2.3 Levels of anthropogenic activities monitored post-project by Frontier-Tanzania.

Post-project monitoring by Frontier-Tanzania is an extension of the monitoring activities reported on under Activities 1.1 and 3.1. This monitoring will be continued throughout the project and beyond.

**Output 4.** Training of representatives of key stakeholders (Village Environmental Committee, government officials private land-owners) in monitoring techniques.

#### Activity 2.1 Training of stakeholder representatives in biodiversity monitoring.

This activity was scheduled to have started in the last year; however due to various logistical constraints it has not yet been possible. All of the stakeholders who have been contacted about the training programme have expressed a keen interest in participating and are enthusiastic about doing so. Therefore, we are confident training will begin as soon as logistical issues are resolved. These issues particularly pertain to the length of the training and the time of year at which it will take place. Villagers, nearly all of whom are farmers, are not available for training until after the main harvest season of the year in June-July. Similarly, UDSM students are not

available until the end of semester in July. It is therefore expected that training will commence in the middle of 2010.

Activity 2.2 Annual surveys with stakeholders.

Due to the late starting of the training programme, it has not yet been possible to undertake surveys with the stakeholders.

### **3.2 Progress towards Project Outputs**

**Output 1.** Significantly improved knowledge of the Ruipa Corridor, in terms of biodiversity, large mammal migration and land-use, disseminated to stakeholders and scientific community.

This output has been the focus of the project over the past year, focusing on data collection. Data collected has consisted of monitoring large mammal abundance in a sample area of the corridor, land use mapping, and interviews with farmers in the corridor area. Using this data anthropogenic threats to the corridor are being identified. Data collection has proceeded as planned, and it is expected that the data dissemination will commence in the next period of the project. A Frontier-Tanzania Environmental Research Technical Report is due to be completed in July 2010, which will use the data collected on biodiversity, land-use and socio-economics to assess the viability of the Ruipa corridor. This report will be made available to all stakeholders, and, in the case of villages, the information contained in the report will be summarised in a more accessible format and presented directly during workshops given in the second half of 2010. One peer-reviewed publication is currently in preparation, and at least one more is planned. The collection of data will be ongoing throughout the project and beyond. It is expected that by the end of 2010 the report will be complete and disseminated to stakeholders, and two manuscripts will have been submitted for peer review, and that this output will therefore be effectively complete. The only assumption for completion of this output, that stakeholders allow researchers access to land to conduct surveys, still holds true, and this situation is unlikely to change as the stakeholders remain interested in our work and keen to see the information we have gathered.

**Output 2.** Comprehensive Management Plans designed by Frontier-Tanzania for the Ruipa Wildlife Corridor with the participation and agreement of each of the key stakeholders, based on updated knowledge of Corridor biodiversity and threats.

Work on this output was not intended to start until the end of the data gathering phase of the project, as the data collected will be essential in informing the design of the land-management plans. Over the past year work towards this output has consisted of researching the process of designing land management plans, and meetings with village councils and partner organisations to ensure that the process meets the needs of all stakeholders. The legal process in Tanzania requires that Frontier facilitates the creation of a land-management plan, rather than design it, or, if there is an existing plan in place, facilitate the modification of the plan. The plan itself must be discussed and fully agreed upon in village meetings, and it will then be implemented by the district council.

For all the villagers with whom we are working, and the private land owners, there is a pre-existing plan, put in place by KVTC in 2002. However, several village councils noted problems with this plan that will have to be overcome when the plan is modified. BTC are also planning to facilitate the modification of the land-management for four of the villages in the corridor area as part of their project to conserve the Ramsar site. Frontier have agreed with BTC that both organisations should be involved in this process as the outcomes of our respective projects are compatible. Meetings will be held in two villages to discuss modification of the existing plan in July 2010. Frontier will present the data we have gathered at these meetings along with recommendations for the modified plan. For the other villages in the area, Frontier will host the meetings required to modify the existing plan during the last quarter of 2010.

