

Darwin Initiative: Final Report

To be completed with reference to the “Writing a Darwin/IWT Report” Information Note: (<https://www.darwininitiative.org.uk/resources-for-projects/reporting-forms-change-request-forms-and-terms-and-conditions/>).

It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Darwin Project Information

Project reference	24-013
Project title	Balancing water services for development and biodiversity in the Tana Delta
Country(ies)	Kenya
Lead organisation	Nature Kenya (The East Africa Natural History Society – EANHS)
Partner institution(s)	Nature Kenya, Kenya Wildlife Service, Kenya Forest Service, Tana River County Government, Lamu County Government, Tana Delta Conservation Network
Darwin grant value	Project Total £395,400
Start/end dates of project	1 st April 2017 to 31 st March 2021
Project leader’s name	Bruce Liggitt
Project website/blog/social media	www.naturekenya.org
Report author(s) and date	Paul Matiku and Bruce Liggitt – 21 June 2021

1 Project Summary

The Tana Delta is located in the coastal region of Kenya at the end of Kenya’s longest and largest river; the Tana River. Approximately 90% of the delta lies in Tana River County and about 10% lies in Lamu County. The delta is an Important Bird Area; a Ramsar Site; a Key Biodiversity Area (KBA); a Global Biodiversity Hotspot; and part of the Coastal Forests of Eastern Africa Hotspot. The natural resources of the delta include its soils, vegetation, and wildlife on which many economic activities are based. The project targeted to set up an Indigenous and Community Conserved Area (Figure 1) of 95,000 ha within the core of the delta with a population of about 120,000 people.

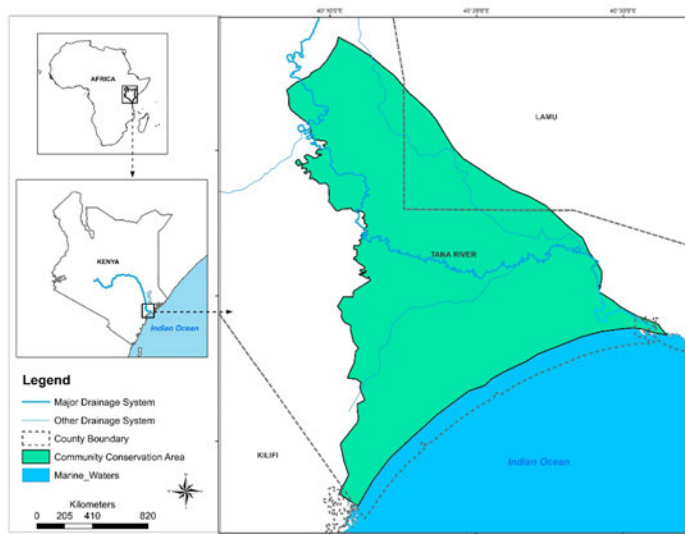


Figure 1: Tana Delta Indigenous Community Conservation Area (ICCA) location map – Dickens Odeny

During community and County level consultations in July 2017 it became apparent that the map used in the proposal incorrectly excluded residents of Lamu County who were stakeholders in the project and did not want to be left out. This area which is a rich mosaic of habitats, includes riverine forests, oxbow lakes, lakes, swamps, open water, river channels, mangrove forests and grassland, all of which depend on the continuing flow of the Tana River. Including this area expanded the ICCA from the original 95,200 ha to 116,867 ha as per the maps below (Figure 2) and this was subject to a Darwin Change Request.

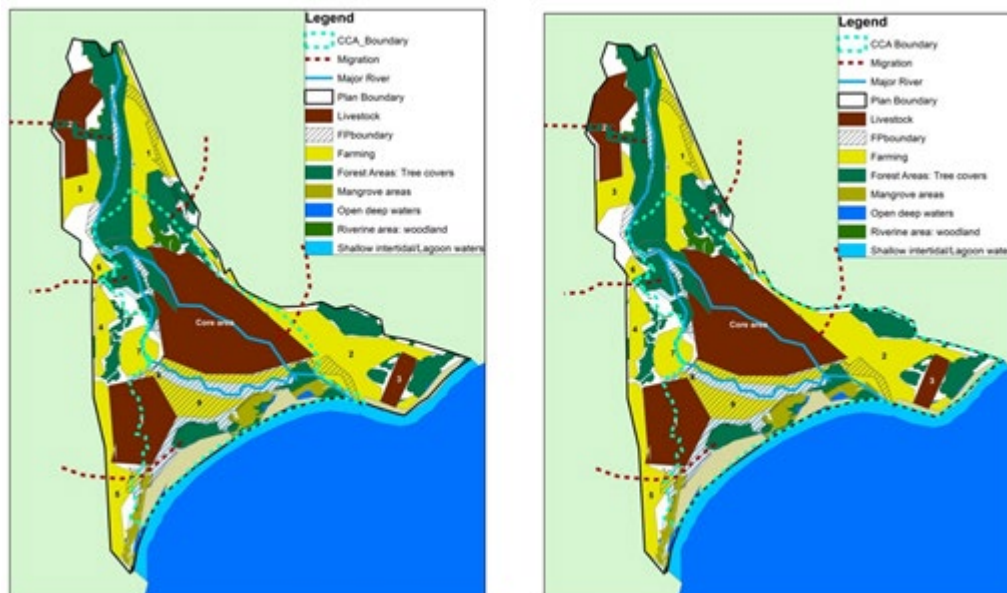


Figure 2: Tana Delta ICCA map the original area 95,200 ha (left) and expanded area 116,867ha (right)

Tana River Delta (130,000 ha), the second most important estuarine and deltaic ecosystem in Eastern Africa, is a Ramsar site, Key Biodiversity Area and Important Bird Area. It supports: five species of threatened marine turtles; lions, elephants, three species of monkey including one of the world's 25 most endangered primates, the endemic Tana River colobus (EN) and the Tana River Mangabey (EN), rare fish and reptiles, 350 bird species including the Basra reed warbler (EN), internationally important populations of 22 waterbirds and 280 plant (including four vulnerable) species. The Delta is one of the poorest areas of Kenya (77% of the population exist on <US\$ █ a day). The people living in the core of the Delta derive their livelihoods from the Tana River (Kenya's largest), either as farmers on receding lake edges (Pokomo) or as pastoralists (Orma and Wardhei) who use the wetlands as dry-season grazing for their livestock including 300,000 cattle, or as fishermen (Luo/Luhya) dependent on fish from lakes and watercourses. Access to water is a source of conflict between pastoralists and agriculturalists. Forest clearance and conversion of wetlands for farming/livestock corridors eases tension but results in biodiversity loss, and in the long-term, ecosystem services. A Delta-wide Land Use Plan (LUP) based on a Strategic Environmental Assessment, hailed by DFID as a model for implementing the SDGs, was developed and approved by all stakeholders including both County governors. Implementation will do much to solve these problems but County Assemblies and communities requested to be shown how to implement it.

Nature Kenya has worked with Tana Delta communities since 2007, firstly mounting a national and international campaign against more than seven land-grabbing projects. Subsequently Nature Kenya successfully encouraged and facilitated national and county governments to formulate a community-led LUP informed by SEA. During the LUP formulation process a lot of data on the Delta was gathered by Nature Kenya and partners. Since 2012 Nature Kenya has conducted numerous surveys in the Delta including over 100 villages, consulting men and women, youth and heads of households and village and area leasers and elders. Their views, felt needs, plight and possible solutions to their problems informed all the surveys and consultations that culminated in the highly consultative LUP. The Tana Planning Advisory

Committee (TPAC) bringing together the Tana River and Lamu County Governments, the local communities represented by the Tana Delta Conservation Network and membership of 38 user groups and representatives of national government agencies provided the basis for validation and agreement on priority interventions.

The project was designed to demonstrate how to implement the LUP in the heart of the Delta, where biodiversity is richest and access to water and land is hotly contested. The design was aligned to respond to biodiversity conservation provisions of The Wildlife Conservation and Management Act (that allows for development of wildlife conservancies) and the Forest Conservation and Management law (that provides for community forests) offering a framework for Community Conserved Areas (CCAs), from which to develop the demonstration. We supported 55 villages and two County Governments to balance water use for development and biodiversity by establishing Tana Delta Indigenous and Community Conservation Area (ICCA) over 116,867 ha of the core of the Delta: open-access farming/grazing land and gazetted forests inside/surrounding the two main river channels between Kipini and Garzen, including ca. 3,939 ha of mangrove and 44,813 ha of forest. Since biodiversity of the proposed ICCA is characteristic of the Delta including all endangered species, establishing the ICCA would give strong support to ensuring no further loss of forest within the ICCA.

The project outcomes were generated by doing the following: **Building communities awareness of the costs/benefits of a ICCA** through ecosystem-services-assessment (to increase understanding of benefits of maintaining forest cover/water flows) and holding meetings to explain responsibilities/benefits under community forest/CCA legislation/processes. **Assisting communities negotiate the ICCA development process.** TDCN supported the 55 Village Natural Resource/Land Use Committees to agree a process for electing/appointing the CCA committee to ensure equitable/ethnic representation. **Protecting biodiversity habitat** e.g. KFS and KEFRI trained Community Forest Associations in sustainable forest management. **Ensuring ethnic groups equitably access resources** outside key biodiversity areas. The CCA Management Committee developed a management plan through community consultation which specified water-access routes for cattle. **Engaging County Assemblies to embed the CCA in county governance.** We explained the LUP/ICCA individually to Members of County Assemblies (CAS) Committees e.g. water/agriculture step-by-step through the LUP/CCA, securing support. We explained the significance of creating a registry of land and how County resources can be targeted to support sustainable use including helping water-hungry communities develop/diversify livelihoods to reduce water use. We also explored **sustainable financing options** through the Tana delta green heart initiative along-side the plan-vivo approach to generate carbon-credits to enhance livelihoods and nature values in the Tana delta.

Expected changes from the project implementation

The project was designed to deliver the following changes: **116,867ha** (the core 73%) of the Tana Delta to ICCA and being managed for multiple use to benefit 35,000 people and globally important biodiversity as a demonstration of LUP implementation. We measured the impact on: **Key forest habitat:** By EOP the decline of ca. 48,752 ha of forest habitat (3,939 ha mangrove, 44,813 ha forest) has slowed by 50% compared to baseline; **Biodiversity:** Wildlife populations of key forest habitat within the ICCA (birds and primates – including endangered species and others) are stable/increasing compared to baseline scenario; **Pastoralists:** 90% of 1,530 households (12,250 people, 50% men:50% women) are benefiting from secure water-access routes for livestock; **Farmers:** 90% of households 2,625 households (21,000 people, 50% men:50% women) are benefiting from secure flood-recession farming areas; **Fisherfolk:** 90% of 218 households (750 people, 50% men:50% women) are benefiting from secure access to fishing waters; **The poorest members of the 45 target villages (a subset of the beneficiaries listed above):** 220 Households ca.1,320 people, 33% pastoralist; 33% farmers and 33% fisherfolk (all groups 50% men:50% women) are benefiting from livelihood development/diversification in line with the ICCA.

2 Project Partnerships

Partner(s) roles and involvement in Project planning and decision making

The RSPB is the lead organisation and has continued to add to over 20 years of financial and technical support to Nature Kenya to gain expertise to deliver integrated conservation and development projects, including project management, research and species recovery. **Nature Kenya** has gained expertise in the Tana delta for the last 14 years: the art of community mobilisation, consultation and leading from behind achieving: Consultative meetings on all activities including ICCA set up, ICCA framework, ICCA definition, mapping ICCA, awareness, ICCA validation and ICCA management planning and monitoring of forest cover (Annex 1, 2, 3, 7, 8, 9, 10, 13, 14, 19, 20, 30, 32, 52, 56, 57, 58, 59, 60, 65). The baseline PRA and household wellbeing survey (Annex 4) and annual socio-economic and diet surveys were also coordinated by Nature Kenya with partners (Annex 15,35,133). Other Nature Kenya activities were setting up and training of VNRLUCs (Annex 18,22,27, 31,74 to 100, 132) and profiling and capacity building for BMUs, WRUAs, CFAs (Annex 11, 12). Nature Kenya coordinated the work on ecosystem services including consultations and reporting (Annex 64) and also engaged county governments to take up their mandate including water register, water allocation guidelines, ICCA mapping (Annex 33,34,51). **The Tana Delta Conservation Network (TDCN)** that is made up of resource user groups from all ethnic communities, has continued to apply skills imparted in them by Nature Kenya to promote biodiversity conservation and development that serves common community interests, for example, by providing a community business centre that serves 38 user groups from all ethnic groups. The TDCN, set up 55 Village Natural Resource and Land Use Committees (VNRLUCs). Besides being a direct beneficiary for capacity building to exist as a credible sustainable grassroots force for nature and livelihoods, the TDCN was involved in implementation of project activities including the following: submission of community petitions on the Land Use Plan and ICCA set up (Annex 110,121, 124,138,142), support to local groups to engage in livelihoods activities (Annex 111-120), drafting of ICCA constitution, (Annex 61), set up of CFAs and merger of Hewani and Onkolde CFAs (122), biodiversity monitoring (Annex 123,135,136,137,) and development of livelihoods centre at TDCN offices (Annex 130). **The County Governments of Tana River and Lamu** roles included: formulation of forest policy (Annex 178, 179) and Forest Landscape Restoration Action plans (Annex 180), water register, revision of water act to allow nesting of water access regulations, development of water access regulations (Annex 191,192, 193, 194) and ICCA mapping including water access routes and flood recession irrigation areas (Annex 195,196, 197, 198) and training of trainers for farmers involved in climate smart related livelihoods activities (Annex 47, 48, 49, 309). The county governments also consulted communities on their county development plans and budgets and received proposals Annex 151, 152, 155,156, 164,165,312, 313) including accepting to support the ICCA committee in the ICCA management roles. **The Kenya Forest Service (KFS)** supported CFAs to develop participatory forest management plans (Annex 26,27,28,29,36,37,38,67,68,70,73), trained ICCA set up and gazettement options and ICCA management committee (Annex 140). **The Kenya Wildlife Service** trained the ICCA committee on history for wildlife conservancies (Annex 55) and opportunities for community wildlife associations (Annex 144). **The Kenya Forest Research Institute (KEFRI)** was involved in project activities as follows: Baseline PRA and household wellbeing survey (Annex 317) and socio-economic surveys to inform CFAs Participatory Forest Management Plans (PFMPs) for Kilelengwani, Kipini, Chara (Annex 23,24, 25) and the assessment of forest status (Annex 39,40,41,42,43) and training the CFAs in nursery establishment, seed collection and tree growing (Annex 62,63,66) based on training needs assessment (Annex 101). **The Water Resource Authority (WRA)**, trained and supported Water Resource Users Associations (WRUAs) in Kioki, Witu, Belisa and Salama to produce Water Sub-catchment Management Plans (Annex 102,103,104,105). **Ministry of Agriculture, livestock and fisheries**, trained county agricultural extension officers in Tana and Lamu Counties on Climate Smart Agriculture (CSA) (Annex 47, 48, 49). **The National Museums of Kenya** was involved in biodiversity related baseline and end of project surveys for birds (Annex 5,131,137,219,221,232,237) and primates (Annex 6, 233,235 and mapping (8,30,53) and mapping (8,30,53). **The Kenya Marine Research Institute (KEMRI)** trained fisherfolk in fish pond establishment and management and provided fingerlings. **The National Treasury**

through the Chairman of the Inter-Ministerial Technical Committee on Delta (IMTC) continued to address barriers at higher Governmental level including the Tana Delta Green Heart Initiative which holds promise to generate green value chains with private sector that will promote sustainable land management in the delta. **The RSPB** allowed Nature Kenya to display its excellent leadership from behind ensuring that local communities are mobilized, their views sought and they are able to request support from appropriate government agencies to participate in the delivery of planned targets using their resources and also facilitation from the project funding. As a result, these partners are expected to continue the work beyond Darwin funding period.

Partner involvement in writing this report

This report is compiled by Nature Kenya and the RSPB by using reports (annexes) produced by project staff and partners with the roles described above.

Particular partnership achievements

The Tana Delta Conservation Network (TDCN) is a pillar for Tana Deltas conservation and development initiatives. The TDCN is a strong community voice holding the government to account. **Indigenous Community Conserved Area (ICCA):** The two county governments of Tana and Lamu, national government agencies, TDCN, 55 VNRLUCs set up the 116,867ha Indigenous Community Conservation Area (ICCA) supported by a trained ICCA Management Committee and ICCA management plan (Annex 19, 21, 32, 54, 60) and seven types of Institutions (CFAs, WRUAs, VNRLUC, BMUs, ICCA Management Committee) are promoting sustainable land management in the ICCA and Tana delta in general. **The Tana Delta Green Heart Initiative:** The Tana Delta Green Heart Initiative Business case, Investment Rationale, Road Map to implement Green Industrial Park in Minjila were developed (Annex 228, Page 26). The Tana River Governor approved set up of green Heart Initiative office at the Tana River County offices in Hola, set up 60 ha land for the industrial Park in Minjila (core of the delta) and second three staff to plan investor conference to attract private sector to invest in the area. **Government support and engagement:** The County Governments of Tana River and Lamu were fully involved in the ICCA establishment and the ICCA is captured in the Tana River County Integrated Development Plan II and was allocated Ksh [REDACTED] (£ [REDACTED]) over a four-years within the Tana River County Annual Development Plan (Annex 164/5). Other government agencies (KFS, KWS, KEFRI, KMFRI, WRA, Agriculture Ministry, National Museums) were extensively involved in project implementation (Annex 6, 8, 23, 24, 25, 26, 27, 28,29,30,36,37,38,39,40,41,42,43,47,48,49,53,55,67,68,70,73,140,144,219,221,232, 233,235 237,317)

Lessons, strengths, challenges and solutions

Community driven solutions for conservation and development work: Given the opportunity, local communities are the best leaders and solution providers for local challenges. Farmers and pastoralists in Tana delta have been historically embroiled in conflict over resources with grass eaten bare, then sea water intrusion followed by floods. Working with communities has proven to be one of the key ingredients for success in the Tana Delta. TDCN has claimed its space to provide leadership and mobilize communities to engage in conservation and development. This strategy worked perfectly when the COVID-19 pandemic struck. Even with nationwide government-imposed restrictions on movements most project work has gone on because key activities happen in the villages (Annex 351).

Biodiversity of the Tana Delta is still not yet understood. Recent discoveries of more than 50 individuals of the Critically Endangered White-backed Vultures and thousands of Vulnerable Madagascar Pratincoles is proof that we are yet to fully understand the biodiversity of the Tana Delta. With time, the conservation value of the delta is going up. The vultures, in particular, are a startling discovery given that the kind of human-wildlife conflict that has led to a crash in vulture populations in the rest of Kenya and the wider region(Annex 351).

Collaborative work with government at national and county level is mandatory for long term impact – Government officers whether high level policy makers or the local agricultural

extension officers mainstream recommendations into policy and provide technical advice and support to communities enhancing sustainability. They provide a legacy for the project as they will continue to work with communities long after the project is completed (Annex 351).

Partners engagement after project completion

There is no doubt each partner engaged in this project will continue their roles post project. Partners were engaged based on their mandates as government service providers or as community beneficiaries trying to derive a livelihood in the delta.

Local communities not in the partnership

The main local beneficiaries outside the Tana delta are those from Yala Swamp. Learning from the Tana Delta, local communities in the Yala swamp have developed a land use plan approved by their two county governments of Siaya and Busia and their political king pin former Prime Minister Raila Omollo Odinga. They have set up a Community conservation area and are involved in climate smart livelihoods improvement initiatives (Annex 352).

Technical specialists

Based on need the project management involved Kenya Forest Research Institute (Annex 23,24,25,39,40,41,42,43,62,63,66,101,317), The Kenya Forest Service (KFS) and Kenya Wildlife Service (Annex 26,27,28,29,36,37,38,55,67,68,70,73,140,144), The National Museums of Kenya (Annex 5,6,8,30,53,131,137,219,221,232,233,235,237), the Water Resource Authority (Annex 102,103,104,105), Ministry of Agriculture, livestock and fisheries (Annex 47,48,49) and the Kenya Marine and Fisheries Institute in training fisher folks.

UK-Embassy and British High Commission involvement

We did not hold formal meetings with either the UK-Embassy or the British High Commission or the Foreign office but we maintained links with relevant staff with whom we shared Darwin concepts and applications in the Darwin call round 27th in 2020. We communicated to Sabita Thapa (DFID) (External) [REDACTED] Serah Nderitu [REDACTED]

[REDACTED] and Anita Siro [REDACTED]

3 Project Achievements

3.1 Outputs

The project set out to get communities and County governments to demonstrate how to balance natural resource governance to reduce conflict amongst the 120,000 people of the Tana Delta (and 1.2 million people of 5 other deltas) and conserve biodiversity. This impact is achieved through the project outcome to set up a 116,867 ha Community Conservation Area in Tana Delta (73% of Delta) being managed for multiple-use to benefit 35,000 people and globally-important biodiversity as a demonstration of Land-Use-Plan implementation. To achieve the outcome, six maturely reinforcing outputs were formulated and implemented:

1. A 116,867 ha Community Conservation Area (CCA) is established through consensus building among pastoralists, crop farmers and fisherfolks
2. Farmer, pastoralist and fishing communities have the capacity to jointly manage Community Conservation Areas
3. County Governments have the capacity and have allocated financial resources to support communities to manage the CCAs
4. The potential for developing sustainable financing for the CCA from carbon and ecotourism has been assessed.
5. The poorest and most vulnerable subset of the 35,000 people living inside the CCA are empowered to demonstrate how livelihoods can be developed/diversified to support the long-term conservation of the delta's natural resources
6. Lessons learned from the project are being used by government bodies (including county governments) leading the development of other Deltas throughout Kenya.

Between April 2017 and March 2021, the indicators and targets set out for each output were achieved as outlined in the indicator based output achievement reporting below.

Output 1: A 116,867 ha Community Conservation Area (CCA) is established through consensus building among pastoralists, crop farmers and fisherfolks.

The output and indicators were achieved as follows:

Key stakeholders in the ICCA area are fully aware and are able to explain the ICCA to their leaders (Indicator 1.1). Nature Kenya, TDCN, County Officials and the Provincial administration held consultations and awareness on ICCA establishment (Annex 1 and 3) involving 32 villages (13 pastoralist; 16 farming and 3 fishing) where a total of 837 people (426 men; 411 women) from 71% of the villages in the ICCA area supported the ICCA establishment (Annex 9). Overall, 1,993 people (1,143 male; 850 female) were reached with ICCA awareness messages.

Communities to engage in the setup of the ICCA were identified (Indicator 1.2). Stakeholders targeted include 7 types of local institutions including 5 Community Forest Associations (CFAs), 5 Water Resource Users Associations (WRUAs), 5 Beach Management Units (BMUs) and 55 VNRLUCs (38 user groups affiliated to TDCN with a membership of 1,156 individuals (717 male; 439 female) and ICCA Management Committee alongside the TDCN and TPAC for coordinating the delta efforts were involved in the ICCA set up (Annex 62, 63, 66, 71 and 101 to 105). They also include core government duty bearers being agencies: Tana and Lamu County Governments, National Government agencies with a mandate on natural resources including KWS, KFS, KEFRI, WRA, Ministry of Agriculture and KMFRI (Annex 59).

55 village Natural Resource and Land Use Committees were set up (Indicator 1.3). The two county governments of Tana and Lamu, national government agencies, TDCN, the 55 Villages and Community Forest Associations (CFAs), Water Resource Users Associations (WRUAs) and Beach Management Units (BMUs) representatives, agreed and set up a 116,867ha ICCA. The VNRLUCs are actively engaged in ICCA management and restoration through collection and planting of 3,000 kgs of seeds.

The ICCA was mapped and management plan consultatively developed (Indicator 1.4). During initial meetings of the ecosystem services assessment stakeholders from the Lamu side of the Delta pointed out that some areas in the lower delta had been left out of the original ICCA which covered 95,200ha. The original map was then revised to incorporate stakeholders' views. This increased the size of the ICCA to 116,867ha (Fig 2 of this report and also a map showing ICCA land cover types (Annex 8). Further mapping of forest cover in 2018 showed forest improved by 20% (Annex 50, 52). Further, a map showing sea water intrusion into the ICCA was developed and included in a policy brief submitted to the Cabinet Secretary, Ministry of Environment and Forestry (Annex 30). Consultatively, integrated management plan for the ICCA was developed, validated by the ICCA management committee (Annex 54) and agreed by stakeholders as The Tana Delta Indigenous and Community Conserved Area Management Plan, 2019-2029 (Annex 59). For process and stakeholders involved please see: Annex 13, 14, 59, 60 and 65).

ICCA Management Committee and 55 Village Natural Resource and Land Use Committees were established (indicator 1.5). A multi-ethnic ICCA management Committee made up of 48 individuals (41 male; 7 female) was set up (Annex 3) and trained by KWS, KFS and Nature Kenya (Annex 141, 143, 144, 145, 146, 150). With 55 VNRLUCs (660 officials) and other stakeholders, the ICCA management committee was reconstituted to comprise of 19 members (10M;9F) who represent communities from 19 locations in Tana Delta. The County governments of Tana River and Lamu, and the KWS and KFS sit in the Committee as advisors. To support forest management and restoration of ICCAs forests, a total of 5 Participatory Forest Management Plans (PFMP) and Participatory Forest Management Agreements (PFMA) were developed for Ozi, Kipini, Kilelengwani, Chara and Mpozi forests (Annexes 26, 29, 36, 37, 38, 67, 68, 70,73). The PFMPs and PFMA are being considered for signing by the Kenya Forest Service (KFS). The KFS and KWS and KEFRI are engaged either as supporters or as trainers of CFAs and WRUAs on seed collection (Annex 62) and technical elements of tree nursery establishment, based on training needs assessments (Annex 63, 66, 71 and Annexes 101 to 105).

The ICCA is recognized by duty bearers (indicator 1.6). In the minds of the Tana delta ICCA range villages, the Tana and Lamu County Government, 55 VNRLUCs, CFAs and WARUAs and TDCN and others, the ICCA is declared. Legally, the ICCA committee is prepared to register as Tana Delta Indigenous and Community Conservation Area Association. In the constitution, the ICCA association objects are to: i) promote inclusivity and representation of diverse community interests in the ICCA governance; ii) minimize conflicts and leadership wrangles in conservancy management; iii) ensure availability of efficient infrastructure to support Conservancy management; iv) improve the security for wildlife, visitors and natural habitats; and v) ensure sustainable food production to improve livelihoods (Annex 61)

Output 2: Farmer, pastoralist and fishing communities have the capacity to jointly manage Community Conservation Areas

The indicators were achieved as follows:

The ICCA Management Committee, Village Natural Resource and Land Use Committees, Beach Management Units, Community Forest Associations, Water Resource User Associations helped to reduce the number of incidents of cattle trampling crops, use of illegal fishing gear and methods, and charcoal production compared to baseline (Indicator 2.1).

