

Darwin Initiative Main Project 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 no more than 10 pages in length, excluding annexes

Submission Deadline: 30 April

Darwin Project Information

Project Reference	21-014
Project Title	Reconnecting poverty-alleviation to biodiversity conservation in Kenya's Eastern Arc Mountains
Host Country	KENYA
Contract Holder Institution	Durrell Institute of Conservation & Ecology (DICE), University of Kent
Partner institutions	Kenya Forest Service, Government of Kenya. Taita Taveta Wildlife Forum (TTWF). Nature Kenya. Zoological Society of London (ZSL). International Institute for Environment and Development.
Darwin Grant Value	£352,913
Funder (DFID/Defra)	DFID
Start/end dates of project	1 st July 2014 – 30 th June 2017
Reporting period (e.g., Apr 2015 – Mar 2016) and number (e.g., Annual Report 1, 2, 3)	April 2015 – March 2016 Annual Report 2
Project Leader name	JIM GROOMBRIDGE
Project website/blog/Twitter	https://www.kent.ac.uk/sac/research/projects/jg_kenya.html http://ttwforum.org/
Report author(s) and date	Jim Groombridge (DICE), James Mwang'ombe (KFS), Dawson Mwanyumba (TTWF), Joan Gichuki (NK), Dilys Roe (IIED)

1. Project Rationale

BACKGROUND & PROBLEM: Sustainably enhancing local livelihoods whilst conserving biodiversity and ecosystem services is a major challenge in the face of poverty. Most poverty-alleviation projects fail due to a lack of experience and leadership in *local* conservation training and no tangible long-term livelihood benefits.

LOCATION: Kenya's Taita Hills (Biodiversity Hotspot, Birdlife IBA) contain many endemic, threatened forest species, but suffer high unemployment (>66% of community-members live below the poverty-line). Near-total loss of indigenous forest has degraded environments for both farming and biodiversity, and compromising Taita ecosystem function as a crucial water-catchment for lowland areas (including Tsavo National Parks). Regularly-poor harvests make subsistence-farming alone unfeasible. Survival of poor harvests requires a raft of livelihood initiatives to increase amount, stability and accessibility of alternative income year-round.



SOLUTION: Our project in the Taita Hills (including Sagalla Hill) builds local-capacity and strengthens TTWF's focus on livelihood diversification and sustainable environmental management to improve food and water security. Six alternative livelihoods (previously ground-tested by TTWF) will increase income and income stability; offering opportunities for both men/women across ages/physical abilities that are profitable across seasons. Habitat re-connectivity and soil restoration will benefit three Critically-Endangered Taita endemics (Taita thrush, apalis; Sagalla caecilian).

Six alternative livelihoods (previously ground-tested by TTWF) will increase income and income stability; offering opportunities for both men/women across ages/physical abilities that are profitable across seasons. Habitat re-connectivity and soil restoration will benefit three Critically-Endangered Taita endemics (Taita thrush, apalis; Sagalla caecilian).

2. Project Partnerships

The project is led by DICE (University of Kent); the host-country partners are Taita Taveta Wildlife Forum (TTWF), Kenya Forestry Service (KFS), Nature Kenya (NK) and International Institute for Environment and Development (IIED). Representatives from all partners have formed a Project Steering Group (PSG) as a conduit for internal reporting and approval of decisions during the running of the project. The PSG communicate via Skype approximately every month (see Annex 1; eg of PSG Skype meeting minutes). TTWF/KFS/NK work closely together across all aspects of the project, although TTWF/KFS lead mainly on the livelihoods component and NK lead mainly on the species conservation component. ZSLs in-country Field Officer provides *in situ* support across the project activities. IIED, based in UK, provides a supporting/advisory role on the livelihood components of the project.

3. Project Progress

3.1 Progress in carrying out project activities

Output 1

1.1 & 1.2: Training of farmers and cascade training & Establishment of support network and training in sustainable livelihoods

During Q1+Q2 in Sagalla, technical support visits have been made to fish-farmers once/month by POs. Technical support was also given by Fisheries Officers in charge of Voi Sub-County. The Project Technical Advisor met the President of TIST - The International Small Group and Tree Planting Programme and held discussions on how TIST could expand its activities to the Taita Taveta County to assist with Carbon Credits activity. Consequently 10 farmers travelled to Meru (22-27th October 2015) for a one week training course. TTWF is now a member of the country working group for PELUM. Skills on tree planting, conservation farming and carbon credit business were acquired by these farmers. The farmers have been applying the skills acquired in sensitising other farmers on tree planting in Sagalla and Taita.

During Q3 of Year 2 planting exercises are among the major activities undertaken with a total of 17,227 tree seedlings planted in both Sagalla and Taita. During this time 18,231 seedlings were being maintained in the nursery awaiting planting. In Q3 a three day fish farming training event was conducted for Angamizwa Jangwa Seedling group in Taita. The training was attended by 17 farmers (13 females and 4 males; see Annex 2 for attendance list). In Q3 two fish ponds in Sagalla were supported with new stock of mono-sex Tilapia fingerlings in the area totalling 1080 (see Annex 2b). One fish farming group in Sagalla harvested 26 kg of fish during Q3 with expected earnings of Kes 10,400 (about £72). All the harvest was sold to the local community due to high demand. In Q3 six days of training on sustainable agriculture (that incorporated

practicals on tree planting) was done for Tetekinda Self Help group in Sagalla. The training was attended by twenty seven farmers (see Annex 2c for attendance list). Group follow up visits were done to several groups both in Sagalla and Taita. In Taita 4 bee keeping groups were visited to monitor progress. The groups were; Sufi Nyuki Group (Ngerenyi), Merumbi Bee Keeping Group (Wuchichi), Ngolia Youth Group (Ngangao) and Tekida Nyuki Group (Chawia/Wusi). These groups were supported by DaBiCo (a member group of TTWF) through training and provision of beehives and bee kits.

- Tekida has 69 bee hives supplied by ICIPE and DaBiCo through the facilitation of TTWF. The group has access to honey processing equipment located in Ngerenyi, formerly an Agricultural Training Centre for farmers but converted to a university campus recently. They harvested 36.5kg (73 bottles) of honey in this quarter. TTWF will provide further support through replacement of honey harvesting gear and training.
- Sufi Nyuki Group (Ngerenyi) has 40 bee hives, 8 were colonised and 6 kg of honey was recently harvested by this group.
- Merumbi Bee Keeping Group (Wuchichi/Wesu) has 31 beehives in the apiaries, 14 were colonized and 8 absconded. The group reported to have harvested 3.5kg of honey in the recent past. The group was also issued with two bee kits.

Activities in Q3 on fish farming included stocking of fish ponds with mono-sex fingerlings of tilapia and follow up visits. The mono-sex fingerlings are sourced from the government fish breeding facility in Sagana run by the Ministry of Agriculture – State Department of Livestock and Fisheries (see Annex 2).