Recommendations will be made to the private landowners in the area at this time, and it is therefore hoped that revised land-management plans will have been initially agreed upon by all stakeholders by the end of 2010, although the subsequent timeframe for the plan to be formally introduced by the district council is more difficult to predict. The assumptions for

completion of this output still hold; all stakeholders are keen to hear the results of our studies and our recommendations, and have expressed a desire to improve the existing land-management plan. The monitoring sites we are currently using for data gathering are likely to remain available for monitoring.

**Output 3.** Environmental awareness raising and capacity building aiming to mitigate human-wildlife conflict through initiation of sustainable deterrent activities; and develop alternative income-generating activities to reduce dependence on forest resources.

Work towards this output was not intended to begin until after the data gathering phase is completed. The gathering of socio-economic data, reported on under Activity 3.1, will allow the identification of the extent of human wildlife conflict in the corridor area and allow us to target workshops at the problems villagers feel are most important. Village councils have expressed enthusiasm for the idea of workshops; a complaint made by some village leaders was that western NGOs often come to collect data but that the villagers never receive any feedback on the results of this, and as such they welcomed Frontier's proposal to hold workshops presenting our data and discussing methods to mitigate human-wildlife conflict. It is expected that these workshops will commence in the second half of 2010, in conjunction with our presenting data and recommendations for the land-management plans (Output 2).

**Output 4.** Training of representatives of key stakeholders (Village Environmental Committee, government officials, private land-owners) in monitoring techniques.

The training programme has been discussed with all stakeholders, who are enthusiastic about participating, especially due to the accreditation from a UK examinations board. Training has not started as many potential candidates have not been available to spend the required time undertaking the course. The third quarter is felt by many to be the most suitable time for training as villagers are unable to spend time away before the main harvest season in June, and UDSM students are only available during the summer holiday. The private land-owning companies and Wildlife Division of the District council are also interested; their personnel will require time off work and this remains to be organised. It is thus expected that the training programme will now commence in July 2010. The assumptions for this output still hold: several suitable candidates have already been identified.

### 3.3 Standard Measures

As we are still in the data collection stage of the project at this point few standard measures were planned for this 9 month period. We had intended to commence stakeholder training with undergraduates and post graduates from UDSM during this time, however the timing was unsuitable for students who prefer to undertake training during their summer break. Training has therefore been re-scheduled for the coming quarter.

**Table 1 Project Standard Output Measures**

<i>Code No.</i>	<i>Description</i>	<i>Year 1 Total</i>	<i>Number planned for this reporting period</i>	<i>Total planned from application</i>
4A	<i>Number of undergraduate students to receive training</i>	0	2	X
4B	<i>Number of training weeks to be provided</i>	0	20	X
4C	<i>Number of postgraduate students to receive training</i>	0	2	X

4D	<i>Number of training weeks to be provided</i>	0	20	X
6A	<i>Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)</i>	0	0	X
6B	<i>Number of training weeks to be provided</i>	0	0	X
7	<i>Number of (i.e. different types - not volume - of material produced) training materials to be produced for use by host country</i>	0	0	X
8	<i>Number of weeks to be spent by UK project staff on project work in the host country</i>	30	30	X
9	<i>Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country</i>	0	0	X
11A	<i>Number of papers to be published in peer reviewed journals</i>	0	0	X
11B	<i>Number of papers to be submitted to peer reviewed journals</i>	0	0	X
12B	<i>Number of computer based databases to be <b>enhanced</b> and handed over to host country</i>	0	0	X
13B	<i>Number of species reference collections to be <b>enhanced</b> and handed over to host country(ies)</i>	0	0	X
14B	<i>Number of conferences/seminars/ workshops <b>attended</b> at which findings from Darwin project work will be presented/ disseminated.</i>	0	0	X
15A	<i>Number of national press releases in host country(ies)</i>	0	0	X
15B	<i>Number of local press releases in host country(ies)</i>	0	0	X
15C	<i>Number of national press releases in UK</i>	0	0	X
15D	<i>Number of local press releases in UK</i>	0	0	X
16A	<i>Number of newsletters to be produced</i>	0	0	X
16B	<i>Estimated circulation of each newsletter in the host country(ies)</i>	0	0	X
16C	<i>Estimated circulation of each newsletter in the UK</i>	0	0	X
19A	<i>Number of national radio interviews/features in host country(ies)</i>	0	0	X

