

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 about 10 pages in length, excluding annexes

Submission Deadline: 30 April

Darwin Project Information

Project Reference	20-011
Project Title	Community-based conservation and livelihoods development within Kenya's Boni-Dodori forest ecosystem
Host Country/ies	Kenya
Contract Holder Institution	WWF – Kenya
Partner institutions	KFS, KWS, ZSL
Darwin Grant Value	£297,500
Funder (DFID/Defra)	Defra
Start/end dates of project	April 2013 /March 2016
Reporting period (e.g., Apr 2015 – Mar 2016) and number (e.g., Annual Report 1, 2, 3)	Apr 2014 – Mar 2015 Annual Report 2
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1. Project Rationale

The Boni-Dodori coastal forest ecosystem in north-east Kenya contains a wealth of biodiversity, including important endemic and endangered species. Little is understood, however, about the biodiversity, the ecosystem services and associated opportunities for poverty reduction.

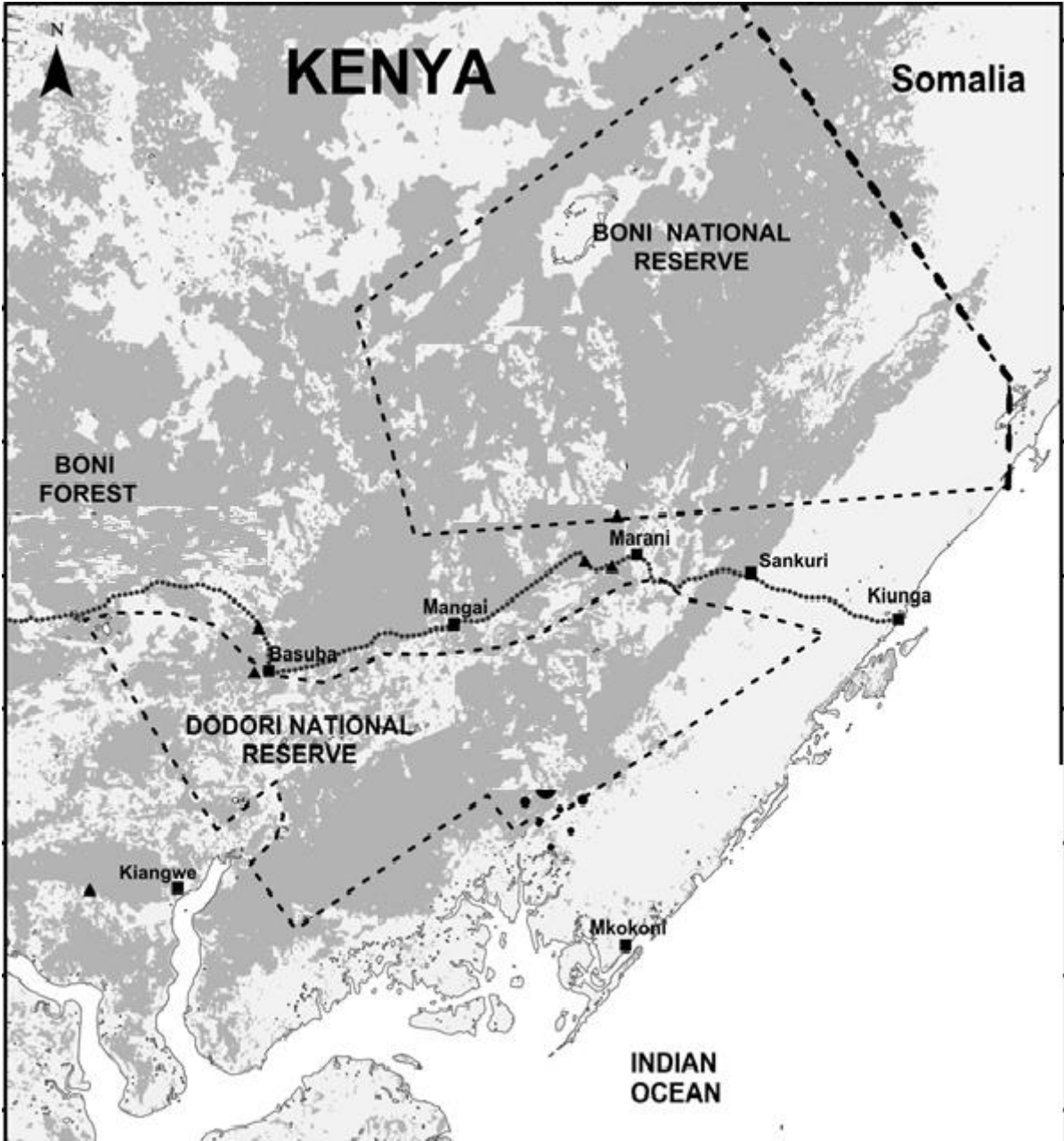
The Aweer are an indigenous community whose culture and livelihoods co-evolved with the forests. They were forcibly resettled in the 1960s and much of their forests gazetted in the 1970s as the Boni National Reserve and Dodori National Reserve respectively, which alienated their rights to the land and natural resources, and has undermined their culture, including traditional use of natural resources.

The Boni-Dodori forest landscape contains a vast expanse of forest much remains un-protected as well as two large areas which are officially protected, being designated as National Reserves managed by Kenya Wildlife Services (KWS). However the forests have been, and continue to be, impacted by illegal logging, unplanned development and agricultural expansion. The Aweer have been forced into shifting cultivation which they practice along a “corridor” between the two National Reserves where they were resettled, and predictably human-wildlife conflicts have intensified here and the majority live on or below the poverty line. The forests are further threatened by the impacts of climate change and the proposed development of the Lamu deep-water port.

There is potential for joint, participatory sustainable conservation of the forests and the enhancement and diversification of the livelihoods of the Aweer, but insufficient knowledge and

capacity regarding the biodiversity, the ecosystem, how to address human-wildlife-conflict, develop livelihoods, lobby and advocate effectively as well as effective and participatory forest management has hampered formulation of adaptive management strategies. The Kenyan government acknowledges that involvement of the forest communities in the stewardship of these unique resources makes good sense, but lacks a tested methodology and requires modification to the existing legislation.

The project area in north-east Kenya includes the KWS managed Boni National Reserve and the Dodori National Reserve part of the northernmost limit of the East African Coastal Forest ecoregion, which WWF and Conservation International have classified as a global biodiversity hotspot - one of the Earth's 25 biologically richest places. The corridor between the two National Reserves, where the Aweer people are now settled, contains the Boni-Lungi Forest - which has been proposed as a new Forest Reserve but which has not yet been gazetted. The 877 km² Dodori National Reserve, spanning Dodori Creek and its delta, has some of the densest, most varied assemblage of mangrove forest species in Kenya.



2. Project Partnerships

The partnership between WWF as the lead institution and its main partners Zoological Society of London (ZSL), Kenya Forest Service (KFS) and KWS has deepened considerably in the last two years since inception of the project. The project has continually forged new partnership in its urge to realize the project objectives for example with National Museums of Kenya (NMK), Ministry of Agriculture (MoA) and National Environmental Management Authority (NEMA). The quarterly Project Steering Committee meetings and monthly coalition meetings have been platforms where partners are updated and plans made with an emphasis on joint implementation of activities where objectives are similar. It has been a win- win situation because in some instances the activities which would have been done by individual organizations are jointly done synergizing resources hence more impact and eliminates duplication

KFS and National Museums Kenya (NMK) have been instrumental in supporting processes aimed at placing Boni-Lungi forest (the corridor between the two National Reserves) and Boni-ljara forest (a large block of forest to the west of the project area) which are still unprotected to safeguard them against destruction with the incoming major developments i.e. the Lamu Port South Sudan Ethiopia Transport corridor project (LAPSSET) which is likely to lead to influx of population and subsequent increased demand for forest resources and land. WWF and KWS therefore provided technical and logistic support regarding lobbying for gazette, gathering of information, boundary surveys et . NMK is also making efforts to gazette 25 (5 Ghedis and 20 Duris) sacred Aweer forest shrines within the forest as both recognised National Monuments and UNESCO heritage sites.

Partnerships with government institutions including the Department of Fisheries, KWS, KFS, National Environmental Management Authority (NEMA), and Ministry of Agriculture has led increased awareness on natural resource policies and public participation in the development of National Bills .. For example WWF facilitated community members to review and comment on the Kenya Governments proposed Benefit Sharing Bill, Agriculture policy, National Land Use bill and development of guidelines for the Wildlife Conservation and Compensation Act 2013.

As a result of these strategic partnerships, services and resources have been provided directly to the community and included government agricultural extension services. Other benefits include increased project ownership and participation in Lamu County planning processes. Partners have continued to pool resources to conduct joint activities such as the recently concluded bird diversity survey and mammal camera traps where KWS and KFS provided security and personnel.

3. Project Progress

3.1 Progress in carrying out project activities

Project Steering Committee: During the reporting period, the project held two steering committee meetings to discuss progress and challenges regarding the project's implementation in the previous quarters and to plan for the next quarter. During these meetings, key decisions were made to improve the project delivery in the context of the prevailing security situation. For example the project identified and engaged community liaison persons to help in project implementation and delivery

MEL Framework: The project's Monitoring, Evaluation and Learning (MEL) framework was reviewed and finalized and now includes identified potential areas for learning. Project staff are now implementing the MEL framework

Output 1: Activity 1.1 Conduct Resource Mapping and/or collate and analyze. Update:

As previously reported, key natural resources in the project area have been previously identified and mapped. However, within this reporting period and in light of challenges posed by new developments the project worked local communities and NMK to map (some of the Duri), document and recommend local Aweer sacred forest sites for official legal protection as National Monuments. .