Baseline condition was that farmers, pastoralists and fisherfolk were embroiled in perennial conflicts with resultant environmental degradation. The progress is that according to the annual socioeconomic survey charcoal production among beneficiaries declined by 98% over the project implementation period with the support level for the ICCA process and its declaration rising from 54% in year 2 to 98% at end of project and 95% of respondents are aware of TDCN activities. Respondents in the ICCA consider losses due to conflicts to have reduced significantly: Crops (maize, green grams, watermelons and mangoes) by 76.98; Cows 93.94%; Poultry 97.18%; Goats 93.61%; and donkeys 50% among others that show reduction of losses from the baseline. 72% acknowledged that efforts currently put in place by nature Kenya including the establishment of Indigenous Community Conserved Area (ICCA) and the 55 VNRLUCs (Annex 307).

The role of TDCN is understood by the ICCA stakeholders (Indicator 2.2). Out of 753 interviewed people, 298 respondents in the Tana delta are aware of the ICCA set up (98%), 298 support the ICCA (98%) and 289 are aware of the TDCN (95%) including TDCN activities: Promoting conservation activities (165 people); Supporting community livelihood projects (230); representation of community on issues around conservation (121); advocacy (68); capacity building for member groups (44); Governance over CBOs (44); promoting women rights (22); protecting community land rights (29); and community representation at various levels of governance (30). Annex 307). The TDCN is now a credible institution with own offices and activities (Annex 290), livelihoods demonstration strategy (Annex 148) and poultry production demonstration (Annex 271) and poultry and fish feed production strategy (Annex 289) and makes contribution to county processes.

The ICCA management committee is operating independently of the project team (indicator 2.3). Although not yet formerly registered there is established by constitution an independent Society called "Tana Delta Indigenous and Community Conservation Area Association". The association is an independent public body, a membership Society with registration open to all with core objectives to: promote inclusivity in the ICCA governance, minimize conflicts in conservancy management, develop infrastructure to support the conservancy, improve wildlife security and promote livelihoods in the ICCA. The association has an ICCA management Committee with capacity to steer the ICCA including renewing its leadership elected from the residents and user groups and VNRLUCs in the ICCA (Annex 61). The Committee is operating independently in running the affairs of the ICCA and will continue to manage the ICCA guided by the ICCA management plan (Annex 59).

Output 3: County Governments have the capacity and have allocated financial resources to support communities to manage the ICCAs

The indicators were all achieved as follows:

Representatives of County Assemblies were briefed of the project goal in relation to LUP (indicator 3.1). Members of county assembly (MCAs), County Executive Committee members, the Governor of Tana River County, County technical staff including directorate of Environment, County Planning Department and other leaders and institutions are fully aware and support the ICCA concept and budgeting for its continued management (Annex 181, 167, 330).

Counties have recognized and embedded the ICCA in the County planning and budgeting processes (Indicator 3.2). The TDCN presented written memoranda to the Members of County Assembly (MCAs) for consideration and inclusion of the ICCA during the CIDPII review process (Annex 124). The TDCN also submitted a petition to Tana River County Assembly in May 2017 (Annex 110) and also provided comments on the county budgets (Annex 138, 142) and comments on the County Integrated Development Plan (CIDPII) to enhance its content to include ICCA, restoration and sustainable land management in the budget (Annex 152, 155). A key outcome is that the ICCA is captured in the Tana River County Integrated Development Plan II and was allocated Ksh. [REDACTED] (£ [REDACTED]) (Annex 164/5 pp3). Also, the TDCN provided input to the Tana and Lamu County Forest Policy and Forest Landscape restoration action plans (Annexes 178, 179 and 180) with the outcome that the ICCA is mainstreamed into draft County Forest Policy, Forest Landscape Restoration Action plans for Tana and Lamu Counties. 1570 farmers are supported by county extension staff to set up Farmer Field Schools (FFS) to adopt climate smart production techniques as per training provided by Nature Kenya and the Ministry of Agriculture (Annex 309).

The County government staff in Tana River and Lamu were fully engaged in the process of establishing ICCA and training communities to manage the ICCA (Indicator 3.3). They were co-chairs of the interim ICCA Management Committee alongside KWS and KFS and participated in training the ICCA (Annex 150). The County Planning Department (CPD) carried out mapping of the ICCA including livestock water access routes and flood recession farming areas in the ICCA (Annex 195, 196 and 197) and agreed to set up a county water register (Annex 33) and developed water access draft regulations (Annex 161,193,194,198). The Kenya Forest Research Institute (KEFRI) developed 5 Participatory Forest Management Plans and Management Agreements (Annex13,27,36,37,38,67,68,73, 126,127,168) and trained the five Community Forest Associations (CFAs) and 4 WRUAs on tree growing including seed collection and tree nursery establishment (Annex 62, 63, 66) as Water Resource Authority developed 4 sub-catchment management plans for implementation by WRUAs.

County government staff are supporting communities to manage the ICCA and implement IGAs (indicator 3.4). The two County Governments are very supportive of the ICCA concept and are fully engaged in restorative livelihoods enhancement of the local people based on established potential (Annex 228, Page 26). Agricultural extension officers were trained on Climate Smart Agriculture (Annex 47, 48, 49) and are offering extension services to delta farmers including 1570 farmers involved in chicken, fish, goat, rice and other crops in Farmer Field Schools (Annex 309). The mapping of the ICCA and livestock water access routes and flood recession cultivation areas, water regulations (Annex 161, 191,195, 198) demonstrates county support. The Tana River Governor has approved the Tana Delta Green Heart Initiative to provide sustainable finance in the longer term through private sector engagement in green value chains (Annex 228, Page 26).

Output 4: The potential for developing sustainable financing for the CCA from carbon and ecotourism has been assessed.

Output 4 and the indicators were achieved as outlined below:

Tana Delta ICCA ecosystem services assessment (including carbon) was completed (Indicator 4.1). Ecosystem Service Assessment of the implementation of a Community Conserved Area in

the lower Tana Delta was published as a book (Annex 64, 214) with services including: Firewood/charcoal; Global climate regulation; Cultivated food; Erosion control; Timber; Coastal protection; Natural medicines; Spiritual/religious; Fish; Local climate regulation; water quality improvement; Regulating pests and diseases; Recreation; Aesthetics and water provision. The Ecosystem Services Report was summarised into a scientific paper (Annex 216). This ecosystem services assessment was done based on science and wide stakeholder consultations (Annex 208, 212). Scoping for the ecosystem services assessment was carried out consulting all key stakeholders (Annexes 201 and 202). To collect data for the ecosystem services assessment, the Nature Kenya Science Advisor and Species and Sites Manager at Nature Kenya trained 28 local enumerators (16M, 12F) from TDCN on protocols for the ESA (Annex 209) who subsequently collected data in 28 villages interviewing 409 respondents (Annex 205, 208, 209) following the Toolkit for Ecosystem Service Site-Based Assessment (TESSA—annex 203). Consultations were carried out extensively within the ICCA area (Annex 107). Groups consulted included TDCN, CFAs, Livestock herders, crop farmers, fisher folk, county government officials and other area leaders. Other consultations took place during planning (Annex 200), project inception workshop (Annex 201), TESSA tool training (Annex 203, 204), defining and agreeing data collection (Annex 205), collecting data on ecosystem services including provisioning, regulating, recreation (Annex 206) and others. Peter Nelson, the international consultant who advised on the Tana Delta LUP and SEA carried out the hydrological assessment (Annex 218). Data on biodiversity services including birds (annex 232), primates (Annex 233, 235), fish (Annex 234) and reptiles (Annex 236) was provided through surveys done by the National museums of Kenya.

Feasibility studies on using ecosystem services to generate income for ICCA management were done and Tana Delta Green Heart Initiative agreed as the best approach to realise income for the stakeholders to manage the ICCA (indicator 4.2). Options for sustainable finance for the ICCA were explored. A consultant (Peter Nelson) was hired (funding from GEF/UNEP) and developed Tana Delta Green Heart Initiative Business case (Annex 228), Business case Executive Summary (Annex 226), business case implementation road map (Annex 225) and marketing prospectus (Annex 231). This is considered the most viable approach to promote sustainable management of the Tana delta in-line with the Land Use Plan including in the ICCA. The Tana River County Governor has approved the Tana Delta Green Heart Initiative concept including office space at the Tana River County offices and set up 60 ha land for the industrial Park in Minjila and three staff to plan investor conference with support from Nature Kenya's GEF/UNEP programme that will continue this overarching vision in October 2021 so as to attract private sector companies to invest in the delta in ways aligned to the land use plan. Already one investor is promoting Bird Eye Chilli providing support to farmers and guaranteed markets. Another company is exploring investing in fruits including dried mangoes and another climate smart rice seed among others. On carbon, preliminary results from ecosystem service assessment (Annex 210, 214) indicate that the ICCA has approximately 44,592 ha of forest and 3,939 mangrove cover. However, this carbon trading business remains an area for further development and capacity building for Nature Kenya. Nature Kenya and the RSPB are planning to submit a follow-on project during the Darwin 28th Call for proposals in year 2021.

Output 5: The poorest and most vulnerable subset of the 35,000 people living inside the ICCA are empowered to demonstrate how livelihoods can be developed/diversified to support the long-term conservation of the delta's natural resources

The output 5 and the indicators and sub indicators were largely achieved as follows:

The project achieved indicator 5.1 The most vulnerable subset of the 35,000 households (220 Households, ca.1,320 people, 33% pastoralist (60% men, 30% women), 33% farmers (50% men, 50% women) and 33% fisherfolk (50% men, 50% women)) are being trained in activities to develop/diversify sustainable livelihoods in line with the CCA (fish ponds, small holder chicken rearing, new/improved agricultural (leafy vegetables, fruits, rice and green grams) bee keeping and wildlife guiding. By end of the project, direct beneficiaries for assets, training and outreach for livelihoods diversification are 4648

households (2281M;2357F) representing 27,828 people (13195M;14633F) disaggregated into 1606 pastoralists (934M;672F) 9636 people (4626M;5010F); 2742 crop farmers (1230M;1512F) 16452 people (7897M;8555F); and 290 Fisherfolk (117M;173F) 1740 people (672M;1068F) (Annex 258, 281, 307, 308). Farmers and households involved in demonstrations and training were as follows: 96 crop farmers including horticultural production (52M;44F) representing 576 people; 283 beekeeping farmers (134M;149F) representing 1698 people; 170 fisher folk farmers (73M;97F) representing 1020 people; 42 pastoralist households (12M;30F) representing 252 people; 245 rice farmers trained (98M;147F) representing 1470 people and 72 households in wildlife guiding (58M; 14F) representing 432 people. 1384 (842M, 542F) pastoralist households representing 8304 (3986M, 4318F) individuals were trained in animal husbandry practices, disease surveillance and detection and basic veterinary services (Annex 273).

The project achieved indicator 5.2 By end Year 2 80% of the 220 households participating in the demonstration have developed/diversified their livelihoods as a result of training they have received. During the project period a total of 1,428 households (674M;754F) earned a total of Ksh [REDACTED] disaggregated as follows: 240 climate smart agriculture (horticulture) households (136M;104F) Ksh [REDACTED] 360 beekeepers (168M;192F) Ksh [REDACTED] 100 fisher folk households (50M;50F) Ksh [REDACTED] 161 pastoralists (goats and milk) farmers (60M;101F) Ksh [REDACTED] 255 poultry farmers trained (110M;145F) resulted to 154 poultry farmers (56M; 98F) earning Ksh [REDACTED] 336 rice farmers (149M;187F) earned Ksh [REDACTED] and 77 individuals trained in wildlife guiding (55M;22F) earned Ksh [REDACTED] (Annex 258, 281, 307, 308).

The project achieved Indicator 5.3 including its sub indicators as outlined below:

Achieved sub indicator: 20 individuals (10 male youth, 10 female youth) from 20 households participating in the demonstration (120 people) increase their income from wildlife guiding by 25% from baseline to end of project. Overall, 77 Wildlife guiding households (55M;22F) earning Ksh [REDACTED] (Annex 133, 266, 273, 307, 308 and 327). The 77 trained guides are also biodiversity monitors across the delta. They participate in January and July water fowl counts; and detailed bird and biodiversity monitoring carried out annually in August and the monitoring data is submitted to the National Museums of Kenya and used to produce Key Biodiversity Areas Status and Trends reports annually (Annex 135, 136, 137).

Achieved sub indicator: 50 individuals from 50 households (300 people) increase their income from honey by 25% from baseline to end of project. 360 beekeepers (168M;192F) representing 2160 people (1008M;1152F) earned a total of Ksh [REDACTED]. This translates to 28.35% increase in average household incomes for male headed households and 51.53% for female headed households (Annex 133, 307, 308 and 327). 193 (892M, 101F) beekeeping households representing 1,158 (556M, 602F) individuals directly benefited through training in general hive management including hygiene, honey harvesting, processing and market access and linkages from the local TOTs led by Tana Delta Conservation Network backed by County department of livestock production (Annex 292, 293, 294).

Achieved sub indicator: 50 farmers (25 men, 25 women) from 50 households participating in the demonstration (300 people) report an increase in the diversity of their diets and their income from selling produce increases by 25% from baseline to end of project. Crop farmers average annual income increased from Ksh [REDACTED] at baseline to Ksh [REDACTED] at the EOP representing an increase of 76% average annual household income. 336 Rice farmers in Ozi (149M;187F) harvested 4,720 kg of rice valued at Ksh [REDACTED] (£ [REDACTED]). This represents an increase of 44.85% and 81.55% increase in Household income for male and female headed households respectively. Communities in the lower Tana Delta are supported to plant rice varieties that are tolerant to brackish waters on farms previously abandoned due to sea water intrusion (Annex 133, 277, 307, 308 and 327). Climate smart agriculture (CSA) was carried out with 123 acres ploughed and planted with lentils in Chalaluma and Hewani Villages and farmers supported with 1,080 Kilograms of lentils with 791 households benefiting. 30 (7M;

23F) households from Harakisa Community Development Project were supported to initiate Bird's eye chilli farming in collaboration with Equator Kenya Limited - a private company. The earning represents 22.9% annual household income increase for male headed household and up to 71% annual income increase for female headed households in Idsowe Village (Annex 48). Farmers practicing greenhouse farming harvested and sold 375 Kg of tomatoes and 162 Kg of kale for [REDACTED]. Additionally, 160 Kg of tomatoes and 36 Kg of kale were consumed at household level (Annex 250).

Achieved sub indicator: 50 fishermen (25 men, 25 women) from 50 households participating in the demonstration (300 people) report an increase in the diversity of their diets and their income from selling produce increases by 25% from baseline to end of project. 50 (25M;25F) households representing 300 (153M, 147F) earned Ksh [REDACTED] in year 3 and [REDACTED] in Year 4 leading to total earnings of Ksh [REDACTED] from 1,462 kgs Tilapia (*Oreochromis niloticus*). Half of this produce was consumed directly by households supplementing their protein content in their diet (Annex 133, 307, 308 and 327). 120 fishermen were trained through field demonstration at the ponds by department of fisheries, technical officer from Kenya Marine Fisheries and Research Institute (Annex 282).

Achieved sub indicator: 50 pastoralists (25 men, 25 women) from 50 households participating in the demonstration (300 people) report an increase in the diversity of their diets and their income from selling produce increases by 25% from baseline to end of project. Overall, 222 pastoralist households (92M and 130 F) benefited directly from assets support. Training benefited 1,384 (842M and 542F) leading to 1,606 direct beneficiaries representing 9,636 people (4,626M and 5,010F). 161 pastoralist (goat and milk) farmers (60M;101F) representing 966 people earned Ksh [REDACTED]. Also, of the 255 poultry famers who were trained (110M;145F), 154 of these poultry (56M; 98F) farmers earned Ksh [REDACTED] (Annex 308). The mean cattle annual household income is Ksh [REDACTED] up from Ksh [REDACTED] reported in YR3 representing 49.46% increase. Mean pastoralist HH income increased by 26.41% meeting project target of 25% increase in HH income. Poultry producers also recorded a 38% increase in average HH income compared to Yr3 results (Annex 133, 273, 307, 308 and 327). 42 (12M, 30F) pastoralist households traded in goats making Ksh [REDACTED] (Annex 273).

Lessons learnt from demonstrations were shared with MCAs/wider community through visits to demonstrations, TDCN presentations, radio and other media (Indicator 5.4). TDCN has initiated a community enterprise demonstration and bulking centre for demonstrating bulking, processing, packaging, branding and marketing of farmer produce. Target enterprises include rearing indigenous chickens, beekeeping, fish, rice, chilli, milk and other enterprises in the delta. Community wildlife guides will also meet their visitors at this centre before proceeding on a tour to the delta. Communities and school children will come to learn. Communities will deliver their products to the centre for value addition and marketing (Annexes 275, 276). Lesson sharing was promoted across all the groups through exchanges and interactions during training sessions.

Output 6: Lessons learned from the project are being used by government bodies (including county governments) leading the development of other Deltas throughout Kenya.

Project largely achieved indicator 6.1 Findings and recommendations from the project were shared widely..... with many stakeholders including: the Inter-Ministerial Technical Committee on Deltas, the National Environment Management Authority, the National Treasury, Tana River and Lamu County Governments and line agencies Kenya Wildlife Service (KWS), Kenya Forest Service (KFS), Kenya Forest Research Institute (KEFRI), Kenya Marine and Fisheries Institute (KEMRI), Siaya and Busia County Governments and a range of other relevant bodies. The recommendations were shared through records of meetings discussing application of the project lessons, letters to key agencies, invitations of relevant agencies to participate in project implementation and presentations at relevant meetings and capturing

lessons and experiences at mid and end of the project and project Implementation Committee meetings (Annex 21, 353, 354).

Project largely achieved indicator 6.2 ... dissemination work is effective and lessons and recommendations are being taken into account during relevant policy formulation and decision-making processes. Findings and recommendations were compiled in the following reports: baseline PRA and household wellbeing (Annex 317); socio-economic surveys (Annex 15, 23, 24, 25, 126,127,128, 133, 307, 327) and they informed project activities including livelihoods improvement, ICCA set up and capacity building. Other findings and recommendations are those linked to biodiversity including birds (Annex 5, 232 237), primates (Annex 6, 10) and hydrology (Annex 211). Lessons learned and recommendations were compiled for the period 2017 to 2021 (Annex 351) and disseminated through two County Steering Group Meetings, the Preparation of the CIDP II, and the preparation of the County Integrated Monitoring and Evaluation Policy formulation meeting (Annex 326) resulting in recognition of the ICCA in Tana County CIDP II. Lessons were also shared with another Darwin project in Yala Swamp (Annex 352) and the Rt Hon H E Raila Odinga on 30th July 2019 (Annex 331) after which he signed on the Yala Swamp LUP and SEA. Also with the Cabinet Secretary for Environment on 21st June 2019. As a result of this meeting Nature Kenya drafted and submitted to the Cabinet Secretary a policy brief (Annex 335) and a cabinet memo on conservation and development issues in the delta (Annex 337).

3.2 Outcome

Outcome: A 116,867 ha Community Conservation Area in Tana Delta (73% of Delta) is being managed for multiple-use to benefit 35,000 people and globally-important biodiversity as a demonstration of Land-Use-Plan implementation

The outcome was achieved by delivering all the 7 indicators that the project set out to track and measure as outlined below:

Achieved outcome indicator 0.1 90% of pastoralist households (1,530 households, 12,250 people (50% men, 50% women) report significant reduction in number of livestock killed/injured through conflicts.

The baseline condition was that the farmers, pastoralists and fisherfolk were embroiled in perennial conflicts with resultant environmental degradation in the ICCA area. The progress is that direct beneficiaries for assets, training and outreach for livelihoods diversification reached 4,648 households (2,281M; 2,357F) representing 27,828 people (13195M;14633F). According to the end of project socioeconomic survey, out of 606 respondents, 72% believe that efforts currently put in place by Nature Kenya including the establishment of the Indigenous Community Conserved Area (ICCA) and the support governance structures such as the Village Natural Resource and Land Use Committees (VNRLUCs) consider losses due to conflicts to have reduced significantly: 1,606 pastoralists households (934M; 672F) representing 9,636 people (4,626M; 5,010F) benefited from the project interventions. Pastoralists reported 93.94% and 93.61% reduction in loss of cattle and goats respectively while chicken losses reduced by 97.18 and loss of donkeys reduced by 50%. This reduction is attributed to significant reduction in conflicts over grazing land, watering points and reduction in conflicts between farmers and pastoralists. Sheep is the only livestock that showed increase in losses mainly due wildlife attacks likely to be attributed to their susceptibility to attacks, less human hostility to wildlife and possibly better living conditions for biodiversity (Annex 258, 281, 307, 308).

Achieved outcome indicator 0.2 By EOP 90% of farming households (2,625 households, 21,000 people (50% men, 50% women) report significant reduction in incidents of conflict and kilos of farm produce lost through conflict as a result of secure access to flood recession farming areas. Direct beneficiaries for assets, training and outreach were 2,742 crop farmers (1,230M; 1,512F) 16452 people (7,897M; 8,555F). Crop farmers (maize, green grams, watermelons and mangoes) reported loss of 11,145 kgs of produce compared to 48,429 kgs baseline a 76.98% reduction in crop loss resulting from conflicts as a result of secure access to flood recession farming areas between baseline and EOP as a result of secure access to flood recession farming areas (Annex 258, 281, 307, 308).

Achieved outcome indicator 0.3 fishing households (218 households, 1,750 people (50% men, 50% women) report significant increase in fish catch from natural water bodies as a result of secure access to fishing waters. 290 fisherfolk (117M;173F) representing 1,740 people (672M;1068F) benefited directly from fish production assets, training and outreach. Fish farmers experienced zero losses representing 100% reduction in fish losses due to conflict related events. The computation of how much fish was lost due to conflicts was done indirectly as a factor of time lost/failure to go fishing attributed to conflicts either due to lack of access to fishing areas or attending to other conflict situations. This outcome may be attributed to reduced conflict over fishing areas and also there was reduced conflict between fisher folk and the Tana and Athi Development Authority (TARDA) (Annex 258, 281, 307, 308).

Achieved outcome indicator 0.4 220 households, 1,320 of the most vulnerable people in the target population of 35,000 are engaged in project activities and report significant improvements in their diet and/or increases in income in comparison to the baseline.

Total direct beneficiaries are 37,248 people. Direct beneficiaries for assets, training and outreach for livelihoods diversification are 4,648 households (2,281M; 2,357F) representing 27,828 people (13,195M; 14,633F) disaggregated into 1,606 pastoralists (934M;672F) 9,636 people (4,626M; 5,010F); 2,742 crop farmers (1,230M;1512F) 16,452 people (,7897M; 8,555F); and 290 fisherfolk (117M;173F) 1,740 people (672M;1068F). By end of the project these beneficiary farmers and households involved in demonstrations and training were as follows: 96 crop farmers including horticultural production (52M; 44F) representing 576 people; 283 beekeeping farmers (1,34M;149F) representing 1,698 people; 170 fisherfolk farmers (73M;97F) representing 1,020 people; 42 pastoralist households (12M;30F) representing 252 people; 245 rice farmers trained (98M;147F) representing 1,470 people and 72 households in wildlife guiding (58M; 14F) representing 432 people. (Annex 258, 281, 307, 308). County extension staff have continued to offer extension services to delta farmers including 1,570 households representing a further 9,420 people (involved in Farmer Field Schools (FFS) to adopt climate smart production techniques as per training provided by Nature Kenya and the Ministry of Agriculture (Annex 309). During the project period a total of 1,428 households (674M;754F) earned a total of Ksh [REDACTED] disaggregated as follows: 240 climate smart agriculture (horticulture) households (136M;104F) Ksh [REDACTED] 360 beekeepers (168M;192F) Ksh [REDACTED] 100 fisher folk households (50M;50F) Ksh [REDACTED] 161 pastoralist (goat and milk) farmers (60M;101F) Ksh [REDACTED] 255 poultry famers trained (110M;145F) resulted to 154 poultry farmers (56M; 98F) earning Ksh [REDACTED] 336 rice farmers (149M;187F) earned Ksh [REDACTED] and 77 individuals trained in wildlife guiding (55M;22F) earned Ksh [REDACTED]. During the end of project Socio-economic Survey, a total of 606 (348M and 258F) respondents were interviewed. 305 of the respondents were project direct beneficiaries. The mean cattle annual household income is Ksh [REDACTED] up from Ksh [REDACTED] reported in YR3 representing 49.46% increase. Mean pastoralist HH income increased by 26.41% meeting project target of 25% increase in HH income. Crop farmers average annual income increased from Ksh [REDACTED] at baseline to Ksh [REDACTED] at the EOP representing an increase of 76% average annual household income. Poultry producers also recorded a 38% increase in average HH income compared to Yr3 results. On alternative livelihood sources, communities earned an annual average HH income of Ksh [REDACTED] SE from climate smart agribusiness (CSA). On HH dietary diversity, maize, rice and beans remained as the basic staple foods for communities over the project period. Consumption of critical foods such as vegetables, fish, honey and fruits have become integral parts of HH dietary requirements among pastoralists, farmers and fisherfolk. In addition, by EOP, items such as cassava, cooking oil and sugar were included in HH diets. Food scarcity gaps declined over the project period. At baseline, 35% of respondents recorded going without food for over 3 weeks annually. This figure declined to 3% by EOP. Similarly, those that went without food for between 2-3 weeks declined from 17% to only 5%. Although 99% of respondents were concerned about possible decline of natural resources within the Delta, 72% expressed confidence that the structures put in place including ICCA committee, and VNRLUCs will address the challenges effectively (Annex 258, 281, 307, 308).

Achieved outcome indicator 0.5 the decline of ca. 48,752 ha of forest habitat (3,939 ha mangrove, 44,813 ha forest) has slowed by 50% compared to baseline. Baseline ICCA land cover map was produced (Annex 8). According to the annual socioeconomic survey (Annex 307), the proportion of charcoal producers in the area especially among the beneficiary base have reduced to 3.6% down from 7.6% recorded in YR3. They produced an average of 4.73 (+/- 0.32) sacks, amounting to approximately 237 Kg of charcoal produced in 2020. In 2019, 1700kg of charcoal was produced among respondents while in 2018, 13,167 kgs were produced by project direct beneficiaries and overall. Overall, charcoal production among beneficiaries declined by 98% over the project implementation period with the support level for the ICCA process and its declaration rising from 54% in year 2 to 98% at EOP. We used satellite GIS technology and carried out forest cover surveys in 2020 and compared with the start of project baselines. The forest cover increased by 20% as per the change detection map (Annex 52). In the end of project survey, 72% of respondents acknowledged that efforts currently put in place by nature Kenya including the establishment of 116,867 ha Indigenous Community Conserved Area (ICCA) and the support governance structures such as the Village Natural Resource and Land Use Committees (VNRLUCs) will be critical in reversing some of the negative trends including illegal logging that went on unabated across the Delta (Annex 307).