During Q4, follow up training on carbon credits for farmers (Taita 6 and Sagalla 4) was accompanied by three project staff (Basil Mashanga, Gilbay Obunga and Collins Mwakoi (an intern)). Skills on tree planting, conservation farming and carbon credit business were acquired by these farmers. The trained farmers have reached out to 196 other farmers who have been sensitised to TIST. Also in Q4, tree planting began towards the end of March with the onset of the long rainy season; Wundanyi Ghazal Group reported 5 fishponds from which they harvested 360kg (worth Kes 108,000 equivalent to £745) with majority of the fish consumed by the members and 36kg sold earning Kes 10,800 (≈£74.50). Bee keepers in Sagalla were supplied with 35 Langstroth bee hives (Annex 3) that have all been colonised. In Taita, Tekida reported for 70 beehives they harvested 417kg (350kg in 2015 + 67kg in 2016) earning Kes 291,900 (≈£2,013.10). Wananyuki with 40 beehives produced 12 kg earning Kes 8,400 (£57.93). Memrumbi with 40 bee hives produced 12 kg earning Kes 9,600 (£66.21). Ngolia 30 beehives produced 35 Kg earning Kes 28,000 (£193.10).

1.3 Training and support of women's groups in handicraft manufacture (and other livelihood options where appropriate) and marketing: Training in value-addition to handicrafts using beads was held from 24th-25th August 2015 in Wundanyi involving 24 trainees (14 females; 10 males). Trainees represented two handicraft groups (Sufi and Ngangao). Subsequently, 5 members received orders totalling Kshs 5200. In Q3 the Ndiwenyi Handicraft Group (20 members – 16 women and 4 men) was recruited into the project (see Annex 6). In Q4 a suitable value-addition trainer at reasonable cost was identified and the training is planned for April 2016. A total of 32 participants will be trained representing three groups (Sagalla 1; Taita 2). (see Annex 5). In addition, follow up visits were made during which the participants of the oncoming value-addition training was undertaken together with the group members.

In Q4 of Year 2, Mlilo Handicrafts group of Sagalla sold items worth Kes 17,700 (£122.10).

1.4 Socio-economic survey of household income: Following a pilot phase in January 2015, a total of 160 (Taita 100 and Sagalla 60) questionnaires were administered to 100 Taita and 60 Sagalla households from 7-15th July 2015. Preliminary findings show average baseline household income as Kshs 6000/month in Taita and Kshs 4,425/month in Sagalla.

Output 2

2.1 Participatory Forest Management Plans (PFMPs), Forest Management agreements, and Sub-Catchment Management Plans (SCMPs): In Q1+2 polygons for Iyale, Wesu, Mbili (IYAWEMBI) forest cluster, Susu, Ndiwenyi, Fururu (SUNDIFU) forest cluster and Sagalla

forest were created to build zonation maps for these areas; maps were inserted into the draft PFMPs. In Q3 these plans were then presented and adopted by the community for submission to KFS for approval. In Q4 the draft PFMP plans were submitted to KFS for approval after receiving comments from KFS. The 3 PFMPs are for Sagalla forest, Susu/Ndiwenyi/Fururu forest cluster and Iyale/Wesu/Mbili forest cluster.

2.2 Develop/approval/implement of Sub-Catchment Management Plans: Development of the SCMP for Sagalla and Voi river areas was completed during Q1+Q2. The planning meeting for the review of the Kishenyi SCMP and the review of the SCMP was undertaken in February 2016 (see Annex 8-10).

2.3 Formation of Community Forest Associations (CFAs) and Water Resource Users Associations (WRUAs): In Q1+2 the Water Resources Management Authority visited TTWF twice to discuss support for WRUAs and SCMPs. Three CFAs (IYAWEMBI, SUNDIFU, NGACOFA) were assisted (i.e. preparation of Articles of Association & filing application form) with their registration with Registrar of Societies in April 2015. In Q4 follow up was undertaken in March 2016 with the Registrar of Societies in the Attorney General's office in Nairobi. The application documents filed by the three CFAs were found to have errors and fresh letters (see Annex 11) of introduction from the Forest Manager Taita Taveta Forest Station had to be submitted among other documents.

2.4 Training of CFAs and WRUAs in governance and natural resource management: MVOSA WRUA capacity building was undertaken jointly with WRMA and TTWF/Project staff in Q1. In Q3 the planning review meeting for Kishenyi WRUA was carried out in preparation for review. In Q4 the Kishenyi WRUA capacity building was undertaken, followed by the review of the Kishenyi SCMP. This exercise was facilitated by staff from WRMA and TTWF. The participants included the three local administrators (Chiefs of Werugha, Wumingu and Mbale locations), government officers from KFS and the County Government of Taita Taveta.

Output 3

3.1 Training on DICE MSc programme: TTWF Technical Advisor James M. Mwamodenyi began the DICE MSc in Conservation Biology in September 2015. He has already completed his two taught terms and his research dissertation will be on "*Understanding the household dynamics influencing choice and adoption of livelihood options in rural households in Taita hills, Kenya*" (see Annex 15).

3.4 Kenyan Student Research Fund: The first MSc student (Vincent Nzau; *Animal Ecology programme*) from Kenyatta University awarded a research grant successfully completed his fieldwork. The second student (Gabriel Maragia Meme) developed his project proposal "Distribution, Abundance and Interspecific Interactions of *Sancus aequatorius* (Taita Shrew), in Sagala Forest, Taita Hills, Kenya" (Annex 13) and has been awarded the grant to being his fieldwork (Annex 13-14a).

3.2 & 3.5 Training of 1 TTWF employee on ZSL EDGE Fellowship: In Q1+2 two ZSL staff visited the EDGE Fellows project in July/August 2015. Local POs were also trained in use of GPS and application of qGIS by Chris Gordon of ZSL, these skills are already being used for analysis of spatial data by the field team. In Q3 the Sagalla caecilian survey data collection was done involving a total of 50 new grids. Due to the unexpected resignation of the initial EDGE Fellow, the completion of the EDGE Fellowship has been delayed; however, a suitable replacement (Basil, PO) has been identified and has now taken over the EDGE Fellowship and is undertaking to complete the EDGE fellowship research project on the Sagalla caecilian.

3.6 Training and involvement of community in biodiversity conservation: Common bird monitoring was carried out in Ngangao, Iyale, Fururu and Chawia forests in August 2015 by 5 participants. A total of 21 species and 215 individual birds were sighted including 1 Taita thrush sighted in Ngangao forest and 4 Taita apalis sighted in Vuria forest. Poor weather hindered visibility during the August monitoring (local community members) took part in the monitoring. Threat/disturbance monitoring was also done within the same transects in the four forest fragments. Threats observed included logging, human intrusion, firewood collection and fire, grass cutting, human intrusion and grazing. Another Common bird monitoring was undertaken

(17 & 24th February 2016) on two transects Makandenyi-Kishenyi and Wundanyi-Kungu where 38 birds species were identified. This was undertaken by 2 staff and 7 local community members from the Site Support Group (Annex 15a).

3.7 Implementation of CEPA strategy: In Q1+2 several CEPA strategy activities were implemented including the participation of Project Officers in public meetings organised by community Chiefs and Assistant Chiefs to create awareness on environmental conservation and on the project activities. A draft CEPA strategy was produced with input from ZSL staff following their visit to TTWF in August 2015.