Output 1: Activity 1.2 Provide training to establish a standardized biodiversity database

update: 1 WWF project staff and 3 KWS personnel who were part of the team setting up cameras in the project area was part of the National Camera trapping team trained on Camera trapping data analysis . In year three there are plans to bring together stakeholders who are carrying out the biodiversity surveys to finalize on establishment of standardized biodiversity database to upload the data already collected before the end of quarter one

Output 1: Activity 1.3: Conduct biodiversity assessments. Update: Two major biodiversity surveys were undertaken within the year

1) *A comprehensive scientific bird survey:* Although this took place in the 4th quarter of Year 1 it was not included in the Year 1 report. The bird survey was led by ZSL and WWF and jointly conducted with community members, KWS, NMK and the University of Nairobi. A total of 230 bird species were recorded including 15 bird species that are endemic to the area and/or at risk of extinction. A preliminary report emanating from this study was shared with Birdlife International and helped to inform the declaration of the Boni-Dodori Forests as an Important Bird Area (IBA).

2) *A repeat mammal surveys using camera traps:* Progress: This activity was undertaken in the last quarter of Year 2. A training was conducted for a team of 22 who were subsequently deployed to install camera traps to determine the extent of mammal diversity across the forest ecosystem, allow for comparison against the findings of the baseline survey- particularly the distribution and occupancy of threatened species including Aders' duiker. The findings are currently being collated and analysed, a full report will be available by the end of Year 3.

Output 1: Activity 1.4: Pilot the Toolkit for Ecosystem Service Site-based Assessment (TESSA) and feedback recommendations for improvement. Update:

following a training of project staff on trialing TESSA, the project began trialing TESSA by valuing selected ecosystem services such as wild goods and harvested goods. Two sites were compared, a key area and a plausible site for comparisons purposes. The values were arrived through a participatory process between community and stakeholders such as KFS, and Ministry of Agriculture staff. Plans are in place to review the TESSA outcomes in both sites in Year 3.

Output 1: Activity 1.5: Disseminate key findings. Update:

A comprehensive draft report of the bird survey has been completed and a feedback meeting was done for the Aweer community and stakeholders to validate the report. The comments are to be incorporated to finalize the report for dissemination. Additionally, utilising data from the 2010 camera trap surveys, a paper highlighting the presence of the Critically Endangered Aders' duiker (*Cephalophus adersi*) in the Boni-Dodori forest has been published in *Biodiversity Conservation*¹.

Output 2: Activity 2.5: Pilot Human Wildlife Conflict (HWC) mitigation measures. Update:

Following work in Year 1 to assess, identify and develop HWC information / reporting forms as well as an overall strategy for HWC, the project piloted the use of game moats with 90 farmers in 3 villages. An assessment of the effectiveness of the strategy carried out by WWF, community representatives and the Ministry of Agriculture indicated a decrease in crop raiding by buffaloes, warthogs, antelopes, porcupines and hippos and subsequent increased agricultural yields from an average one bag to five bags of maize following establishment of game moats. WWF facilitated the community to report two HWC cases, one involving human injury and another crop raids to KWS authorities to be considered for compensation. In the same reporting period, the project facilitated completion of game moats in two additional villages, Mararani and Kiangwe, targeting a total of 20 farmers.

Output 3: Activity 3.1: Natural Resource Management awareness raising update:

Three different awareness creation activities were completed within Year 1: 1) regarding the new Wildlife Conservation and Management Act 2013 which targeted 28 (6 women: 22 men) Aweer

¹ <http://link.springer.com/article/10.1007/s10531-014-0842-z>

representatives and other stakeholders; 2) the project facilitated the formation and election of interim County Wildlife Conflict Conservation and Compensation Committees (CWCCC) which were later gazetted by KWS as the official committee members for Lamu County; 3) a four-day awareness creation activity was jointly delivered by WWF and NEMA on the Environmental Management and Co-ordination Act 1999 and EIA/ESIA Regulations where community members and Lamu County natural resource management stakeholders attended.

Output 3: Activity 3.2: Establishment of multi-partner/community stewardship facilitation teams, capacity strengthening of community platforms and/or establishment of new community structures. Update: WWF supported the establishment of a County Wildlife Conservation and Compensation Committees (CWCCC) after a series of awareness raising activities regarding the Wildlife Conservation and Management Act 2013 (which calls for the establishment of CWCCCs at the county level). Aweer community representatives successfully secured one position amongst the four available set aside for the community representatives in the committee.

Additionally, the project facilitated training on Alternative Dispute Resolution (ADR) training for Aweer community members and opinion leaders from the five villages in the Boni - Dodori area. Additionally, the project continued to enhance the capacity of two the nascent Village Community Bank Associations (VICOBA) currently composed of all women members, bee keeping groups as well as provision of agricultural extension services to farmers.

Output 3: Activity 3.3: Capacity building in Participatory Forest Management (PFM) and Community Based Natural Resource Management (CBNRM) Update: During the reporting period, four capacity building activities were conducted with the support of the project for WWF staff, community and partner organization representatives: (1) Two WWF and three community representatives visited CBNRM projects in Namibia to learn more regarding the management and running of community conservancies; (2) Six community and partner representatives undertook a study tour to CBNRM and PFM projects in Isiolo and Samburu in Northern Kenya to learn about community conservancies and Community Forest Associations (Gathiuru and Ngare-Ndare CFAs); (3) two WWF staff underwent training in Narok with CBO leaders on how to assess performance effectiveness of CBOs; (4) Two WWF and six community representatives participated in the UNESCO 50 year celebrations together with Kaya elders (traditional forest management institutions) in South Coast where the elders from both communities discussed the management of indigenous forest using traditional systems, achievements and challenges faced.

Output 3 .Activity 3.4: Natural Resource Management advocacy. Update: An advocacy meeting was facilitated between community representatives and senior KFS management on the need to better protect the Boni - Lungi forest area by placing it under statutory management. Aweer community representatives presented a petition to the KFS National Director requesting the legal protection of forests in Boni-Lungi to avoid further encroachment and associated loss of forest and biodiversity.

Community members were facilitated to participate in various national natural resource forums where they have gained insights and aired their requests to the relevant bodies. 1) World Bank Colloquium on Deepening Dialogue with Stakeholders in the Forest Sector in Kenya. This brought together representatives of Indigenous communities in Kenya, the government and relevant line agencies (e.g. Ministry of Environment, KFS, KWS, Water Towers, National Land Commission etc), World Bank and PBOs. The workshop facilitated dialogue among key stakeholders in the forestry sector in Kenya and sharing of national and global experience and best practices on the management of forest resources. The NLC chair reported that they had agreed with the Aweer community that their land will be under community land title and that they were now talking with the county government on the need to have affirmative action for the community; 2) One project staff participated in the meeting jointly organized by TUVUKE Initiative (coalition of 15 CSOs) to build consensus on land reforms and the extractive sector in

Kenya and especially on the place of the communities in the discourse. The coalition came up with an action plan on taking the land reforms process forward. The action to be carried forward by the project is to facilitate the target communities to continually engage with NLC, County Government of Lamu to make sure that their land question is sorted out.

Output 3: Activity 3.5: Participatory or community patrolling and enforcement activities.

Update: 12 trained community scouts undertook a total of 120 patrols in five forest patrol blocks during the reporting period. This resulted in 1 incidence being reported, and culprits arrested and prosecuted with illegally harvested timber being recovered.

A meeting was held between WWF, KWS and 12 community scouts - to evaluate the wildlife patrols and monitoring efforts that they undertake; to increase awareness on the provisions of the new Wildlife Conservation and Management Act; to examine their record keeping, and to discuss their roles in recording and reporting HWC cases, illegal activities with regard to wildlife and forests and general security issues. Capacity gaps were identified and included the need to effectively complete records and the need to increase support to enable access to remote forest areas that also require monitoring. Equipment such as GPS receivers, VHF radios were effectively rolled out and used.

Output 4: Activity 4.1 Carry out capacity building in participatory appraisal & social survey techniques (& human plant use survey). Update:

Documenting and developing an inventory of local forest biodiversity which was initiated in Year 1 continued in Year 2 particularly for areas within Boni and Dodori National Reserves which were not accessed during the original study. Informal discussions are on-going with elders on rare medicinal plants and their location in the forests. Community members who participated in the scientific bird survey continue to observe and monitor a variety of key indicator bird species. Community members were trained on use of mammal camera traps and participated in their deployment in Arabuko Sokoke and Dodori National Reserves.

Output 4: Activity 4.2: Conduct a participatory appraisal of livelihood options. Update:

Continuous meetings took place with community members and exposure visits have been previously undertaken to explore ways of diversifying and enhancing existing livelihoods. Representatives from the community visited a group refining honey, which led to a request for honey extraction machines to add value to their honey, increasing profits.

A consultant was hired to do a market scoping survey to (1) Profile various forest and non-forest products, those currently utilized and those with potential, - paying special attention to already collected data such as indigenous knowledge on local biodiversity; (2) analyze the existing and potential markets for forest and non-forest products in terms of scope, range, scale, status and trends of products, markets and prices; (3) to assess and recommend how best the communities can competitively and sustainably harness and benefit from the forest and non-forest products and access markets.

Activity 4.3: Initiation of enhanced and/or diversified livelihoods. Update: Pilot bee keeping and Village Community Bank (VICOBA) livelihood activities were monitored and identified needs were addressed through additional training and provision of additional equipment. 96 beekeeping members are involved in the pilot project with 45 beehives being successfully colonized

VICOBA: Two pilot village community banks (VICOBAS) comprised of all women membership have been supported to empower members with the knowledge and skills to effectively manage a community savings and loan system. VICOBA members were visited and supported by two members of a successfully running financial institution, the Kinondo Community Bank, in Kwale. So far the two VICOBA have saved around Kenya Shillings 52,000 (USD 650 and KES 19,000 (USD 238).