Achieved outcome indicator 0.6 the populations of at least one of the key wildlife species (e.g. Tana River Red Colobus, Tana River Mangabey, Basra Reed Warbler) and 13 out of 24 of the resident IBA trigger species, in areas where habitat is protected (i.e. (3,939 ha mangrove, 44,813 ha forest)) have not fallen below the baseline. End of project bird surveys show bird species diversity has remained stable (Annex 233 and 237). Water fowl species monitored (Annex 131 and 137) at the wetlands have also remained stable. Primate surveys (Annex 233, 235) indicate that the distribution of the Red colobus expanded from the baseline in 2017. Besides Onkolde forest where locals had seen the species in 2017, this time researchers reported sighting the species in Shetani Matwari. Additionally, local forest users reported the presence of Tana River mangabey at Shetani Matwari while its feeding evidence was recorded during this survey. According to the locals, Tana River mangabey occurs at Masewe forest, a few kilometres from Shetani Matwari. Other primate species known to occur in the Tana River (yellow baboons, vervets and Sykes' monkeys, were recorded in the majority of the forests. (Annex 233, 235). The 77 trained wildlife guides are also biodiversity monitors across the delta. They participate in January and July water fowl counts; and detailed bird and biodiversity monitoring carried out annually in August. Monitoring data is submitted to the National Museums of Kenya and used to produce Key Biodiversity Areas Status and Trends reports annually (Annex 135, 136, 137).

Achieved outcome indicator 0.7 the County governments recognise and begin to allocate funding for CCA management and livelihoods. The County Governments of Tana River and Lamu were fully involved in the ICCA establishment and support the ICCA concept and budgeting for its continued management (Annex 181, 167, 330). The ICCA is captured in the Tana River County Integrated Development Plan II and was allocated Ksh. [REDACTED] over a four-years within the Tana River County Annual Development Plan (Annex 164/5). On sustainable finance based on green value chains, Tana Delta Green Heart Initiative Business case, Investment Rationale, Road Map to implement Green Industrial Park in Minjila were developed (Annex 228, Page 26). The Tana River Governor has approved this concept and has agreed to establish office space at the Tana River County offices in Hola, set up 60 ha land for the industrial Park in Minjila (core of the delta) and second three staff to plan investor conference to attract private investors to invest in the area using approaches that maximise small holder producers for meat, fish, milk, leafy vegetables, rice, sunflower and a wide range of green value chains to spur economic prosperity of the people of the Tana delta. The GEF and UN Environment and the RSPB are supporting Nature Kenya and the Tana River County Government to implement this innovative financial mobilisation approach.

3.3 Monitoring of assumptions

Throughout implementation, critical conditions (risks and assumptions) defined in the logframe were monitored. Prevailing peaceful atmosphere will continue: There were incursions of Al-Shabaab militia spilling over from Somalia. The Kenya defence forces (KDF) was deployed in the area and extra security precautions were taken including by project staff but implementation was not affected. The Tana River and Lamu County Governments continued with the land use plan including convening discussions on water act review, water abstraction regulations, mapping of the ICCA, including flood recession irrigation and livestock water access routes (Annex 33,161,193,194, 195, 196,197,198) to mitigate future resource-based conflicts. Nature Kenya embraced highly consultative approaches for all activities including building the capacity of the TDCN and creating awareness in the set-up of the ICCA to ensure full support from the local communities (Annex1, 2, 3, 7, 8, 9, 10, 13, 14,19, 20, 30, 32, 52,56, 57, 58, 59,60,65). Members of County Assemblies (MCAs) and senior county government officials were included in key discussions and consultation and ICCA and LUP awareness (Annex 33,34,51) leading to the recognition of the ICCA and management committee. Communities were informed and made aware before various training took place to ensure their prior and informed consent leading to delivery of all planned capacity building activities and targets.

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

Project Impact: Communities and County governments demonstrate how to balance natural resource governance to reduce conflict amongst the 120,000 people of the Tana Delta (and 1.2 million people of 5 other deltas) and conserve biodiversity

The two county governments of Tana and Lamu, national government agencies (Kenya Wildlife Service and Kenya Forest Service), Tana Delta Conservation Network (TDCN), 55 Village Natural Resource and Land Use Committee (VNRLUCs), Community Forest Associations (CFAs), Water Resource Users Associations (WRUAs) and Beach management Units (BMUs) agreed and set up a 116,867ha Indigenous Community Conservation Area (ICCA) supported by a trained ICCA Management Committee and ICCA management plan (Annex 19, 21,32,54,60). Seven types of Institutions are either set up and or strengthened are promoting sustainable land management in the ICCA and Tana delta in general. These include 5 Community Forest Associations (CFAs) supported by participatory forest management plans, 5 Water Resource Users Associations (WRUAs) with sub-catchment management plans, 5 Beach Management Units (BMUs) and 55 VNRLUCs and trained ICCA Management Committee. The TDCN and Tana Planning Advisory Committee (TPAC) are coordinating the Tana delta land management efforts (Annex 62, 63, 66, 71 and 101 to 105). Within this ICCA is ca. 48,752 ha of forest habitat (3,939 ha mangrove, 44,813 ha forest) whose forest cover improved by 20% (Annex 52,57) and charcoal production declined by 98% over the project (Annex 307), terrestrial bird species (Annex 332 and 337 water fowl species monitored at the wetlands remained stable (Annex 131 and 137). The distribution of the Red colobus expanded their range from the baseline in 2017 from Onkolde forest where locals had seen the species in 2017 to Shetani Matwari and Masewe forest (Annex 233,235).

Demonstrations and training for direct beneficiaries included bee keepers, climate smart agriculture farmers (leafy vegetables, fruits, rice, green grams), fisher folk, goat and poultry rearing. A total of 1,428 households (674M;754F) earned a total of Ksh [REDACTED] disaggregated as follows: 240 climate smart agriculture (horticulture) households (136M;104F) Ksh [REDACTED] 360 beekeepers (168M;192F) Ksh [REDACTED] 100 fisher folk households (50M;50F) Ksh [REDACTED] 161 Pastoralists (goats and milk) farmers (60M;101F) Ksh [REDACTED] 255 poultry famers trained (110M;145F) resulted to 154 poultry farmers (56M; 98F) earning Ksh 574,388; 336 rice farmers (149M;187F) earned Ksh 7854483; and 77 individuals trained in wildlife guiding (55M;22F) earned Ksh [REDACTED]. During the end of project Socio-economic Survey, a total of 606 (348M and 258F) respondents were interviewed. The mean cattle annual household income increased by 49.46%, crop farmers income increased from 76% and poultry farmers income increased by 38%, 1,606 pastoralists households (934M;672F) representing 9636 people (4626M;5010F) reported 93.94% and 93.61% reduction in loss of cows and goats respectively while chicken losses reduced by 97.18 and loss of donkeys reduced by 50%. This reduction is attributed to significant reduction in conflicts over grazing land, watering points and

reduction in conflicts between farmers and pastoralists. Crop farmers, 2,742 households (1,230M; 1,512F) 16,452 people (7,897M; 8,555F) involved in maize, green grams, watermelons and mangoes reported 76.98% reduction in crop loss resulting from conflicts as a result of secure access to flood recession farming areas. 290 Fisherfolk (117M;173F) representing 1,740 people (672M;1068F) who benefited directly from fish production assets experienced zero losses by project end representing 100% reduction in fish losses due to conflict related events (Annex 258, 281, 307, 308).

4 Contribution to Darwin Initiative Programme Objectives

4.1 Contribution to Global Goals for Sustainable Development (SDGs)

The Tana Delta Green Heart Initiative (Annexes 223,226,227), will contribute to nine targeted SDGs: **SDG1** end poverty (1.1, 1.5, 1a): honey, fish, milk, green vegetables, chilli, rice, livestock benefited; **SDG2** zero hunger (2.1, 2.4): climate smart agriculture; **SDG 3**: Ensure healthy lives and promote well-being for all at all ages: 1,250 with energy saving stoves; **SDG 4**: inclusive and equitable quality education–a total of 704 (285M, 419F) households representing 4,224 (2,134M, 2,090F) individuals were trained in various income generating activities; **SDG5** gender equality (5.5, 5c): Female headed households made up 51% of all beneficiaries; **SDG6** water access (6.4, 6.6, 6b): Water Act and Water access regulations (Annex 33,161,193,194, 195, 196,197.198). **SDG 7**: Ensure access to affordable, reliable, sustainable and modern energy for all– 1,250 households were installed with energy saving stoves. **SDG13** climate change (13.1-13.3, 13b): 1,856 mangrove seedlings were planted, 3 tonnes of seeds collected to restore 5,000 ha, 1.3 tonnes of grass seeds seeded. Forest cover in the delta increased by 20%. **SDG15** Life on land; terrestrial ecosystems (15.1-3, 15.5, 15.9, 15a&b): 116,867ha ICCA for biodiversity and human welfare established (Annex 19,32,224). **SDG16** promoting peaceful, inclusive societies (16.1, 16.6&7, 16b): Trained 55 VNRLUCs and ICCA management Committee to promote conflict free natural resources management and restoration. The annual socio-economic survey indicates a steep decline in conflicts and loss of livestock, crops and fish to inter-ethnic conflict. **SDG17** strengthening global partnership for sustainable development (17.9): – RSPB and Nature Kenya have partnered with local communities, NGOs, the County Governments of Tana River and Lamu, and national government agencies to deliver the project.

4.2 Project support to the Conventions or Treaties (e.g. CBD, Nagoya Protocol, ITPGRFA, CITES, Ramsar, CMS, UNFCCC)

The project put Kenya on course to deliver key articles of the CBD and also the Aichi targets. CBD articles: 6b –The LUP was implemented including Green Industrial Park business case (Annexes 223,226,227) based on ecosystem service assessment (Annex 64). 7b/7c/7d – developed ICCA biodiversity monitoring protocols and trained monitors (Annex 146) and carried out biodiversity surveys (including IUCN Red-listed species); 8d/8e/8j – In-situ conservation: set up ICCA to protect ecosystems; 10c – Sustainable use (the CCA will protect customary use of natural resources); 13a – Public education/awareness: Carried out ecosystem services assessment (Annex 64); 18 – Cooperation – between Kenya (Nature Kenya and County Governments) and the UK (RSPB) promoted technical capacity and conservation of deltaic ecosystems. The project contributed majorly to these Aichi 2020 targets along-side others: **Target 11**: 116,867ha ICCA; **Target 12**: ICCA biodiversity surveys; **Target 14**: ROAM for Tana delta (Annex 189) and Village Natural Resource Guide used by 55 Villages (Annex 176). **Target 15**: ecosystem service assessment (Annex 64); implementing climate smart agriculture livelihoods techniques; and energy saving stoves; **Target 18**: multiple use ICCA with traditional governance systems including VNRLUCs and elders in management. The project also impacted the CMS, migratory birds that make this site qualify as a Key Biodiversity Area and the RAMSAR convention.

4.3 Project support to poverty alleviation

Project contribution to improved human development and wellbeing

The ICCA is a type of conservancy based on traditional, cultural multiple use of land under customary management by a community¹. The human wellbeing theory of change followed the Sustainable Livelihoods Framework (Scoones, 1998²), i.e.: **The 116,867ha ICCA will protect the livelihood resources** (natural capital) of the communities (Annex 19,21,29,64); **The Tana Delta Business case and Investment Rationale for the Green Heart Project** (Annex 223,226,227) is a long-term development strategy aiming at attracting private sector investments in the area. This vision has got political support from the Tana River County Government and the GEF/UNEP project; **The Tana Delta Conservation Network (TDCN)**, is a pillar for Tana Delta's conservation and development initiatives. They are established based on community need to coordinate local efforts and hold the government to account. They will also hold their Government to account for budgetary support for conservation and development initiatives.

Project beneficiaries and how the project helped them

Direct beneficiaries are 37,247 people represented by 4,648 households (2,281M; 2,357F) for assets, training and outreach for livelihoods diversification (27,828 people, 13,195M; 14,633F) and another 1,570 households (9,420 people) involved in CSA. Indirect beneficiaries are the 120,000 people (50% men and boys, 50% women and girls) dependant on the Tana Delta and in the long-term ca. 1.12 million people as the Government implement the lessons in the Yala Swamp and other deltaic ecosystems in Kenya.

4.4 Gender equality

The no more than two thirds constitutional gender rule for Kenya was implemented and steps taken to do better especially for women. Women were required to be seen to be present and to be active and to take up elective positions in groups leadership. Overall, Overall women make up 53% of direct beneficiaries in livelihoods support activities (Annex 308).

4.5 Programme indicators

- **Did the project lead to greater representation of local poor people in management structures of biodiversity?** Yes. The TDCN, the 55 VNRLUCs, the ICCA Committee, CFAs, WRUAs are grassroot institutions whose leaders are also represented in TPAC and county decision making processes.
- **Were any management plans for biodiversity developed and were these formally accepted?** Yes. The ICCA Management plan is formerly accepted by County Governments of Tana River and Lamu. Five sub catchment plans are developed by Water Resources Authority; Four participatory Forest Management Plans are being considered for approval by KFS.
- **Were they participatory in nature or were they 'top-down'? How well represented are the local poor including women, in any proposed management structures?**
All activities and planning processes were highly participatory, and for all key institutions and decision making, the views of local people (including local poor and women) were sought and incorporated into the management plans.
- **How did the project positively influence household (HH) income and how many HHs saw an increase?** Overall direct beneficiaries for assets, training and outreach for livelihoods diversification are 4,648 households (2,281M; 2,357F) representing 27,828 people (13,195M; 14,633F) disaggregated into 1606 pastoralists (934M; 672F) 9,636 people (4,626M; 5,010F); 2,742 crop farmers

¹ recognised by IUCN (Category VI *Protected Areas with sustainable Use*). For an example of this type of conservancy see <http://www.olpejetaconservancy.org/>

² Scoones, Ian. *Sustainable Rural Livelihoods: A framework for analysis*. IDS, Working Paper 72, IDS, Brighton, UK, June 1998.

(1,230M; 1,512F) 16,452 people (7,897M; 8,555F); and 290 Fisherfolk (117M; 173F) 1,740 people (672M; 1,068F). During the project, a total of 1,428 households (674M; 754F) earned a total of Ksh 15,901,836 from climate smart horticulture, beekeeping, fish, poultry, goats, milk, rice and wildlife guiding (Annex 258, 281, 307, 308).

- **How much did their HH income increase (e.g. x% above baseline, x% above national average)? How was this measured?** The mean cattle annual household income is Ksh 61,718 up from Ksh 41,294 reported in YR3 representing 49.46% increase. Mean pastoralist HH income increased by 26.41% meeting project target of 25% increase in HH income. Crop farmers average annual income increased from Ksh [REDACTED] at baseline to Ksh [REDACTED] at the EOP representing an increase of 76% average annual household income. Poultry producers also recorded a 38% increase in average HH income compared to Yr3 results (Annex 308).

4.6 Transfer of knowledge

Rob Field, the RSPB's specialist scientist in ecosystem services assessment trained (on-the-job) Nature Kenya retained staff/experts (Dr Paul Muoria and Mr Paul Gacheru) who applied the Toolkit for Ecosystem Service Site-based Assessment (TESSA) in the Delta. Peter Nelson from Planning Green Futures in the United Kingdom, trained Dr Paul Matiku on the Green Heart Initiative business case. Siaya and Busia counties applying lessons in Yala Swamp. No formal college qualifications.

4.7 Capacity building

Ms Serah Munguti, who learned on job while interacting with RSPB staff and Nature Kenya Director, is now Kenya Country Programme Manager for Fauna & Flora International. Mr Paul Gacheru is on the National Taskforce for Birds at Kenya Wildlife Service. Dr Paul Matiku is in the BirdLife Africa thought leaders on post 2020 framework and is also a member of the African Group of negotiators. Peter Odhengo, the Chairman of IMTC, has continued to hold senior level positions at the National Treasury. Mr Ben Opa, formerly of NEMA, is now a Director at the National Lands Commission.

5 Sustainability and Legacy

Sustainability in activities, livelihoods, ICCA, biodiversity is inbuilt in government policy, water access regulations, restoration action plans, ICCA management plan, existing capacity of government and local communities and support from institutions including 55 VNRLUCs, CFAs supported by KEFRI and KFS among others. TDCN and TPAC will coordinate community ventures including livelihoods, ICCA management and conflict free land management. Sustainable finance is through Green Heart Initiative supported by GEF/UNEP through to 2023. RSPB/Nature Kenya will continue unequivocal commitment to securing the Tana Delta indefinitely. All the staff have been retained by Nature Kenya to continue work with co-financing from other agencies especially the GEF and European Union. Nonetheless, the Green Heart Project will benefit from a follow-on grant.

6 Lessons learned

For details of lessons learned see Annex 351.

Community driven solutions for conservation and development work: Given the opportunity, local communities are the best leaders and solution providers for local challenges.

Collaborative work with government at national and county level is mandatory for long term impact – Government officers whether high level policy makers or the local agricultural extension officer have proved invaluable to the project. **Train the Trainer:** Working with TDCN, VNRLUC, CFAs and other community-based organizations, and cascading this further down to increase capacity of community ToTs was a strong strategy. **Clear evidence-based reporting:**

Nature Kenya instituted a system of continuous project monitoring and evaluation based on data. **Gender inclusion in Tana Delta communities takes sustained deliberate efforts by all:** To ensure women in marginalized communities actually benefit space needs to be created for them to do so, on their terms, without fear. **Empower partners and collaborators and then lead from behind:** We have learned that higher impact is achieved when project partners and collaborating organizations and communities are given space to lead from the front as

partner leads from behind. **It will take time to develop community-driven green production and private sector links:** The vision continues beyond the Darwin Initiative project.

6.1 Monitoring and evaluation

We used Outcome and Output indicators to track project progress (Annex 2). Following advice from reviewers and guidance from LTS, we revised outcome and output indicators on the revised logframe approved by LTS and Darwin in May 2018 (Annex 1). We are also participants in a planned Darwin Initiative Projects evaluation in April 2021. We monitored impact through capture and sharing of lessons in Yala Swamp including through the Inter-Ministerial Technical Committee on Deltas Chairman (Peter Odhengo) currently working for National Treasury and the former Prime Minister (Raila Odinga) and Busia and Siaya County Governors who approved Yala Land Use Plan with support from Darwin project 26003. We monitored outcome impact by monitoring and evaluating delivery of planned targets within the target population (35,000 people) assessing delivery against the baseline and end of project representative household wellbeing survey (Annex 35,133,247,308, 317,327). Biodiversity baselines were compared with annual and end of project surveys of extent of two key biodiversity habitats i.e. mangrove and forest and the key species they support. We measured extent of mangrove and forest in the ICCA using freely available Landsat cover satellite images processed by the Museum GIS expert (Dr Dickens Odeny) (Annex 52). We monitored, participated and evaluated county publications e.g. policies, reports of funding/technical support being directed to ICCA activities, as well as through face-to-face meetings with county staff/members of county assemblies and we held regular meetings with beneficiaries and kept records in score cards.

6.2 Actions taken in response to annual report reviews

On Covid-19 pandemic we did not pursue rescheduling or re-budgeting with the Darwin Initiative as our adaptive measures worked. We have indicated in the sustainability section that the Darwin activities will continue courtesy of sustainability structures and approaches and additional funding from the GEF and European Union. The Community Resilience Building in Livelihood and Disaster Risk Management (Rebuild) funded by the EU through Comitato Internazionale per lo Sviluppo dei Popoli (CISP), with Nature Kenya leading actions in the Tana delta will address question on actions on community resilience through to year 2023. The TDCN will continue to provide the coordination nexus for the community conservation and development ventures and continue the excellent coordination track record. The TPAC will also continue to function as site coordination forum coordinated by the Tana and Lamu County governments. The GEF Environment offers opportunity to strengthen sustainability of these and other fora, especially elements where funding may be needed.

7 Darwin identity

The Darwin funding with clear deliverables, was distinctively recognised as the largest single source of co-funding for the GEF/UNEP project and Darwin is generally recognised as a key donor for Kenya. The Darwin Initiative logo was used in presentations to the ICCA management committee, lesson sharing on Climate Smart Agriculture in the Tana Delta and background work in the Tana presentation during GEF project inception meeting. The logo was used in the Tana Delta calendar for the year 2020. Nature Kenya newsletter Nature Net https://drive.google.com/file/d/1owzjRoFb_aW1K5VZqtSV0ZmxTk7GISMf/view?usp=sharing and Kenya Birding Magazine. Nature Kenya is active on Twitter, Instagram and YouTube. Nature Kenya is following the Darwin Initiative on Twitter and Instagram and has subscribed to their YouTube channel; Twitter - https://twitter.com/Nature_Kenya; Instagram - https://www.instagram.com/nature_kenya/; YouTube <https://www.youtube.com/user/NatureKenya1>

8 Impact of COVID-19 on project delivery

After consultation, we managed to deliver all planned project activities, we did not need to request rescheduling or budget alignments. We adapted to the situation, followed guidelines and kept our staff and partners safe. We adapted to Nairobi lockdowns by taking advantage of our excellent delivery approach that includes senior staff based at site level, use of government

and local communities on the ground to deliver actions and flexible financing and administrative systems that allowed transfer of resources to the site level. We ensured our staff and partners were safe by distributing masks to all those attending meetings and ensured social distancing. Communities lost livelihoods during the pandemic and so threats such as poaching for game meat, forest destruction activities were on the rise. Through EU and GEF funding, Nature Kenya created additional livelihood streams to cushion community livelihoods. During lockdown Nature Kenya in consultation with TDCN and government agencies encouraged some of the activities including biodiversity monitoring to be done in small groups including family level monitoring exercises. By February 2021 the backlog was cleared. Nonetheless, socio-economic survey and mapping of the ICCA and development of the water access regulations happened just on time for reporting and their impacts will be consolidated within the GEF/UNEP funded project that will continue the legacy. Covid is still with us. Masks are now mainstreamed into project budgeting and meetings. Only necessary travel takes place and virtual meetings replaced a good number of avoidable physical meetings.

9 Finance and administration

9.1 Project expenditure*

Project spend (indicative) since last annual report	2020/21 Grant (£)	2020/21 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Others (see below)				
TOTAL				

Staff employed (Name and position)	Cost (£)
George Odera, Project Manager	
Hassan Golo, Community Liaison Officer	
Jeniffer Adera Ojwang, Livelihoods Officer	
Serah Munguti, In country Project lead (Policy & Advocacy Manager)	
John Kiptum, Advocacy Officer	
Gibson Kitisao, Local Empowerment Manager	
Paul Gacheru, Species & Sites Manager	
James Mutunga, Biodiversity Monitoring Officer	
Paul Matiku, Executive Director	
Denvas Gekonde, Finance Manager	
Cecilia Mbaluto, Finance Officer	
Caroline Kabilu, Programmes Support & Evaluation Manager	
John Mwacharo, Communication Officer	
Collins Kipkemboi, Administration Officer	
Benedict Angano Onyango, Driver	
TOTAL	

Capital items – description	Capital items – cost (£)
N/A	N/A
TOTAL	

Other items – description	Other items – cost (£)
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N/A	N/A
TOTAL	

9.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	
Global Environment Facility/UNEP	
TOTAL	
Source of funding for additional work after project lifetime	
Global Environment Facility/UNEP	
TOTAL	

* All financial figures are currently indicative, as these are in the process of being finalised as part of the project audit and final financial report compilation thereafter.

9.3 Value for Money

Most of the Darwin grant was spent in Kenya, with the majority of funding reaching local people. The RSPB trained Nature Kenya staff which allowed the RSPB UK based staff to reduce visits to Kenya to just one, reducing travel and subsistence costs (another visit had to be cancelled due to Covid restrictions). In addition, 50% of RSPB staff costs were co-funded. Nature Kenya had existing staff, field office and vehicle and motorbikes used in the previous DFID-funded project, avoiding purchase of new vehicles. Nature Kenya also worked with government and local communities providing “in kind” staff time, demonstrating ownership, dedication and value for money.

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

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

Tana Delta Indigenous and Community Conserved Area (ICCA) established: The project brought together 55 villages, two county governments and national government agencies who agreed and established a ██████ ICCA, supported by a management plan and governance structure including Community Forest Associations and 55 VNRLUCs actively involved in forest landscape restoration. The Tana and Lamu counties support the ICCA and Tana River County has included it in the CIDP II budget.

Tana Delta Conservation Network (TDCN): A community champion for local governance and community led conservation and livelihoods improvement operating in their own offices and livelihoods demonstration centre. With a membership of 1,355 people (781M; 574F) drawn from 106 Community Based Organizations across the Delta, including 55 VNRLUCs from all villages within the Tana Delta ICCA, the TDCN is a local force for coordinating community initiatives. These groups are farmers, pastoralists, fishermen and minorities. Due to its wide membership across various interest groups in the Delta, TDCN provides a perfect vehicle for implementation of green value chains.

The Tana Delta Green Heart Initiative: Tana Delta Green Industrial Park business case, investment rationale, Road map and action plan and prospectus were developed. The basic concept is to coordinate private sector investors to engage in production, processing and marketing of produce from the Tana River Delta to provide increased employment, improved social conditions and community welfare and enhanced protection of the area’s rich biodiversity. The Concept has been approved by the Tana River county and its implementation with initial support from GEF/UNEP is underway. Should this concept be realised, the Darwin work in the Tana would become another global show case after the award-winning Land Use Plan.

Annex 1 Project’s original (or most recently approved) logframe, including indicators, means of verification and assumptions.

Note: Insert your full logframe. If your logframe was changed since your Stage 2 application and was approved by a Change Request the newest approved version should be inserted here, otherwise insert the Stage 2 logframe.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: Communities and County governments demonstrate how to balance natural resource governance to reduce conflict amongst the 120,000 people of the Tana Delta (and 1.2 million people of 5 other deltas) and conserve biodiversity (Max 30 words)</p>			
<p>Outcome: A 116,867 ha Community Conservation Area in Tana Delta (73% of Delta) is being managed for multiple-use to benefit 35,000 people and globally-important biodiversity as a demonstration of Land-Use-Plan implementation (Max 30 words)</p>	<p>0.1 By end of project (EOP) 90% of pastoralist households (1,530 households, 12,250³ people (50% men, 50% women) report significant reduction in number of livestock killed/injured through conflicts.</p> <p>0.2 By EOP 90% of farming households (2,625 households, 21,000 people (50% men, 50% women) report significant reduction in incidents of conflict and kilos of farm produce lost through conflict as a result of secure access to flood recession farming areas.</p> <p>0.3 By EOP 90% of fishing households (218 households, 1,750 people (50% men, 50% women))</p>	<p>0.1-0.3 Baseline and end of project representative household wellbeing⁴survey reports (10% of the 4,373 households surveyed by TDCN). Annual interviews with all 45 Village Natural Resource Committees (VNRCs).</p> <p>0.4 Business plans for enhanced/diversified Income Generating Activities (IGAs); Demonstration Review annual reports</p>	<p>Prevailing peaceful atmosphere will continue.</p> <p>Over the past few years violence has flared in the Tana Delta, fuelled by competition for water and other natural resources.</p> <p>Despite these problems the project team based in the Delta has successfully delivered work in the Delta over the last five years to schedule and are confident they can continue to do so.</p> <p>County governments adopt and enforce the Land Use</p>

³ Based on a household size of 6 people.