In Q3 the CEPA strategy was circulated and implemented at the project level. CEPA activities have been delayed somewhat by the resignation of Dawson Mwanyumba. However, during Q3 and Q4 the activities have included;

- (i) **3 public sensitization meetings:** on the value of Taita ecosystems and community benefits of integrating sustainable livelihood activities to biodiversity conservation were held. During the meetings, the community was encouraged to ensure that the forest habitats for Taita apalis and Taita thrush (endemic birds to Taita Hills) were protected against frequent fires and other disturbances associated with human beings. The first meeting was held at Mreshini (Ngerenyi) (see Annex 17) where 117 community members attended (74 females and 43 males). The second one was at Macha area where 100 people (64 females & 36 males) attended. The third one was at Kungu village attended by 16 community members (10 females and 4 males) attended. In total, 233 community members within the forest connectivity corridor were reached out during the three public meetings (no attendance records available because it was a public meeting). In response to these sensitization meetings, some of the community members took the initiative of planting indigenous seedlings on their farms to ensure forest connectivity. A total of 2,190 seedlings were planted on the individual farms.
- (ii) **School outreach:** 9 environmental clubs from 9 schools were involved; Iyale primary, St. Mary's High School, Kitumbi primary, Ngangao Secondary, Mazola primary, Kidaya Saghaighu primary, Kungu primary, Vichwala primary and Kimangachugu primary school. Dormant environmental clubs were strengthened through election of new officials. The clubs were also assisted in establishing tree nurseries where none existed. The clubs also assisted in planting a total of 2,678 Indigenous seedlings during October/November rains within their school compounds (see Annex 17). 30 pupils/students from the Ngangao secondary & Kitumbi primary schools were involved in an educational/environmental trip to Wildlife Works where they were lectured on REDD+ project (climate change and carbon trade); its operation and importance in conservation, Eco-friendly activities i.e. charcoal bricks making and green house project. This involved 20 students (10 boys & 10 girls) from Ngangao Secondary and 10 pupils (4 boys & 6 girls) from Kitumbi primary school. In total 560 pupils/students were involved in school outreach program in 2015 (270 females & 290 males).
- (iii) **Communication and publicity:** Several tools were used to create awareness among the public about the Taita Hills and its biodiversity. Inadequate awareness was noted as one of the challenges in biodiversity conservation during the development of Species Action plans. The following information dissemination activities were undertaken;
 - a. (a) Two articles were published in Kenya Birding, a Nature Kenya magazine that is distributed to over 1000 members and in the UK Bird fair in August 2015. The articles are on Taita apalis research work and how to secure the declining populations (Annex 18 shows article in Kenya Birding Issue Number 9).
 - b. **Nature Kenya initiated a campaign** to create awareness about Taita apalis and produced a factsheet, an online campaign in Nature Kenya website and a Stand up Banner (annex vi Taita apalis factsheet; annex vii standup banner Taita apalis Poster) 1 article was published in the East African - a regional newspaper, to educate the public and hopefully raise funds to the implementation of the Taita Apalis Species Action Plan (see Annex 19; *The race for Taita apalis* is on <http://bit.ly/1KL2BVh>)

- c. **A 2016 calendar** on coastal forest (Taita Hill, Dakatcha and Arabuko Sokoke) with high resolution photos of globally important birds and conservation messages. The calendar has been distributed to the Taita Community groups and stakeholders (see Annex 19b).
- d. **A Facebook page** was opened www.facebook.ttforum giving updates on activities as they happen and reminding visitors on important issues such as tree planting with the upcoming rains. Posting of articles and photographs has continued and the traffic is building up gradually (Annex 20).
- e. **School Outreach:** Environmental awareness was undertaken among the schools in Taita including involvement in World Wetlands Day (6th February 2016) which was commemorated at Kitumbi Secondary School located on the edge of Ngangao forest. Activities included bird counts, bringing together 84 people (14 adults + 63 students + 3 staff) (Annex 21).

Output 4

Species Action Plans (SAPs) began to be developed during Q1+Q2 for the three Taita endemics (Taita Thrush, Taita Apalis and Sagalla Caecilian) under the leadership of Nature Kenya. Surveys of the occurrence of the Sagalla caecilian were undertaken by PO Mr. Mwanyumba as part of his EDGE Fellowship project, revealing their presence in 75% of the previously surveyed areas. These SAPs were reviewed by the Kenya Wildlife Service (KWS) to ensure they meet SAP requirements. KWS has prepared the Preface and Foreword for each of the documents. The Sagalla caecilian SAP will further be reviewed after the ongoing caecilian survey work has been completed and data analysed before publication. During Q3 Sagalla caecilian survey data collection was ongoing. The data will help enrich the draft Sagalla caecilian SAP further when data collection and analysis is completed. The field surveys were delayed because of the resignation of Mr Dawson Mwanyumba. However, this work has now been picked up by Mr Basil Lewela with assistance from ZSL's Kenya in-country officer Chris Gordon. In Q4 the Species Actions Plans were completed and approved for implementation by the Kenya Wildlife Service and are awaiting publication (Annex 22 shows the Caecilian SAP; Annex 23 shows the ZSL Sagalla caecilian Field Manual produced by the project).

Output 5

5.1 Development of seedling nurseries involving locally-led community groups & 5.2 Maintenance of seedling: Taita: Six tree nurseries, Chawia (Chawia Environment Committee), Iyale (Angamiza, Msidunyi, Sere community groups), Wesu (Changamoto) and Fururu (Dogholonyi) are in operation. The tree seedlings being raised are mainly indigenous tree species – *Prunus africana*, *Milletia oblata* sp. *teitensis*, *Albizia gummifera*. In Sagalla, partnership with Shauri Moyo Community Group in a nursery located in Kishamba/Ngolia area together with a private farmer is in place. By the end of June 2015, 40,857 seedlings had been planted in the degraded parts of the forests, with 20,500 tree seedlings ready for planting in the next coming rainy season and an extra 5,782 pricked in in May 2015. 4,700 tree seedlings were planted. The support of community group nurseries has been on-going in both Taita and Sagalla through regular follow-ups by POs. In addition to technical assistance, support has included repair or water infrastructure such as taps to deliver water and provision of plastic tanks. There are now 42,466 tree seedlings (Wundanyi 35,466 and Sagalla 7,000) ready for planting in the next rainy season – Oct/Nov.

5.1 Development of seedling nursery(ies) involving locally-led community groups: The support of community group nurseries has been on-going in both Taita and Sagalla through regular follow-ups by the field project officers. Most of the community groups and farmers who had seedlings benefited from the project because their seedling were bought and planted.

5.2 Maintenance of seedling: Potting for and pricking out of 50,000 tree seedlings done in preparation for the next planting season in 2016.

5.2 Native tree seedlings and saplings planted and maintained in Dawida Massif and Sagalla Hill

Tree planting kicked off in March with the planting of 1051 tree seedlings in Kimangachu Primary School in Taita with the onset of the rainy season (Annex 16)

5.2 Development of seedling nursery(ies) involving locally-led community groups: The support of community group nurseries has been on-going in both Taita and Sagalla through regular follow-ups by the field project officers and supply of materials such as polytubes. Currently, there are over 28,500 seedlings (Taita 18,500; Sagalla 10,000) within the TTWF nurseries and many more (>100,000) seedlings among the community nurseries in both sites.

Maintenance of seedling: Potting for and pricking out of over 35,000 tree seedlings done in preparation for the next planting season in mid-October-December 2016.