Support to agriculture: During the reporting period, the project continued to support provision of extension services in conjunction with the Ministry of Agriculture. More than 120 farmers were met and trained on modern farming methods.

Activity 4.4: Advocacy initiatives for community rights. Update: WWF facilitated five community representatives to meet National Land Commission (NLC) leadership to discuss community land rights. The community raised concerns regarding insecurity of land tenure and continued encroachment on their land. There are a series of follow up meetings planned to discuss these issues in more detail while NLC plans to register Aweer community land and issue title deeds.

Activity 4.5: Mobilization of community service providers. Update: During the reporting period, WWF helped leverage additional support for the Aweer community from other NGOs and government agencies through the project steering group and coalition. Kenya Red Cross provided seeds and farming equipment to Mangai village; NCC procured a vehicle for the Aweer Community Conservancy; the government increased security in the area; World Concern plans to provide drought resistant seed varieties; and currently the Ministry of Agriculture with facilitation from WWF is supporting, establishment of model farms, kitchen gardens and other extension services to farmers. To strengthen the pilot VICOBA groups, the support of the Ministry of Gender and local social services was sought and the the group's constitutions were developed which will better position them to be able to access loans and financial support from government and other credit facilities.

Output 5: Activity 5.1: CBNRM policy leveraging Update: Community representatives were facilitated to attend meetings to: 1) review draft Natural Resources (i.e. benefit sharing) Bill, 2014 and; 2) develop the guidelines for the Wildlife Conservation and Compensation Act 2013.

Activity 5.2: Support the development of a Boni-Dodori ecosystem management plan. Update: The project facilitated a review of the KWS Kiunga-Boni-Dodori ecosystem management plan. Recommendations included for increased efforts in resource allocation and marketing of the area for tourists.

Activity 5.4: Discussion paper / case study on development of CBNRM Update:

The production of a case study / discussion paper is planned for Year 3.

3.2 Progress towards project outputs

Overall progress made on project outputs is outlined below for each output:

Output 1

Indicator 1: Participatory appraisal of local indigenous knowledge, amongst indigenous Aweer hunter gatherers and Ijara pastoral communities, regarding local biodiversity (locally important species / taxa) is completed and captured in a report and resource use maps and increases the level of understanding of local indigenous knowledge (Yr 1). Progress: A comprehensive scientific bird survey in forests of the project area was conducted during the 3rd quarter of Year 1. However the activity was not reported in Year One because it was not planned to be conducted during that time and is, therefore, part of this report. The survey was led by WWF and ZSL and jointly conducted with community members, KWS, National Museums of Kenya and the University of Nairobi and identified 225 bird species including several bird species that are endemic to the area and bird species at risk of extinction including: Near-Threatened species - Southern Banded Snake Eagle, Bateleur, Crowned Eagle, Martial Eagle, Fischer's Turaco, Plain-backed Sunbird, Malindi Pipit, Eurasian Rollers; Vulnerable species - Lappet-faced and White-headed Vultures; Endangered species: Basra Reed Warblers. A preliminary report shared with Birdlife International helped to inform the declaration of the Boni-Dodori Forests as an Important Bird Area (IBA).

Indicator 2: Biodiversity inventory established for Boni-Dodori forests with comprehensive data from survey work on species / taxa identified as being important by local communities and those that are nationally / globally threatened or endemic (Yr 1-2). At least 3 biodiversity survey reports – botanical (particularly herbs and medicines); mammal and bird by Yr 3. **Progress:** (i) A comprehensive bird survey was undertaken and a draft report completed and circulated for comments to Lamu NR stakeholders and communities within Boni-Dodori ecosystem. (ii) Following baseline assessments of mammal diversity in the forests in Year 1 a repeat mammal camera trap training was conducted and camera traps deployed in the forests during the reporting period and which await recovery, data capture and analysis. The plant (botanical) survey has been scheduled for year 3. The project will follow up with the year one agreement for KWS to host the data in their servers.

Indicator 3: Maps generated of natural resource distribution, cultural sites, and development of sustainable levels of harvest underway for main forest resources (Yr 1-2). **Progress:** In Year 1 natural resources identified by the Aweer were mapped and mammal camera trapping work mapped the distribution of a range of rare / endangered species. During this reporting period a dossier report was produced regarding Aweer sacred sites and indigenous natural resource management systems.

Indicator 4: At least 10 TOT from the community and local stakeholders trained in survey techniques and species identification are working directly with local communities collecting high quality data to monitor changes in the biodiversity status and harvested species of the forests (Yr 1-3). **Progress:** 15 (10 men, 5 women) from the community and local stakeholders underwent training in survey techniques and bird species identification in the reporting period are now collecting data to help monitor changes in the biodiversity status of the forests. Additionally, 22 (3 women: 19 men) people from Aweer Community, Kenya Wildlife Service (KWS), Kenya Forest Service (KFS), Kiunga Community Conservancy, WWF-Kenya and ZSL were trained in use of mammal camera traps and deployed the same using a standardised protocol.

Four staff (1 WWF, 2 KWS, 1 ZSL) participated in a first-ever national training on mammal camera trap data management and analysis using the ZSL camera-trap analysis tool. The team will be instrumental during data analysis once data from camera traps are captured.

Staff / community members also previously participated in baseline mammal camera trap survey work conducted in Year 1.

Indicator 5: A Boni-Dodori ecosystem co-management plan has produced and agreed and sustainable harvesting plans for key resources are in place (Yr 2, 3) **progress:** A KWS Kiunga-Boni-Dodori ecosystem co-management plan in place. Sustainable harvesting plans/quotas for key resources are expected to be discussed or agreed in Year 3. A review was conducted on the plans implementation to date and recommendations given on how to effectively operationalize the plan

Indicator 6: At least 3 papers published in international peer reviewed journals by Yr 3. **Progress:** ZSL together with WWF published Biodiversity Conservation² a paper highlighting the presence of the Critically Endangered Aders' duiker (*Cephalophus adersi*) utilising data from the 2010 camera trap surveys, in the Boni-Dodori forest. The project plans to publish two additional papers before end of year 3.

Output 2: Indicator 1: Level and types of HWC in high impact areas established, and event book recording system introduced (Yr 1). At least 80 local farmers trained in logging HWC and 5 project staff. **Update:** The level and types of HWC in high impact areas have been established and event book recording system introduced. To date 40 local farmers have been trained in logging HWC.

² <http://link.springer.com/article/10.1007/s10531-014-0842-z>

Indicator 2: Review of relevant HWC literature completed with key implications and recommendations for the project compiled and integrated into the project design (Yr 1).

Update: Following work in Year One to assess, identify and develop HWC information / reporting forms as well as an overall strategy for HWC, the project has begun piloting the use of game moats with 30 farmers. An assessment of the effectiveness of the strategy was carried out by WWF, community representatives and the Ministry of Agriculture during the reporting period. Two testimonies from participating farmers were collected. These reported a decrease in crop raiding by buffaloes, warthogs, antelopes, porcupines and hippos and increase in agricultural yields from an average of 2 bags to five bags per acre.. The project plans to increase support to reach additional 90 Aweer farmers in this planting season.

Indicator 3: At least two different mitigation measures investigated and piloted in at least two high HWC villages (Yr 2-3). **Update:** One HWC mitigation measure, use of game moats to deter wildlife, was investigated and piloted in two villages. The duplication of the game moats is ongoing in three additional villages.

Indicator 4: Lessons learnt document on HWC produced and disseminated; HWC resolution strategy developed through stakeholder workshops; # of people whose capacity has been built regarding HWC (Yr 3). **Update:** Lessons learnt from similar HWC projects was produced and shared. HWC resolution strategy was developed through stakeholder workshop where 22 people participated. To date at least 200 people have had their capacity built regarding HWC.

Output 3: Indicator 1: At least 16 representatives (equally split male/female, youth/elders) in each of the eight villages and 10 KWS/KFS staff with working familiarity of participatory forest management/CBNRM and sustainable resource use (Yr 2-3). **Progress:** Key partners in Lamu County; 4 Aweer community members, 1 KWS and 1 KFS visited Nyeri, Isiolo, Samburu and Meru Counties to learn from projects managed by CFA and community conservancies. 2) 2 WWF staff and 3 community members visited Namibia to learn how Community Based Natural Resource Management (CBNRM) is enhancing Conservation, Social Development & governance in Namibia's Rural Areas. Lamu county CBNRM training: 3)A 3 day workshop for 10 key stakeholders working directly with community on NR issues and 13 community representatives on how the community can benefit from wildlife resources.4)Capacity building of 15 community scouts on patrolling and biodiversity monitoring, scientific surveys and played a big role in the bird and mammal camera trapping survey5) Awareness creation on the NR policies that gives community provision to co-manage and benefit from conservation: The 12 Aweer Conservancy board members educated on the WCMA 2013 and aligning the conservancies management plan to the act is ongoing. The community member in the above forums was trained as TOTS and change makers to influence the larger community.

Indicator 2: Community stewardship structures/agreements in development for eight villages (Yr 2-3).**Progress:** The project is supporting the development of the Aweer conservancy a community initiative to conserve and benefit from conservation, through its community scouts programme. 12 scouts are equipped and deployed in their respective villages to monitor and report cases of illegal and unsustainable use of natural resources such as illegal logging and poaching.