19B	Number of national radio interviews/features in UK	0	0	X
19C	Number of local radio interviews/features in host country(ies)	0	0	X
19D	Number of local radio interviews/features in UK	0	0	X
23	Value of resources raised from other sources (i.e. in addition to Darwin funding) for project work	£103 12.50	£10312.50	X

## Table 2 Publications

Publications for this project are still in preparation.

Type (e.g. journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £

### 3.4 Progress towards the project purpose and outcomes

In order to achieve the overall purpose of facilitating a synergistic approach to conservation within the Ruipa corridor area, the project was split into two distinct phases: a data gathering phase and an information dissemination phase. This first year of the project was focused on the first of these, data collection, and this is being carried out on time and as planned. Biological monitoring of the Ruipa corridor has been ongoing for over two years and collection of socio-economic data began in November 2009. This data has significantly improved our knowledge of the corridor area; it will be used in a report on the status of the Ruipa corridor, expected to be ready for July 2010. Several peer-reviewed publications based on the data gathered will also be submitted. Data collection will continue after the report is complete as part of the post-project monitoring.

Data dissemination is expected to begin in the second half of 2010. The report on the status of the corridor will be distributed to all stakeholders. In addition, as the information contained in the report is unlikely to be of much use to villagers in written form, workshops presenting our findings will be given. Village councils have expressed enthusiasm for this idea, as they note that other researchers that have visited leave after collecting data without giving any feedback. Recommendations will be made in village meetings held to agree on a modified land-management plan. The process of developing a land-management plan is slightly different from that anticipated in the original proposal – the process does not involve Frontier actually writing the plan, which is done by the District Council, but Frontier can facilitate the development of the plan and make recommendations to the villages.

The purpose level assumptions still hold true, as all stakeholders have expressed enthusiasm to hear the results of Frontier's data gathering, and the village councils have expressed a desire to modify the current land management plan. The recommendations made must be voted on in village meetings, meaning that at this stage it is not possible to say whether or not recommendations will be incorporated into the plan. The indicators remain adequate for measuring the outcomes.

### **3.5 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits**

By working with various stakeholders in the region, the project aims to ensure the conservation of environmental conditions currently present, whilst encouraging a greater emphasis on conservation by all stakeholders in the future, leading to increased biodiversity in the region. We aim for these stakeholders to limit environmental degradation and encourage more sustainable practice in the region, through the implementation of agreed ecologically sustainable management plans. We then plan to monitor the progress and success of these plans. We aim to achieve this by:

- Conducting research on the wildlife corridor to monitor progress of biodiversity.
- Maintaining dialogue and communication with local stakeholders, ensuring all responsibilities by these stakeholders are met.
- Ensuring that the impacts of stakeholders in the region do not conflict with the values of the management plan, and intervening where and when possible.
- Encouraging and participating in education programmes devoted to describing the value of local ecosystem services, and the importance of conservation.

## **4. Monitoring, evaluation and lessons**

Over the first three quarters the progress of the project has been monitored by previous Project Leader Mark Steer and Project Manager Sam Fox in the UK and by new project leader Andrew Bamford in Tanzania. In order to effectively monitor the project's progress extensive quarterly internal reports have been received internally, these include biological science, socio-economic, logistics and project progress reports concerning all aspects of the operations of the project. In conjunction with this, a number of meetings have been conducted between the Project Manager, Project Leader, In-Country Coordinator (UDSM), all research and field staff and stakeholders. These have involved reviewing the project proposal and logical framework to discuss each activity and output and to agree which targets have been met, how other targets will be achieved and timelines for the continuation of the project. These two key activities have allowed effective assurance that means of verification and measurable indicators of outputs have been met.