3.2 Progress towards project outputs

Output 1	Progress in 2015/16 (12 months since 1st April 2015)
<p>Existing resource-based livelihoods diversified, to potentially include forest restoration, carbon-credits, fish-farming, handicrafts, bee-keeping, butterfly-farming, to benefit at least 300 households by end of Year 3.</p> <p>Indicator 1: Average annual income of participating households increased by at least 30% from a baseline of KSh 72,000 per annum (2014) and diversified through inclusion of up to 6 additional sustainable alternative livelihood options by Year 3.</p>	<p>14 fishponds were set up during Year-2, bringing the total fishponds set up during the project to 17 plus 6 existing fishponds that have been enhanced by project support (see Annex 2).</p> <p>53 farmers trained in fish-farming during Year-2, bringing the total to 53 during the project (Annex 2 shows the attendance list).</p> <p>42 farmers have been trained in bee-keeping, plus an additional 35 have received advice delivered during project activities (see Annex 3 showing distribution documentation).</p> <p>13 farmers trained in TIST during Year-2, bringing total farmers trained during project to 13, plus an additional 3 staff trained and 727 farmers sensitised (Annex 4 shows report on TIST training event).</p> <p>2 handicraft training workshops in handicraft production were run during Year-2 (totalling 66 persons), bringing the total number of workshops held to 3 (66 persons) (Annex 5 shows handicraft training programme schedule).</p> <p>5 handicraft groups developed during Year-2, bringing the total number to 6 during the project (Annex 6 shows the Ndiwenyi handicraft group).</p>

Output 2	Progress in 2015/16 (12 months since 1st April 2015)
<p>Output 2: Participatory Forest Management Plans developed (2 in Dawida Massif; 1 in Sagalla Hill) and approved and implemented. Forest Management Agreements produced and signed by KFS. Respective Community Forest Associations</p>	<p>3 PFMPs have been developed and approved by KFS by end of Year 2 for Sagalla forest, Susu/Ndiwenyi/Fururu forest cluster and Iyale/Wesu/Mbili forest cluster, bringing the total number of PFMPs to 3 during the project (see Annex 7a-c showing the PFMP attendance/documents).</p> <p>3 CFAs have been developed (associated with each of the PFMPs) and are in the process of being registered (see Annex 11 for letters to The Registrar of Societies; Annex 11a-c shows the certificates).</p> <p>2 SCMPs were developed in Year 2, bringing the total SCMPs to</p>

<p>formed and registered. Sub-Catchment Management Plans developed (2 in Dawida Massif; 1 in Sagalla Hill). Respective Water Resource Users Associations formed and registered.</p> <p>Indicator 2 Management of forest and catchment area improved through preparation of strategic plans (finalised by end of Yr-2) in partnership with community associations.</p>	<p>2 (Annex 8 shows Kishenvi meeting minutes, Annex 9 shows attendance, Annex 10 shows Kishenvi SCMP). Discussions held with WRMA Athi Catchment office indicated that it would be more cost effective to handle 2 SCMPs so that a little more investment can be made in capacity building of the WRUAs to enhance the potential for implementation.</p> <p>2 WRUAs (associated with each of the SCMPs) were developed in Year 2 (Annex 12a-b shows the attendance and the Capacity-building report for 1 WRUA; the 2nd WRUA documents are duplicated because WRUAs use standard training documents/procedures).</p>
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<p>Output 3</p> <p>Output 3: 1x MSc completed by Year 3. 1x 2-year EDGE Fellowship completed by Year 3. Up to 4x Kenyan Student Research Fund projects completed by end Yr 3. 2+ TTWF staff trained on ZSL Conservation Tools course. CEPA strategy developed and implemented by end Year 2.</p> <p>Indicator 3: Generation of knowledge and improved technical expertise in biodiversity conservation among local communities and TTWF (at least 4 people with increased qualifications and experience)</p>	<p><u>Progress in 2015/16 (12 months since 1st April 2015)</u></p> <p>1 local Kenyan has embarked on a taught MSc in Conservation Biology at the University of Kent (Annex 15a-c shows MSc student James Mwang'ombe's supporting letters for his attendance, his current MSc research project proposal and his offer letter from Kent [Annex 15i]).</p> <p>2 Kenyan students have been supported from the project's Kenyan Student Research Fund during Year 2 (Annex 13 & 14 shows award letters and research proposal).</p> <p>1 local Kenyan undergoing ZSL EDGE Fellowship (Project Officer Basil Lewela, following resignation of previous EDGE Fellow Mr Dawson Mwanyumba; see Annex 16).</p> <p>2 TTWF staff have been trained by ZSL (1 on ZSL Conservation Tools course (Mr Dawson Mwanyumba; 1 <i>in situ</i> by ZSL in-country staff (Mr Basil Lewela Mashanga; training materials are available for other TTWF staff).</p> <p>3 TTWF staff were trained in GIS by ZSL (Annex 16a shows the certificates).</p> <p>1 CEPA Strategy has been developed and is being implemented (Annex 12c shows the CEPA Strategy document reviewed by ZSL; Annex 17 shows planting activities; Annex 19-21 show CPA activities).</p>
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<p>Output 4</p> <p>Output 4: Conservation strategies for Taita thrush, Taita apalis, Sagalla caecilian developed and initiated by</p>	<p><u>Progress in 2015/16 (12 months since 1st April 2015)</u></p> <p>1 Species Action Plan updated for the Sagalla caecilian (Annex 22 shows the Caecilian SAP 2015-2020; Annex 23 shows the field manual developed by the project).</p> <p>2 Species Action Plans for the Taita thrush and Taita apalis</p>
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<p>Year 3 of project. Research projects by Kenyan students on key endemic species incorporated into existing SAPs (by Year 3 of project).</p>	<p>updated and awaiting publication (Annex 22a shows the SAP final document for the two bird species).</p> <p>Indicator 4: Development and implementation of conservation strategies for three Critically- Endangered species through improved knowledge, and implementation of Species Action Plans (SAPs) for Critically- Endangered Taita thrush, Taita apalis and Sagalla caecilian, and contributions to SAPs for other threatened Taita endemics.</p>
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<p>Indicator 5 Output 5: Indigenous forest habitat restored through planting and maintenance of 500,000 native seedlings and tree saplings (450,000 in Dawida Massif; 50,000 on Sagalla Hill).</p>	<p>Progress in 2015/16 (12 months since 1st April 2015) 63,885 seedlings planted in Year 2. TOTAL for the project=170,185 seedlings planted. As mentioned in our Year 1 Annual report, the price of purchasing seedlings has increased from 10-12.5 Ksh to 20Ksh per seedling. Therefore, the number of seedlings that the project can purchase is now reduced. Assuming the price does not continue to increase (there is an election in 2017 we hope to purchase and planting of a total of 230,000 to 250,000 seedlings.</p> <p>Indicator 5: Native tree cover and forest connectivity in Dawida Massif and Sagalla Hill enhanced by end of Year 3; measured by appropriate spatial analysis.</p>
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3.3 Progress towards the project Outcome

See above section.

Following a pilot phase in January 2015, a total of 160 (Taita 100 and Sagalla 60) questionnaires were administered to 100 Taita and 60 Sagalla households from 7-15th July 2015. Preliminary findings show average baseline household income as Kshs 6,000/month in Taita and Kshs 4,425/month in Sagalla. This baseline data will be incorporated into the MSc research project that is due to be carried out in the next few months by Mr James Mwangombe, the University of Kent Kenyan MSc student at DICE.