⁴Using a community-developed wellbeing-index. NatureKenya staff have experience in developing and using these indices to measure non-income related livelihood benefits communities receive from natural resource management, e.g. at South Nandi forest.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>report significant increase in fish catch from natural water bodies as a result of secure access to fishing waters.</p> <p>0.4 By mid-term 220 households, 1,320 of the most vulnerable people in the target population of 35,000 are engaged in project activities.</p> <p>By EOP 220 households, 1,320 of the most vulnerable people in the target population of 35,000 people report significant improvements in their diet and/or increases in income in comparison to the baseline</p> <p>0.5 By EOP the decline of ca. 48,752 ha of forest habitat (3,939 ha mangrove, 44,813 ha forest) has slowed by 50% compared to baseline.</p> <p>0.6 By EOP the populations of at least one of the key wildlife species (e.g. Tana River Colobus, Tana River Mangabey, Basra Reed Warbler) and 13 out of 24 of the resident IBA trigger species, in areas where habitat is protected (i.e. (3,939 ha mangrove, 44,813 ha forest)) have not fallen below the baseline.</p>	<p>0.5 Comparison of baseline and EOP Landsat surveys of extent of two key biodiversity habitats (mangrove and forest).</p> <p>0.6 Comparison of baseline and EOP surveys of key species of the two habitats (birds for mangrove, birds and primates for forest).</p> <p>0.7 County budget / reports of county funding being received for CCA activities and/or written public declarations. Minutes of meetings with county representatives.</p>	<p>Plan and as part of this the CCA.</p> <p>This project aims to increase ownership of the LUP and CCA by county governments and communities.</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>0.7 By EOP, the County governments recognise and begin to allocate funding for CCA management and livelihoods.</p>		
<p>Outputs: 1. A 116,867 ha Community Conservation Area (CCA) is established through consensus building among pastoralists, crop farmers and fisherfolks</p>	<p>1.1 By end month 6 at least 2-3 members from 6 target communities (2 fishing, 1 farming, 2 pastoralist and a minority group) are able to explain how to establish and manage a CCA as part of the LUP process.</p> <p>1.2 By end Year 1 communities willing to engage in establishing a CCA identified.</p> <p>1.3 By end of year 1, 45 villages have agreed to set up the CCA.</p> <p>1.4 By end of year 2, CCA is mapped and Management Plan consultatively developed.</p> <p>1.5 By end of year 2 CCA Management Committee, 45 Village Natural Resources and 45 Land Use Committees are established.</p> <p>1.6 By end of Year 3, CCA is declared.</p>	<p>1.1 -1.3 Reports of community meetings and interviews with members of the communities.</p> <p>1.4 CCA maps</p> <p>1.5 Terms of Reference and Minutes of CCA management committee</p> <p>1.6 Copy of CCA declaration</p>	<p>Communities want to engage in the CCA process.</p> <p>We have worked with the Delta for the past 5 years and know that the communities are keen to resolve conflict and gain their rights to manage natural resources through implementation of the LUP.</p> <p>Nature Kenya is respected and trusted by the Tana communities, and we are confident that communities will look favourably on the suggestion that they develop a CCA.</p> <p>County governments and communities approve and enforce access routes agreed within this project as part of the LUP.</p> <p>The participatory process we will undertake to agree the access routes should ensure ownership of the routes by the governments and the</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
			communities.
<p>2. Farmer, pastoralist and fishing communities have the capacity to jointly manage Community Conservation Areas</p>	<p>2.1 By end of year 2, CCA Management Committee, Village Natural Resource and Land Use Committees (including Beach Management Units and Water Resource User groups) have reduced the number of incidents of cattle trampling crops, use of illegal fishing gear and methods, and charcoal production compared to baseline.</p> <p>2.2 By end of year 3, two members of each of the user groups and county governments are able to explain the role of TDCN in the Delta and how it monitors and represents the community in negotiations with county government.</p> <p>2.3 By EOP CCA management committee is operating independently of the project team.</p>	<p>2.1, 2.3 Training manuals and training reports, minutes of quarterly meetings.</p> <p>2.2 Interviews with members of user groups / county government.</p> <p>2.2 - 2.3 Minutes of County meetings/consultation show that the TDCN/CCA management committee are successfully making interventions on behalf of the communities and the CCA</p>	
<p>3. County Governments have the capacity and have allocated financial resources to support communities to manage the CCAs</p>	<p>3.1 By end month 6 meeting to brief representatives of County Assemblies of project goal in relation to LUP held.</p> <p>3.2 By end year 1 Assemblies have embedded the CCA in the County Assemblies as part of the Land Use Plan.</p>	<p>3.1 Minutes of briefing meeting.</p> <p>3.2 County Assemblies agenda and motions, minutes of County Assembly Committees.</p> <p>3.3 Minutes of County planning meetings and public declarations.</p>	<p>MCAs willing to embed the LUP/CCA in County governance structures and processes.</p> <p>We think this will hold true because the LUP has been approved by the County Governors, the issue is that</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>3.3 By end year 2 County government staff fully engaged in process of establishing CCA and training communities to manage the CCA.</p> <p>3.4 By EOP County government staff are supporting communities to manage the CCA and implement IGAs.</p>	<p>3.4 Written communication/or public declaration/announcement/maps for CCA support e.g. notification to register land use activities. Maps of proposed land use within the CCA.</p>	<p>the Members of the County Assemblies have not read and considered how to implement the plan.</p>
<p>4. The potential for developing sustainable financing for the CCA from carbon and ecotourism has been assessed.</p>	<p>4.1 By end Year 1 ecosystem services assessment (including carbon) complete.</p> <p>4.2 By end of Year 2 feasibility studies on using ecosystem services to generate income for CCA management complete, and best approach agreed to realise income for the stakeholders from these.</p>	<p>4.1 Report on ecosystem services assessment, peer reviewed paper.</p> <p>4.2 Copies of stakeholder agreed proposals to generate revenue from carbon credits and ecotourism.</p>	
<p>5. The poorest and most vulnerable subset of the 35,000 people living inside the CCA are empowered to demonstrate how livelihoods can be developed/diversified to support the long-term conservation of the delta's natural resources</p>	<p>5.1 By end year 1 the most vulnerable subset of the 35,000 households (220 Households, ca.1,320⁵ people, 33% pastoralist (60% men, 30% women), 33% farmers (50% men, 50% women) and 33% fisherfolk (50% men, 50% women)) are being trained in activities to develop/diversify sustainable livelihoods in line with the CCA (fish</p>	<p>5.1 Reports from training workshops, including maps and photographs documenting e.g. fishpond creation</p> <p>5.2 Livelihood development/ diversification report based on discussions with beneficiaries and village natural resource committees, documenting case studies.</p>	<p>Communities take up offer of training.</p> <p>We are confident communities will engage in the training offered as we have already trailed training in these livelihood activities in the Delta (through a DFID funded Civil</p>

⁵ Based on a household size of six. i.e. if 1 person from each of 20 households improves their income, all members of the households (220x6 =1,320 people) will benefit

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>ponds, small holder chicken rearing, new/improved agricultural (leafy vegetables, fruits, rice and green grams) bee keeping and wildlife guiding.</p> <p>5.2 By end Year 2 80% of the 220 households participating in the demonstration have developed/diversified their livelihoods as a result of training they have received.</p> <p>5.3 By end of project: 20 individuals (10 male youth, 10 female youth) from 20 households participating in the demonstration (120⁶ people) increase their income from wildlife guiding by 25% from baseline to end of project. 50 individuals from 50 households (300 people) increase their income from honey by 25% from baseline to end of project. 50 farmers (25 men, 25 women) from 50 households participating in the demonstration (300 people) report an increase in the diversity of their diets and their income from selling produce increases by 25% from baseline to end of project.</p> <p>50 fishermen (25 men, 25 women) from 50 households participating in the demonstration (300 people) report an</p>	<p>5.3 Baseline and EOP livelihood surveys⁷ of the 220 households participating in the 'livelihoods demonstration'. The baseline surveys will explicitly ask people about their skill levels, and the EOP survey will ask how the project has improved these and how they have benefitted through this.</p> <p>5.4 Photographs of visits, copies of presentations, media articles.</p>	<p>Society Challenge Fund project 557 2011-2015)</p>

⁶ Based on a household size of 6, i.e. 20 people, 1 from each household means that 20x6 = 120 people benefit.

⁷As well as measuring diversity of diets and income household surveys will measure how much produce is consumed at household level and how much is sold as surplus to meet household needs (basic, secondary, tertiary) to help inform how to increase benefits in the future.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>increase in the diversity of their diets and their income from selling produce increases by 25% from baseline to end of project.</p> <p>50 pastoralists (25 men, 25 women) from 50 households participating in the demonstration (300 people) report an increase in the diversity of their diets and their income from selling produce increases by 25% from baseline to end of project.</p> <p>5.4 Lessons learnt from demonstrations shared with MCAs/wider community through visits to demonstrations, TDCN presentations, radio and other media.</p>		
<p>6. Lessons learned from the project are being used by government bodies (including county governments) leading the development of other Deltas throughout Kenya.</p>	<p>6.1 Findings and recommendations from the project are shared at with the Inter-Ministerial Technical Committee on Deltas, the National Environment Management Authority and all other relevant bodies at least annually throughout the project (i.e. at the end of each project year)</p> <p>6.2 Records of subsequent discussions within and among these target groups demonstrate that this dissemination work is effective and that the lessons and recommendations communicated are being taken into account during relevant policy formulation and decision-making processes</p>	<p>6.1 Project progress reports, Media articles, Letters to authorities</p> <p>6.2 Minutes of meetings</p>	

Annex 2 Report of progress and achievements against final project logframe for the life of the project

Project summary	Measurable Indicators	Progress and Achievements
<p>Impact:</p> <p>Impact: Communities and County governments demonstrate how to balance natural resource governance to reduce conflict amongst the 120,000 people of the Tana Delta (and 1.2 million people of 5 other deltas) and conserve biodiversity (Max 30 words)</p>		<p>The two county governments of Tana and Lamu, national government agencies (Kenya Wildlife Service and Kenya Forest Service), Tana Delta Conservation Network (TDCN), 55 Village Natural Resource and Land Use Committee (VNRLUCs), Community Forest Associations (CFAs), Water Resource Users Associations (WRUAs) and Beach management Units (BMUs) agreed and set up a 116,867ha Indigenous Community Conservation Area (ICCA) supported by a trained ICCA Management Committee and ICCA management plan (Annex 19, 21,32,54,60). Seven types of Institutions are either set up and or strengthened are promoting sustainable land management in the ICCA and Tana delta in general. These include 5 Community Forest Associations (CFAs) supported by participatory forest management plans, 5 Water Resource Users Associations (WRUAs) with sub-catchment management plans, 5 Beach Management Units (BMUs) and 55 VNRLUCs and trained ICCA Management Committee. The TDCN and Tana Planning Advisory Committee (TPAC) are coordinating the Tana delta land management efforts (Annex 62, 63, 66, 71 and 101 to 105). Within this ICCA is ca. 48,752 ha of forest habitat (3,939 ha mangrove, 44,813 ha forest) whose forest cover improved by 20% (Annex 57) and charcoal production declined by 98% over the project (Annex 307), terrestrial bird species (Annex 332 and 337 water fowl species monitored at the wetlands remained stable (Annex 131 and 137). The distribution of the red colobus expanded their range from the baseline in 2017 from Onkolde forest where locals had seen the species in 2017 to Shetani Matwari and Masewe forest (Annex 233,235).</p> <p>Demonstrations and training for direct beneficiaries included bee keepers, climate smart agriculture farmers (leafy vegetables, fruits, rice, green grams), fisher folk, goat and poultry rearing. Direct beneficiaries for assets, training and outreach for livelihoods diversification are 4648 households (2281M; 2357F) representing 27,828 people (13,195M; 14,633F) disaggregated into 1606 pastoralists (934M; 672F) 9,636 people (4,626M; 5,010F); 2,742 crop farmers (1,230M; 1,512F) 16,452 people (7,897M; 8,555F); and 290 fisherfolk (117M;173F) 1740 people (672M; 1,068F). By end of the project these beneficiary farmers and households involved in demonstrations and training were: 96 crop farmers including horticultural production (52M; 44F) representing 576 people; 283 beekeeping farmers (134M;149F) representing 1,698 people; 170 fisher folk farmers (73M;97F) representing 1020 people; 42 pastoralist households (12M;30F) representing 252 people; 245 rice farmers trained (98M;147F) representing 1,470 people and 72 households in wildlife guiding (58M; 14F) representing 432 people (Annex 258, 281, 307, 308). The County extension staff have continued to offer extension services to delta farmers including 1,570 households representing a further 9,420 people (involved in Farmer</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>Field Schools (FFS) to adopt climate smart production techniques as per training provided by Nature Kenya and the Ministry of Agriculture (Annex 309). This brings the total indirect beneficiaries to 37,248 people.</p> <p>During the project period a total of 1,428 households (674M; 754F) earned a total of Ksh [REDACTED] disaggregated as follows: 240 climate smart agriculture (horticulture) households (136M;104F) Ksh [REDACTED] 360 beekeepers (168M;192F) Ksh [REDACTED] 100 fisher folk households (50M; 50F) Ksh [REDACTED] 161 pastoralists (goat and milk) farmers (60M;101F) Ksh [REDACTED] 255 poultry famers trained (110M;145F) resulted to 154 poultry farmers (56M; 98F) earning Ksh [REDACTED]; 336 rice farmers (149M; 187F) earned Ksh [REDACTED] and 77 individuals trained in wildlife guiding (55M; 22F) earned Ksh [REDACTED]. During the end of project Socio-economic Survey, a total of 606 (348M and 258F) respondents were interviewed. The Mean cattle annual household income increased by 49.46%, crop farmers income increased from 76% and poultry farmers income increased by 38%. According to the end of project socioeconomic survey, out of 606 respondents, 72% believe that efforts currently put in place by Nature Kenya have led to reduced losses due to conflicts: 1,606 pastoralists households (934M; 672F) representing 9,636 people (4,626M; 5,010F) reported 93.94% and 93.61% reduction in loss of cows and goats respectively while chicken losses reduced by 97.18 and loss of donkeys reduced by 50%. This reduction is attributed to significant reduction in conflicts over grazing land, watering points and reduction in conflicts between farmers and pastoralists. Crop farmers, 2,742 households (1,230M; 1,512F) 16,452 people (7,897M; 8,555F) involved in maize, green grams, watermelons and mangoes reported 76.98% reduction in crop loss resulting from conflicts as a result of secure access to flood recession farming areas. 290 fisherfolk (117M; 173F) representing 1,740 people (672M; 1,068F) who benefited directly from fish production assets experienced zero losses by project end representing 100% reduction in fish losses due to conflict related events (Annex 258, 281, 307, 308).</p> <p>The County Governments of Tana River and Lamu were fully involved in the ICCA establishment and the ICCA is captured in the Tana River County Integrated Development Plan II and was allocated Ksh [REDACTED] (£ [REDACTED]) over four years within the Tana River County Annual Development Plan (Annex 164/5). Sustainable finance is based on green value chains, The Tana Delta Green Heart Initiative Business case, Investment Rationale, Road Map to implement Green Industrial Park in Minjila were developed (Annex 228, Page 26). The Tana River Governor approved the set-up of a Green Heart Initiative office at the Tana River County offices in Hola, set up 60 ha land for the industrial Park in Minjila (core of the delta) and seconded three staff to plan an investor conference to attract private sector investment in the</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>area using approaches that maximise smallholder producers for meat, fish, milk, leafy vegetables, rice, sunflower and a wide range of green value chains to spur economic prosperity of the people of the Tana delta. The GEF and UN Environment and the RSPB are supporting Nature Kenya and the Tana River County Government to implement this innovative financial mobilisation approach. The lessons from this work are being transferred to the Yala Swamp where a Land Use Plan was approved including by the former right honourable prime Minister Raila Odiga and the Busia and Siaya County Governments.</p>
<p>Outcome Outcome: A 116,867 ha Community Conservation Area in Tana Delta (73% of Delta) is being managed for multiple-use to benefit 35,000 people and globally-important biodiversity as a demonstration of Land-Use-Plan implementation (Max 30 words)</p>	<p>0.1 By end of project (EOP) 90% of pastoralist households (1,530 households, 12,250 people (50% men, 50% women) report significant reduction in number of livestock killed/injured through conflicts.</p> <p>0.2 By EOP 90% of farming households (2,625 households, 21,000 people (50% men, 50%</p>	<p>0.1 The two county governments of Tana and Lamu, national government agencies, TDCN, 55 Villages and Community Forest Associations (CFAs), Water Resource Users Associations (WRUAs) and Beach Management Units (BMUs) representatives, agreed and set up a 116,867 ha ICCA now referred to as Tana Delta Indigenous and Community Conservation Area (ICCA). Consultatively, an integrated management plan for the ICCA was developed, validated by the ICCA management committee (Annex 19, 54) and agreed by stakeholders.</p> <p>The baseline condition was that the farmers, pastoralists and fisherfolk were embroiled in perennial conflicts with resultant environmental degradation in the ICCA area. The progress is that direct beneficiaries for assets, training and outreach for livelihoods diversification reached 4,648 households (2,281M; 2,357F) representing 27,828 people (13,195M; 14,633F). According to the end of project socioeconomic survey, out of 606 respondents, 72% believe that efforts currently put in place by nature Kenya including the establishment of Indigenous Community Conserved Area (ICCA) and the support governance structures such as the Village Natural Resource and Land Use Committees (VNRLUCs) consider losses due to conflicts to have reduced significantly:</p> <p>1,606 pastoralists households (934M; 672F) representing 9,636 people (4,626M; 5,010F) benefited from the project interventions. Pastoralists reported 93.94% and 93.61% reduction in loss of cattle and goats respectively while chicken losses reduced by 97.18 and loss of donkeys reduced by 50%. This reduction is attributed to significant reduction in conflicts over grazing land, watering points and reduction in conflicts between farmers and pastoralists. Sheep is the only livestock that showed increase in losses mainly due wildlife attacks likely to be attributed to their susceptibility to attacks, less human hostility to wildlife and possibly better living conditions for biodiversity (Annex 258, 281, 307, 308).</p> <p>0.2 Direct beneficiaries for assets, training and outreach were 2,742 crop farmers (1,230M; 1512F) 16,452 people (7,897M; 8,555F). Crop farmers (maize, green grams, watermelons and mangoes) reported loss of 11,145 kgs of produce compared to 48,429 kgs baseline a 76.98%</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>women) report significant reduction in incidents of conflict and kilos of farm produce lost through conflict as a result of secure access to flood recession farming areas.</p> <p>0.3 By EOP 90% of fishing households (218 households, 1,750 people (50% men, 50% women) report significant increase in fish catch from natural water bodies as a result of secure access to fishing waters.</p> <p>0.4 By mid-term 220 households, 1,320 of the most vulnerable people in the target population of 35,000 are engaged in project activities.</p> <p>By EOP 220 households, 1,320 of the most vulnerable people in the target population of 35,000 people report significant improvements in their diet and/or increases in income in comparison to the baseline</p>	<p>reduction in crop loss resulting from conflicts as a result of secure access to flood recession farming areas between baseline and EOP as a result of secure access to flood recession farming areas (Annex 258, 281, 307, 308).</p> <p>0.3 By end of project 290 representatives of fisherfolk households (117M;173F) representing 1'740 people (672M; 1,068F) benefited directly from fish production assets, training and outreach. Fish farmers experienced zero losses representing 100% reduction in fish losses due to conflict related events. The computation of how much fish was lost due to conflicts was done indirectly as a factor of time lost/failure to go fishing attributed to conflicts either due to lack of access to fishing areas or attending to other conflict situations. This outcome may be attributed to reduced conflict over fishing aeras and also there was reduced conflict between fisherfolk and the Tana and Athi Development Authority (TARDA) reduced (Annex 258, 281, 307, 308).</p> <p>0.4 Demonstrations and training for direct beneficiaries included bee keepers, climate smart agriculture farmers (leafy vegetables, fruits, rice, green grams), fisherfolk, goat and poultry rearing. Direct beneficiaries for assets, training and outreach for livelihoods diversification are 4,648 households (2,281M; 2,357F) representing 27,828 people (13,195M; 14,633F) disaggregated into 1,606 pastoralists (934M; 672F) 9,636 people (4,626M; 5,010F); 2,742 crop farmers (1,230M; 1,512F) 16,452 people (7,897M; 8,555F); and 290 Fisherfolk (117M; 173F) 1,740 people (672M; 1,068F). By end of the project these beneficiary farmers and households involved in demonstrations and training were as follows: 96 crop farmers including horticultural production (52M; 44F) representing 576 people; 283 beekeeping farmers (134M;149F) representing 1,698 people; 170 fisher folk farmers (73M; 97F) representing 1,020 people; 42 pastoralist households (12M; 30F) representing 252 people; 245 rice farmers trained (98M;147F) representing 1,470 people and 72 households in wildlife guiding (58M; 14F) representing 432 people. (Annex 258, 281, 307, 308). The County extension staff have continued to offer extension services to delta farmers including 1570 households representing a further 9,420 people (involved in Farmer Field Schools (FFS) to adopt climate smart production techniques as per training provided by Nature Kenya and the Ministry of Agriculture (Annex 309). This brings the total indirect beneficiaries to 37,248 people.</p> <p>During the project period a total of 1,428 households (674M;754F) earned a total of Ksh</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>0.5 By EOP the decline of ca. 48,752 ha of forest habitat</p>	<p>██████████ disaggregated as follows: 240 climate smart agriculture (horticulture) households (136M;104F) Ksh ██████████ 360 beekeepers (168M;192F) Ksh ██████████ 100 fisherfolk households (50M;50F) Ksh ██████████ 161 pastoralists (goat and milk) farmers (60M;101F) Ksh ██████████ 255 poultry famers trained (110M;145F) resulted to 154 poultry farmers (56M; 98F) earning Ksh ██████████ 336 rice farmers (149M;187F) earned Ksh ██████████ and 77 individuals trained in wildlife guiding (55M; 22F) earned Ksh ██████████</p> <p>During the end of project Socio-economic Survey, a total of 606 (348M and 258F) respondents were interviewed. 305 of the respondents were project direct beneficiaries. The mean cattle annual household income is Ksh ██████████ up from Ksh ██████████ reported in YR3 representing 49.46% increase. Mean pastoralist HH income increased by 26.41% meeting project target of 25% increase in HH income. Crop farmers average annual income increased from Ksh ██████████ at baseline to Ksh ██████████ at the EOP representing an increase of 76% average annual household income. Poultry producers also recorded a 38% increase in average HH income compared to Yr3 results. On alternative livelihood sources, communities earned an annual average HH income of Ksh ██████████ SE from climate smart agribusiness (CSA). Sale of forest produce/agroforestry earned the least average annual HH income at Ksh ██████████</p> <p>On HH dietary diversity, maize, rice and beans remained as the basic staple foods for communities over the project period. Consumption of critical foods such as vegetables, fish, honey and fruits have become integral parts of HH dietary requirements among pastoralists, farmers and fisherfolk. In addition, by EOP, items such as cassava, cooking oil and sugar were included in HH diets. Food scarcity gaps declined over the project period. At baseline, 35% of respondents recorded going without food for over 3 weeks annually. This figure declined to 3% by EOP. Similarly, those that went without food for between 2-3 weeks declined from 17% to only 5%. Although 99% of respondents were concerned about possible decline of natural resources within the Delta, 72% expressed confidence that the structures put in place including ICCA committee, and VNRLUCs will address the challenges effectively (Annex 258, 281, 307, 308).</p> <p>0.5 Baseline ICCA land cover map was produced (Annex 8). According to the annual socioeconomic survey (Annex 307) charcoal production among beneficiaries declined by 98%</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>(3,939 ha mangrove, 44,813 ha forest) has slowed by 50% compared to baseline.</p> <p>0.6 By EOP the populations of at least one of the key wildlife species (e.g. Tana River Colobus, Tana River Mangabey, Basra Reed Warbler) and 13 out of 24 of the resident IBA trigger species, in areas where habitat is protected (i.e. (3,939 ha mangrove, 44,813 ha forest)) have not fallen below the</p>	<p>over the project implementation period with the support level for the ICCA process and its declaration rising from 54% in year 2 to 98% at EOP. We used satellite GIS technology and carried out forest cover surveys in 2020 and compared with the start of project baselines. The forest cover increased by 20% as per the change detection map. In the end of project survey, 72% of respondents acknowledged that efforts currently put in place by nature Kenya including the establishment of 116,867 ha Indigenous Community Conserved Area (ICCA) and the support governance structures such as the Village Natural Resource and Land Use Committees (VNRLUCs) will be critical in reversing some of the negative trends including illegal logging that went on unabated across the Delta. Respondents in the ICCA consider losses due to conflicts to have reduced significantly: Crops (maize, green grams, watermelons and mangoes) by 76.98; Cows 93.94%; Poultry 97.18%; Goats 93.61%; and donkeys 50% among others that show reduction of losses from the baseline. Charcoal production among beneficiaries declined by 98% over the project implementation period with the support level for the ICCA process and its declaration rising from 54% in yr2 to 98% at EOP among project beneficiaries (Annex 307).</p> <p>To promote sustainable land management in the ICCA and Tana delta in general, 7 types of Institutions were either set up and or strengthened. These include 5 Community Forest Associations (CFAs), 5 Water Resource Users Associations (WRUAs), 5 Beach Management Units (BMUs) and 55 VNRLUCs and ICCA Management Committee alongside the TDCN and TPAC for coordinating the delta efforts. All these groups were involved in ICCA set up consultations and also the CFAs and WRUAS were trained by KEFRI on technical elements of ICCA management (Annex 62, 63, 66, 71 and 101 to 105) and will continue to promote forest conservation in the delta.</p> <p>0.6 End of project bird surveys were done and results show bird species diversity has remained stable (Annex 332 and 337). Also, water fowl species monitored at the wetlands have remained stable (Annex 131 and 137). The distribution of the Red colobus expanded from the baseline in 2017. Besides Onkolde forest where locals had seen the species in 2017, this time locals reported sighting the species in Shetani Matwari. Additionally, local forest users reported the presence of Tana River mangabey at Shetani Matwari while its feeding evidence was recorded during this survey. The species had been encountered during the previous survey at Shetani Matwari forest. According to the locals, Tana River mangabey occurs at Masewe forest, a few kilometres from Shetani Matwari. However, other primate species known to occur in the Tana River (yellow baboons, vervets and Syke's monkeys, were recorded in majority of the forests. (Annex 233,235). The 77 trained wildlife guides are also biodiversity monitors across the delta.</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>baseline.</p> <p>0.7 By EOP, the County governments recognise and begin to allocate funding for CCA management and livelihoods.</p>	<p>They participate in January and July water fowl counts; and detailed bird and biodiversity monitoring carried out annually in August and the monitoring data is submitted to the National Museums of Kenya and used to produce Key Biodiversity Areas Status and Trends reports annually (Annex 135, 136, 137).</p> <p>0.7 The County Governments of Tana River and Lamu were fully involved in the ICCA establishment and support the ICCA concept and budgeting for its continued management (Annex 181, 167, 330). They were co-chairs of the interim ICCA Management Committee alongside KWS and KFS and participated in training the ICCA (Annex 150). The County Planning Department (CPD) carried out mapping of the ICCA including livestock water access routes and flood recession farming areas in the ICCA (Annex 195, 196 and 197). This is a sign of county ownership of the ICCA. The ICCA is captured in the Tana River County Integrated Development Plan II and was allocated Ksh. [REDACTED] over a four-year within the Tana River County Annual Development Plan (Annex 164/5). The engagement of the county assemblies to maintain this budgetary allocation will continue by TDCN and other trained groups including TPAC and the ICCA committee and VNRLUCs as appropriate to promote sustainable land management in the Tana delta that is supported by the area leadership that take into account local communities in planning and decision making.</p> <p>On sustainable finance based on green value chains, Tana Delta Green Heart Initiative Business case, Investment Rationale, Road Map to implement Green Industrial Park in Minjila were developed (Annex 228, Page 26). The Tana River Governor agreed to establish office space at the Tana River County offices in Hola, set up 60 ha land for the industrial Park in Minjila (core of the delta) and second three staff to plan investor conference to attract private sector to invest in the area using approaches that maximise small holder producers for meat, fish, milk, leafy vegetables, rice, sunflower and a wide range of green value chains to spur economic prosperity of the people of the Tana delta. The GEF and UN Environment and the RSPB are supporting Nature Kenya and the Tana River County Government to implement this innovative financial mobilisation approach.</p>
<p>Output 1. A 116,867 ha Community Conservation Area (CCA) is established through consensus</p>	<p>1.1 By end month 6 at least 2-3 members from 6 target communities (2 fishing, 1 farming, 2 pastoralist and a minority group) are able to explain how to establish and</p>	<p>Achieved</p> <p>Nature Kenya, TDCN, County Officials and the Provincial administration held meetings to create awareness on ICCA establishment (Annex 1 and 3). The consultation meetings were attended by a total of 32 villages (13 pastoralist; 16 farming and 3 fishing) where a total of 837 people (426 men; 411 women) were reached, supporting the ICCA establishment along the ICCA management Committee and Village Natural Resource and Land Use Committees to</p>