The project also supported formation of community wildlife conflict compensation committee (CWCCC) where the Aweer community is represented. The committee is expected to play a significant role in mitigating human wildlife conflicts and compensation of cases arising from conflicts such as crop raids, injury and/or death.

Indicator 3: Community led monitoring and evaluation plan established and implemented (Yr 1-3). As least 80 community members collecting M&E data, which is collated and used to inform local management decisions by Yr3. **Progress:** A project MEL framework is in place which was developed with input from community members and which, for some indicators, involves community monitoring. Currently 12 community scouts are regularly patrolling forest blocks

Indicator 4: Enhancement of current community based and/or participatory patrolling and enforcement activities in project area (Yr 2-3). Patrol data / information collection form in use,

being collated by project staff and informing management decisions (Yr3) Progress: 12 Aweer community scouts were trained and participated in mammal camera trapping. The community has continued to enhance and support the Aweer community scouts in their regular patrols and monitoring within the forest including proficient use of equipment such as GPS used in data recording. As part of improving community scouts skills, the project periodically facilitates joint patrols with KWS and KFS rangers.

Output 4: Indicator 1: At least 10 staff from local stakeholders trained in participatory appraisal and social survey techniques (Yr 1). Progress: Documenting and developing an inventory of local forest biodiversity which was initiated in Year 1 continued in Year 2 particularly for areas within Boni and Dodori National reserves and which were not accessed during the original study. Informal discussions are on-going with elders on rare medicinal plants and their location in the forest. Community members who participated in the scientific bird survey continued to observe and monitor a variety of bird species. Further training on how to observe and identify different species is planned in year 3.

Indicator 3: Piloting of identified and agreed enhanced and/or diversified livelihood options, with identified market linkages established, with targeted community groups (Yr 2-3) Progress: (1) bee keeping implemented by 90 members; (2) The piloting of model farms and kitchen gardens in all Aweer villages (3) Two VICOBA groups established and running in two Aweer villages (4) Market scoping survey undertaken to establish existing and potential markets for forest and non-forest products.

Output 5: Indicator 1: CBNRM policy leveraging within (i) Lamu and (ii) Garissa County development plans (Yr2-3) Progress: Three study visits to CBNRM projects were made during the reporting period. The project facilitated a stakeholders meeting including representatives of the county government, community, civil society organizations e.t.c to review the draft Natural Resources (i.e. benefit sharing) Bill, 2014. The recommendation from the meeting were forwarded to the senate for incorporation to improve the bill.

Indicator 2: At least 2 project staff and 2 community representatives trained in effective NRM advocacy (Yr 2-3). Progress: 3 project staff and 12 community representatives were trained in a number of NRM advocacy trainings. 1 project staff and 3 community members also attended a number of relevant forums including ones organized by the World Bank, Governments agencies and other CSOs.

Indicator 3: A Boni-Dodori ecosystem co-management plan has been drafted (Yr 2, 3) Progress: The project supported community and other stakeholders to participate in development of the KWS Kiunga Boni Dodori Conservation area plan which was finalized in year 1. In this reporting period, the project facilitated review of management plan with a view of enhancing its operationalization.

Indicator 4: Community based and/or participatory patrolling and enforcement activities in place within project area Progress: The capacity of 12 community scouts has been build and is working in partnership with KWS and KFS to report and prevent illegal activities within the project area. More than 120 patrols conducted in 5 different blocks within the forest area.

3.3 Progress towards the project Outcome

Project Outcome: “By 2016, the biodiversity and ecosystem services associated with the Boni-Dodori forest complex are understood and knowledge generated is being used by the responsible agencies and six Aweer and two Ijara forest communities, to sustain community-based forest management and deliver resilient conservation-based livelihoods for the poorer majority (1,800 people) of the local population.

Indicator 1: Technical capacity and knowledge base increased by end of Yr 3 on the following:(i) Biodiversity contributions to ecosystem function; and the value, population and abundance of threatened, endemic, indicator species trends within the Boni-Dodori forest ecosystem - based on standardised monitoring methods (ii) connections between and

opportunities for Boni-Dodori biodiversity and conservation to underpin food security and sustainable livelihoods for local communities (iii) ecological, social and economic valuation of Boni-Dodori forest ecosystem services Progress: 1) Zoological Society of London (ZSL), National Museums of Kenya (NMK), WWF and other stakeholders carried out a bird expedition in these three Aweer sites with the aim of updating the existing ornithological knowledge and improving biodiversity conservation awareness among the resident Awer people. A total of two hundred and thirty (230) species of birds from 61 families. Forty three (43) species were waterbirds. Twenty-seven (27) species were Palaearctic migrants. Fifteen (15) species were endemic to the East African Coastal Forests biome. A preliminary report shared with Birdlife International helped to inform the declaration of the Boni-Dodori Forests as an Important Bird Area (IBA).

2) mammal camera trap surveys carried out under this project have found that the Lungi forests may have the largest and most important populations of the highly endangered Aders duiker worldwide. Additionally, a repeat camera traps exercise conducted in Dodori after a four-day intense training on mammal camera trapping to project staff, partners and community members 3) In preparation for trialling TESSA, a WWF project staff member underwent a training organized and facilitated by the Tropical Biology Association (TBA). Key areas covered included valuing ecosystem services, converting field data to carbon values, payments for ecosystem services, the economics of ecosystem valuation & trade-offs and planning site assessments. WWF project staff, together with the community, has identified appropriate sites where piloting of TESSA will take place. This is planned for 3rd quarter of year 2. In the first quarter of Year Two, WWF organized and facilitated a TESSA training for 12 participants from KFS, KWS, Ministry of Agriculture and the community on measuring/valuing ecosystem services. Trained participants will be part of the team trialling TESSA in Boni-Dodori area.

Successful piloting of HWC mitigation measure (game moat) in selected villages reporting increase in food security and household incomes. Market survey conducted for forest and non-forest products identified existing and potential markets for community's produce. Little progress were made on the ecological, social and economic valuation of ecosystem services.

Indicator 2: The most vulnerable households (based on previous WWF situational analyses) in 8 villages report year on year decrease in HWC, and/or year on year increase (>10%) in agricultural yields and/or income for years 2 and 3. Progress: Following work in Year One to assess, identify and develop HWC information / reporting forms as well as an overall strategy for HWC, the project has begun piloting the use of game moats with 30 famers. An assessment of the effectiveness of the strategy was carried out by WWF, community representatives and the Ministry of Agriculture during the reporting period. Two testimonies from participating farmers were collected. These reported a decrease in crop raiding by buffaloes, warthogs, antelopes, porcupines and hippos. We continue to monitor the effectiveness of this strategy including measuring harvests / agricultural yields. We aim to support an additional 20 Aweer farmers in this planting season. Additionally, two cases (involving human injury and destruction of crops) have been submitted to KWS authorities for compensation and are being considered.

Indicator 3: Integrated land use plans and sustainable use quotas agreed between the community stewardship teams and functioning in at least 5 of 8 villages by end of year 3. Progress: WWF and KWS held a meeting to discuss plans to review the Kiunga-Boni and Dodori Conservation Area (KBDCA) management plan with a bid to operationalizing the plan. Gaps that had earlier been identified chief among them low participation of stakeholders were addressed. The review specifically targeted Dodori National reserve and its surrounding ecosystem. A work plan and suggested projects to open up Dodori and improve its management effectiveness were discussed and presented to KWS senior management in Nairobi for support and implementation.

Indicator 4: Uptake of diversified livelihoods strategies, with market links, related to conservation practices and/or ecosystem services amongst poorer households (based on previous WWF situation analyses) within 8 villages by end of year 3. Progress: Bee keeping: As previously reported, five beekeeping groups are in place in five villages (Milimani, Mangai, Basuba, Kiangwe, Mararani) within the community forests corridor, with a total of 96 members (25W:71M) operating 90 bee hives. To date, 62 of the 90 hives have been colonised by bees and during the reporting period two harvests have taken place resulting in an estimated 930

kgs of honey being produced with an estimated potential total value of KES 372,000 (approximately USD 4,000). Just under half (400kg) of the harvested honey has been sold with an estimated value of KES 159,997 (approximately USD 1,700). The remaining honey has been consumed at the household level or is waiting to be sold (see challenges below).

VICOBA: The project continues to provide support to two VICOBA groups established within the Aweer community, with a total membership of 40 women (1st VICOBA = 25 women; 2nd = 15 women). Progress of the VICOBA has been hampered by insecurity in the region, but to date a total of KES 52,000 (approximately USD 560) has been saved by both groups combined (Basuba VICOBA = KES 35,000; Mararani VICOBA = KES 17,000), and KES 7,000 has been loaned out to members in the last six months.

Game moats: Starting in April 2014 (just in time for the planting season), the use of a game moat in HWC hotpots was piloted with 30 households (average household size = 6) in two villages (Milimani [20 households] and Basuba [10 households]) and since then there has been two harvests. In this reporting period, an informal assessment of the effectiveness of this moat carried out by WWF, community representatives and the Ministry of Agriculture reveal a decrease in HWC – referencing numerous sightings of a variety of wildlife (and cattle) trying but failing to cross the moats – and a corresponding increase in crop yields (informal assessment with approximately 15 farmers suggests that yield has increased from an average of half a bag of maize per acre, to an average of five bags per acre).