3.4 Monitoring of assumptions

Indicator 1: *The new government remains committed to community empowerment and participation in natural resource management.*

The project has no reason to doubt that this assumption does not continue to hold true. This assumption assumes no radical change in government policy; there is due to be an election in 2017.

Indicator 2: *Target communities will continue to be open and positive in working with the project.*

The project has no reason to doubt that this assumption does not continue to hold true.

Indicator 3: *Minimal staff changes within the life of the project. Availability of suitably qualified local community members willing to undertake studies on biodiversity conservation.*

The project has no reason to doubt that this assumption does not continue to hold true. However, see below regarding resignation of Project Officer Mr Dawson Mwanyumba.

Indicator 4: *Accessibility of up-to-date data from existing/previous Species Action Plans between all partners.*

The project has no reason to doubt that this assumption does not continue to hold true.

Indicator 5: Weather conditions permit effective restoration of indigenous forest following tree planting.

The project has no reason to doubt that this assumption, although the project is fully aware of the variable rains (flagged by 3-monthly internal reports to the Project Steering Group which forms part of the Project's M&E) and the implications that this may have on planting progress.

3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

We envisage that our activities (see Section 3 above) to diversify livelihoods with sustainable alternatives will reduce poverty (as per our stated Outcome). The socio-economic surveys that will be carried out as part of Mr Mwangombe's MSc research project in the coming few months will provide data on household income that we expect to inform on progress towards our Outcome.

4. Project support to the Conventions, Treaties or Agreements

The project is on course to support the CBD through production of updated SAPs for three critically-endangered species, training (e.g. via supporting a Kenyan on the ZSL EDGE Fellowship programme) and capacity-building (e.g. via provision of a MSc scholarship to a Kenyan forestry employee, Mr James Mwang'ombe).

5. Project support to Gender equity issues

The project is working to address gender equality via the training of women's handicraft groups in value-adding work on handicraft production (see Annex 5, 5a, and 6).

6. Monitoring and evaluation

The Project leader receives 3-monthly reports produced by Mr Mwang'ombe (KFS) in consultation with the Project Manager, POs and TTWF/NK representatives; these 3-monthly reports are circulated to the Project Steering Group consisting of representatives from KFS, TTWF, NK, ZSL, IIED, DICE.

Challenges encountered which have/may have impact on progress:

(i) The resignation of Project Officer Mr Dawson Mwanyumba in February 2016 (due to health, and circumstantial reasons) meant that roles and tasks within the project team had to be reassigned. The Project Steering Group became aware of a number of activities which Mr Mwanyumba was understood to have been undertaking but which it turned out were less advanced than previously thought; consequently a number of activities are somewhat behind schedule (e.g. the Sagalla caecilian field surveys of historical sites; some CEPA strategy activities); however, the PSG's reallocation of tasks means that we are hopeful that these activities will be back on schedule soon. The changes in staff and reallocation of tasks/responsibilities has meant that the regular PSG skype meetings have become important and valuable.

(ii) Weather: The weather forecast for October-December 2015 period had indicated there was likely to be heavy rains due to the El Niño phenomenon, however, this did not turn out to be within the Taita Taveta County as expected. The rains began later than normal in November instead of September and did not persist longer than a month. However, surprise showers were received in January and February 2016. Although advantage of these unexpected showers was taken of, however, due care was taken keeping in mind the uncertainty of their persistence. This therefore reduced the number of seedlings that could be planted since the period was short and at the same time for fear of loss/death of planted seedlings after the rains stopped. This also meant that the project could not take advantage of engaging schools for planting since school holidays began end of November 2015.

(iii) Slow progress on some areas of activity: SCMPs (Sub-Catchment Management Plans): There has been a slower-than-expected rate of progress, as a consequence of issues experienced (and reported) in Year 1.

(iv) Increase in cost of seedlings: As described elsewhere in this report, the cost of purchasing seedlings has almost doubled due to the changing economy in Kenya, and therefore the number of seedlings that the project is able to purchase has had to be reduced. It is not expected to adversely impact on the success of the project.

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

N/A. Our projects year 1 annual report was given a general assessment score of 2, with no specific comments to be followed up.

8. Sustainability and legacy

A number of newsletter-style publications have been produced (see Annex 18 for an example) that describe project activities. A Facebook page has been set up (see Annex 20).

9. Darwin Identity

The Darwin Initiative logo has featured prominently in numerous documents such as Species Action Plans (see Annex 22-23).

10. Project Expenditure

Table 1 Project expenditure during the reporting period (1 April 2015 – 31 March 2016)

Project spend (indicative) since last annual report	2015/16 Grant (£)	2015/16 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				Balance:
Consultancy costs				Balance:
Overhead Costs				Balance:
Travel and subsistence				Balance:
Operating Costs				Balance:
Others (see below)				Balance:
TOTAL				

Highlight any agreed changes to the budget and **fully** explain any variation in expenditure where this is +/- 10% of the budget. Have these changes been discussed with and approved by Darwin?

Annex (i): Report of progress and achievements against Logical Framework for Financial Year 2015-2016

Project summary	Measurable Indicators	Progress and Achievements April 2015 - March 2016	Actions required/planned for next period
<p>Impact</p> <p>Diversified livelihoods linked to sustainable natural resource management, achieved by marrying poverty-alleviation and biodiversity conservation. Enhanced land-management practices, which lead to improved ecosystem services, and which provide a model for use beyond project area.</p>		See section 3	
<p>Outcome</p> <p>Capacity-building and diversified livelihoods in Kenya will result in a transition from unsustainable subsistence agriculture to sustainable livelihoods. This will yield empowered communities managing their natural resources effectively and improved biodiversity conservation.</p>	<ol style="list-style-type: none"> 1. Average annual income of participating households increased by at least 30% from a baseline of KSh 72,000 per annum (2014) and diversified through inclusion of up to 6 additional sustainable alternative livelihood options by Year 3. 2. Management of forest and catchment area improved through preparation of strategic plans (finalised by end of Year 2 of project) in partnership with community associations. 3. Generation of knowledge and improved technical expertise in biodiversity conservation among local communities and TTWF (at least 4 people with increased qualifications and experience). 4. Development and implementation of conservation strategies for three Critically-Endangered species through improved knowledge, and implementation of Species Action Plans (SAPs) for Critically-Endangered Taita thrush, Taita apalis and Sagalla caecilian, and contributions to SAPs for other threatened Taita endemics. 5. Native tree cover and forest connectivity in 	See section 3	See full logframe