As activities and outputs are completed inline with the log frame and are necessary for the achievement of the overall project purpose. This has been confirmed through consultations with stakeholders and local experts who were able to advise on local practices and steps necessary for the implementation of management plans. They have also been able to advise on the implementation of management plans and the eagerness of stakeholder representatives to take part in training and have the ability to continue to monitor the area post-project is testament to the relevance of training and workshop outputs detailed in the project proposal.

In order to compile the work conducted in the first year of the project a technical report is being written including all relevant data, both biological and socio-economic, and initial drafts of sections have already been circulated.

The project monitoring and evaluation plan has not been altered in this first phase of the project, and it will continue as planned throughout the project and post-project. It is still a little early in the project to have a great deal of lessons learned, however the importance of communication is perhaps an important one. This is not to suggest that communication has been ineffectual or inadequate this year, however the visit from the UK by the partner project really highlighted how much can be achieved, agreed and planned in even a short time when parties involved are able to discuss points face to face. Similarly the importance the importance

of having a standard procedure and timings for all stakeholders was addressed and procedures are in place for the coming year.

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

N/A

**6. Other comments on progress not covered elsewhere**

N/A

**7. Sustainability**

At this stage the project information has disseminated between project stakeholders only, however planning has begun for promotional materials that will be used to raise the profile of the project in the host country. This includes an article, newsletter, technical report, press release and peer reviewed publications. These will be completed in the next phase of the project once data collection and analysis is complete.

The exit strategy will be refined during the process of developing management plans with key stakeholders. This will ensure that stakeholders have the ability and inclination to sustain project outputs, outcomes and impacts. Training will be conducted with all stakeholders to help support this.

**8. Dissemination**

So far the main dissemination activities have been to provide information to all stakeholders about the project's objectives and planned activities. Target audiences for this information have included UDSM, WCS, WWF, BTC, KVTC, Ulanga District Council and villages within the Ruipa Corridor area. Information has been disseminated via a summarised version of the project proposal (physical and electronic) and face to face meetings.

At this stage there is no further dissemination activities until the second part of this year when the initial technical reports will be circulated, followed by details of workshops, management plans, information to wider audiences about the project's achievements and post-project monitoring information. Post-project host country dissemination activities will predominantly be undertaken by SEE and UDSM who will remain working together in country.

**9. Project Expenditure**

**Table 3 Project expenditure during the reporting period (Defra Financial Year 1 April 2009 to 31 March 2010)**

Item	Budget	Expenditure	Variance
Rent, rates, heating, overheads etc			
Office costs (eg postage, telephone, stationery)			
Travel and subsistence			
Printing			
Conferences, seminars, etc			

Capital items/equipment (specify)	
Others (specify)	
Salaries (specify by individual)	
TOTAL	

The total expenditure and budget variance is minimal, however some travel and subsistence costs are yet to be incurred as it was agreed that a second field visit by the UK institution would be better timed in the next period once the technical reports have been completed. This should not affect the overall expenditure for the project. Also some variance is due to a difference in category headings and groups between those outlined in the project proposal and those in the annual report. Expenditure for the project is forecast to remain on target with the budget.

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

As we are still in the last stages of the data collection phase there are not as yet any outstanding achievements to report for this project. However, we do have a number of photographs available including fieldwork in biodiversity monitoring and surveys being carried out and landscape. Please contact the Project Manager Sam Fox on sam@frontier.ac.uk.

## Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2008/09

Project summary	Measurable Indicators	Progress and Achievements July 2009 – April 2010	Actions required/planned for next period
<p><b>Goal:</b></p> <p>Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD) 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>It is too early in the project at this stage to report on any contribution towards positive impact on biodiversity or positive changes in the conditions of human communities associated with biodiversity.</p>	<p>(do not fill not applicable)</p>
<p><b>Purpose:</b> To facilitate a synergistic approach to biodiversity conservation within the Ruipa Corridor among key stakeholders; developing the capabilities of local and national stakeholders to sustainably and equitably manage respective parts of the corridor.</p>	<p>Gather biological and socio-economic data to effectively inform the development of Management Plans for key stakeholders.</p> <p>Key stakeholders participate in the design and implementation of specific Management Plans: private land-owners, government, and local communities.</p> <p>Capacity building workshops held to raise environmental awareness and reduce costs of implementing management plans, and training of stakeholder representatives in biodiversity monitoring.</p>	<p>Gathering of both biological and socio-economic data is well underway. Monitoring of large mammal abundance in a section of the corridor has been conducted every three months for 2.5 years. Human encroachment into the corridor is being mapped and farmers in the area interviewed to ascertain their background and long-term plans, and views on wildlife conservation.</p> <p>The process of facilitating land management plans has been discussed with stakeholders.</p>	<p>The biodiversity and socio-economic data gathered will be synthesised into a report on the viability of the corridor, ready for July 2010. This will be presented to stakeholders in workshops starting after July.</p> <p>Two stakeholder village meetings will be held in July 2010 to modify land-management plans. Frontier will be involved in this process, as will BTC. For other stakeholders, land-management plans will be facilitated by Frontier starting in late 2010.</p> <p>Training of stakeholder representatives and capacity building workshops will also begin in July 2010.</p>
<p><b>Output 1.</b> Significantly improved knowledge of the Ruipa Corridor, in terms of biodiversity, large mammal migration and land-use,</p>	<p>Comprehensive information on biodiversity; spatial and temporal migratory patterns; land-use;</p>	<p>Species inventories have been gathered since 2008, as has data on temporal abundance of migratory mammals. Additional data on spatial abundance of migratory mammals will be gathered in May 2010, the time</p>	

<p>disseminated to stakeholders and scientific community.</p>	<p>species inventories.</p> <p>Identification of anthropogenic threats throughout the corridor.</p> <p>Assessment of viability of corridor.</p>	<p>of peak movement. Mapping of land use underway.</p> <p>Mapping of human encroachment, both legal and illegal, underway in the southern corridor. Socio-economic surveys throughout the corridor identifying anthropogenic threats.</p> <p>A report on the viability of the corridor is being prepared, and is expected to be ready for July 2010 in time to be presented to stakeholders. Additionally, 2 or more peer reviewed papers are in preparation.</p>
<p>Activity 1.1 Ground surveys to map large mammal movement through the corridor.</p>		<p>Surveys have been carried out in a representative sample area since January 2008, repeated every three months to show temporal patterns. In the next period, starting in May 2010, comprehensive surveys of migratory mammals will be carried out throughout the corridor in order to map movements.</p>
<p>Activity 1.2 Development of management plans for key stakeholders.</p>		<p>This will begin in the next period, once more data on movements has been gathered. Two stakeholders, both local villages, will hold meetings in July 2010 in order to modify their existing land use plan to conserve the Ruipa Corridor and RAMSAR site. Frontier will present data at this meeting to ensure that the plan takes into account mammal movements.</p>
<p>Activity 1.3 Capacity building workshops aiming to mitigate human-wildlife conflict.</p>		<p>Workshops will commence at the same time as consultations on land-management, informed by the socio-economic data currently being gathered (see 3.1).</p>
<p><b>Output 2.</b> Comprehensive Management Plans designed by Frontier-Tanzania for the Ruipa Wildlife Corridor with the participation and agreement of each of the key stakeholders, based on updated knowledge of Corridor biodiversity and threats.</p>	<p>Workshops held in four villages with Village Environment Committees to enable development and implementation of management plans for village owned forests.</p> <p>Management plans developed by Frontier-Tanzania for private land-</p>	<p>These workshops are planned to start in July 2010, by which time sufficient data will have been gathered to inform management plans.</p> <p>Management plans will be facilitated by Frontier for all stakeholders by the end of 2010.</p>