Indicator 5: Commitment and implementation on CBNRM, land and tenure rights for the Aweer and Ijara communities in the Boni and Dodori forests by county governments, KWS and KFS, show marked increases by end of year 3; and scientific support and tourism generated among national and international academia by year 3 (security conditions allowing). *Progress:* Three study visits to CBNRM projects were made during the reporting period. The project facilitated a stakeholders meeting including representatives of the county government, community, civil society organizations e.t.c. to review the draft Natural Resources (i.e. benefit sharing) Bill, 2014. The recommendation from the meeting were forwarded to the senate for incorporation to improve the bill

Supports gazettement of Aweer sacred sites which, if achieved, will increase protection of cultural and biological / ecological assets. Lungi Forest, is also highly valued by the local Aweer people thus placing it under statutory management as a new Forest Reserve. In this meeting, Aweer community representatives presented a petition which requested Lungi forest to be gazetted and fully protected to avoid encroachment. Three follow up meetings between community and KFS resulted in Ministry of Environment, Water and Natural resources directing KFS to officially gazette the forest area as a forest reserve to avoid further encroachment and associated loss of forest and biodiversity. The total area to be gazetted is 478,000 ha and will significantly increase the area of coastal forest under official protection in Boni-Dodori area

WWF facilitated five (2W:3M) Aweer community representatives to meet with the National Land Commission (NLC) leadership to discuss community land rights. The community raised concerns regarding insecurity of land tenure and ongoing encroachment onto their land. There are a series of follow up meetings planned to discuss these issues in more detail while NLC also plans to register the Aweer community land officially and issue title deeds. During the reporting period, the project as well as other stakeholders such as NRT coast found it difficult to explore tourism activities in the area due to dwindling security situation.

Indicator 6: Repeat surveys show selected locally important and globally/nationally threatened, endemic and indicator mammal species populations are stable or increasing by end of year 3. *Progress:* as reported in Year 1 - mammal camera trap surveys carried out under this project have found that the Lungi forests may have the largest and most important populations of the highly endangered Aders duiker worldwide. Repeat survey on mammal camera trapping just is ongoing. Once data has been captured and analyse, report will be shared showing any significant change on threated endemic and mammal species populations and whether they are stale or increasing by year1.

The outcome level assumptions for the project still holds true. The indicators are adequate for measuring outcomes. From the progress reported to date, the project is likely to achieve the overall outcome by the end of the funding. However challenges exist with regard to achieving some of the stated outcomes such as understanding forest ecosystem services, working with Ijara communities, unlikely implementation of community based forest management and conservation based livelihoods

3.4 Monitoring of assumptions

The outcome and output level assumptions for this project have been appraised as follows:

Opportunities for strengthening community land and natural resource tenure rights in Kenya's new 2010 Constitution (Chapter 5, Land & Environment) are progressed. *Comment:* The delay in enactment of community land bill has impacted on project initiative to address land and natural resource tenure rights. The passage of the bill is expected within year 3 of the project and therefore the assumption will still hold true.

Potential environmental impacts associated with proposed Lamu port developments (i.e. LAPSSSET programme) are averted or mitigated. *Comments:* while this assumption remains valid, the delay by Lapsset Authority to conducting a SEA and releasing of ESIA report has provided no framework for averting or mitigating negative environmental impacts.

No major natural disasters e.g. extreme drought, fire, etc. impact the project area: *comments:* This assumption still hold true. During year 1 and 2, there has been no extreme disasters.

Local security conditions remain stable to allow effective project implementation by local project staff. *Comment:* This assumption no longer holds true due to heightened insecurity at first half year of this reporting period, delaying implementation of project activities as project staff kept away from the field during that period. Currently, the project continues to monitor the security situation even as it implements project activities.

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

Project Impact: "Land and resource tenure rights of the Aweer and Ijara will be secure, and the communities will be thriving as a result of improved conservation-based livelihoods. They will be fully integrated into community stewardship regimes. CBNRM policy and legislation will be enacted and implementation mainstreamed.

The Boni-Dodori forests will be fully protected, with threatened and endemic species populations better understood and increasing. Forest communities will be benefiting from the revenues of nature tourism, subject to security.

Threats to communities or forest ecosystems associated with major infrastructural developments for the new Lamu port (including land grabs/conversion, pollution) will have been addressed."

Progress against the projects Impact Statement:

Securing land and resource tenure rights for Aweer and Ijara: The project is working with stakeholders particularly the government agency the National Land Commission and the Lamu County government to secure land and resource tenure rights of the Aweer. Building on the work carried out by SECURE project on securing land tenure, WWF facilitated community representatives to meet NLC present their petition. NLC recently constituted a county land board that will oversee, among other things securing land tenure for the locals. The county government has put in place a plan to secure land rights for Aweer in the next financial year. WWF will continue to monitor NLC and county government plans are implemented

Thriving communities based on improved conservation based livelihoods: During the reporting period the project continued to support two pilot projects to diversify livelihoods within the Aweer community. Monitoring of the colonization of beehives and the Village Saving and Loan Associations (VICOBA) activities continued throughout the reporting period. Currently, 96 beekeeping members are involved in the pilot project with 45 beehives being successful colonized so far and harvest expected in December. VICOBA members continue to deposit savings regularly and a few members have received loans to invest in their small business activities such as selling of clothes and rearing free-range chicken. Meetings to discuss potential markets for forest and non-forest products were also held with community representatives.

Community stewardship regimes: WWF and NRT supported creation of Aweer community conservancy, trained elected management board and supported re-training of 10 community scouts. In the last one year, scouts have undertaken more than 120 patrols in five patrol blocks. 1 incidence of illegal logging reported where culprits were arrested and charged. It is reported that increased patrol by community scouts has resulted in cases of wildfires started by pastoralists, arsonist and honey harvesters

CBNRM policy and legislation enacted and implemented: During the reporting period, the project facilitated communities and stakeholders to provide inputs to Benefits Sharing of Natural resources bill, a move towards improving CBNRM policy and mainstreaming. The enactment of Wildlife Conservation and Management bill, where project supported communities and other stakeholders to participate in its preparation, will provide additional legal framework for CBNRM to thrive as regards community involvement in wildlife management.

Forests fully protected: The project has facilitated the boundary survey of the proposed two forest reserves to pave way for government to provide a statutory management status.

NRT Coast has established a community conservancy. Though nascent, the conservancy has recruited community scouts and acquired a vehicle for movement within the villages. The management board is constituted and trained on their roles and responsibilities.

Threatened / endemic sps better understood: The project continued to generate knowledge through indigenous knowledge survey and scientific assessments (bird survey and mammal camera trapping) with a bid to generate knowledge that will be used by responsible agencies to fully protect threatened and endemic species populations. The two surveys (bird and mammal camera traps) indicate presence of rare and endemic species. Bird survey recorded more than 125 birds species that are threatened and near extinctions. Earlier baselines from mammal camera trap indicated distribution and occupation of threatened species including Ader's Duiker

Threatened / endemic sps increasing progress: At the moment, there is no evidence that the threatened endemic species are increasing or decreasing until we capture and analyse data from the camera traps.

Communities benefiting from nature tourism (security allowing): Though the conservancy has been created and running, little nature tourism is going on due to increased insecurity particularly in the first half this financial year.

Threats from LAPSSET addressed: To reduce threats and encroachment to forest ecosystems associated with major infrastructural developments for the new Lamu port (including land grabs/conversion, pollution), the project is working with relevant stakeholders to fully protect these areas and address these threats through gazettement. Plans are also in place through the county government to conduct a spatial planning where it will zone areas for development

4. Project support to the Conventions (CBD, CMS and/or CITES)

Kenya is both a signatory to CBD and CITES and has a National Biodiversity Strategy and Action Plan with six objectives, The objectives being contributed by the project are promoting

sustainable utilization of biodiversity (under output 2) and promoting awareness in biodiversity conservation (same output 2).

In its second year of implementation, three additionally the two villages who piloted human wildlife conflict strategy recorded reduced conflict and an increase in crop yields and the strategy is currently being duplicated in three villages. Improved food security is projected to reduce unsustainable harvesting or illegal use of forest products i.e. poaching of game meat and illegal logging.

Kenya's CITES commitments relate to the rhino and elephant. is the project addresses human-wildlife conflict in the Boni-Dodori region; with respect to the elephant population in the area thus supporting Kenya's CITES commitment which is related to rhino and elephant protection.

The project has continued to enhance the community's capacity, through community scouts, to monitor any threats to the indigenous forest including illegal logging and poaching and report to the responsible agencies for action.

The project has been in the forefront in creating awareness on the Kenya wildlife Act" Wildlife Conservation and Management Act 2013" which is very punitive on wildlife crimes and gives communities opportunity in co-management and to benefit from conservation thus promoting CBD, CITES and National Biodiversity strategy.

The progressive buildup of both indigenous and scientific knowledge (bird surveys, mammal surveys using camera traps) and sharing with key stakeholders and community will advise key decisions and integration of appropriate sustainable use strategies into community stewardship and promotion of CBNRM.

This project has had no interaction with CBD/CITES/CMS focal point in the country due to its limited coverage.

5. Project support to poverty alleviation

The project is contributing towards the alleviation of poverty directly through the following: the adoption of effective human wildlife conflict mitigation strategies with 30 famers have which has resulted in a significant reduction in crop loss and a five-fold increase in agricultural yields for some farmers. D Piloting of beekeeping with 96 community members is ongoing with 62 hives successfully colonized, 480 litres of honey harvested to date being sold at KES 400 (USD 5) price / litre, resulting in income / member of USD 50. - Collected testimonies from community members are also positive. 40 women participating in two pilot VICOBAs have borrowed loans to invest in expanding or establishing their own small business which in tine should generate greater profit and thus contribute additional income at the household level. The project has continually partnered with resource providers to build capacity on areas that are vital for poverty alleviation for example in education and agricultural extension services which has resulted in improved food security and household incomes. Direct impacts expected are increased food security and household incomes through diversified livelihoods. With increased incomes the community will be able to access better health services and lead to increased education as they will be better able to pay for school fees.