	Dawida Massif and Sagalla Hill enhanced by end of Year 3; measured by appropriate spatial analysis.		
<p>Output 1.</p> <p>Existing resource-based livelihoods diversified, to potentially include forest restoration, carbon-credits, fish-farming, handicrafts, bee-keeping, butterfly-farming, to benefit at least 300 households by end of Year 3.</p> <p><u>Forest restoration:</u> Train 250-300 farmers in tree nursery devel.¹.</p> <p><u>Sustainable agriculture:</u> Train 250-300 farmers in suitable tech.⁵.</p> <p><u>Fish-farming:</u> Establish and maintain 20-25 ponds.</p> <p><u>Handicrafts:</u> Train 4-5 women's/mixed groups in manufacture.</p> <p><u>Bee-keeping:</u> Establish 4-5 additional bee-keeping groups.</p> <p><u>Butterfly-farming:</u> Train 10-15 farmers in pupae-prod¹/harvesting.</p> <p><u>Carbon credits:</u> Provide tech/TIST support to 250-300 farmers.</p> <p><u>Cascade-training:</u> Train 3+ TTWF staff in sustainable livelihoods.</p>	<p><u>Measure-1:</u> <u>Farming techniques:</u> # TTWF employees trained in sustainable livelihood initiatives. # farmers trained in and implementing appropriate farming techniques. # farmers attending sustainable farming workshops.</p> <p><u>Fish-farming:</u> # ponds established and maintained (measured via periodic assessment). <u>Handicrafts:</u> # women's/mixed-gender groups trained, producing & selling handicrafts. # women attending handicraft groups. # additional women's groups. # handicrafts produced and sold.</p> <p><u>Bee-keeping:</u> # newly-formed bee-keeping groups. # hives & training sessions provided. Kgs honey produced.</p> <p><u>Butterfly-farming:</u> # farmers trained in butterfly pupae-production/harvesting. # successfully harvesting and selling pupae.</p> <p><u>Carbon-credits scheme (TIST):</u> # farmers recruited/supported in the TIST scheme. # seedlings produced and sold.</p> <p><u>Measure-2:</u> Change in knowledge/attitude as measured by socio-economic surveys. # trained trainers delivering cascade training.</p>	<p><u>General progress:</u> see Section 3 above under 'Project progress'.</p> <p>14 fishponds were set up during Year-2, bringing the total fishponds set up during the project to 17 plus 6 existing fishponds that have been enhanced by project support (see Annex 2).</p> <p>53 farmers trained in fish-farming during Year-2, bringing the total to 53 during the project (Annex 2 shows the attendance list).</p> <p>42 farmers have been trained in bee-keeping, plus an additional 35 have received advice delivered during project activities (see Annex 3 showing distribution documentation).</p> <p>13 farmers trained in TIST during Year-2, bringing total farmers trained during project to 13, plus an additional 3 staff trained and 727 farmers sensitised (Annex 4 shows report on TIST training event).</p> <p>2 handicraft training workshops in handicraft production were run during Year-2 (totalling 66 persons), bringing the total number of workshops held to 3 (66 persons) (Annex 5 shows handicraft training programme schedule).</p> <p>5 handicraft groups developed during Year-2, bringing the total number to 6 during the project (Annex 6 shows the Ndiwenyi handicraft group).</p>	
Activity 1.1 Training of farmers and cascade training		53 farmers trained in fish-farming during Year-2, bringing the total to 53 during the project (Annex 2 shows the attendance list).	

Activity 1.2 Establishment of support network and training in sustainable livelihood techniques		53 farmers trained in fish-farming during Year-2, bringing the total to 53 during the project (Annex 2 shows the attendance list).
Activity 1.3 Training/support of women's groups in handicrafts and marketing, and introduction of other livelihood options		2 handicraft training workshops in handicraft production were run during Year-2 (totalling 66 persons), bringing the total number of workshops held to 3 (66 persons) (Annex 5 shows handicraft training programme schedule).
Activity 1.4 Socio-economic survey of household income, uptake of sustainable farming practices and livelihoods		Socio-economic survey completed to gather baseline information. Kenyan DICE MSc student Mr Mwangombe will conduct further surveys and analysis in May-June 2016 to examine uptake of sustainable farming practices.
<p>Output 2. Participatory Forest Management Plans developed (2 in Dawida Massif; 1 in Sagalla Hill) and approved and implemented.</p> <p>Forest Management Agreements produced and signed by KFS.</p> <p>Respective Community Forest Associations formed and registered.</p> <p>Sub-Catchment Management Plans developed (2 in Dawida Massif; 1 in Sagalla Hill).</p> <p>Respective Water Resource Users Associations formed and registered.</p>	<p><u>Measure-1:</u></p> <p># Participatory Forest Management Plans approved and implemented.</p> <p><u>Measure-2:</u></p> <p># Forest Management Agreements registered.</p> <p># Community Forest Associations; approval by KFS.</p> <p><u>Measure-3:</u></p> <p># Sub-Catchment Management Plans prepared, registered and approved by Water Resources Management Authority (WRMA).</p> <p># Water Resource Users Associations formed.</p>	<p><u>General progress:</u> see Section 3 above under '<i>Project progress</i>'.</p> <p><u>Appropriateness of Indicators:</u> The Indicators appear to be satisfactory.</p>
Activity 2.1. Participatory Forest Management Plans (PFMPs), Forest Management agreements, and Sub-Catchment Management Plans (SCMPs)		3 PFMPs have been developed and approved by KFS by end of Year 2 for Sagalla forest, Susu/Ndiwenyi/Fururu forest cluster and Iyale/Wesu/Mbili forest cluster, bringing the total number of PFMPs to 3 during the project
Activity 2.2. Implementation of PFMPs and SCMPs		

<p>Activity 2.3 Formation of Community Forest Associations and Water Resource Users Associations</p>	<p>(see Annex 7a-c showing the PFMP attendance/documents).</p> <p>3 CFAs have been developed (associated with each of the PFMPs) and are in the process of being registered (see Annex 11 for letters to The Registrar of Societies; Annex 11a-c shows the certificates).</p> <p>2 SCMPs were developed in Year 2, bringing the total SCMPs to 2 (Annex 8 shows Kishenvi meeting minutes, Annex 9 shows attendance, Annex 10 shows Kishenvi SCMP). Discussions held with WRMA Athi Catchment office indicated that it would be more cost effective to handle 2 SCMPs so that a little more investment can be made in capacity building of the WRUAs to enhance the potential for implementation.</p> <p>2 WRUAs (associated with each of the SCMPs) were developed in Year 2 (Annex 12a-b shows the attendance and the Capacity-building report for 1 WRUA; the 2nd WRUA documents are duplicated because WRUAs use standard training documents/procedures).</p>
<p>Activity 2.4 Training of CFAs and WRUAs in governance and natural resource management</p>	<p>See Annex 8-11c showing planning meeting minutes, participation list, certificates.</p>
<p>Output 3. 1x MSc completed by Year 3. 1x 2-year EDGE Fellowship completed by Year 3. Up to 4x Kenyan Student Research Fund projects completed by end Yr 3. 2+ TTWF staff trained on ZSL Conservation Tools course. CEPA strategy developed and implemented by end Year 2.</p>	<p><u>Measure-1:</u> Attendance records of 2+ TTWF staff on ZSL Cons Tools course. Attendance records of 1+ TTWF staff on ZSL Cons Leadership course. EDGE Fellow reports and blogs. # local community members trained/involved in biodiversity conservation and monitoring activities (via CEPA strategy reports).</p> <p><u>Measure-2:</u> MSc attendance records and MSc dissertation by 1 TTWF staff.</p> <p><u>Measure-3:</u> # applications received for funding via Kenyan Student Research Fund.</p>
<p>Activity 3.1 Training on DICE MSc programme</p>	<p>1 local Kenyan has embarked on a taught MSc in Conservation Biology at the University of Kent (Annex 15a-c shows MSc student James</p>