Project summary	Measurable Indicators	Progress and Achievements
<p>building among pastoralists, crop farmers and fisherfolks</p>	<p>manage a CCA as part of the LUP process.</p> <p>1.2 By end Year 1 communities willing to engage in establishing a CCA identified.</p> <p>1.3 By end of year 1, 45 villages have agreed to set up the CCA.</p>	<p>support ICCA management plan implementation (Annex 9). This represents 71% of the target villages within the CCA. Other awareness activities targeted TDCN, Tana Planning Advisory Committee, Community Forest Associations, Water Resource Users Associations, Beach Management Units and all the 55 CBOs affiliated to TDCN with a membership of 1,156 individuals (717 male; 439 female). Overall, 1,993 people (1,143 male; 850 female) were reached with CCA awareness messages. A framework management plan for the ICCA was developed (Annex 2) and agreed (Annex 3) as the basis for being able to understand and explain the setting up of ICCA and management committee.</p> <p>Achieved</p> <p>Local ICCA duty bearers were identified and involved in the ICCA set up and management planning process. They represent key interests in the core of the delta where the ICCA is located. These include Tana Delta Conservation Network (TDCN) and their user groups, Community Forest Associations (CFAs), Water Resource Users Associations (WRUAs) and Charcoal Producers Associations (CPAs) and Beach Management Units (BMUs). Also, core duty bearers are core Government agencies particularly Tana and Lamu County Governments and their departments responsible for livelihoods and conservation options in the ICCA: Land, Water, Agriculture and Environment among others. Also core National Government agencies with a mandate on natural resources including KWS, KFS, KEFRI, WRA, Ministry of Agriculture and KMFRI (Annex 59).</p> <p>To promote sustainable land management in the ICCA and Tana delta in general, 7 types of Institutions were either set up and or strengthened. These include 5 Community Forest Associations (CFAs), 5 Water Resource Users Associations (WRUAs), 5 Beach Management Units (BMUs) and 55 VNRLUCs and ICCA Management Committee alongside the TDCN and TPAC for coordinating the delta efforts. All these groups were involved in ICCA set up consultations and also the CFAs and WRUAs were trained by KEFRI on technical elements of ICCA management (Annex 62, 63, 66, 71 and 101 to 105).</p> <p>The two county governments of Tana and Lamu, national government agencies, TDCN, 55 Villages and Community Forest Associations (CFAs), Water Resource Users Associations (WRUAs) and Beach Management Units (BMUs) representatives, agreed and set up a 116,867ha ICCA now referred to as Tana Delta Indigenous and Community Conservation Area (ICCA). During initial meetings of the ecosystem services assessment stakeholders from the</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p data-bbox="421 432 833 528">1.4 By end of year 2, CCA is mapped and Management Plan consultatively developed.</p> <p data-bbox="421 1198 824 1366">1.5 By end of year 2 CCA Management Committee, 45 Village Natural Resources and 45 Land Use Committees are established.</p>	<p data-bbox="860 236 2089 536">Lamu side of the Delta pointed out that some areas in the lower delta had been left out of the original ICCA which covered 95,200ha. The original map was then revised to incorporate stakeholders' views. This increased the size of the ICCA to 116,867ha (Fig 2) of this report and Annex and also a map showing ICCA land cover types (Annex 8) where in 2018 forest cover improved by 20% (Annex 50). Further, a map showing sea water intrusion into the ICCA was developed and included in a policy brief submitted to the Cabinet Secretary, Ministry of Environment and Forestry (Annex 30). The ICCA Map was presented in a meeting of senior County Officials (Annex 56) who agreed with the area and requested the County Planning Department (CPD) to carry out a county led ICCA mapping exercise (Annex 195, 196, 197).</p> <p data-bbox="860 608 2089 1382">Consultatively, integrated management plan for the ICCA was developed, validated by the ICCA management committee (Annex 54) and agreed by stakeholders. This plan is called The Tana Delta Indigenous and Community Conserved Area Management Plan, 2019-2029 (Annex 59). The authors stated as follows: We wish to sincerely thank various players who contributed to the successful development of this management plan. First, the Tana Delta ICCA residents and other stakeholders who participated in various fora during the development of this plan. The Kenya Wildlife Service (represented in the Planning team by Senior Warden Tana River County) for taking the lead and for providing the legal and technical backstopping throughout the entire process. The Darwin Initiative, through The Royal Society for the Protection of Birds (RSPB) and Nature Kenya for the financial support that led to the successful completion of ICCA management plan. For process and stakeholders involved please see: Annex 13, 14, 59, 60 and 65). To support the implementation of the management plan, 55 VNRLUCs (660 officials) were set up and are actively involved in forest restoration and are being registered to exist as legal entities to actively participate in the ICCA management plan implementation. The ICCA set up met the prior informed consent principle as per the UN Charter of indigenous peoples. To ensure that the ICCA Management Plan is entrenched into County Government operations a water register is agreed by Tana River County Government Water Department and Water Resources Authority (WRA) (Annex 33 and 34) and a road map for preparing water access guidelines (Annex 161) is agreed and they reviewed County Water Act in order to provide for the development of water access regulations/guidelines (Annex 182) and produced a draft revised Tana River Water Act (Annex 191, 192) and draft County Water regulations (Annex 193, 198). The drafts are being processed for approval by Members of County Assembly to become law.</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>1.6 By end of Year 3, CCA is declared.</p>	<p>To promote sustainable land management in the ICCA and Tana delta in general, 7 types of Institutions were set up and/or strengthened to enhance sustainable land management. These include the TDCN and TPAC for coordinating the delta efforts; the ICCA Management Committee for the management of the ICCA; 5 Community Forest Associations (CFAs), 5 Water Resource Users Associations (WRUAs), 5 Beach Management Units (BMUs) and 55 VNRLUCs. These ensure that the expansive ICCA area is covered and all stakeholders and mandated state agencies and county governments are involved in providing their technical, financial and moral support to the ICCA management. The KFS and KWS and KEFRI are engaged either as supporters or as trainers of CFAs and WRUAs on seed collection (Annex 62) and technical elements of tree nursery establishment, based on training needs assessments (Annex 63, 66, 71 and Annexes 101 to 105).</p> <p>The multi-ethnic ICCA management Committee made up of 48 individuals (41 male; 7 female) is in place. Membership is drawn from interest groups equal numbers from Tana River and Lamu Counties, as far as is feasible (Annex 3). The CCA Management Committee was co-chaired between KWS and the County Governments of Tana River and Lamu and was trained on legal provisions for CCAs in Kenya under the Wildlife Conservation and Management Act and the Forest Conservation and Management Act (Annex 150). Also, the committee received training in leadership, governance and conflict management (Annex 141, 143, 145,146). With 55 VNRLUCs by the end of the project and more stakeholders being engaged in the ICCA management through the land use plan, the ICCA management committee is reconstituted to comprise of 19 members (10M;9F) who represent communities from 19 locations in Tana Delta. The County governments of Tana River and Lamu, and the KWS and KFS sit in the Committee as advisors.</p> <p>To support forest management and restoration of ICCAs forests, a total of 5 Participatory Forest Management Plans (PFMP) and Participatory Forest Management Agreements (PFMA) were developed for Ozi, Kipini, Kilelengwani, Chara and Mpozi forests. The PFMPs were validated (Annexes 26, 29, 36, 37, 38, 67, 68, 70 and 73). The PFMPs and PFMAs are being considered for signing by the Kenya Forest Service (KFS).</p> <p>In the minds of the Tana delta ICCA range villages, the Tana and Lamu County Government, 55 VNRLUCs, CFAs and WARUAs and TDCN and others, the ICCA is declared. Legally, the ICCA committee is prepared to register as a Community Wildlife Association, called Tana Delta Indigenous and Community Conservation Area Association. In the constitution, the ICCA</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>association objects are to: i) promote inclusivity and representation of diverse community interests in the ICCA governance; ii) minimize conflicts and leadership wrangles in conservancy management; iii) ensure availability of efficient infrastructure to support Conservancy management; iv) improve the security for wildlife, visitors and natural habitats; and v) ensure sustainable food production to improve livelihoods (Annex 61)</p> <p>The ICCA Committee has been trained ICCA Management and gazettement options (Annex 140) and in leadership and governance among other specialised areas in organisational management (Annex 139,141, 145). Also, ICCA committee was trained in monitoring and evaluation (Annex 143), opportunities for wildlife management (Annex 144), record keeping (Annex 145) and Biodiversity Monitoring (Annex 146).</p>
Activity 1.1 Community mobilisation at each village to agree on the idea of ICCA		<p>Completed.</p> <p>Nature Kenya, TDCN, County Officials and the Provincial administration held meetings to create awareness on ICCA establishment (Annex 1 and 3). A framework management plan for the ICCA was developed (Annex 2) and meeting convened where the people agreed on the framework (Annex 3) including setting up of ICCA management committee. The consultation meetings were attended by a total of 32 villages (13 pastoralist; 16 farming and 3 fishing) where a total of 837 people (426 men; 411 women) were reached, supporting the ICCA establishment along the ICCA management Committee and Village Natural Resource and Land Use Committees to support ICCA management plan implementation (Annex 9). A management plan was developed and validated by the ICCA management committee (Annex 54) in March 2021. By the end of year 4, 55 VNRLUCs (660 officials) had been set up and were actively involved in forest restoration and are being registered to actively participate in the ICCA management plan implementation. The ICCA set up met the prior informed consent principle as per the UN Charter of indigenous peoples.</p>
Activity 1.2 Map the ICCA using GIS		<p>Completed.</p> <p>The ICCA extended from the inception original 95,200ha to 116,867ha (Fig 2, Annex 7) of this report and also a map showing ICCA land cover types (Annex 8). Further, a map showing sea water intrusion into the ICCA was developed and included in a policy brief submitted to the Cabinet Secretary, Ministry of Environment and Forestry (Annex 30). The ICCA Map was presented in a meeting of senior County Officials (Annex 56) who agreed with the area and requested the County Planning Department (CPD) to carry out a county led ICCA mapping exercise (Annex 195, 196, 197)</p>
Activity 1.3 Consultatively develop an agreed integrated		Completed.

Project summary	Measurable Indicators	Progress and Achievements
management plan for the ICCA		<p>The Tana Delta Indigenous and Community Conserved Area Management Plan, 2019-2029, is complete (Annex 59). The authors stated as follows: We wish to sincerely thank various players who contributed to the successful development of this management plan. First, we wish to thank Tana Delta ICCA residents and other stakeholders who participated in various fora during the development of this plan. We thank Kenya Wildlife Service (represented in the Planning team by Senior Warden Tana River County) for taking the lead and for providing the legal and technical backstopping throughout the entire process. We also thank Darwin Initiative, through The Royal Society for the protection of Birds (RSPB) and Nature Kenya for the financial support that led to the successful completion of this plan. Nature Kenya staff including Dr. Paul Matiku, Serah Munguti, Geroge Odera, Jeniffer Adero dedicated their time in ensuring that the process was smooth. This management plan was compiled by Dr. Paul Muoria (Kenyatta University) in consultation with Dr. Paul Matiku, Serah Munguti and George Odera of Nature Kenya. For process and stakeholders involved please see: Annex 13, 14, 59, 60 and 65).</p>
Activity 1.4 Set up ICCA multi-ethnic Management Committee		<p>Completed</p> <p>On 29th March 2018, the CCA management Committee was formed, made up of 48 individuals (41 male; 7 female). Membership is drawn from interest groups equal numbers from Tana River and Lamu Counties, as far as is feasible (Annex 3). Formation of the committee was presided by the County Executive for Land Tana River County. The CCA Management Committee is co-chaired between KWS and the County Governments of Tana River and Lamu. On 18th – 20th April 2019 the interim CCA Committee was trained on legal provisions for CCAs in Kenya under the Wildlife Conservation and Management Act and the Forest Conservation and Management Act (Annex 40). Also, the committee received training in leadership, governance and conflict management (Annex 141, 143, 145,146). With 55 VNRLUCs by the end of the project and more stakeholders being engaged in the ICCA management through the land use plan, the ICCA management committee is reconstituted to comprise of 19 members (10M; 9F) who represent communities from 19 locations in Tana Delta. The County governments of Tana River and Lamu, and the KWS and KFS sit in the Committee as advisors.</p>
Activity 1.5 ICCA committee register as a Community Wildlife Association, giving the name of the ICCA and a constitution, and hence are recognised as a wildlife manager by KWS and the County Wildlife Conservation and Compensation Committee (under the conservancy clause in the Wildlife Act)		<p>Constitution for the registration of ICCA membership Society called Tana Delta Indigenous and Community Conservation Area Association were agreed. In the constitution, the ICCA association objects are to: i) promote inclusivity and representation of diverse community interests in the ICCA governance; ii) minimize conflicts and leadership wrangles in conservancy management; iii) ensure availability of efficient infrastructure to support Conservancy management; iv) improve the security for wildlife, visitors and natural habitats; and v) ensure sustainable food production to improve livelihoods. Membership to the ICCA</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>Association will be open to include any person from registered Village Natural Resource and Land Use Committee (VNRLUC) within the association jurisdiction, and when approved the ICCA management committee, will become a member on payment of an entrance fee of Kenya Sh 200 (Annex 61).</p>
<p>Activity 1.6 Set up Village Natural Resources and Land Use Committees</p>		<p>Completed</p> <p>Terms of reference for Village Natural Resource and Land Use Committees (VNRLUCs) to provide support, ICCA awareness and participate in ICCA governance and land use management at village level were developed (Annex 17). The approach for legal registration was developed and applied registering some VNRLUCs (Annex 18). To ensure communities participate in the VNRLUCs effectively, awareness meetings were held in all the initial 45 villages and 10 subsequent villages and a decision reached to form in each of the villages, 11 committee members of the Village Natural Resource and Land Use Committees (VNRLUC) (Annex 22) and process for elections agreed and tested in 9 sample villages (Chara, Konemasa, Wachu Oda, Ngao, Kipao, Shirikisho, Bilisa and Galili)—Annex 31). The elections approach was refined and applied to carry out elections in another 17 VNRLUCs (Annex 69-86 and 94)</p>
<p>Activity 1.7 Develop regulations to guide access to water and grazing land and protection of crops from livestock</p>		<p>Completed</p> <p>A meeting between Nature Kenya, Tana River County Government Water Department and Water Resources Authority (WRA) agreed to develop a water register (Annex 33 and 34). A meeting held by county officials on 6th February 2019 agreed on a road map for preparing water access guidelines (Annex 161). A meeting convened by the County Government water department discussed review of the County Water Act in order to provide for the development of water access regulations/guidelines (Annex 182) which produced a draft revised Tana River Water Act (Annex 191, 192). This meeting also discussed County Water regulations (Annex 193) resulting to draft water regulations (Annex 198). The drafts are being processed for approval by Members of County Assembly to become law.</p>
<p>Activity 1.8 Carry out PRAs for communities around the CCA</p>		<p>Completed</p> <p>We engaged a researcher from Kenya Forestry Research Institute to conduct Participatory Rural Livelihoods Appraisal and Household Wellbeing Surveys in 14 villages in the ICCA. Preliminary findings show that majority households rank as very poor and 40% of respondents confirmed occurrence of resource use conflicts (Annex 4).</p> <p>In Year 2, we supported TDCN to carry out socio-economic, household wellbeing, diet and conflict surveys in 16 villages in the CCA. A total of 515 households were interviewed using the</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>standard questionnaire pre-developed for the survey. Findings indicated that conflicts over resources are declining across all delta users. For instance, only 65 livestock were lost due to conflict in the last year compared to 277 livestock in 2017 (Annex 15).</p> <p>In Year 3 between, 16th and 19th March 2020, we carried out socio-economic surveys interviewing a total of 628 respondents 477 male and 181 female from 14 villages. Some 197 of the respondents were project direct beneficiaries (Annex 133).</p> <p>In Year 4, we carried out end of year socio economic survey 19th March 2021 interviewing 606 respondents 348 male and 258 female from 18 villages. The mean household size is 6.692 ± 2.555 STDev; Mean land size is 19.763 acres ± 0.235 SE. Although 59% of respondents claim individual/private land ownership, 97% of them have no formal land ownership documents with only 1.7% of the respondents having title deeds 90% of decisions relating to land use is done by men. Cattle income is Ksh █████ up from Ksh █████ reported in YR3 representing 49.46% increase in annual household income. On average, pastoralist HH income increased by 26.41% from the baseline meeting the project target of 25% increase in HH income. Crop farmers average annual income increased from Ksh █████ at baseline to Ksh █████ at the EOP representing an increase of 76% average annual household income. Poultry producers also recorded a 38% increase in average HH income compared to Yr3 results. Inadequate rainfall, crop and animal diseases and Human Wildlife Conflict (HWC) are the greatest challenges affecting both crop and livestock productivity in Tana Delta. Land use conflicts declined and pastoralists reported 93.94% and 93.61% reduction in loss of cows and goats respectively from project baseline to EOP. Crop farmers reported a 76.98% reduction in crop loss resulting from conflicts between baseline and EOP. Food scarcity gaps declined over the project period. At baseline, 35% of respondents recorded going without food for over 3 weeks annually. This figure declined to 3% by EOP. Similarly, those that went without food for between 2-3 weeks declined from 17% to only 5%. Human Wildlife Conflict was the main form of conflict reported with attacks on crops and livestock being the dominant complains. Scarce pasture and water, destruction of wildlife habitats, inadequate land demarcation, and high poverty levels were the main drivers of conflicts cited by respondents.</p> <p>Although 99% of respondents were concerned about possible decline of natural resources within the Delta, 72% expressed confidence that the structures put in-place including ICCA committee, and VNRLUCs will address the challenges effectively. Charcoal production among beneficiaries declined by 98% over the project implementation period with the support level for the ICCA process and its declaration rising from 54% in yr2 to 98% at EOP among project beneficiaries (Annex 307).</p>

Project summary	Measurable Indicators	Progress and Achievements
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Activity 1.9 Carry out baseline and end of project surveys of mangrove and forest habitat (using freely available Landsat satellite images to monitor riverine and mangrove forest cover within the delta ICCA areas with reference to current levels)

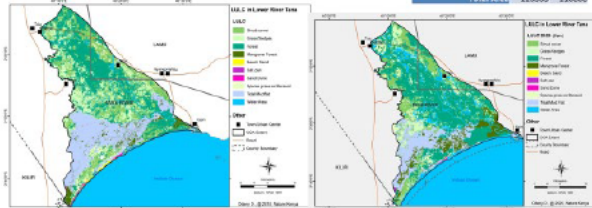
Completed

Baseline ICCA land cover map was produced (Annex 8). We carried out baseline surveys in 2019/2020. The forest cover increased by 20% as per the change detection map*. We also carried out end of the project cover map (Annex 53) which confirms the increase in vegetation cover. We also carried out other baselines including Map of Tana Delta ICCA showing extend of sea water intrusion (Annex 30)



- Between 2018-2020 forest cover increased by 20%
- 127% increase in mangrove cover

	2018 (ha)	2020 (ha)
WDC	2018	2020
Beach Sand	649	473
Cloud Cover	113	0
Forest	44,813	45,292
Grass/Scrub	17,740	13,448
Mangrove Forest	3,939	7,507
Salt pan	59	99
Sand Dune	275	284
Shrub cover	23,980	18,590
Sparse grass or Barotsi	5,070	4,000
Tidal /Wulfiat	19,153	17,479
Water Area	2176	2087
Total Area	118909	136968



Other studies related to the forest cover included: ICCA Ecosystem Service Assessment (Annex 64); Status of particular forests Kilelengwani (Annex 39), Kipini Mangrove (Annex 40), Onkolde forest (Annex 40), Ozi forest (Annex 42) and Chara (Annex 43).

We engaged scientists from Ornithology Section, National Museums of Kenya carried out baseline bird surveys on 12th -18th December 2017 (Annex 5). Results show that wetlands at the core of the Delta had the highest bird species diversity and populations. Scientists from the Institute of Primate Research conducted primate surveys recording 2 Tana River red colobus and 5 Tana River crested mangabey in Shetani Mtwari Forest patch at the heart of the CCA (Annex 6). End of project bird surveys were done and results show bird species diversity has remained stable (Annex 332 and 337). Also, waterfowl species monitored at the wetlands have remained stable (Annex 131 and 137). The distribution of the red colobus expanded from the baseline in 2017. Besides Onkolde forest where locals had seen the species in 2017, this time locals reported sighting the species in Shetani Matwari. Additionally, local forest users reported the presence of Tana River mangabey at Shetani Matwari while its feeding evidence was recorded during this survey. The species had been encountered during the previous survey at Shetani Matwari forest. According to the locals, Tana River mangabey occurs at Masewe forest, a few kilometres from Shetani Matwari.- However, other primate species known to occur in the Tana River (yellow baboons, vervets and Syke’s monkeys, were recorded in majority of the forests (Annex 235 and 233).