Indirectly the project is addressing poverty by (i) raising the agency of the Aweer to better represent their rights and culture and lobby for services etc. (ii) leading efforts to better protect the forests and thus the natural resources base that the Aweer and Ijara communities are heavily dependent upon. The project has facilitated consensus building on putting the Boni and Lungi forest, which is currently under no legal protection, under statutory management. It also supported the delineation of the forest and is now known (*Boni -398,000 ha: Lungi-44,700ha*)..Additionally, facilitated a discussions and documentation of the heritage and culture of the Aweer focusing particularly on the sacred groves (known locally as Gedhi / Duri). The assessment report will form part of the dossier presented to NMK for consideration in the gazetting of the existing 25 Aweer sacred sites as official National Monuments with the sole aim of legally protecting them from encroachment.

The key beneficiaries of the project wrt poverty alleviation are members of the Aweer and Ijara communities.

Examples of noticeable achievements in the year include: increased uptake of diversified livelihoods, increased support of resource providers in supporting community to implement livelihood activities i.e. agricultural extension services; increased commitment of the community in project implementation, construction of game moats, biodiversity surveys and in reviewing draft natural resources bills and policies.

6. Project support to Gender equity issues

There are measures that have been put in place to ensure that the project is working to address gender inequality. In undertaking all of the trainings and other project activities, all genders have been given fair representation. In the Aweer community roles differ depending on gender where men are responsible for sourcing income for the household needs while the women take care of the household chores. In farming, bee keeping and HWC mitigation the majority are men as it involves a lot of manual work. To ensure more participation of women in contribution to livelihood development women have been supported to start kitchen gardens, bee keeping and form VICOBA groups to increase their capacity to save and borrow loans for initiating small enterprises.

7. Monitoring and evaluation

The project has developed an integrated Monitoring, Evaluation and Learning framework and has scheduled periodic monitoring activities as well as working with partners in collecting data. The MEL framework is designed to ensure that the project collects relevant quantitative and qualitative information at all levels to enable it to report effectively against agreed Darwin Initiative Output and Outcome level indicators, which in turn give a good indication of progress against the Impact statement.

Please see the attached MEL framework.

There has been no change to the MEL plan over the reporting period.

8. Lessons learnt

During the year, the following can be listed as lessons learned and moving forward we will build on them and use in future plans:

What worked well?

- The community learns more effectively from practical experiences rather than theory based training i.e. initiation of VICOBA's, game moats, and modern bee keeping as a result of exposure visits. The literacy level of the community is still low hence building of capacity is better achieved through practical and observation.
- Use of identified community liaison individuals to assist in project implementation and follow up. Community liaisons have been instrumental in ensuring that the community better understand the project, communicates important messages and follows ups on the implementation of project activities.
- Use of steering committee (SC) to oversee project implementation: The role of SC has promoted project ownership and ensured timely implementation of project activities as well as enhancing accountability to beneficiaries.
- Use of local knowledge in biodiversity conservation worked well in augmenting scientific assessment efforts in generating knowledge

What didn't work well?

The project experienced significant security challenges which have greatly hampered access by the project staff to the area and thus project implementation. During the reporting period, impacts associated with climate change continued to impact negatively on people's livelihoods

including those we are supporting such as delayed colonization of bee hives and prolonged droughts which exacerbated food insecurity and limited household incomes.

Encroachment into the forest areas: Due to ongoing developments related to the LAPSSET mega port and its associated infrastructure there was a significant influx of people and increasing demand for land for settlement, agriculture and speculation purposes.

The project staff as well as the project steering committee plans to undertake a learning and reflection meeting where lessons will be discussed and recommendations made on how to incorporate this into the project and future plans

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

Comment	Status
1 Finalisation and operationalisation of the new MEL framework which includes rephrasing of output and outcome statements and indicators recommended by the M&E consultant.	The MEL framework has been finalized and is attached as a separate document.
It is not clear whether biodiversity assessments (Activity 1.3) have been undertaken or not in this year as was proposed in the application document and in the work-plan. In the annual report it says that they were undertaken with Activity 4.1 but they are also not described under activity 4.1.	This was clarified in the half year report
It would be good to provide evidence on the communities HWC records to show results of capacity building efforts. The community monitoring plan also needs to be provided as evidence.	Increased in yields and reduced crop raids (analysis of agriculture yields and photographic evidence attached)
Provide evidence of piloting HWC measures in Aweer villages e.g. photographs	The photos on piloting of HWC measures are attached.
Many training workshops have been held under outputs, 2, 3 and 4. However no training report is attached to the annual report.	The training reports are attached
Activity 5.2. It is not clear what support was given to the development of the Boni-Dodori ecosystem management plan. This needs to be clarified with evidence.	Support given to community to participate in development of the KWS Kiunga-Boni-Dodori ecosystem management plan. Other support included technical support through provision of information and maps
Activity 5.4. It was not possible to verify the documents posted on the website by the reviewer as a password and log-in name are required. The website should be made accessible.	Basecamp administrator will invite LTS to access website
A step by step exit strategy needs to be developed by end of year 2 to ensure sustainability and not dependence by the communities on the programme	Exit strategy attached below

10. Other comments on progress not covered elsewhere

The project has been enhanced over the years through development of theory of change and Monitoring and evaluation and learning framework. The project has identified and enlisted the services of community liaison persons to support field-based project implementation and follow up.

There has been limited access to the project area for the last three months due to very high levels of insecurity and a heavy military presence. Close to three months in the last two

quarters were disrupted and greatly slowed down project implementation. Though the insecurity has had little impact on the day-to-day activities of the Aweer community, it has been difficult for the project staff to access the Aweer villages and monitor the progress of on-going activities such as the HWC mitigation, beekeeping and VICOBA pilot projects, and community scouts.

Increasing pressure on the forest, particularly associated with the progression of LAPSSSET, has necessitated quicker action to provide the forest with some form of protection – hence the move to forest reserve gazettelement. It was initially intended that the forests under discussion would become Community Managed Forests but there have been substantial delays in the Community Land Bill which will provide the mechanism to achieve this.

11. Sustainability and legacy

A bi-monthly blog to communicate different aspects of the programme has been maintained during FY15³ and the project also contributes to Darwin Initiative quarterly newsletter⁴.

Piloting of game moat as an HWC mitigation strategy has made the project popular and created a lot of interest in the community and its surroundings. This is attributed to the decrease in the human wildlife conflicts and cases of crop raiding. More time is now spent on other economical activities as opposed to earlier when farmers spent night times guarding crops.

Shifting cultivation, characterised by slash and burn has considerably reduced. More people are learning to concentrate on same pieces of farmlands due to increased extension services provided through support of the project.

The project has developed a clear exit strategy which is attached to this document.

12. Darwin Identity

The project team has been keen to publicise Darwin initiative contribution and create identity in various forums and meetings which include; Quarterly steering committee meetings, monthly coalition meetings, community meetings and partners/stakeholders meetings and trainings

The project has been doing Bi monthly blogs where the Darwin initiative is always mentioned

Use of steering committee as well as its composition has continued to publicise Darwin initiative as few projects have managed in the same manner.

During the reporting period, the project engaged media to visit and report on the progress made by the project where Darwin Initiative featured as the main sponsor of the project.

The project made efforts to use of Darwin Initiative logo in this reporting period as opposed to year one. Dissemination of these reports reaches out to different stakeholders.

³ <http://blogs.wwf.org.uk/biographies/john-bett/>

⁴ <http://www.darwininitiative.org.uk/assets/uploads/2014/05/Darwin-Initiative-Newsletter-June-2014-Final2.pdf>

13. Project Expenditure

Table 1 Project expenditure during the reporting period (1 April 2014 – 31 March 2015)

Project spend (indicative) since last annual report	2014/15 Grant (£)	2014/15 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				Limited expenditure as DI costs contributes small percentage
Consultancy costs				
Overhead Costs				
Travel and subsistence				Limited travels due to increased insecurity hence low expenditure
Operating Costs				
Capital items (see below)				
Others (see below)				Activities in this budget line rescheduled to year 3
TOTAL	£ 108,708.00			

14. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum).

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2014-2015

1. Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2014-2015

Project summary	Measurable Indicators	Progress and Achievements April 2014 - March 2015	Actions required/planned for next period
<p>Goal/Impact Land and resource tenure rights of the Aweer and Ijara will be secure, and the communities will be thriving as a result of improved conservation-based livelihoods. They will be fully integrated into community stewardship regimes. CBNRM policy and legislation will be enacted and implementation mainstreamed. The Boni-Dodori forests will be fully protected, with threatened and endemic species populations better understood and increasing. Forest communities will be benefiting from the revenues of nature tourism, subject to security. Threats to communities or forest ecosystems associated with major infrastructural developments for the new Lamu port (including land grabs/conversion, pollution) will have been addressed.</p>	<p>A comprehensive understanding of forest biodiversity (i.e. locally important, endemic or nationally/globally threatened species), and bio-cultural use and practices of local people was developed. This represents a realistic starting point from which to explore food security and livelihood provision from biodiversity, responsible use of resources, and possibilities for conservation-based livelihoods.</p>		