		Mwang'ombe's supporting letters for his attendance, his current MSc research project proposal and his offer letter from Kent [Annex 15i]).
Activity 3.2 Training on ZSL Cons ⁿ Tools course (Kenya)		2 TTWF staff have been trained by ZSL (1 on ZSL Conservation Tools course (Mr Dawson Mwanyumba; 1 in situ by ZSL in-country staff (Mr Basil Lewela Mashanga).
Activity 3.4 Admin/activities of Kenya Student Research Fund		2 Kenyan students have been supported from the project's Kenyan Student Research Fund during Year 2 (Annex 13 & 14 shows award letters and research proposal).
Activity 3.5 Training of 1 TTWF employee on ZSL EDGE Fellowship		1 local Kenyan undergoing ZSL EDGE Fellowship (Project Officer Basil Lewela, following resignation of previous EDGE Fellow Mr Dawson Mwanyumba; see Annex 16).
Activity 3.6 Training and involvement of community in biodiversity conservation		3 TTWF staff were trained in GIS by ZSL (Annex 16a shows the certificates).
Activity 3.7 Implementation of CEPA strategy		1 CEPA Strategy has been developed and is being implemented (Annex 12c shows the CEPA Strategy document reviewed by ZSL; Annex 17 shows planting activities; Annex 19-21 show CPA activities).
Activity 3.8 Survey to gauge impact of CEPA strategy		
<p>Output 4. Conservation strategies for Taita thrush, Taita apalis, Sagalla caecilian developed and initiated by Year 3 of project.</p> <p>Research projects by Kenyan students on key endemic species incorporated into existing SAPs (by Year 3 of project).</p>	<p><u>Measure-1:</u> # locally-led, multi-authored publications to peer-reviewed journals by end of the project.</p> <p><u>Measure-2:</u> Conservation strategies and biodiversity monitoring and evaluation protocols developed for Thrush, apalis and caecilian.</p> <p><u>Measure-3:</u> Species Action Plans developed or updated for Taita thrush, Taita apalis and Sagalla caecilian</p>	<p><u>General progress:</u> see Section 3 above under '<i>Project progress</i>'.</p> <p><u>Appropriateness of Indicators:</u> The Indicators appear to be satisfactory.</p>

Activity 4.1 Analysis of project data and writing of publications	The two student projects supported by the Kenyan Student Research Fund are likely to produce relevant MSc theses. The DICE MSc research project by Mr Mwangombe will also likely produce a publishable manuscript.
Activity 4.2 Development and updating of Species Action Plans	<p>1 Species Action Plan updated for the Sagalla caecilian (Annex 22 shows the Caecilian SAP 2015-2020; Annex 23 shows the field manual developed by the project).</p> <p>2 Species Action Plans, for the Taita thrush and Taita apalis, updated and awaiting publication (Annex 22a shows the SAP final document for the two bird species).</p>
Output 5. Indigenous forest habitat restored through planting and maintenance of 500,000 native seedlings and tree saplings (450,000 in Dawida Massif; 50,000 on Sagalla Hill).	<p><u>Measure-1:</u> # native tree seedlings and saplings planted and maintained in Dawida Massif and Sagalla Hill.</p> <p><u>Measure-2:</u> # existing and new community members involved in planting activities (to be measured biannually).</p> <p><u>Measure-3:</u> Measures of forest cover/connectivity through appropriate spatial analysis.</p>
Activity 5.1 Development of seedling nursery(ies) involving locally-led community groups	63,885 seedlings planted in Year 2.
Activity 5.2 Maintenance of seedlings	TOTAL for the project=170,185 seedlings planted.
Activity 5.3 Identification of planting sites enhancing forest connectivity	As mentioned in our Year 1 Annual report, the price of purchasing seedlings has increased from 10-12.5 Ksh to 20Ksh per seedling.
Activity 5.4 Planting of seedlings	Therefore, the number of seedlings that the project can purchase is now reduced. Assuming the price does not continue to increase (there is an election in 2017 we hope to purchase and planting of a total of 230,000 to 250,000 seedlings).
Activity 5.5 Maintenance of planted trees and monitoring of survival and growth	
Activity 5.6 GIS mapping of tree planting areas	At least 3 TTWF staff have been trained by ZSL this year in GIS in order to facilitate GIS mapping of project data (Annex 16a shows the GIS training certificates).

Annex (ii) Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<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>Outcome: Capacity-building and diversified livelihoods in Kenya will result in a transition from unsustainable subsistence agriculture to sustainable livelihoods. This will yield empowered communities managing their natural resources effectively and improved biodiversity conservation.</p>			
<p>Outputs:</p> <p>Output 1: Existing resource-based livelihoods diversified, to potentially include forest restoration, carbon-credits, fish-farming, handicrafts, bee-keeping, butterfly-farming, to benefit at least 300 households by end of Year 3.</p>	<p><u>Farming techniques:</u> # TTWF employees trained. # farmers trained in appropriate farming techniques. # farmers attending workshops. <u>Fish-farming:</u> # ponds established and maintained <u>Handicrafts:</u> # women's/mixed-gender groups trained, producing & selling handicrafts. # women attending handicraft groups. # additional women's groups. # handicrafts produced and sold. <u>Bee-keeping:</u> # newly-formed bee-keeping groups. # hives & training sessions provided. Kgs honey produced. <u>Butterfly-farming:</u> # farmers trained in butterfly pupae-production/harvesting. # successfully harvesting and selling pupae. <u>Carbon-credits scheme (TIST):</u> # farmers recruited/supported in the TIST scheme. # seedlings produced and sold.</p> <p>Change in knowledge/attitude as measured by socio-economic surveys. # trained trainers delivering cascade training.</p>	<p>1a. Section in Annual Project Report showing; # farmers trained in appropriate farming techniques; # women's/mixed gender groups; # new bee-keeping groups/hives established; # farmers trained in butterfly pupae-production; # recruited in TIST scheme; # TTWF staff trained in delivering sustainable livelihood training.</p> <p>Socio-economic survey reports. IIED case study report on this projects' use and impact of sustainable livelihoods.</p> <p>1b. Attendance records at women's community groups. Number of attendance sheets (1 per group). Reports on handicraft production/sales.</p> <p>1c. Attendance records of farmers at sustainable farming workshops. Socio-economic survey results in Annual Reports showing change in knowledge/attitude. Audit by TTWF and NK of sustainable farming techniques being adopted.</p> <p>Record in Annual Report of # new community members involved in planting activities.</p>	<p>Local farmers are willing and able to attend training in sustainable farming techniques and to adopt these techniques on a long-term basis. Women community members are sufficiently motivated to sign up to and attend activities and training in sustainable livelihoods and subsequently implement them (and are able to profit from them). Support and market links for development of livelihoods are available via local and international partner links.</p>
<p>Output 2: Participatory Forest Management Plans developed (2 in Dawida</p>	<p># Participatory Forest Management Plans approved and implemented.</p>	<p>Signed copies of Plans, Agreements, Association docs (& KFS approval where relevant) included as</p>	<p>Local community members and resource management agencies motivated to</p>