	owners (e.g. Wild Footprints hunting company, Kilombero Valley Teak Company) and government owned land (Forestry and Beekeeping Division, Wildlife Division).	
2.1 Training of stakeholder representatives in biodiversity monitoring		It is anticipated that the stakeholder training programme will begin in July 2010, with representatives from villages and UDSM students. District council representatives are also interested in training.
2.2 Annual surveys with stakeholders		These will commence once the training programme is completed.
2.3 Levels of anthropogenic activities monitored post-project by Frontier-Tanzania		Frontier's long term presence in the area is secure; post-project monitoring can be conducted as planned.
Output 3. Environmental awareness raising and capacity building aiming to mitigate human-wildlife conflict through initiation of sustainable deterrent activities; and develop alternative income-generating activities to reduce dependence on forest resources.	Workshop held for village representatives to expose villagers to deterrent techniques and income-generating activities.	Questionnaire surveys of farmers in the corridor area are being collected to determine the types and extent of human-wildlife conflict in the area and their perception of wildlife conservation. This data will then be used to inform the selection of suitable deterrent and income-generating activities that can be presented to villagers in workshops, expected to begin in the second half of 2010.
3.1 Gathering of biological and socio-economic data to inform the development of management plan.		Data gathering began in February 2010 and is ongoing.
3.2 Consultations held in villages to enable the development of management plans for village owned forest.		Discussions were held with representatives from WWF, who have expertise in facilitating the creation of land-management plans, and BTC, who are modifying land-management plans within the Ramsar site. Consultations were held with village councils to discuss the need for modifying land management plans.
Output 4. Training of representatives of key stakeholders (Village Environmental Committee,	Two Forest Officers, two Wildlife Division Game Rangers, two personnel from each of the private	See 2.1. UDSM students and village representatives will commence training in July 2010, after other commitments are met. District council representatives are interested in training, which will commence once the

government officials private land-owners) in monitoring techniques	land-owning companies, 2 Village Environmental Committee members from each village, 2 UDSM students trained in monitoring techniques by Frontier-Tanzania through a formal BTEC qualification in Tropical Habitat Conservation	logistics are arranged.
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## Annex 2 Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p><b>Goal:</b> Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD) 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><b>Sub-Goal:</b></p> <p>The Kilombero's Valley's Ruipa Corridor is preserved, maintaining connectivity for migratory species through the Valley, between the Udzungwa Mountains and Selous Game Reserve; conserving the unique habitats and biodiversity of this designated Ramsar site; reducing anthropogenic threats through equitable sharing of the costs and benefits of biodiversity conservation.</p>	<p>Ground surveys demonstrate sustained large mammal movement through the corridor and conservation of biodiversity after the implementation of stakeholder management plans.</p> <p>Decrease in unsustainable anthropogenic activities and human encroachment within the corridor.</p>	<p>Data from seasonal monitoring of biodiversity, land-use changes, and socio-economic surveys during and post-project by Frontier-Tanzania.</p> <p>Levels of anthropogenic activities monitored post-project through disturbance surveys by Frontier-Tanzania.</p>	
<p><b>Purpose</b></p> <p>To facilitate a synergistic approach to biodiversity</p>	<p>Gather biological and socio-economic data to effectively inform the development of Management Plans for key stakeholders.</p>	<p>Annual surveys with stakeholders before and after implementation of management plans to gauge costs and benefits of Management Plans and obtain feedback.</p>	<p>Stakeholders remain supportive</p>

<p>conservation within the Ruipa Corridor among key stakeholders; developing the capabilities of local and national stakeholders to sustainably and equitably manage respective parts of the corridor.</p>	<p>Key stakeholders participate in the design and implementation of specific Management Plans: private land-owners, government, and local communities, effectively operational by 2010.</p> <p>Capacity building workshops held to raise environmental awareness and reduce costs of implementing management plans, and training of stakeholder representatives in biodiversity monitoring.</p>		<p>Relations between stakeholders are stable</p> <p>Key stakeholders incorporate recommendations made and implement management plans.</p>
<p><b>Outputs</b> (add or delete rows as necessary)</p> <p>1. Significantly improved knowledge of the Ruipa Corridor, in terms of biodiversity, large mammal migration and land-use, disseminated to stakeholders and scientific community.</p>	<p>Comprehensive information on biodiversity; spatial and temporal migratory patterns; land-use; species inventories.</p> <p>Identification of anthropogenic threats throughout the corridor.</p> <p>Assessment of viability of corridor.</p>	<p>Publication of Frontier-Tanzania Environmental Research Series Technical Reports and 2 peer-review publications</p> <p>Data to be shared with stakeholders and submitted to relevant national and international databases.</p>	<p>Stakeholders allow researchers on the land in the corridor to conduct surveys.</p>