<p>Purpose/Outcome By 2016 the biodiversity and ecosystem services associated with the Boni-Dodori forest complex are understood and the knowledge generated is being used by the responsible agencies and six Aweer and two Ijara forest communities, to sustain community-based forest management and deliver resilient conservation-based livelihoods for the poorer majority (1,800 people) of the local population.</p>	<p>Technical capacity and knowledge base increased by end of Yr. 3 The most vulnerable households (based on previous WWF situational analyses) in 8 villages report year on year decrease in HWC, and/or year on year increase (>10%) in agricultural yields and/or income for years 2 and 3. Integrated land use plans and sustainable use quotas agreed between the community stewardship teams and functioning in at least 5 of 8 villages by end of year 3. Uptake of diversified livelihoods strategies, with market links, related to conservation practices and/or ecosystem services amongst poorer households (based on previous WWF situation analyses) within 8 villages by end of year 3 Commitment and implementation on CBNRM, land and tenure rights for the Aweer and Ijara communities in the Boni and Dodori forests by county governments, KWS and KFS, show marked increases by end of year 3; and scientific support and tourism generated among national and international academia by year 3 (security conditions allowing). Repeat surveys show selected locally important and globally/nationally threatened, endemic and indicator mammal species populations are stable or increasing by end of year 3</p>	<p>Indicator 1:1)completion of the bird survey , 2)training on mammal camera trapping to project staff, partners and community members and deployment of camera traps(Arabuko and Dodori)3) Project staff , partners and community trained on TESSA toolkit and key ecosystem services in Boni-Dodori ecosystem were identified. 4) Indigenous knowledge on sustainable management of natural resources gathered and documented. Indicator 2: more than 50 % agricultural yields increase reported in two villages where game moats have been piloted.</p>	<p>Completion of deployment of camera traps Plant human use survey</p>
<p>Output 1. Knowledge base: Comprehensive understanding of forest biodiversity (i.e. locally</p>	<p>Participatory appraisal of local indigenous knowledge, amongst indigenous Aweer hunter gatherers and Ijara pastoral communities, regarding</p>	<p>Indicator 4:Training of Trainers was conducted where 15 (10 men, 5 women) against the targeted 10 from the community</p>	<p>Plant Human impact forest survey Continuous pilot of TESSA toolkit and</p>

<p>important, endemic or nationally/globally threatened species), and ecosystem services (i.e. values of specific services and distribution of costs and benefits for forest and plausible 'alternative' through trialing and development of the 'TESSA' toolkit) established</p>	<p>local biodiversity (locally important species / taxa) is completed and captured in a report and resource use maps and increases the level of understanding of local indigenous knowledge (Yr. 1). Biodiversity inventory established for Boni-Dodori forests with comprehensive data from survey work on species / taxa identified as being important by local communities and those that are nationally / globally threatened or endemic(Yr. 1-2). At least 3 biodiversity survey reports – botanical (particularly herbs and medicines); mammal and bird by Yr. 3. Maps generated of natural resource distribution, cultural sites, and development of sustainable levels of harvest underway for main forest resources (Yr. 1-2). At least 10 ToT from the community and local stakeholders trained in survey techniques and species identification are working directly with local communities collecting high quality data to monitor changes in the biodiversity status and harvested species of the forests (Yr. 1-3).</p>	<p>and local stakeholders underwent training in survey techniques and species identification Twenty two people from Aweer Community, and partner organizations trained in camera setup and management in the field using a standardized protocol. Four local scientists training data trained on management and analysis using the ZSL camera-trap analysis tool.</p>	<p>feedback recommendations for improvement Analysis of camera traps data and dissemination of findings</p>
<p>Activity 1.1 Conduct Resource Mapping and undertake appraisal of local indigenous knowledge</p>	<p>The existing forest resource map produced by Kibodo trust in conjunction with Kenya Secure and WWF was reviewed and validated in year 1.</p>		
<p>Activity 1.2 Provide training to establish a standardized biodiversity database</p>	<p>Progress on this activity has been the initial discussions on what constitutes a database, design and hosting. KWS agreed to host the database and the initial agreement was reached on how data and information will be stored and accessed.</p>		<p>Finalize setting up of database in year 3 and upload data from camera traps and bird survey</p>

Activity 1.3 Conduct biodiversity assessments	Completion of bird survey report and dissemination Training and deployment of camera traps in Dodori national reserve	Recovery of camera trap in Dodori national reserve and deployment of the same in Boni national reserve
Activity 1.4 Pilot the Toolkit for Ecosystem Service Site-based Assessment (TESSA) and feedback for improvement	Training of two WWF and 12 participants from KFS, KWS, Ministry of Agriculture and the community on measuring/valuing ecosystem services and identification of appropriate sites to piloting the tool in Boni Dodori ecosystem. Valuation of two ecosystems services (wild goods and cultivated goods conducted	Continuous piloting of TESSA tool kit in two identified sites.
Activity 1.5 Disseminate key project findings	A comprehensive draft report of the bird survey completed and a feedback and validation meeting was done Dissemination has done through Bi monthly blogs and the DI quarterly newsletter.	complete bird survey report and mammal camera traps report
Output 2. Understanding of Human Wildlife Conflicts (HWC) in the Boni-Dodori corridor established, and optimal strategies to counter HWC, based on piloted mitigation measures, developed, deployed and documented for wider dissemination	Level and types of HWC in high impact areas established, and event book recording system introduced (Yr1). At least 80 local farmers trained in logging HWC and 5 project staff. Review of relevant HWC literature completed with key implications and recommendations for the project compiled and integrated into the project design (Yr 1) At least two different mitigation measures investigated and piloted in at least two high HWC villages (Yr 2-3). Lessons learnt document on HWC produced and disseminated; HWC resolution strategy developed through stakeholder workshops; # of people whose capacity has been built regarding HWC (Yr 3)	Establishment of level and types of HWC in high impact areas, event book recording system introduced training of 40 local farmers trained in logging HWC. One HWC mitigation measure investigated and piloted in two villages. no HWC incidences reported on this two villages and increased harvests realized . The duplication of the game moats is ongoing in three additional villages. Lessons learnt from similar HWC projects was produced and shared. HWC mitigation strategy was developed through stakeholder workshop where 22 people participated
Activity 2.5 Piloting of mitigation measures of HWC	Game moat strategy piloted by 30 famers in village 1. An assessment of the effectiveness of the strategy through collection of testimonies where decrease in crop raiding leading to increased harvest was found. Baseline survey conducted in Kiangwe and implementation of game moats by 30 farmers to reduce the HWC. Digging of game moats in Mangai and Kiangwe villages have been completed.	Completion of game moats in two remaining villages Investigation and implementation of other mitigation strategies
		Continuous monitoring on the effectiveness on the strategies and making improvements

<p>Output 3. Community stewardship regimes – structures and systems – established and functioning in and across the eight villages, with an integrated management plan (including for key indicator / endemic species) and sustainable use quotas for the Boni-Dodori corridor and adjacent National Reserves</p>	<p>At least 16 representatives (equally split male/female, youth/elders) in each of the eight villages and 10 KWS/KFS staff with working familiarity of participatory forest management/CBNRM and sustainable resource use (Yr. 2-3). Community stewardship structures/agreements in development for eight villages (Yr. 2-3). Community led monitoring and evaluation plan established and implemented (Yr. 1-3). As least 80 community members collecting M&E data, which is collated and used to inform local management decisions by Yr3. Enhancement of current community based and/or participatory patrolling and enforcement activities in project area (Yr. 2-3). Patrol data / information collection form in use, being collated by project staff and informing management decisions (Yr3)</p>	<p>Key partners in Lamu County; 4 community members ,1 Kenya Wildlife Service (KWS) and 1 Kenya Forest Service (KFS) exposure visits to conservancies in Nyeri, Isiolo, Samburu and Meru . Three community members travelled to Namibia Community involvement in wildlife management and learned The AWER community scouts capacity enhanced to monitor and patrol. Contribution formation of CWCCC where Aweer community is represented. Aweer community scouts trained and involved in mammal camera trapping.</p>	
<p>Activity 3.1 Natural Resource Management awareness raising</p>	<p>Training and awareness creation on the new Wildlife Conservation and Management Act 2013 jointly delivered by WWF and KWS during the reporting period where 28 (6 Women:22 Men) Aweer and stakeholder representatives participated. The meeting resulted in election of interim County Wildlife Conflict Conservation and Compensation Committees (CWCCC). awareness creation jointly delivered by WWF and NEMA on the Environmental Management and Co-ordination Act 1999</p>		<p>Continue with awareness raising on NRM issues</p>
<p>Activity 3.2 Establishment of multi-partner/ community stewardship facilitation teams, capacity strengthening of community platforms and/or establishment of new community structures</p>	<p>Alternative Dispute Resolution (ADR) training for Aweer community and opinion leaders from the five villages in the Boni Dodori area to encourage community members to solve local disputes using the available traditional systems Capacity of Aweer women enhanced through VICOBA groups. There are two functioning groups in Mararani and Basuba villages. This is a tool in ensuring that women pool their resources together and play a role towards livelihood development within their respective households.</p>		<p>Initiation of vicoba groups in all Aweer villages Capacity strengthening of community platforms and/or establishment of new community structures.</p>