*Note 2019-2020 was one of the wettest seasons on record in Kenya and mangroves

Project summary	Measurable Indicators	Progress and Achievements
		proliferated on the mud flats.
Activity 1.10 Set up Community Forest Associations (CFAs) and Water Resource Users Associations (WRUAs)		<p>Completed</p> <p>To promote sustainable land management in the ICCA and Tana delta in general, 7 types of Institutions were set up and or strengthened to enhance sustainable land management. These include 5 Community Forest Associations (CFAs), 5 Water Resource Users Associations (WRUAs), 5 Beach Management Units (BMUs) and 55 VNRLUCs and ICCA Management Committee alongside the TDCN and TPAC for coordinating the delta efforts. We engaged KEFRI who trained the CFAs and WRUAs on seed collection (Annex 62) and technical elements of tree nursery establishment, based on training needs assessments (Annex 63, 66, 71 and Annexes 101 to 105).</p>
Activity 1.11 Develop Participatory Forest Management Plans implemented by CFAs at gazetted forests in the ICCA		<p>Completed</p> <p>A total of 5 Participatory Forest Management Plans (PFMP) and Participatory Forest Management Agreements (PFMA) were developed for Ozi, Kipini, Kilelengwani, Chara and Mpozi forests. The PFMPs were validated (Annexes 26, 29, 36, 37, 38, 67, 68, 70 and 73). The PFMPs and PFMA are being considered for signing by the Kenya Forest Service (KFS).</p>
Activity 1.12 Monitor and evaluate ICCA management		<p>Completed</p> <p>The ICCA Committee has been trained ICCA Management and gazettement options (Annex 140) and in leadership and governance among other specialised areas in organisational management (Annex 139,141, 145). Also, ICCA committee was trained in monitoring and evaluation (Annex 143), opportunities for wildlife management (Annex 144), record keeping (Annex 145) and Biodiversity Monitoring (Annex 146).</p>
<p>Output 2.</p> <p>Farmer, pastoralist and fishing communities have the capacity to jointly manage Community Conservation Areas</p>	<p>2.1 By end of year 2, ICCA Management Committee, Village Natural Resource and Land Use Committees (including Beach Management Units and Water Resource User groups) have reduced the number of incidents of cattle trampling crops, use of illegal fishing gear and methods, and charcoal production compared</p>	<p>Achieved</p> <p>The ICCA Management Committee was formed (Annex 150) and ICCA Management Plan produced (Annex 125, 162) and TDCN trained on set up of VNRLUCs and meetings held at villages to set up VNRLUCs (Annex 22) with some getting legally registered (Annex 18) resulting to a total of 55 VNRLUCs set up in the ICCA under the leadership of the TDCN (Annexes 31,69, 70-100). KEFRI trained a total of 124 participants (80M, 44F) from 5 CFAs (Chara, Kipini, Kilelengwani, Hewani/Onkolde and Mpozi) on seed collection and handling (Annex 62) and other VNRLUCs have developed restoration action plans (Annex 95-98). The trained CFAs were supported by TDCN to reach out to the 55 VNRLUCs who collected 3,000 kgs of indigenous seeds from the wild and with further mobilisation from 19 chiefs and 55 village elders who support the ICCA concept, seeded these seeds in degraded areas in their</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>to baseline.</p> <p>2.2 By end of year 3, two members of each of the user groups and county governments are able to explain the role of TDCN in the Delta and how it monitors and represents the community in negotiations with county government.</p>	<p>villages. The Water Resource Authority (WRA) supported 5 Water Resource Users Associations (WRUAs) to develop 5 sub-catchment management plans (Belisa, Witu, Kioki and Salama) Annex 101, 102, 103,104,105). The CFAs and WRUAs have also been trained in Tree Nursery establishment and supported with nursery set up equipment to support the ICCA committee in restoration of degraded areas. 5 TDCN members joined the Biodiversity monitoring team in visiting various habitats including critical forests in Tana Delta.</p> <p>Baseline condition was that the TDCN existed covering some parts of the Delta. Farmers, pastoralists and fisherfolk were embroiled in perennial conflicts with resultant environmental degradation. The progress is that according the annual socioeconomic survey charcoal production among beneficiaries declined by 98% over the project implementation period with the support level for the ICCA process and its declaration rising from 54% in year 2 to 98% at EOP among project beneficiaries and 95% of respondents are aware of TDCN activities. 72% acknowledged that efforts currently put in place by nature Kenya including the establishment of Indigenous Community Conserved Area (ICCA) and the support governance structures such as the Village Natural Resource and Land Use Committees (VNRLUCs) will be critical in reversing some of the negative trends including illegal logging that went on unabated across the Delta. Respondents in the ICCA consider losses due to conflicts to have reduced significantly: Crops (maize, green grams, watermelons and mangoes) by 76.98; Cows 93.94%; Poultry 97.18%; Goats 93.61%; and donkeys 50% among others that show reduction of losses from the baseline (Annex 307).</p> <p>In the end pf project survey, the respondents' awareness levels on ICCA and TDCN was assessed. Out of 753 interviewed people, 298 respondents in the Tana delta were aware of the ICCA set up (98%), 298 support the ICCA (98%) and 289 are aware of the TDCN (95%) including TDCN activities: Promoting conservation activities (165 people); Supporting community livelihood projects (230); representation of community on issues around conservation (121); advocacy (68); capacity building for member groups (44); Governance over CBOs (44); promoting women rights (22); protecting community land rights (29); community representation at various levels of governance (30). Annex 307).</p> <p>The TDCN is now a credible institution with own offices (Annex 290), livelihoods demonstration strategy (Annex 148) and poultry production demonstration (Annex 271) and poultry and fish feed production strategy (Annex 289) which will provide income to TDCN to sustain core operations including support to conservation activities by VNRLUCs, CFAs, WRUAs, BMUs and the ICCA committee among others. The TDCN has been trained including by County</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>2.3 By EOP CCA management committee is operating independently of the project team.</p>	<p>Governments, KEFRI, Water Resource Authority (WRA), KFS and Nature Kenya on organisational management, budgeting and book keeping and reporting to be able to manage their centre affairs. The TDCN is recognised by county government and makes contributions to county processes will continue to represent the local communities in the Tana delta in county consultative planning and decision making and will continue to engage NEMA to ensure proposed developments are aligned with the Land Use Plan.</p> <p>Although not yet formerly registered there is established by constitution a Society called “Tana Delta Indigenous and Community Conservation Area Association”. The association is a public body, a membership Society with registration open to all with core objectives to: promote inclusivity in the ICCA governance, minimize conflicts in conservancy management, develop infrastructure to support the conservancy, improve wildlife security and promote livelihoods in the ICCA. The association has ICCA management Committee with capacity to steer the ICCA including renewing its leadership elected from the residents and user groups and VNRLUCs in the ICCA (Annex 61). The Committee will be independent in running the affairs of the ICCA and will continue to manage the ICCA guided by the ICCA management plan (Annex 59).</p>
<p>Activity 2.1. Build the capacity of the multi-ethnic CCA management committee to effectively manage the ICCA</p>		<p>Completed</p> <p>The community targeted for ICCA Committee was included in a gender mainstreaming training in April 2017 (Annex 109). A total of 35 participants (14F, 21 M) representing various ICCA institutions including Community Forest Associations (CFAs), Beach Management Units (BMUs), Water Resource Users Associations (WRUAs), Tana Delta Conservation Network, Tana Planning Advisory Committee and Tana Friends of Marine Environment (TAFMEN) were trained in leadership and governance (Annex 12). The ICCA committee was trained in a number of leadership and technical areas including: Conflict management (Annex 139), ICCA gazettelement avenues (Annex 140), leadership and governance (Annex 141), Monitoring and evaluation (Annex 143), Opportunity for Community Wildlife Associations (Annex 144) and record keeping (Annex 145) and IBA monitoring (Annex 146). Training for TDCN to set up VNRLUCs that will support village based natural resource management at the ICCA took place (Annex 147) and KFS trained ICCA Committee on threats facing ICCAs (Annex 149). The ICCA management committee was trained on 26th -27th January 2021: ICCA legal provisions; awareness on Tana Delta Land Use Plan; Leadership and governance of the ICCA; Adoption of Tana Delta ICCA Constitution and election of ICCA Committee officials (Annex 150).</p>
<p>Activity 2.2. Build capacity of the Tana Delta Conservation Network (TDCN) to provide training on</p>		<p>Completed</p> <p>Training for TDCN to set up VNRLUCs that will support village based natural resource</p>

Project summary	Measurable Indicators	Progress and Achievements
<p>ICCA management (including biodiversity monitoring and representation in county decision making)</p>		<p>management at the ICCA took place (Annex 147). The TDCN and TPAC also received training in gender mainstreaming (Annex 109) so that they can ensure gender parity when they work with their user groups including the ICCA Committee, CFAs, VNRLUCs, WRUAs and BMUs among others. The TDCN was trained in biodiversity monitoring (Annex 123), common bird monitoring (Annex 131), Annual waterfowl counts (Annex 135, 136,137,146). As a result, TDCN carried out biodiversity monitoring including detailed monitoring, common bird monitoring and waterfowl counts and submitted data to the National Museums of Kenya for analysis and inclusion into the annual Key Biodiversity Areas Status and Trends Report (Annex 222).</p> <p>With incremental funding from the Global Environment Facility we have supported TDCN to establish a community enterprise and livelihoods model and demonstration centre. At this centre communities will be trained, through hands on training, in sustainable production with models for chicken, beekeeping. The centre will also serve as a bulking and production centre for milk, chicken and fish feeds. It will be a bulk outlet for community products including fruits and chilli. Construction of the centre is ongoing with chicken houses completed (Annex 130, 148, 271, 276, 290).</p> <p>Subsequently the TDCN and TPAC held a meeting with members of Tana River County Assembly to lobby for adoption of the Tana Delta LUP and SEA as policy documents. After collecting more than 2,000 signatures from farmers, pastoralists and fishermen in the Delta, TDCN and TPAC submitted a formal petition on the matter to the Clerk of the Tana River County Assembly, and the Committee on Land and Natural Resources and Majority Leader (Annex 110). The LUP was not adopted as policy, consequently TDCN and TPAC campaigned against re-election all members of county assembly (MCAs) from the delta who were seen to have failed to push for the LUP adoption and as a result none of these MCAs were re-elected in the August 2018 general elections. These processes were fully driven by TDCN and TPAC without the involvement of Nature Kenya. As soon as the Tana River County Government was constituted, TDCN and TPAC presented copies of the LUP and SEA to the newly elected governor. This community-driven demand has contributed to recognition of the LUP and SEA in the Tana River County Integrated Development Plan.</p> <p>In May 2017 TDCN held meetings with the Assistant Sub-County Commissioner for Garsen Sub-County and successfully lobbied for reconstitution of three peace committees to include women from the community. Previously women were not represented in these committees.</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>TDCN is represented in the County Natural Resources Management Forum and played a key role in organizing World Wetlands Day Celebrations 2018 in Golbanti. The TDCN was trained in participation in county planning and budgetary processes and submitted memoranda during county budgeting. Between April and July 2018, TDCN held community mobilization meetings in 15 villages reaching 641 people (426M, 215F) as part of the community familiarization process for CCA management. Other TDCN engagements with the Tana River County Government include: representation in the Tana River County review of County Integrated Development Plan (CIDP) II and the development of the annual development plan for 2018/19; and County Fiscal strategy paper formulation.</p> <p>TDCN presented written memoranda to the Members of the County Assembly (MCAs) for consideration and inclusion during the CIDP II review process. The memorandum contained among other demands the need for formal establishment and budgetary allocations of the CCA. The meeting was attended and chaired by local MCAs from Tana Delta Sub-County. Also, the TDCN submitted comments to the National Environment Management Authority on the Environmental Impact Assessment for the Proposed Giritu Sugar factory.</p>
<p>Activity 2.3: TDCN supports communities within the target area to organise themselves into CCA management committees, produce management plans for the CCA and work with County staff to agree responsibilities/resources for CCA management.</p>		<p>Completed</p> <p>The ICCA Management Committee was formed (Annex 150) and ICCA Management Plan produced (Annex 125, 162) and TDCN trained on set up of VNRLUCs and meetings held at villages to set up VNRLUCs (Annex 22) with some getting legally registered (Annex 18). A total of 55 VNRLUCs have been set up in the ICCA under the leadership of the TDCN (Annexes 31,69, 70-100). KEFRI trained a total of 124 participants (80M, 44F) from 5 CFAs (Chara, Kipini, Kilelengwani, Hewani/Onkolde and Mpozi) on seed collection and handling (Annex 62) and other VNRLUCs have developed restoration action plans (Annex 95-98). The trained CFAs were supported by TDCN to reach out to the 55 VNRLUCs who collected 3 tons of seeds from the wild to seed in degraded areas in their villages. This effort is supported by the County Government and Administration. The CFAs and WRUAs have also been trained in Tree Nursery establishment and supported with nursery set up equipment to support the ICCA committee in restoration of degraded areas.</p> <p>5 TDCN members joined the Biodiversity monitoring team in visiting various habitats including critical forests in Tana Delta.</p>
<p>Activity 2.4: Support TDCN to continue to represent the interests of all communities within the target areas in county decision making that affects their livelihoods</p>		<p>Completed</p> <p>The TDCN is now a credible institution with own offices (Annex 290), livelihoods demonstration strategy (Annex 148) and poultry production demonstration (Annex 271) and poultry and fish</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>feed production strategy (Annex 289) which will provide income to TDCN to sustain core operations including support to conservation activities by VNRLUCs, CFAs, WRUAs, BMUs and the ICCA committee among others. The TDCN has been trained by Nature Kenya on organisational management, budgeting and book keeping and reporting to be able to manage their centre affairs. The TDCN will continue to represent the local communities in the Tana delta in county consultative planning and decision making and will continue to engage NEMA to ensure proposed developments are aligned with the Land Use Plan.</p>
<p>Output 3. County Governments have the capacity and have allocated financial resources to support communities to manage the ICCAs</p>	<p>3.1 By end month 6 meeting to brief representatives of County Assemblies of project goal in relation to LUP held.</p> <p>3.2 By end year 1 Assemblies have embedded the ICCA in the County Assemblies as part of the Land Use Plan.</p>	<p>Achieved</p> <p>Members of county assembly (MCAs), County Executive Committee members, the Governor of Tana River County, County technical staff including directorate of Environment, County Planning Department and other leaders and institutions are fully aware and support the ICCA concept and budgeting for its continued management. (Annex 181, 167, 330). The engagement of the county assemblies will continue by TDCN and other trained groups including TPAC and the ICCA committee and VNRLUCs as appropriate to promote sustainable land management in the Tana delta that is supported by the area leadership that take into account local communities in planning and decision making.</p> <p>Achieved</p> <p>Nature Kenya advocacy skills adopted by the Tana Delta Conservation Network was demonstrated. The TDCN presented written memoranda to the Members of County Assembly (MCAs) for consideration and inclusion during the CIDPII review process (Annex 124). The memorandum contained among other demands the need for establishment and budgetary allocations of the CCA. The meeting was attended and chaired by local MCAs from Tana Delta. The TDCN held a series of meetings with MCAs and county officials during County budget public consultations 2019/2020, informally met Witu ward MCA on the sidelines of the Lamu Tree planting event and agricultural extension officers in Tana and Lamu Counties during training on Climate Smart Agriculture in an exercise that involved County Government Officials (Annex 47, 48, 49). The County extension staff have continued to offer extension services to delta farmers including 1570 farmers involved in Farmer Field Schools (FFS) to adopt climate smart production techniques as per training provided by Nature Kenya and the Ministry of Agriculture (Annex 309). The TDCN also submitted a petition to Tana River County Assembly in May 2017 (Annex 110) and also provided comments on the county budgets (Annex 138, 142) and comments on the County Integrated Development Plan (CIDPII) to enhance its content to include ICCA, restoration and sustainable land management (Annex 152, 155). Also,</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>3.3 By end year 2 County government staff fully engaged in process of establishing ICCA and training communities to manage the ICCA.</p> <p>3.4 By EOP County government staff are supporting communities to manage the CCA and</p>	<p>the TDCN provided input to the Tana and Lamu County Forest Policy and Forest Landscape restoration action plans (Annexes 178, 179 and 180). The outcome is that the ICCA is mainstreamed into draft County Forest Policy, Forest Landscape Restoration Action plans for Tana and Lamu Counties. A key outcome is that the ICCA is captured in the Tana River County Integrated Development Plan II and was allocated Ksh. [REDACTED] (Ksh. [REDACTED]) over the next four years within The Tana River County Annual Development Plan (Annex 164/5 pp3). The TDCN has continued to monitor, review and submit comments on planning and budgeting processes (Annex 124); county budget for year ending June 2021 (Annex 138 and 142); County department on environment and natural resources strategic priorities 2017/2018 budget estimates reviewed (Annex 152) and TDCN provided input into the budget on ICCA conservation (Annex 156) and Tana River County Department of Environment budget for CIDP II (Annex 313). Nature Kenya also submitted a memo on national government budget (Annex 342) and Nature Kenya's budget tips to the Cabinet Secretary for National Treasury (Annex 343).</p> <p>Achieved</p> <p>The County Governments of Tana River and Lamu were fully involved in the ICCA establishment. They were co-chairs of the interim ICCA Management Committee alongside KWS and KFS and participated in training the ICCA (Annex 150). The County Planning Department (CPD) carried out mapping of the ICCA including livestock water access routes and flood recession farming areas in the ICCA (Annex 195, 196 and 197). This is a sign of county ownership of the ICCA. There is also recognition of the need to address water access conflicts by defining water access routes and also flood recession farming areas. The County Planning Department and County Department of Water and Water Resources Authority agreed to set up a county water register (Annex 33). They convened stakeholders meeting for water abstractors, meeting for WRUAs and farmers that pump water for irrigation and held final validation workshop (Annex 161) and developed draft Water Regulations (Annex 198) informed by experiences from other counties (Annex 193 and 194). These regulations will be finalised and presented to the Tana River County MCA for approval. Funding to complete this process is already secured from GEF/UNEP.</p> <p>The Kenya Forest Research Institute (KEFRI), that supports KFS and Kenya at large on Forestry research are also fully on board and have developed 5 Participatory Forest Management Plans and Management Agreements (Annex13,27,36,37,38,67,68,73, 126,127,168) and trained the five Community Forest Associations (CFAs) and 4 WRUAs on</p>

Project summary	Measurable Indicators	Progress and Achievements
	implement IGAs.	<p>tree growing including seed collection and tree nursery establishment (Annex 62, 63, 66).</p> <p>The County Government particularly the Governor and the County Executive Committee members responsible for environment, water, agriculture, tourism are very supportive of the ICCA concept and are fully engaged in restorative livelihoods enhancement of the local people based on established potential (Annex 228, Page 26). Here, community-based small-scale pumped irrigation cooperatives in the Tana Delta are the future of food production and up to 1,000 ha could currently be developed using this technology among others (Annex 218). Agricultural extension officers in Tana and Lamu Counties were trained on Climate Smart Agriculture in an exercise that involved County Government Officials (Annex 47, 48, 49). The County extension staff have continued to offer extension services to delta farmers including 1,570 farmers involved in chicken, fish, goat, rice and other crops in Farmer Field Schools (FFS) to adopt climate smart production techniques as per training provided by Nature Kenya and the Ministry of Agriculture (Annex 309). The mapping of the ICCA and livestock water access routes and flood recession cultivation areas (Annex 195) and production of ICCA map (Annex 161) and development of draft Water Regulations (Annex 198) anchored in a revised County Water Act (Annex 191) are critical efforts by the County Government to support ICCA management with aim for conflict free livelihoods improvement. The Tana River Governor is considering Tana Delta Green Heart Initiative Business case, Investment Rationale, Road Map to implement Green Industrial Park in Minjila (Annex 228, Page 26). The Governor has agreed in principle to establish office space at the Tana River County offices in Hola, set up 60 ha land for the industrial Park in Minjila and second three staff to plan investor conference to attract private sector to invest in the area using approaches that maximise small holder producers for meat, fish, milk, leafy vegetables, rice, sunflower and a wide range of green value chains to spur economic prosperity of the people of the Tana delta.</p>
Activity 3.1 Hold County Assembly briefing meeting		<p>Completed</p> <p>A meeting of the Tana delta Members of County Assembly (MCAs) was held and discussed the Land Use Plan and the ICCA and Management Plan and the need to provide financial support for its implementation (Annex 181). George Odera, the Project Manager and TDCN held 4 meetings with County executives as follows: with County Executive Committee members for Lands and Agriculture, Water and Environment, Finance and planning, and the Governor of Tana River County (Annex 167); Kipini West Member of County Assembly (MCA) Hon Musa Wario to discuss the possibility to expand the poultry project to reach more women in his Ward; MCAs for Garsen Central and Garsen North wards (Annex 330). The meetings discussed assistance the County Assembly should extend to communities through budgetary provisions. Also, discussed was the proposed Giritu ranch sugar plantation and factory and the need to</p>

Project summary	Measurable Indicators	Progress and Achievements
		galvanize community support to reject the project. The engagement of the county assemblies will continue by TDCN and other trained groups including TPAC and the ICCA committee and VNRLUCs as appropriate to promote sustainable land management in the Tana delta that is supported by the area leadership that take into account local communities in planning and decision making.
Activity 3.2 Support communities to keep Members of the County Assemblies abreast of ICCA development and their needs.		Completed On 6th May 2019, during County budget public consultations 2019/2020, 6 TDCN members (4M, 2F) attended and met MCAs and presented views among them the need for budgetary allocation for the Tana Delta ICCA. On 23rd November 2019, 2 Male TDCN members informally met Witu ward MCA on the sidelines of the Lamu Tree planting event and discussed ICCA on the Lamu side of Tana Delta. Agricultural extension officers in Tana and Lamu Counties were trained on Climate Smart Agriculture in an exercise that involved County Government Officials (Annex 47, 48, 49). The County extension staff have continued to offer extension services to delta farmers including 1,570 farmers involved in Farmer Field Schools (FFS) to adopt climate smart production techniques as per training provided by Nature Kenya and the Ministry of Agriculture (Annex 309). The TDCN submitted a petition to Tana River County Assembly in May 2017 (Annex 110). They also provided comments on the county budgets (Annex 138, 142) and also provided comments on the County Integrated Development Plan (CIDPII) to enhance its content to include ICCA, restoration and sustainable land management (Annex 152, 155). And TDCN provided input to the Tana and Lamu County Forest Policy and Forest Landscape restoration action plans (Annexes 178, 179 and 180).
Activity 3.3 Support the county planning departments (CPDs) to create a land and water register		Completed A meeting held between Nature Kenya, County Department of Water and Water Resources Authority agreed to set up a county water register (Annex 33) noting capacity challenges. Another county meeting was held on 6 th February 2019 and agreed on a Road Map: stakeholders meeting for water abstractors, meeting for WRUAs and farmers that pump water for irrigation and final validation workshop (Annex 161). A workshop convened by the County Planning Department (CPD) developed draft Water Regulations (Annex 198) informed by experiences from other counties (Annex 193 and 194). These regulations will be finalised and presented to the Tana River County MCA for approval. Funding to complete this process is already secured from GEF/UNEP.
Activity 3.4 Support the CPDs to establish a GIS section within the County planning teams		Completed A computer with the Land Use Plan (LUP) and Strategic Environment Assessment (SEA) was

Project summary	Measurable Indicators	Progress and Achievements
		<p>provided to the County Planning Department that had benefited from GIS support from the Food and Agriculture Organisation (FAO). Four County Directors (2 from Tana River and 2 from Lamu) for land and environment were trained Restoration Opportunity Assessment Methodology (ROAM) with funding from GEF/UNEP. TDCN also nominated two community representatives (1 from Tana River and 1 from Lamu County) who were trained in ROAM. The CPD carried out mapping of the ICCA including livestock water access routes and flood recession farming areas in the ICCA (Annex 195, 196 and 197).</p>
<p>Activity 3.5 Support CPDs to survey the proposed ICCA</p>		<p>Completed</p> <p>The CPD carried out mapping of the ICCA including livestock water access routes and flood recession farming areas in the ICCA (Annex 195, 196 and 197). This is a sign of county ownership of the ICCA. There is also recognition of the need to address water access conflicts by defining water access routes and also flood recession farming areas.</p>
<p>Activity 3.6 Support the CPDs to help communities register all land use activities involving abstraction of water from the Tana River within the ICCA.</p>		<p>The mapping of the ICCA and water access routes and riparian areas (Annex 195) during consultative meetings attended by water users was done. The draft Water Regulations (Annex 198) anchored in a revised County Water Act (Annex 191) will guide the regularisation of land use activities involving water abstraction within the ICCA.</p>
<p>Activity 3.6 Support CPDs to engage with pastoralist communities to identify existing and potential watering points for cattle within the CCA and undertake consultation to agree on authorised access routes for livestock to watering points</p>		<p>Complete</p> <p>The mapping of the ICCA and livestock water access routes and flood recession cultivation areas was done (Annex 195). The maps were validated in public consultative participatory validation workshop (Annex 161). The draft Water Regulations (Annex 198) anchored in a revised County Water Act (Annex 191) mean that these regulations are based on law, once the process is completed.</p>
<p>Activity 3.7 Support CPDs to engage with farming communities to identify and map areas used for flood recession farming within the CCA</p>		<p>Completed</p> <p>The mapping of the ICCA and livestock water access routes and flood recession cultivation areas was done (Annex 195). The maps were validated in public consultative participatory validation workshop (Annex 161). The draft Water Regulations (Annex 198) anchored in a revised County Water Act (Annex 191) mean that these regulations are based on law, once the process is completed.</p>
<p>Activity 3.8: Undertake topographic and hydrological surveys to identify suitable areas for community based irrigation schemes within the CCA</p>		<p>Completed</p> <p>The Tana Delta Green Heart Initiative business case analysis indicates that the Business Case for Agricultural expansion was examined in depth in scenario planning for the Land Use Plan. The current area of land which is used for some form of agriculture in the Plan area consists of</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>370 km² (37,000 ha) of dry farming (in thicket and scrub), wetland cultivation on 123 km² (12,300 ha) in the flood plain and general farming mainly along the river banks amounting to 31 km² (3,100 ha), making a total of 524 km² (52,400 ha). Much of the dry farming area is under-utilised and cultivation could be intensified with appropriate inputs of fertilizer and improved cultivation practices. In addition, some of the wetland farming areas could be improved (Annex 228, Page 26). Expert hydrological report shows the most promising locations for developing small-scale pumped irrigation schemes is in the Middle Delta along the main river channel from Idsowe Bridge down to the towns of Ngao, Tarasaa, Golbanti and Oda. Here, community-based small-scale pumped irrigation cooperatives in the Tana Delta are the future of food production and up to 1,000 ha could currently be developed using this technology among others (Annex 218).</p>
<p>Activity 3.9 Support County governors/County Assemblies to make representations nationally on the need for revisions affecting water resources, irrigation and agriculture policies, plans, programmes and strategies</p>		<p>Completed</p> <p>In November 2017 the Governor, Tana River County H.E. Major (Rtd) Dhadho Gaddae Godhana attended a Nature Kenya meeting in Nairobi to validate a Global Environment Facility project document (Annex 153).</p> <p>On 2nd February 2019 during the WWD in Kipini, H.E Dr (Rtd) Maj. Godhana Dhadho, governor of Tana River County on the basis of information received from Nature Kenya field staff promised that an environmental research station would be constructed with finances from the County government. The station is to look at among other issues the implementation of the recommendations in LUP/SEA and other environmental-related findings and to commission relevant research in the area. The Governor is considering Nature Kenya request for him to approve the Tana Delta Green Heart Initiative Business case, Investment Rationale, Road Map to implement Green Industrial Park in Minjila (Annex 228, Page 26). The Governor has agreed in principle to establish office space at the Tana River County offices in Hola, set up 60 ha land for the industrial Park in Minjila and second three staff to plan investor conference with support from Nature Kenya's GEF/UNEP programme that will continue this overarching vision. This is an area Nature Kenya is considering for a follow-on project to support removal of barriers for investor trust and interest in the Tana delta.</p>
<p>Activity 3.10 Support the CPDs to develop a formal application system to abstract water within the Tana Delta</p>		<p>Completed</p> <p>The mapping of the ICCA and livestock water access routes and flood recession cultivation areas was done (Annex 195). The maps were validated in public consultative participatory validation workshop (Annex 161). The draft Water Regulations (Annex 198) anchored in a revised County Water Act (Annex 191) mean that these regulations, which will provide</p>