<p>Massif; 1 in Sagalla Hill) and approved and implemented. Forest Management Agreements produced and signed by KFS. Respective Community Forest Associations formed and registered. Sub-Catchment Management Plans developed (2 in Dawida Massif; 1 in Sagalla Hill). Respective Water Resource Users Associations formed and registered.</p>	<p># Forest Management Agreements registered. # respective Community Forest Associations; approval by KFS. # Sub-Catchment Management Plans prepared, registered and approved by Water Resources Management Authority (WRMA). # respective Water Resource Users Associations formed.</p>	<p>Appendices in Annual Project Reports. Water Resources Management Authority letter confirming approval of 3 Sub-catchment Management Plans.</p>	<p>establish and sign up to Plans, Agreements and Associations.</p>
<p>Output 3: 1x MSc completed by Year 3. 1x 2-year EDGE Fellowship completed by Year 3. Up to 4x Kenyan Student Research Fund projects completed by end Yr 3. 2+ TTWF staff trained on ZSL Conservation Tools course. CEPA strategy developed and implemented by end Year 2.</p>	<p>Attendance records of 2+ TTWF staff on ZSL Cons Tools course. Attendance records of 1+ TTWF staff on ZSL Cons Leadership course. EDGE Fellow reports and blogs. # local community members trained/involved in biodiversity conservation and monitoring activities (via CEPA strategy reports). MSc attendance records and MSc dissertation by 1 TTWF staff. # applications received for funding via Kenyan Student Research Fund.</p>	<p>ZSL Course Certificates to TTWF staff. EDGE Fellowship Certificate. ZSL pre/post-course knowledge assessments. CEPA strategy progress reports (e.g. detailing biodiversity monitoring groups and forest restoration actions). MSc degree certificate (or confirmation of marks from Kent). Award letters to successful Kenyan Student Research Fund candidates. Post-project reports by successful candidates.</p>	<p>Appropriate people will be identified to fill the Project Manager/Officer positions and that they will be retained for the project duration. Sufficient number of TTWF staff can be identified and have an appropriate background to undergo training on ZSL courses and DICE MSc programme. Local communities will be able to engage in activities associated with the CEPA strategy.</p>
<p>Output 4: Conservation strategies for Taita thrush, Taita apalis, Sagalla caecilian developed and initiated by Year 3 of project. Research projects by Kenyan students on key endemic species incorporated into existing</p>	<p># locally-led, multi-authored publications to peer-reviewed journals by end of the project. Conservation strategies and biodiversity monitoring and evaluation protocols developed for Thrush, apalis and caecilian. Species Action Plans developed or updated for Taita thrush, Taita apalis and Sagalla caecilian.</p>	<p>Publication submission documents confirming submission of three multi-authored manuscripts/articles. Draft conservation strategies, biodiversity monitoring protocols, habitat survey reports and developed/updated SAPs on thrush, apalis and caecilian submitted with annual reports.</p>	<p>Timely submission and peer-review of manuscripts submitted to journals for publication. Availability of SAPs to the project team.</p>

SAPs (by Year 3 of project).			
Output 5: Indigenous forest habitat restored through planting and maintenance of 500,000 native seedlings and tree saplings (450,000 in Dawida Massif; 50,000 on Sagalla Hill).	# native tree seedlings and saplings planted and maintained in Dawida Massif and Sagalla Hill. # existing and new community members involved in planting activities (to be measured biannually). Measures of forest cover/connectivity through appropriate spatial analysis.	Section in annual report detailing # native tree seedlings & # saplings planted (in Dawida and Sagalla), area covered. Section in annual report detailing # new community members involved in planting activities (both adult and school children). Maps showing new areas of planting activity and how they are connecting previously isolated forest fragments (guided by existing reforestation plans for Sagalla, and the “ <i>Least-cost forest connectivity model</i> ” for Dawida).	Provision of sufficient supply of seedlings (and sufficient survival of them) and that the supply at any one time keeps pace with the planting activities during the course of the project, to meet the target of 500,000 planted tree seedlings. Sufficient availability/willingness of community members for planting work.
Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)			
Activity 1.1	Training (and cascade-training) of farmers in sustainable farming practices and forest restoration methods.		
Activity 1.2	Establishing support networks/training in sustainable livelihoods (fish-farming; handicrafts; bee-keeping; butterfly-farming; carbon-credits).		
Activity 1.3	Training and support of women’s groups in handicraft manufacture (and other livelihood options where appropriate) and marketing.		
Activity 1.4	Socio-economic survey of (i) uptake of sustainable farming practices, (ii) livelihoods, (iii) household income.		
Activity 2.1	Develop/implement of Part.y Forest Plans & Forest Manag.t agreements.		
Activity 2.2	Develop/approval/implement of Sub-Catchment Management Plans.		
Activity 2.3	Develop/approval/implement of Community Forest Associations (CFAs) and Water Resource Users Associations (WRUAs).		
Activity 2.4	Training of CFAs and WRUAs in governance and resource management.		
Activity 3.1	Training of 1 TTWF staff on DICE MSc programme.		
Activity 3.2	Training of 2+ TTWF staff on ZSL Cons Tools course (Kenya).		
Activity 3.3	Training of 1+ TTWF staff on ZSL Cons Leadership training course (London).		
Activity 3.4	Administration of Kenyan Student Research Fund, facilitation of projects.		
Activity 3.5	Training of 1 TTWF staff on a 2-year ZSL EDGE Fellowship.		
Activity 3.6	Training and involvement of community in biodiversity conservation.		
Activity 3.7	Implementation of CEPA strategy.		
Activity 3.8	Survey to gauge impact of CEPA strategy.		
Activity 4.1	Analysis of project-generated data and writing of publications.		
Activity 4.2	Development and updating of SAPs for the thrush, apalis and caecilian.		
Activity 5.1	Development of seedling nursery(ies) involving locally-led community groups		
Activity 5.2	Maintenance of seedlings and their preparation for planting		
Activity 5.3	Surveys (for baseline data) to identify planting sites to enhance connectivity.		

- | | |
|--------------|---|
| Activity 5.4 | Planting of seedlings by community groups and members. |
| Activity 5.5 | Maintenance of planted trees and monitoring of survival and growth. |
| Activity 5.6 | GIS mapping of tree planting areas. |

Annex (iii) Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
Established codes								
3	GIS training by TTWF staff	male	Kenyan		2			
3	Taught MSc modules	male	Kenyan		1			
3	TTWF staff trained by ZSL	male	Kenyan		2			
4c	MSc students receiving financial support	1 m, 1 f	Kenyan		2			
3	PO undergoing EDGE Fellowship	male	Kenyan		1			
10	Caecilian field guide				1			
7	CEPA Strategy				1			
9	3 Species Action Plans				3			
9	3xPFMPs; 3xCFAs; 2xSCMPs; 2xWRUAs				10			
6a	See section 3.2 (53+42+13 farmers)				107			
14a	Handicraft workshops				2			

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
SAP for Taita apalis and Taita Thrush*	Publication/pdf	2015	Charles Musyoki et al.	Kenyan	Nature Kenya, KWS/KFS	Available online

SAP for Sagalla caecilian*	Publication/pdf	2015	Charles Musyoki et al.	Kenyan	Nature Kenya, KWS/KFS	Available online
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Annex 1-20+ Onwards – supplementary material (optional but encouraged as evidence of project achievement)

See associated documents that accompany this report, via the Dropbox link:

<https://www.dropbox.com/sh/s57epkeqjlmuxr1/AADdVPBZw6miA1A8A7X3Vvtya?dl=0>

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	
Is your report more than 10MB? 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.	
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.	
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.	