<p>Activity 3.3 Capacity building in Participatory Forest Management (PFM) and Community Based Natural Resource Management (CBNRM)</p>	<p>Two WWF and three community representatives visited CBNRM projects in Namibia to learn more regarding the management and running of community conservancies Six community and partner representatives undertook a study tour to CBNRM and PFM projects in Isiolo and Samburu in Northern Kenya to learn about community conservancies and Community Forest Associations (Gathiuru and Ngare-Ndare CFAs) WWF staff training in Narok with CBO leaders on how to assess performance effectiveness of CBOs. Two WWF and six community representatives participated in the UNESCO 50 year celebrations together with Kaya elders (traditional forest management institutions) in South Coast where the elders from both communities discussed the management of indigenous forest using traditional systems, achievements and challenges faced.</p>		<p>Continue Capacity building CBOs and stakeholders on PFM/CBNRM</p>
<p>Activity 3.4 Natural Resource Management advocacy</p>	<p>An advocacy meeting between community representatives and senior KFS management on the need to better protect a high conservation and biodiversity value forest area, the Lungi Forest by placing it under statutory management as a new Forest Reserve. The total area to be gazetted is 478,000 ha The community facilitated to various national NR forums where they have gained insight and aired their requests to the relevant bodies : World Bank Colloquium on Deepening Dialogue with Stakeholders in the Forest Sector in Kenya, Land Natural Conference 2015 to build consensus on land reforms and the extractive sector in Kenya</p>		<p>NRM advocacy training Facilitate the community to continually engage with NLC, County Government of Lamu to address the land issue</p>
<p>Activity 3.5 Participatory or community patrolling and enforcement activities</p>	<p>12 community scouts undertook a total of 120 patrols in five patrol blocks during the reporting period. Meeting between WWF, KWS and 12 community scouts; to evaluate the wildlife patrols and monitoring efforts that they undertake A joint training for KFS rangers and Aweer community scouts on Use of GPS for monitoring, Data recording and analysis, Understanding patrol blocks and Understanding the Wildlife Act 2013.</p>		<p>Community patrolling activities.</p>
<p>Output 4: Understanding of, and engaged responsiveness to improving the livelihoods of vulnerable groups (amongst forest communities) developed by multi-partner/community stewardship facilitation teams</p>	<p>At least 10 staff from local stakeholders trained in participatory appraisal and social survey techniques (Yr. 1). Participatory appraisal of community livelihoods and use of forest resources (including use of medicinal herbs, sacred sites, plus other resources) undertaken and used to inform viable livelihood options by end of Yr. 1. Piloting of identified and agreed enhanced and/or diversified livelihood options, with identified market linkages</p>	<p>bee keeping implemented by 96 farmers and requisition of honey extraction machines to improve value and market prices The piloting of model farms and kitchen gardens in all Aweer villages Two VICOBA groups established and running in two Aweer villages Market scoping survey undertaken to establish Potential Markets of Forest and Non-Forest Product from the Boni-Dodori</p>	<p>Involve more community members in implementation of diversified livelihood option</p>

	established, with targeted community groups (Yr. 2-3)	Forest Ecosystem.	
Activity 4.1 Carry out capacity building in participatory appraisal and social survey techniques	<p>Documenting and developing an inventory of local forest biodiversity which was initiated in Year 1 continued in Year 2 particularly for areas within Boni and Dodori National reserves and which were not accessed during the original study. Informal discussions on-going with elders on rare medicinal plants and their location in the forest.</p> <p>. Community members trained on camera traps deployment and participated in deployment of cameras in Arabuko Sokoke and Dodori National Reserve.</p> <p>. Capacity enhancement vicoba members on Formulation of the group constitution and bylaws, Mobilization of more community members to join, Group leadership, Debt recovery, Diversifying sources of income, Opening and managing a group account, Proper record keeping and Registration of the group with social services department .The project collected and record testimonies from members during the trainings</p> <p>Increased capacity of Aweer farmers in sustainable agriculture through through establishment of Kitchen gardens and support of ministry of agriculture to establish one model farm in each of the five Aweer villages to act as demonstration farm:</p>		capacity building in participatory appraisal and Social survey techniques.
Activity 4.2 Conduct a participatory appraisal of livelihood options	<p>Continuous meeting with community members and exposure visits to explore ways of enhancing existing livelihoods. Representatives from the community visited a group refining honey, which led to request for honey extraction machines to add value to their honey and fetch more income.</p> <p>Market scoping survey which 1)Profiled various forest and non-forest products, currently utilized and potential ones, within Boni-Dodori forest ecosystem (paying special attention to already collected data such as indigenous knowledge on local biodiversity)2)analyzed the existing and potential markets for forest and non-forest products within Boni-Dodori forest ecosystem in terms of scope, range, scale, status and trends of products, markets and prices 3)To assess and recommend how best the communities can competitively and sustainably harness and benefit from the forest and non-forest products and access markets.</p>		Implemented recommendation from the participatory appraisal and market scoping survey.
Activity 4.3 Initiate enhanced and/or diversified livelihoods	<p>The bee keeping and the Village Saving and Loan Associations (VICOBA) livelihood activities were monitored and identified needs were addressed through additional training and provision of additional equipment .96 beekeeping members are involved in the pilot project with 45 beehives being successful colonized .</p> <p>Procurement of honey harvesting and processing equipment's and plans are in place to train the farmers on how to use and operate the equipment</p>		Training on of honey extraction machines.
Activity 4.4 Advocacy initiatives for community rights	<p>WWF facilitated five community representatives to meet National Land Commission (NLC) leadership to discuss community land rights</p> <p>The community member has been sponsored to grace forums where they have aired their concerns which include insecure land and tenure and lobby for support. The</p>		Enhance community capacity in advocating for their rights

	exposure has made the community to be known out there and a number of them have been invited to represent their community in a number of forums		
Activity 4.5 Mobilization of community service providers	During the reporting period, WWF helped leverage additional support for the Aweer community from other NGOs and government agencies through the project steering group and coalition. Kenya Red Cross provided seeds and farming equipment to Mangai village; NCC procured a vehicle for the Aweer Community Conservancy; government increased security in the area; World Concern plans to provide drought resistant seed varieties; and currently the Ministry of Agriculture with facilitation from WWF is supporting, establishment of model farms, kitchen gardens and other extension services to farmers. To strengthen the VICOBA groups, the support of the Ministry of Gender and social services was sought and the outcome was development of the group's constitutions which will position them to be able to access loans and financial support from government.	Continued mobilization of community service providers	
Output 5: Capacity building, advocacy and effective dissemination of project research findings will have positively influenced the implementation of CBNRM in the Boni-Dodori forests of Lamu and Garrisa County in Kenya as well as built understanding on CBNRM nationally and within the wider academic community	<p>CBNRM policy leveraging within (i) Lamu and (ii) Garrisa County development plans (Yr2-3)</p> <p>At least 2 project staff and 2 community representatives trained in effective NRM advocacy (Yr. 2-3).</p> <p>A Boni-Dodori ecosystem co-management plan has been drafted (Yr. 2, 3)</p> <p>Community based and/or participatory patrolling and enforcement activities in place within project area</p> <p>At least one discussion paper / case study on the development of CBNRM in the Boni-Dodori area produced.</p> <p>At least three papers published in international peer-reviewed journals by year 3</p> <p>Findings of the project presented at one or more scientific forums by year 3</p>	<p>The project supported the development of Kiunga Boni Dodori Conservation area plan which has been finalized. Actions plans were drawn by stakeholders to start implementation in Dodori national reserve. The capacity of community scouts has been build and is working in partnership with KWS and KFS to report and prevent illegal activities within the project area.</p>	Advocacy and lobbying of CBNRM and NRM issues; Communication and media work including website development, monthly management meetings and quarterly steering group meetings
Activity 5.1 Initiate a process for CBNRM policy leveraging within county development	Study visits to CBNRM projects were made during the reporting period. The community representatives were facilitated to meetings to review the 1) draft Natural Resources (i.e. benefit sharing) Bill, 2014 and 2) public participation to develop the guidelines for the wild life conservation and compensation Act 2013.	Discussion paper on CBNRM in Lamu county	

Activity 5.2 Support the development of a Boni-Dodori ecosystem management plan	WWF Darwin initiative project planned for a two day meeting in Lamu which brought together key stakeholders of this conservation area: Aweer community ,KWS,KFS,NRT Coast ,NEMA ,Lamu county government and WWF to review and plan for the implementation of the management plan . The outcome of the workshop were 1) a three year plan for Dodori National reserve2) Preparation of a concept and budget which was forwarded to the KWS secretariat to help in proposal development and mobilizing resources towards operationalization of Dodori reserve.3. Creation of awareness on the KBDCA management plan to the various stakeholders	Continued improvement dissemination and implementation of Boni-Dodori ecosystem management plan
Activity 5.3 Draft, publish and disseminate discussion paper / case study on development of CBNRM in Boni-Dodori	Plans are underway to produce a short case study / discussion paper highlighting the issues involved, progress made, and challenges. This will be provided with the annual report.	Discussion paper / case study on development of CBNRM in Boni-Dodori

Annex 2: Project's full current logframe:

Annex 3 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								
11 A 11 B	Number of papers to be published in peer reviewed journals Number of papers to be submitted to peer reviewed journals			-	1	-	1	3
12A 12 B	Number of computer based databases to be established and handed over to the host country Number of computer based databases to be enhanced and handed over to the host country			-	-	-	-	1
14A 14B	Number of conferences/seminars/ workshops to be organised to present/disseminate findings Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated			-	1	-	-	3
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)							
23	Value of resources raised from other sources (e.g., in addition to Darwin funding) for project work							

Table 2 **Publications**

Title	Type (e.g. journals, manuals, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. website link or publisher)
Kenya's Aders duiker paper	Scientific paper	R.A Amin, T.Wacher, S.A Andanje, B. Ogwonka, A .H Ali, A.E Bowkett, M. Omar, 03 December 2014	Male	Briton	Springer, London	http://link.springer.com/article/10.1007/s10531-014-0842-z

Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

This may include outputs of the project, but need not necessarily include all project documentation. For example, the abstract of a conference would be adequate, as would be a summary of a thesis rather than the full document. If we feel that reviewing the full document would be useful, we will contact you again to ask for it to be submitted.

It is important, however, that you include enough evidence of project achievement to allow reassurance that the project is continuing to work towards its objectives. Evidence can be provided in many formats (photos, copies of presentations/press releases/press cuttings, publications, minutes of meetings, reports, questionnaires, reports etc.) and you should ensure you include some of these materials to support the annual report text.

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.	