Project summary	Measurable Indicators	Progress and Achievements
		guidance for the application of water abstraction permits, are based on law.
<p>Activity 3.11 Monitor County budgets/reports/public declarations to assess levels of county support provided to the CCA.</p>		<p>Completed</p> <p>TDCN monitored, reviewed and submitted comments on planning and budgeting processes (Annex 124); county budget for year ending June 2021 (Annex 138 and 142); County department on environment and natural resources strategic priorities 2017/2018 budget estimates reviewed (Annex 152) and TDCN input into the budget on ICCA conservation among other areas (Annex 156). Tana River County Department of Environment budget for CIDP II (Annex 313). Nature Kenya also submitted memo on national government budget (Annex 342) and Nature Kenya’s budget tips to the Cabinet Secretary for National Treasury (Annex 343).</p>
<p>Output 4.</p> <p>The potential for developing sustainable financing for the CCA from carbon and ecotourism has been assessed.</p>	<p>4.1 By end Year 1 ecosystem services assessment (including carbon) complete.</p>	<p>Achieved</p> <p>Ecosystem services assessment for the Tana Delta ICCA was carried out (Annex 64). A start-up workshop was conducted by technical experts Dr Rob Field (RSPB) and Nature Kenya’s Science Advisor, Dr Paul Muoria (Annex 64). During this workshop 10 Nature Kenya staff (7M, 3F) were also trained on Ecosystem Services Assessment (ESA) using TESSA toolkit (Annex 208, 212). During the training methodologies and protocols for the Ecosystem Service Assessment for the ICCA were provided. All key stakeholders attended project inception and workshop where scoping for the ecosystem services assessment was carried out (Annexes 201 and 202). To collect data for the ecosystem services assessment, the Nature Kenya Science Advisor and Species and Sites Manager at Nature Kenya trained 28 local enumerators (16M, 12F) from TDCN on protocols for the ESA (Annex 209). These individuals subsequently collected data for the ESA. Consultations were carried out extensively within the ICCA area including discussing the scoping report to define the scope of the ecosystem services assessment (Annex 107). Groups consulted included TDCN, CFAs, Livestock herders, crop farmers, fishing fisher folk, county government officials and other area leaders. Other consultations took place during planning (Annex 200), project inception workshop (Annex 201), TESSA tool training (Annex 203, 204), defining and agreeing data collection (Annex 205), collecting data on ecosystem services including provisioning, regulating, recreation (Annex 206) and others.</p> <p>The Toolkit for Ecosystem Service Site-Based Assessment (TESSA—annex 203) was used to carry out field work needed to assess the ecosystem services provided by the ICCA based on questionnaires (Annex 205) administered by trained staff (Annex 208) and enumerators (Annex</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>4.2 By end of Year 2 feasibility studies on using ecosystem services to generate income for CCA management complete, and best approach agreed to realise income for the stakeholders from these.</p>	<p>209). Between 2nd to 15th December 2017 fieldwork on the ecosystem services assessment was carried out by the trained enumerators (Annex in 28 villages (13 farming, 12 pastoral and 3 fishing) where a total of 409 respondents were interviewed. Ecosystem Services assessed are; harvested Wild Goods, Cultivated Goods, Water Provisioning including Flood Regulation and Climate Regulation and others. Peter Nelson, the international consultant who advised on the Tana Delta LUP and SEA was hired to carry out the hydrological assessment (Annex 218). Data on biodiversity services including birds (annex 232), primates (Annex 233, 235), fish (Annex 234) and reptiles (Annex 236) and others.</p> <p>Rob Field, Paul K. Muoria, Paul Gacheru, Chris Magin, Paul Matiku, Serah Munguti, George Odera, Dickens Odeny. (2018) Ecosystem Service Assessment of the implementation of a Community Conserved Area in the lower Tana Delta was produced. This report has been published as a book (Annex 64, 214). The Ecosystem Services in this report include: Firewood/charcoal; Global climate regulation; Cultivated food; Erosion control; Timber; Coastal protection; Natural medicines; Spiritual/religious; Fish; Local climate regulation; water quality improvement; Regulating pests and diseases; Recreation; Aesthetics and water provision. The Ecosystem Services Report was summarised into a scientific paper authored by Paul K. Muoria, (Kenyatta University), Rob Field (RSPB), Paul Gacheru (Nature Kenya), Paul Matiku (Nature Kenya), Chris Magin (RSPB), Serah Munguti (Nature Kenya), George Odera (Nature Kenya), and Dickens Odeny (National Museums of Kenya) (Annex 216).</p> <p>Options for sustainable finance for the ICCA were explored. A consultant (Peter Nelson) was hired (funding from GEF/UNEP) and developed Tana Delta Green Heart Initiative Business case (Annex 228), Business case Executive Summary (Annex 226), business case implementation road map (Annex 225) and marketing prospectus (Annex 231). The implementation of these visionary business case will spur economic growth improving livelihoods and keep nature values in the Tana delta. This is considered the most viable approach to promote sustainable management of the Tana delta in line with the Land Use Plan including int eh ICCA. This concept is winning political support. The Tana River County Governor is considering Nature Kenya request for him to approve the Tana Delta Green Heart Initiative concept. The Governor has agreed to establish office space at the Tana River County offices and set up 60 ha land for the industrial Park in Minjila and second three staff to plan investor conference with support from Nature Kenya’s GEF/UNEP programme that will continue this overarching vision. The investor conference is planned to promote the concept in</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>October 2021 so as to attract private sector companies to invest in the delta in ways aligned to the land use plan. It is expected that private investors will invest in ways that support the sustenance of ecosystem services.</p> <p>On carbon, preliminary results from ecosystem service assessment (Annex 210, 214) indicate that the CCA has approximately 44,500 ha of forest cover. This comprises of 5,700 ha dry Forest, 35,300 ha Riverine Forest and 3,500 ha mangrove. These forest types have a combined global warming potential (GWP100) of about 400,000 tCO₂eq ha⁻¹y⁻¹. This is a “commodity” that can be marketed by the ICCA management to support its management. Indicators that can be used in the verification process include the extent of the forest and the biodiversity. Key biodiversity components that can be monitored include the endangered Tana River Crested Mangabey <i>Cercocebus galeritus</i> and the Tana River Red Colobus <i>Procolobus rufomitratu</i>s. Other biodiversity elements include the diversity and abundance of bird species. Monitoring can be easily carried out by site support group members who have already been trained by Nature Kenya (see Annex 46). However, this carbon trading business remains an area for further development and capacity building for Nature Kenya.</p>
<p>Activity 4.1 Conduct a start-up workshop to agree methodologies and provide training in protocols for the Ecosystem Service Assessment for the ICCA</p>		<p>Completed</p> <p>On 11th and 13th July 2017, Dr Rob Field (RSPB) and Nature Kenya’s Science Advisor trained 10 Nature Kenya staff (7M, 3F) on Ecosystem Services Assessment (ESA) using TESSA toolkit (Annex 208, 212). On 14th July 2017, a project inception workshop was held with all stakeholders to carry out scoping for the ecosystem services assessment (Annexes 201 and 202). On 28th – 29th November 2017, the Nature Kenya Science Advisor and Species and Sites Manager trained 28 Enumerators (16M, 12F) from TDCN on protocols for the ESA (Annex 209). These individuals subsequently collected data for the ESA.</p>
<p>Activity 4.2 Carry out consultations needed to assess ecosystem services (e.g. discussions about utilisation of water, land and other natural resources)</p>		<p>Completed</p> <p>Consultations were carried out extensively within the ICCA area targeted for ecosystem services assessment including discussing the scoping report (on 24th Oct 2017) that defined the scope of the ecosystem services assessment (Annex 107). Groups consulted included TDCN, CFAs, Livestock herders, crop farmers, fishing fisher folk, county government officials and other area leaders. Other consultations took place during planning (Annex 200), project inception workshop (Annex 201), TESSA tool training (Annex 203, 204), defining and agreeing data collection (Annex 205), collecting data on ecosystem services including provisioning, regulating, recreation (Annex 206) and others.</p>

Project summary	Measurable Indicators	Progress and Achievements
<p>Activity 4.3 Carry out fieldwork needed to assess the ecosystem services provided by the CCA this will include hiring a consultant hydrologist to assess the flow of the Tana river and set minimum recommended flow rates to support both local population and biodiversity needs.</p>		<p>Completed</p> <p>We used the Toolkit for Ecosystem Service Site-Based Assessment (TESSA—annex 203) to evaluate the value of ecosystem services provided by Tana Delta CCA based on questionnaires (Annex 205) administered by trained staff (Annex 208) and enumerators (Annex 209). Between 2nd to 15th December 2017 fieldwork on the ecosystem services assessment was carried out by the trained enumerators (Annex in 28 villages (13 farming, 12 pastoral and 3 fishing) where a total of 409 respondents were interviewed. Ecosystem Services assessed are; harvested Wild Goods, Cultivated Goods, Water Provisioning including Flood Regulation and Climate Regulation and others. Peter Nelson, the international consultant who advised on the Tana Delta LUP and SEA was hired to carry out the hydrological assessment (Annex 218). Data on biodiversity services including birds (annex 232), primates (Annex 233, 235), fish (Annex 234) and reptiles (Annex 236) and others.</p>
<p>Activity 4.4 Compile findings into a detailed report on ecosystem services, and summarise this report into a paper for submission to a peer-reviewed journal</p>		<p>Completed</p> <p>Rob Field, Paul K. Muoria, Paul Gacheru, Chris Magin, Paul Matiku, Serah Munguti, George Odera, Dickens Odeny. (2018) Ecosystem Service Assessment of the implementation of a Community Conserved Area in the lower Tana Delta. RSPB/Nature Kenya. Sandy. (Annex 64, 214). Ecosystem Services in this report include: Firewood/charcoal; Global climate regulation; Cultivated food; Erosion control; Timber; Coastal protection; Natural medicines; Spiritual/religious; Fish; Local climate regulation; water quality improvement; Regulating pests and diseases; Recreation; Aesthetics and water provision. The Ecosystem Services Report was summarised into a scientific paper (Annex 216).</p>
<p>Activity 4.5: Carry out feasibility studies on using ecosystem services to generate income for ICCA management (e.g. from carbon credits using the plan vivo approach http://www.planvivo.org/about-plan-vivo/ and from expanding incipient ecotourism ventures.</p>		<p>Significant progress towards completion</p> <p>A consultant (Peter Nelson) was hired (funding from GEF/UNEP) and developed Tana Delta Green Heart Initiative Business case (Annex 228), Business case Executive Summary (Annex 226), business case implementation road map (Annex 225) and marketing prospectus (Annex 231). The implementation of these visionary business case will spur economic growth improving livelihoods and keep nature values in the Tana delta. Investor conference is planned to promote the concept in October 2021 so as to attract private sector companies to invest in the delta in ways aligned to the land use plan. This concept is winning political support. The Governor is considering Nature Kenya request for him to approve the Tana Delta Green Heart Initiative concept. The Governor has agreed to establish office space at the Tana River County offices and set up 60 ha land for the industrial Park in Minjila and second three staff to plan investor conference with support from Nature Kenya's GEF/UNEP programme that will</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>continue this overarching vision.</p> <p>On carbon, preliminary results from ecosystem service assessment (Annex 210, 214) indicate that the CCA has approximately 44,500 ha of forest cover. This comprises of 5,700 ha dry Forest, 35,300 ha Riverine Forest and 3,500 ha mangrove. These forests types have a combined global warming potential (GWP100) of about 400,000 tCO₂eq ha⁻¹y⁻¹. This is a “commodity” that can be marketed by the CCA to support its management. Indicators that can be used in the verification process include the extent of the forest and the biodiversity. Key biodiversity components that can be monitored include the endangered Tana River Crested Mangabey <i>Cercocebus galeritus</i> and the Tana River Red Colobus <i>Procolobus rufomitratus</i>. Other biodiversity elements include the diversity and abundance of bird species. Monitoring can be easily carried out by site support group members who have already been trained by Nature Kenya (see Annex 46).</p>
<p>Output 5.</p> <p>The poorest and most vulnerable subset of the 35,000 people living inside the CCA are empowered to demonstrate how livelihoods can be developed/diversified to support the long-term conservation of the delta’s natural resources</p>	<p>5.1 By end year 1 the most vulnerable subset of the 35,000 households (220 Households, ca.1,320 people, 33% pastoralist (60% men, 30% women), 33% farmers (50% men, 50% women) and 33% fisherfolk (50% men, 50% women)) are being trained in activities to develop/diversify sustainable livelihoods in line with the CCA (fish ponds, small holder chicken rearing, new/improved agricultural (leafy vegetables, fruits, rice and green grams) bee keeping and wildlife guiding.</p> <p>5.2 By end Year 2 80% of the 220 households participating in the demonstration have</p>	<p>5.1 Achieved.</p> <p>Demonstrations and training for direct beneficiaries included bee keepers, climate smart agriculture farmers (leafy vegetables, fruits, rice, green grams), fisher folk, goat and poultry rearing. By end of the project; farmers and households involved in demonstrations and training were as follows: 96 crop farmers including horticultural production (52M;44F) representing 576 people; 283 beekeeping farmers (134M;149F) representing 1698 people; 170 fisher folk farmers (73M;97F) representing 1020 people; 42 pastoralist households (12M;30F) representing 252 people; 245 rice farmers trained (98M;147F) representing 1470 people and 72 households in wildlife guiding (58M; 14F) representing 432 people. Overall direct beneficiaries for assets, training and outreach for livelihoods diversification are 4648 households (2281M;2357F) representing 27,828 people (13195M;14633F) disaggregated into 1606 pastoralists (934M;672F) 9636 people (4626M;5010F); 2742 crop farmers (1230M;1512F) 16452 people (7897M;8555F); and 290 Fisherfolk (117M;173F) 1740 people (672M;1068F) (Annex 258, 281, 307, 308).</p> <p>1384 (842M, 542F) pastoralist households representing 8304 (3986M, 4318F) individuals were trained in animal husbandry practices, disease surveillance and detection and basic veterinary services.</p> <p>64 (27M,377F) pastoralist households representing 384 (196M,188F) individuals (numbers include direct and indirect beneficiaries) were trained in animal husbandry and veterinary services. Pastoralists were also connected to trained community vets for continuous monitoring of animal health. These trainings were jointly done by department of veterinary services and</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>developed/diversified their livelihoods as a result of training they have received.</p>	<p>livestock production (Annex 273)</p> <p>5.2 Achieved</p> <p>During the project period a total of 1,428 households (674M;754F) earned a total of Ksh [REDACTED] disaggregated as follows: 240 climate smart agriculture (horticulture) households (136M;104F) Ksh [REDACTED]; 360 beekeepers (168M;192F) Ksh [REDACTED] 100 fisher folk households (50M;50F) Ksh [REDACTED] 161 Pastoralists (goats and milk) farmers (60M;101F) Ksh [REDACTED]; 255 poultry famers trained (110M;145F) resulted to 154 poultry farmers (56M; 98F) earning Ksh [REDACTED] 336 rice farmers (149M;187F) earned Ksh [REDACTED] and 77 individuals trained in wildlife guiding (55M;22F) earned Ksh [REDACTED] (Annex 258, 281, 307, 308).</p> <p>In the Annex 307 (End of project Socio-economic Survey), a study conducted between 15th and 19th March 2021, a total of 606 (348M and 258F) respondents were interviewed. 305 of the respondents were project direct beneficiaries. The Mean cattle annual household income is Ksh 61,718 up from Ksh 41,294 reported in YR3 representing 49.46% increase. Mean pastoralist HH income increased by 26.41% meeting project target of 25% increase in HH income. Crop farmers average annual income increased from Ksh 22,669 at baseline to Ksh [REDACTED] at the EOP representing an increase of 76% average annual household income. Poultry producers also recorded a 38% increase in average HH income compared to Yr3 results. Inadequate rainfall, crop and animal diseases and Human Wildlife Conflict (HWC) are the greatest challenges affecting both crop and livestock productivity in Tana Delta. Farmers, pastoralists and fishermen all reported significant decline in the cases of conflicts reported and associated loss of productive HH assets. Fishermen reported 100% decline in loss of fish resulting from conflicts over access to fishing areas. Pastoralists also reported 93.94% and 93.61% reduction in loss of cattle and goats respectively from project baseline to EOP. Crop farmers reported a 76.98% reduction in crop loss resulting from conflicts between baseline and EOP. Human Wildlife Conflict was the main form of conflict reported with attacks on crops and livestock being the dominant complains. Scarce pasture and water, destruction of wildlife habitats, inadequate land demarcation, and high poverty levels were the main drivers of conflicts cited by respondents</p> <p>On alternative livelihood sources, communities earned an annual average HH income of Ksh [REDACTED] SE from climate smart agribusiness (CSA). Sale of forest produce/agroforestry</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>5.3 By end of project:</p> <p>20 individuals (10 male youth, 10 female youth) from 20 households participating in the demonstration (120 people) increase their income from wildlife guiding by 25% from baseline to end of project.</p> <p>50 individuals from 50 households (300 people) increase their income from honey by 25% from baseline to end of project.</p>	<p>earned the least average annual HH income at Ksh [REDACTED]. Ecotourism and agroforestry had the least number of people involved as IGAs. Unpredictable weather patterns including recurrent drought and floods, inadequate capital and technical skills were cited as the greatest barriers to IGA development. On HH dietary diversity, maize, rice and beans remained as the basic staple foods for communities over the project period. In addition, by EOP, items such as cassava, cooking oil and sugar were included in HH diets. Consumption of critical foods such as vegetables, fish, honey and fruits have become integral parts of HH dietary requirements among pastoralists, farmers and fisherfolk. Food scarcity gaps declined over the project period. At baseline, 35% of respondents recorded going without food for over 3 weeks annually. This figure declined to 3% by EOP. Similarly, those that went without food for between 2-3 weeks declined from 17% to only 5%. Although 99% of respondents were concerned about possible decline of natural resources within the Delta, 72% expressed confidence that the structures put in place including ICCA committee, and VNRLUCs will address the challenges effectively. Threats on forests is largely attributed to illegal logging especially along riverine areas. Promoting Forest Landscape restoration initiatives as well as supporting enforcement efforts were viewed as the best chances for reversing the negative trends in biodiversity loss. Charcoal production among beneficiaries declined by 98% over the project implementation period with the support level for the ICCA process and its declaration rising from 54% in yr2 to 98% at EOP among project beneficiaries (Annex 258, 281, 307, 308).</p> <p>Overall, 77 Wildlife guiding households (55M;22F) earning Ksh [REDACTED] (Annex 133, 266, 273, 307, 308 and 327). The 77 trained guides are also biodiversity monitors across the delta. They participate in January and July water fowl counts; and detailed bird and biodiversity monitoring carried out annually in august and the monitoring data is submitted to the National Museums of Kenya and used to produced Key Biodiversity Areas Status and Trends reports annually (Annex 135, 136, 137).</p> <p>In year 1, four guides were engaged in discussions on the development of an ecotourism business plan (Annex 250). The boat belonging to Ozi ecotourism group was repaired and a new engine purchased and installed. In Year 2, 21 guides (15 M, 6 F) were trained in tour guiding, bird identification, and hospitality among others by a professional tour guide (Annex 266) and they earned KSh [REDACTED] from operating the boat in Ozi Village. In year 3, more 8 (5M, 3F) community wildlife guides were trained in birding and bird identification by leading Kenyan ornithologist Fleur Ng'weno and produced draft checklist (Annex 280). In year 3 alone 21 tour guides (15M; 6F) earned KSh. [REDACTED] from operating the boat in Ozi Village. This represents an increase of 16.15 % for female headed households and 8.89% for</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>50 farmers (25 men, 25 women) from 50 households participating in the demonstration (300 people) report an increase in the diversity of their diets and their income from selling produce increases by 25% from baseline to end of project.</p> <p>50 fishermen (25 men, 25 women) from 50 households participating in the demonstration (300 people) report an increase in the diversity of their diets and their</p>	<p>male headed households. In year 4, 21 households (15M and 6 F) representing 126 people (61M and 65F) participated in wildlife guiding training and they earned Ksh [REDACTED]</p> <p>360 beekeepers (168M;192F) representing 2160 people (1008M;1152F) earned a total of Ksh [REDACTED]. This translates to 28.35% increase in average household incomes for male headed households and 51.53% for female headed households (Annex 133, 307, 308 and 327).</p> <p>193 (892M, 101F) beekeeping households representing 1158 (556M, 602F) individuals directly benefited through training in general hive management including hygiene, honey harvesting, processing and market access and linkages from the local TOTs led by Tana Delta Conservation Network backed by County department of livestock production (Annex 292, 293, 294).</p> <p>Crop farmers average annual income increased from Ksh [REDACTED] at baseline to Ksh [REDACTED] at the EOP representing an increase of 76% average annual household income.</p> <p>336 Rice farmers in Ozi (149M;187F) harvested 4720 kg of rice valued at Ksh [REDACTED] (Ksh [REDACTED]). This represents an increase of 44.85% and 81.55% increase in Household income for male and female headed households respectively. The activity was co-financed with financing from the EU, expanding work started by the Darwin Initiative project where communities in the lower Tana Delta are supported to practice rice farming in brackish waters on farms previously abandoned due to sea water intrusion (Annex 133, 277, 307, 308 and 327).</p> <p>Climate smart agriculture (CSA) was carried out in Hewani, Chalaluma and Harakisa (Annex 266). The TDCN vetted 157 farmers (94M; 53F) from Hewani and Chalaluma recommending 121 (79M, 40F) for support during the October 2017 planting season (Annexes 111/112, 114, 117, 118, 120). As a result, 123 acres were ploughed and planted with lentils in Chalaluma and Hewani Villages and farmers supported with 1,080 Kilograms of lentils with 791 households benefiting. However, in Hewani the entire crop was lost to drought conditions while in Chalaluma hippos invaded the farms and grazed on the lentils with only 28 kilograms harvested.</p> <p>Nature Kenya brokered a partnership between Equator Kenya Ltd (a private investor) and Harakisa Farmers. 30 (7M; 23F) households from Harakisa Community Development Project were supported to initiate Bird's eye chilli farming in collaboration with Equator Kenya Limited - a private company. Equator Kenya Ltd entered into pre-planting purchase agreements with farmers. 16 (3M; 13 F) beneficiary farmers harvested 3,424Kg of African Bird's eye chilli</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>income from selling produce increases by 25% from baseline to end of project.</p> <p>50 pastoralists (25 men, 25 women) from 50 households participating in the demonstration (300 people) report an increase in the diversity of their diets and their income from selling produce increases by 25% from baseline to end of project.</p>	<p>earning Ksh [REDACTED]. This translates to an income increase of Ksh [REDACTED] over a five-month period when harvesting took place before the floods destroyed the farm. The earning represents 22.9% annual household income increase for Male headed household and up to 71% annual income increase for female headed households in Idsowe Village (Annex 48). The remaining 14 (4M, 10F) households planted late such that just before the harvests, floods swept away the entire crop. A subset of 9 (2M,7F) of the 30 households supported with chilli farming practice greenhouse farming. They harvested and sold 375 Kg of tomatoes and 162 Kg of Kales for Ksh [REDACTED]. Additionally, 160 Kg of tomatoes and 36Kg of kales were consumed at household level (Annex 250).</p> <p>50 (25M;25F) households representing 300 (153M, 147F) earned Ksh [REDACTED] in year 3 and 105,000 in Year 4 leading to total earnings of Ksh [REDACTED] from 1,462 kgs Tilapia (<i>Oreochromis niloticus</i>). However, half of this produce was consumed directly by households supplementing their protein content in their diet (Annex 133, 307, 308 and 327). 120 fishermen were trained in fish feed formulation, feeding ratios at various stages of fish development, general pond management, value addition and marketing. The training was done through field demonstration at the ponds by department of fisheries, technical officer from Kenya Marine Fisheries and Research Institute (Annex 282)</p> <p>Overall, 222 pastoralist households (92M and 130 F) benefited directly from assets support. Training benefited 1384 (842M and 542F) leading to 1606 direct beneficiaries representing 9636 people (4626M and 5010F). 161 Pastoralists (goats and milk) farmers (60M;101F) representing 966 people earned Ksh [REDACTED]. Also, of the 255 poultry famers who were trained (110M;145F), 154 of these poultry (56M; 98F) farmers earned Ksh [REDACTED] (Annex 308). The Mean cattle annual household income is Ksh [REDACTED] up from Ksh [REDACTED] reported in Yr3 representing 49.46% increase. Mean pastoralist HH income increased by 26.41% meeting project target of 25% increase in HH income. Poultry producers also recorded a 38% increase in average HH income compared to Yr3 results. Inadequate rainfall, crop and animal diseases and Human Wildlife Conflict (HWC) are the greatest challenges affecting both crop and livestock productivity in Tana Delta (Annex 133, 273, 307, 308 and 327).</p> <p>42 (12M, 30F) pastoralist households traded in goats making Ksh [REDACTED] (£ [REDACTED]) (Annex 273). Pastoralists continued to sell goat meat through a small community level butchery with</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>5.4 Lessons learnt from demonstrations shared with MCAs/wider community through visits to demonstrations, TDCN presentations, radio and other media.</p>	<p>supervision from the veterinary and public health departments.</p> <p>General business plans for the enterprises including livestock was developed by a consultant (Annex 250). A specific business plan for chicken under the TDCN livelihoods and bulking centre has been drafted to organize chicken traders into a cooperative and facilitate them to have better access to markets through bulking and joint marketing as well as negotiating better prices (Annex 289).</p> <p>TDCN has adopted a strategy to support women to keep indigenous chickens as an income generating activity. The project supported TDCN with an incubator to hatch chicks, vaccinate them and supply eligible farmers with 1 month old chicks within a microfinance model. TDCN hatched 104 chicks conducted necessary vaccinations.</p> <p>This was because due to high demand from communities for support in chicken rearing TDCN changed the strategy to embark on mass chicken rearing. With additional funding from the GEF TDCN has initiated a community enterprise demonstration and bulking centre, on the 4 acre farm the group was allotted by Tana River County Government. When completed this will be a model centre for community-led production, bulking, processing, packaging, branding and marketing. Target enterprises include rearing indigenous chickens, beekeeping, fish, rice, chilli, milk and other enterprises in the delta. Community wildlife guides will also meet their visitors at this centre before proceeding on a tour to the delta. Communities and school children will come to learn. The centre is a demonstration to county governments that a community driven business model that capitalizes on green value chains is possible in the Tana Delta. The TDCN office will be based at this centre and its construction is almost complete, poultry rearing inputs with capacity for producing 600 chickens monthly are ready including houses, solar power installation, incubators, water storage among others. Communities will deliver their products to the centre for value addition and marketing (Annexes 275, 276).</p> <p>Lesson sharing was promoted across all the groups through exchanges and interactions during training sessions.</p>
<p>Activity 5.1: Identify households to be provided with fishponds, and carry out a baseline study of diet and income in these households</p>		<p>Completed</p> <p>Criteria for selection of fishpond beneficiaries were developed. Using these criteria Mwa Village was identified for support (Annex 248). A Participatory rural livelihoods appraisal and household wellbeing survey was conducted among fishing villages (Annex 317).</p>
<p>Activity 5.2: Create fishponds and provide training/mentoring</p>		<p>Completed</p> <p>50 (25M;25F) households representing 300(153M, 147F) individuals harvested 827 kilos</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>of fish Tilapia (<i>Oreochromis niloticus</i>) valued at Ksh. [REDACTED] on local prices and Ksh [REDACTED] at market prices. Fish harvesting happened at a time when there were a lot of wild fish stocks due to sustained flooding of the delta over many months as also due to movement restrictions over covid 19 pandemic that effectively lowered demand and consumer prices. Beneficiary households consumed 580Kg of the harvest while the remaining 525 kilos were sold at Ksh. [REDACTED] translating to Ksh. [REDACTED] 120 (48M, 72F) (Annex 133, 307, 308 and 327). 120 fishermen were trained in fish feed formulation, feeding ratios at various stages of fish development, general pond management, value addition and marketing. The training was done through field demonstration at the ponds by department of fisheries, technical officer from Kenya Marine Fisheries and Research Institute (Annex 282)</p>
<p>Activity 5.3: Identify households to be provided with beehives and carry out baseline survey of diet and income</p>		<p>Completed</p> <p>Criteria for selection of beekeeping beneficiaries were formulated (Annex 249). Using these criteria 5 beneficiary groups were identified. The beneficiaries represent 90 households. Beekeepers were involved in participatory rural appraisal and wellbeing surveys. A beehive monitoring tool was developed and applied (Annex 267) including honey tracking sheet (Annex 286) and beehive distribution and handing over sheet (Annex 291). Also, beekeeping business plan was developed (Annex 293).</p>
<p>Activity 5.4: Deliver training/mentoring in beekeeping, develop business plan and add value to honey for marketing</p>		<p>Completed</p> <p>90 (42M, 48F) beekeeping households representing 540(260M, 280F) individuals harvested a total of 927 kg of honey over the reporting period. Out of which, 868.5 kg was sold for Ksh [REDACTED] in year 4 alone. Effectively, the 90 Households (42M, 48F) have earned a cumulative total of 3,646.35 Kgs of honey earned the households Ksh [REDACTED] over the 4-year implementation period for the Darwin project. This translates to 28.35% increase in average household incomes for male headed households and 51.53% for female headed households (Annex 133, 307, 308 and 327)</p> <p>193 (892M, 101F) beekeeping households representing 1158 (556M, 602F) individuals directly benefited through training in general hive management including hygiene, honey harvesting, processing and market access and linkages from the local TOTs led by Tana Delta Conservation Network backed by County department of livestock production (Annex 292, 293, 294).</p>