<p>2. Comprehensive Management Plans designed by Frontier-Tanzania for the Ruipa Wildlife Corridor with the participation and agreement of each of the key stakeholders, based on updated knowledge of Corridor biodiversity and threats, operational by April 2010</p>	<p>Workshops held in four villages with Village Environment Committees to enable development and implementation of management plans for village owned forests.</p> <p>Management plans developed by Frontier-Tanzania for private land-owners (e.g. Wild Footprints hunting company, Kilombero Valley Teak Company) and government owned land (Forestry and Beekeeping Division, Wildlife Division).</p>	<p>Management plans formulated and approved by all stakeholders.</p> <p>Management plans implemented and enforced by stakeholders on their land within the Ruipa Corridor.</p> <p>Publicity articles, posters, leaflets, website and meeting minutes.</p> <p>Monitoring and facilitation of Management Plan implementation by Frontier-Tanzania for a further year until EoP.</p>	<p>Continued presence and support of key land-owning stakeholders.</p> <p>Suitable permanent monitoring sites identified.</p>
<p>3. Environmental awareness raising and capacity building aiming to mitigate human-wildlife conflict through initiation of sustainable deterrent activities; and develop alternative income-generating activities to reduce dependence on forest resources.</p>	<p>Workshop held for village representatives to expose villagers to deterrent techniques and income-generating activities.</p>	<p>Workshop reports and evaluation summary by Village Coordinator</p> <p>Annual socio-economic and human-resource use assessment surveys post project carried out by Frontier-Tanzania</p> <p>Publicity articles, posters, leaflets,</p>	

		website and meeting minutes.	
4. Training of representatives of key stakeholders (Village Environmental Committee, government officials private land-owners) in monitoring techniques	Two Forest Officers, two Wildlife Division Game Rangers, two personnel from each of the private land-owning companies, 2 Village Environmental Committee members from each village, 2 UDSM students trained in monitoring techniques by Frontier-Tanzania through a formal BTEC qualification in Tropical Habitat Conservation	Trainees awarded BTEC qualifications accredited by Edexcel, to demonstrate ability to continue monitoring activities.	Suitable candidates for training identified  Trainees pass course requirements  Funding for monitoring and sufficient number of people trained to continue post project
<p><b>Activities</b> (details in work plan)</p> <p>1.1 Ground surveys to map large mammal movement through the corridor</p> <p>1.2 Development of management plans for key stakeholders</p> <p>1.3 Capacity building workshops aiming to mitigate human-wildlife conflict</p> <p>2.1 Training of stakeholder representatives in biodiversity monitoring</p> <p>2.2 Annual surveys with stakeholders</p> <p>2.3 Levels of anthropogenic activities monitored post-project by Frontier-Tanzania</p> <p>3.1 Gathering of biological and socio-economic data to inform the development of management plans</p> <p>3.2 Consultations held in villages to enable the development of management plans for village owned forest</p>			

**Monitoring activities:**

Indicator 1. Occurrence of large mammal movements within the Ruipa Corridor

Indicator 2. Level of implementation of management recommendations

Indicator 3. Number of candidates trained in BTEC Wildlife Monitoring

Indicator 4. Prevalence of low-impact technologies implemented in local villages

## Checklist for submission

	Check
<b>Is the report less than 5MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project number in the Subject line.	X
<b>Is your report more than 5MB?</b> If so, please advise <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> that the report will be send by post on CD, putting the project number in the Subject line.	
<b>Have you included means of verification?</b> You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	X
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number.	
Have you involved your partners in preparation of the report and named the main contributors	X
Have you completed the Project Expenditure table fully?	
Do not include claim forms or other communications with this report.	