Project summary	Measurable Indicators	Progress and Achievements
<p>Activity 5.5: Identify households/user groups/women to be provided with support for livestock related business (Milk and Chicken) production and marketing and carry out baseline survey of diet and income.</p>		<p>Criteria for selection of livestock-keeping and chicken-rearing beneficiaries were formulated (Annexes 251 and 252). Using these criteria Dide Waride, Chalaluma and Burarahma were identified for support. Hewani and Moa women groups were also identified for support in chicken rearing. The women wrote to TDCN for support with various inputs (Annex 119/120). TDCN then evaluated their applications against the established criteria and granted them the support (See Annexes 111/112/113 and 119) based on the understanding that they would pay back after selling chicken and eggs; for onward future lending to the same groups or other TDCN members who are needy. The women groups were involved in participatory rural appraisal and wellbeing surveys and meetings for business plan development (Annex 250). The TDCN identified chicken as a business to demonstrate at their offices in Garzen (Annex 271, 273 and 274) and farmers to participate in the chicken business identified (example Annex 276) and those in goats rearing (Annex 273).</p>
<p>Activity 5.6: Deliver training in milk/chicken production and marketing</p>		<p>Completed</p> <p>42 (12M, 30F) pastoralist households representing 294 (136M, 158F) individuals were supported to engage in goat rearing and trade in year 4. They earned Ksh [REDACTED]</p> <p>Overall 1384 (842M, 542F) pastoralist households representing 8304 (3986M, 4318F) individuals were trained in animal husbandry practices, disease surveillance and detection and basic veterinary services.</p> <p>98 (42M, 56F) chicken farmers took interest in local poultry trade earning a cumulative income of [REDACTED] (Annex 292, 293, 294). General business plans for the enterprises including livestock was developed by a consultant (Annex 250). A specific business plan is under development to organize chicken traders into a cooperative and facilitate them have better access to markets through bulking and joint marketing as well as negotiating better prices (Annex 289).</p> <p>42 (12M, 30F) pastoralist households traded in goats making Ksh [REDACTED] (Annex 273). Pastoralists continued to sell goat meat through a small community level butchery with supervision from the veterinary and public health departments.</p> <p>64 (27M,377F) pastoralist households representing 384 (196M,188F) individuals (numbers include direct and indirect beneficiaries) were trained in animal husbandry and veterinary services. Pastoralists were also connected to trained community vets for continuous monitoring of animal health. These trainings were jointly done by department of veterinary services and livestock production (Annex 273)</p> <p>TDCN has adopted a strategy to support women to keep indigenous chickens as an income</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>generating activity. The project supported TDCN with an incubator to hatch chicks, vaccinate them and supply eligible farmers with 1 month old chicks within a microfinance model. TDCN hatched 104 chicks conducted necessary vaccinations.</p> <p>This was because due to high demand from communities for support in chicken rearing TDCN changed the strategy to embark on mass chicken rearing. With additional funding from the GEF TDCN has initiated a community enterprise demonstration and bulking centre, on the 4 acre farm the group was allotted by Tana River County Government. When completed this will be a model centre for community-led production, bulking, processing, packaging, branding and marketing. Target enterprises include rearing indigenous chickens, beekeeping, fish, rice, chilli, milk and other enterprises in the delta. Community wildlife guides will also meet their visitors at this centre before proceeding on a tour to the delta. Communities and school children will come to learn. The centre is a demonstration to county governments that a community driven business model that capitalizes on green value chains is possible in the Tana Delta. The TDCN office will be based at this centre and its construction is almost complete, poultry rearing inputs with capacity for producing 600 chickens monthly are ready including houses, solar power installation, incubators, water storage among others. Communities will deliver their products to the centre for value addition and marketing (Annexes 275, 276).</p> <p>Overall, 222 pastoralist households (92M and 130 F) benefited directly from assets support. Training benefited 1384 (842M and 542F) leading to 1606 direct beneficiaries representing 9636 people (4626M and 5010F)— (Annex 133, 273, 307, 308 and 327)</p>
<p>Activity 5.7: Identify households to be provided with training in sustainable farming and the creation and marketing of high-value crops, and carry out a baseline survey of diet and income in these households</p>		<p>Completed</p> <p>Criteria for selection of farming beneficiaries were formulated. Based on these criteria Hewani, Chalaluma and Harakisa (Annex 266). Farmers were identified for support with farming. TDCN then assessed group preparedness; and vetted 157 farmers (94M; 53F) from Hewani and Chalaluma recommending 121 (79M, 40F) for support during the October 2017 planting season (Annexes 111/112,114, 117, 118,120). As a result, 123 acres were ploughed and planted with lentils in Chalaluma and Hewani Villages and farmers supported with 1,080 Kilograms of lentils with 791 households benefiting. However, in Hewani the entire crop was lost to drought conditions while in Chalaluma hippos invaded the farms and grazed on the lentils with only 28 kilograms harvested.</p> <p>TDCN also processed application for support with farm inputs by Harakisa farming group. Beneficiaries are required to pay back to TDCN the amount lend to them at cost, for onward future lending to either the same groups or other needy groups. Therefore, support for livelihoods operates as a micro credit revolving scheme (Annexes 261,262,263). Overall, 245</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>(98M, 147F) households representing 1470 people (706M, 764F) were identified and supported in rice farming in Ozi village. Baseline surveys had already been completed in the village in Year 1 (Annex 247).</p>
<p>Activity 5.8: Deliver training/mentoring in sustainable farming</p>		<p>Completed</p> <p>Between 10th and 12th February 2018, Tana River County Department of Livestock production and agriculture, trained 25 individuals (9M; 16F) from Harakisa Farmers Group on greenhouse tomato farming (Annex 255). This was hands-on training where farmers ‘learned by doing’. Extension officers from the department visited the greenhouse six times and advised farmers in production.</p> <p>247 households (81M, 166F) from Ozi Village were supported with 4,720Kg rice seeds of ITA variety. The activity was supported with financing from the EU, expanding work started by the Darwin Initiative project where communities in the lower Tana Delta are supported to practice rice farming in brackish waters on farms previously abandoned due to sea water intrusion. The farmers harvested 147 tonnes of paddy rice which translates to 95,550Kg of processed rice at a conversion ratio of 65% paddy to processed rice. The harvest is valued at Ksh [REDACTED] at farm gate price but could fetch up to Ksh [REDACTED] at market prices. In just two years when Nature Kenya through Darwin project supported Rice cultivation in Ozi, the community earned a total of Ksh [REDACTED]. This represents an increase of 44.85% and 81.55% increase in Household income for male and female headed households respectively.</p> <p>Overall 2742 (1230M, 1512F) households representing 16,452 (7897M, 8555F) individuals were trained in rice production, quality seed selection value addition, chilli production and production of fast maturing high value horticultural crops in a greenhouse (Annex 133, 273, 307, 308 and 327).</p> <p>Climate smart agriculture (CSA) was carried out in two villages: Idsowe Village targeting members of Harakisa Community Development Group and Ozi Village. In Ozi village CSA involved supporting farmers to grow rice varieties that are tolerant to sea water intrusion. 126 (67M; 59F) beneficiary households were supported with 2,571 kg of rice seeds. 91 (51M, 40F) households reported full harvest. The remaining 35 households’ farms were destroyed by salt water intrusion and extensive flooding. The 91 households reported an average harvest of 867Kg of paddy rice per acre translating to 79 tonnes of unprocessed rice. Once this rice is milled at a conversion rate of 65% it will yield 51 tonnes of rice valued at Ksh [REDACTED].</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>(£ [redacted] at farm gate and Ksh [redacted] at market prices. This translates to an average income of Ksh. [redacted] and Ksh. [redacted] per household at farm gate and market prices respectively. The rice harvest constitutes 33.83% and 61.56% increase in annual household incomes for Male and Female Headed Households respectively at farm gate prices. At market prices, annual household incomes increase by 39.53% and 72% for beneficiary male and female headed households respectively (Annex 277).</p> <p>Nature Kenya brokered a partnership between Equator Kenya Ltd (a private investor) and Harakisa Farmers. 30 (7M; 23F) households from Harakisa Community Development Project were supported to initiate Bird's eye chilli farming in collaboration with Equator Kenya Limited - a private company. Equator Kenya Ltd entered into pre-planting purchase agreements with farmers. 16 (3M; 13 F) beneficiary farmers harvested 3,424Kg of African Bird's eye chilli earning Ksh [redacted]</p> <p>This translates to an income increase of Ksh [redacted] over a five-month period when harvesting took place before the floods destroyed the farm. The earning represents 22.9% annual household income increase for Male headed household and up to 71% annual income increase for female headed households in Idsowe Village (Annex 48). The remaining 14 (4M, 10F) households planted late such that just before the harvests, floods swept away the entire crop. A subset of 9 (2M,7F) of the 30 households supported with chilli farming practice greenhouse farming. They harvested and sold 375 Kg of tomatoes and 162 Kg of Kales for Ksh [redacted] Additionally, 160 Kg of tomatoes and 36Kg of kales were consumed at household level (Annex 250).</p>
<p>Activity 5.9: Identify individuals to be provided with training in wildlife guiding.</p>		<p>Completed</p> <p>Criteria for selection of tour guides were formulated. Based on these criteria Nature Kenya identified 14 tour guides (10M; 4F) in Ozi Village (Annex 55). Additional guides will be identified to reach the targeted 20, with a specific focus on women (Annex 256).</p>
<p>Activity 5.10: Deliver training/mentoring in wildlife guiding.</p>		<p>Completed</p> <p>In year 1, four guides were engaged in discussions on the development of an ecotourism business plan (Annex 250). The boat belonging to Ozi ecotourism group was repaired and a new engine purchased and installed. In Year 2, 21 guides (15 M, 6 F) were trained in tour guiding, bird identification, and hospitality among others by a professional tour guide (Annex 266) and they earned Ksh [redacted] from operating the boat in Ozi Village. In year 3, more 8 (5M, 3F) community wildlife guides were trained in birding and bird identification by leading Kenyan ornithologist Fleur Ng'weno and produced draft checklist (Annex 280). In year 3 alone</p>


Project summary	Measurable Indicators	Progress and Achievements
		<p>21 tour guides (15M; 6F) earned Ksh. ██████████ from operating the boat in Ozi Village. This represents an increase of 16.15 % for female headed households and 8.89% for male headed households. In year 4, 21 households (15M and 6 F) representing 126 people (61M and 65F) participated in wildlife guiding training and they earned Ksh ██████████ (Ksh ██████████). Overall 51 trained guides (43M and 8F) earned ██████████ (Annex 133, 266, 273, 307, 308 and 327). The 51 trained guides are also biodiversity monitors across the delta. They participate in January and July water fowl counts; and detailed bird and biodiversity monitoring carried out annually in August and the monitoring data is submitted to the National Museums of Kenya and used to produce Key Biodiversity Areas Status and Trends reports annually (Annex 135, 136, 137).</p>
<p>Activity 5.11 Identify individuals to be provided with energy saving technology and carry out baseline survey of household fuel use.</p>		<p>Completed Criteria for selection of beneficiaries for energy saving devices were formulated (Annex 257). Based on these criteria 500 individuals from 10 villages were identified to benefit from installation of 500 energy saving devices.</p>
<p>Activity 5.12 Implement training in energy saving technologies</p>		<p>Completed Criteria for selection of artisans to be trained in installation of energy saving devices were formulated (Annex 259). Based on these criteria 20 artisans (14M; 6F) were identified. 1250 energy saving stoves were installed in 1250 households. A spot assessment indicates by using the stoves communities saved 38.74% time spent in cooking and 43.73% reduction in wood fuel usage (Annex 259).</p>
<p>Activity 5.13 Carry out end-of-project studies of all beneficiary households involved in livelihood demonstration activities to match the baseline studies described above (5.1, 5.3, 5.5, 5.7, 5.9, 5.11) As well as measuring diversity of diets and income household surveys will measure how much produce is consumed at household level and how much is sold as surplus to meet household needs (basic, secondary, tertiary) to help inform how to increase benefits in the future</p>		<p>Completed End of project socio-economic study was done (Annex 307) and livelihoods data summarised (Annex 308) updating the beneficiaries' data generated in year 3 (Annex 281) which was made possible by application of IGAs tracking tools (Annex 254, 258, 286).</p> <p>In the Annex 307 (End of project Socio-economic Survey), a study conducted between 15th and 19th March 2021, a total of 606 (348M and 258F) respondents were interviewed. 305 of the respondents were project direct beneficiaries. The mean household size for the direct beneficiaries was found to be 6.692 ± 2.555 STDev and using mean land 19.763 acres ± 0.235 SE with only 1.7% of the respondents having title deeds. Cumulatively, over 90% of decisions on land use is done by men. Mean cattle annual household income is Ksh ██████████ up from Ksh ██████████ reported in YR3 representing 49.46% increase. Mean pastoralist HH income increased by 26.41% meeting project target of 25% increase in HH income. Crop farmers average annual income increased from Ksh ██████████ at baseline to Ksh ██████████ at the EOP representing an increase of 76% average annual household income. Poultry producers also recorded a 38% increase in average HH income compared to Yr3 results. Inadequate rainfall, crop and animal</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>diseases and Human Wildlife Conflict (HWC) are the greatest challenges affecting both crop and livestock productivity in Tana Delta. Farmers, pastoralists and fishermen all reported significant decline in the cases of conflicts reported and associated loss of productive HH assets. Fishermen reported 100% decline in loss of fish resulting from conflicts over access to fishing areas. Pastoralists also reported 93.94% and 93.61% reduction in loss of cattle and goats respectively from project baseline to EOP. Crop farmers reported a 76.98% reduction in crop loss resulting from conflicts between baseline and EOP. Human Wildlife Conflict was the main form of conflict reported with attacks on crops and livestock being the dominant complains. Scarce pasture and water, destruction of wildlife habitats, inadequate land demarcation, and high poverty levels were the main drivers of conflicts cited by respondents</p> <p>On alternative livelihood sources, communities earned an annual average HH income of Ksh [REDACTED] from climate smart agribusiness (CSA). Sale of forest produce/agroforestry earned the least average annual HH income at [REDACTED]. Ecotourism and agroforestry had the least number of people involved as IGAs. Unpredictable weather patterns including recurrent drought and floods, inadequate capital and technical skills were cited as the greatest barriers to IGA development.</p> <p>On HH dietary diversity, maize, rice and beans remained as the basic staple foods for communities over the project period. Consumption of critical foods such as vegetables, fish, honey and fruits have become integral parts of HH dietary requirements among pastoralists, farmers and fisherfolk. In addition, by EOP, items such as cassava, cooking oil and sugar were included in HH diets.</p> <p>Food scarcity gaps declined over the project period. At baseline, 35% of respondents recorded going without food for over 3 weeks annually. This figure declined to 3% by EOP. Similarly, those that went without food for between 2-3 weeks declined from 17% to only 5%. Although 99% of respondents were concerned about possible decline of natural resources within the Delta, 72% expressed confidence that the structures put in place including ICCA committee, and VNRLUCs will address the challenges effectively. Threats on forests is largely attributed to illegal logging especially along riverine areas. Promoting Forest Landscape restoration initiatives as well as supporting enforcement efforts were viewed as the best chances for reversing the negative trends in biodiversity loss. Charcoal production among beneficiaries declined by 98% over the project implementation period with the support level for the ICCA process and its declaration rising from 54% in yr2 to 98% at EOP among project beneficiaries (Annex 258, 281, 307, 308).</p>

Project summary	Measurable Indicators	Progress and Achievements
<p>Output 6</p> <p>Lessons learned from the project are being used by government bodies (including county governments) leading the development of other Deltas throughout Kenya.</p>	<p>6.1 Findings and recommendations from the project are shared at with the Inter-Ministerial Technical Committee on Deltas, the National Environment Management Authority and all other relevant bodies at least annually throughout the project (i.e. at the end of each project year)</p> <p>6.2 Records of subsequent discussions within and among these target groups demonstrate that this dissemination work is effective and that the lessons and recommendations communicated are being taken into account during relevant policy formulation and decision-making processes.</p>	<p>The findings and and recommendations from the project were shared widely with many stakeholders including: at with the Inter-Ministerial Technical Committee on Deltas, the National Environment Management Authority, the National Treasury, Tana River and Lamu County Governments and line agencies including Kenya Wildlife Service (KWS), Kenya Forest Service (KFS), Kenya Forest Research Institute (KEFRI), Kenya Marine and Fisheries Institute (KEMRI), Siaya and Busia County Governments and a range of other relevant bodies. These results were shared on annual basis throughout project implementation. The recommendations were shared through records of meetings discussing application of the project lessons, letters to key agencies, invitations of relevant agencies to participate in project implementation and presentations at relevant meetings and capturing lessons and experiences at mid and end of the project.</p> <p>We held meetings of the Project Implementation Committee to evaluate progress and guide implementation. These included inception and PIC meeting in July 2017; update on status to PIC on 20th March 2019 during a meeting to provide input into the CCA management plan (Annex 21); ICCA management plan validation meeting held on 30th July 2019 (Annex 332); and a multi-stakeholder Project Steering Committee on 19th June 2019 (Annex 353) and 17th September 2020 (Annex 354).</p> <p>Findings and recommendations were compiled in the following reports: baseline PRA and household wellbeing (Annex 317); socio-economic surveys (Annex 15, 23, 24, 25, 126, 127, 128, 133, 307, 327) and they informed project activities including livelihoods improvement, ICCA set up and capacity building. Other findings and recommendations are those linked to biodiversity including Birds (Annex 5, 232 237), primates (Annex 6, 10) and hydrology (Annex 211). Lessons learned and recommendations were compiled for the period 2017 to 2021 (Annex 351). The lessons included the following: Given the opportunity, local communities are the best leaders and solution providers for local challenges; Government officers whether high level policy makers or the local agricultural extension officer have proved invaluable to the project; Working with TDCN, VNRLUC, CFAs and other community based organizations, and cascading this further down to capacitated community ToTs was a strong strategy; Gender inclusion in Tana Delta communities takes sustained deliberate efforts by all: The many strategies we employed to include women were born of the realization that just</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>because women participate in a project activity does not mean that they are actually benefitting; Empower partners and collaborators and then lead from behind. It is tempting for the project lead organization to want to lead everything, take credit for everything and be prominent. We have, however, learned that higher impact is achieved when project partners and collaborating organizations and communities are given space to lead from the front as partner leads from behind (Annex 352). These lessons were also shared with another Darwin project in Yala Swamp (Annex 352). Fundamentally, the work in Yala Swamp benefitted from lessons learned within previous interventions in Tana River Delta, where Nature Kenya and the IMTC trialled the LUP and SEA approach.</p> <p>We empowered grassroots to collect and use data. The TDCN carried out baseline and end of project representative household surveys measuring impact of project on the wellbeing of the people of the Tana delta inside the ICCA. Follow up socio-economic studies were done annually in 2019 (Annex 327) and end of project between 15th and 19th March (Annex 307). The studies interviewed 515 and 606 respondents respectively all from the 15 villages where the baseline surveys were conducted (Bularahma, Hewani, Moa, Didewaride, Chalaluma, Onkolde, Shirikisho, Ozi, Dideade, Idsowe, Hamesa, Hurara, Nduru, Golbanti and Handaraku. The livelihoods data were summarised updating the beneficiaries' data generated in year 3 (Annex 281) to produce a final beneficiaries' data used for final reporting (Annex 308). The results were continuously disseminated to the wide range of stakeholders through face-to-face meetings and other appropriate channels.</p> <p>In March 2018 lessons from Tana Delta LUP implementation and the project were shared to IMTC (including the National Treasury) and members of the Inter-County Land Use Planning Committee that is coordinating formulation of a land use plan for Yala Swamp (Slide 12 in annex 320). On 25 May 2019, the work in Tana Delta was presented at the Kenya Forest Working Group (KFWG) (Annex 328). Project progress and recommendations were compiled and presented at four different meetings including two County Steering Group Meetings, the Preparation of the CIDP II, and the preparation of the County Integrated Monitoring and Evaluation Policy formulation meeting (Annex 326). Project progress was presented at 4 county level meetings and the national SSGs workshop in September 2019 (Annex 333). In June 2019, a presentation on the project and Nature Kenya work in Tana Delta was made to national government agencies, county governments of Tana River and Lamu and community representatives during the launch of the GEF TRI project (Annex 324). The project lessons</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>were also shared with the Rt Hon H E Raila Odinga on 30th July 2019 (Annex 331) and the Cabinet Secretary for Environment on 21st June 2019 (Annex 335), Other presentations included submissions to county or national government on budget tips and (Annex 342,343, 348) and presentations to the Project National Steering Committee including partners for the GEF/UNEP Restoration project (Annex 346, 350).</p> <p>In August 2019 the Physical and Land Use Planning Act, 2019 became law with sections on land use planning borrowing heavily from the Tana LUP development process http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/2019/PhysicalandLandUsePlanningAct_No13of2019.pdf.</p> <p>On 21st June, the Nature Kenya Executive Director Dr. Paul Matiku held meetings with the Garsen Member of Parliament, two Members of the Tana River County Assembly, the Cabinet Secretary Ministry of Environment and Forestry, Director General Kenya Forest Service among other high level national and county government officials (Annex 54). The meeting discussed national coordination of conservation efforts in the Tana Delta and other Kenyan deltas. As a result of this meeting Nature Kenya drafted and submitted to the Cabinet Secretary a policy brief (Annex 335) and a cabinet memo (Annex 337) on conservation and development issues in the delta. On 22nd July 2019 Nature Kenya Executive Director and Advocacy Manager met the Member of Parliament of Garsen Constituency (the delta) and held further discussions including the role of the MP in catalysing discussions with upstream counties on development of a water sharing mechanism.</p> <p>The project results were disseminated widely including; the World Wetlands Day (Annexes 314 and 318); conferences and scientific papers e.g. Engagement (FLARE) symposium in Denmark (Annex 322); newspaper articles: https://www.independent.co.uk/voices/campaigns/giantsclub/climate-change-kenya-tana-delta-b1808095.html ; https://naturekenya.org/2017/11/01/bringing-the-tana-delta-land-use-plan-to-action/ ; https://naturekenya.org/2019/07/29/major-restoration-initiative-for-tana-river-delta/ ; https://www.standardmedia.co.ke/arts-culture/article/2001396597/inside-restoration-plan-to-save-chocking-tana-delta ; https://www.the-star.co.ke/counties/coast/2019-06-22-tana-river-delta-forest-restoration-begins/ ; https://www.independent.co.uk/voices/campaigns/giantsclub/climate-change-kenya-tana-delta-b1808095.html . Also Nature Kenya publications were used to disseminate project findings to</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>internal and external audiences: Kenya Birding 13:</p> 
<p>Activity 6.1: Hold biannual meetings of the Project Implementation Committee to evaluate progress and guide implementation</p>		<p>Completed</p> <p>The group that attended the project inception meeting in July 2017 doubled up as the Project Implementation Committee (PIC). On 20th March 2019, the Project Implementation Committee (PIC) was given an update on the status of the project (Annex 21), during a meeting to provide input into the CCA management plan. The Darwin Project and GEF/UNEP projects were both discussed in one joint Project Steering Committee. During the ICCA management plan validation meeting held on 30th July 2019 Nature Kenya Policy and Advocacy Manager gave a presentation on the Darwin Initiative project (Annex 332). A multi-stakeholder Project Steering Committee was held on 19th June 2019 (Annex 353) and 17th September 2020 (Annex 354).</p>
<p>Activity 6.2: Compile findings and recommendations from the project at the end of each project year</p>		<p>Completed</p> <p>Findings and recommendations were compiled in the following reports: baseline PRA and household wellbeing (Annex 317); socio-economic surveys (Annex 15, 23, 24, 25, 126, 127, 128, 133, 307, 327). These reports and recommendations related to socioeconomic to inform livelihoods or participatory forest management or ICCA set up and management or ecosystem services assessment. The recommendations were used to inform project implementation. Other findings and recommendations are those linked to biodiversity including Birds (Annex 5, 232 237), primates (Annex 6, 10) and hydrology (Annex 211).</p> <p>Lessons learned and recommendations were compiled for the period 2017 to 2021 (Annex 351). The findings include the following:</p> <ul style="list-style-type: none"> • Community driven solutions for conservation and development work: Given the opportunity, local communities are the best leaders and solution providers for local challenges. The Tana Delta is a very difficult environment to work in. Farmers and pastoralists have been

Project summary	Measurable Indicators	Progress and Achievements
		<p>historically embroiled in conflict over resources. To earn the trust of communities and their leaders all project activities are carried out with openness, transparency and inclusiveness.</p> <ul style="list-style-type: none"> • Collaborative work with government at national and county level is mandatory for long term impact – Government officers whether high level policy makers or the local agricultural extension officer have proved invaluable to the project. They mainstream our recommendations into policy and provide technical advice and support to communities beyond the call of duty, at no cost to the project. They provide a legacy for the project as they will continue to work with communities long after the project is completed. • Train the Trainer: Working with TDCN, VNRLUC, CFAs and other community based organizations, and cascading this further down to capacitated community ToTs was a strong strategy. Working with ToTs enhances speed of delivery and community buy-in. Skills imparted will remain in the community after project end, ensuring continuity of project interventions. • Clear evidence based reporting: Nature Kenya instituted a system of continuous project monitoring and evaluation based on data. In essence, in our minds, the next report started immediately after the submission of the previous report. • Gender inclusion in Tana Delta communities takes sustained deliberate efforts by all: The many strategies we employed to include women were born of the realization that just because women participate in a project activity does not mean that they are actually benefitting. To ensure women in marginalized communities actually benefit space needs to be created for them to do so, on their terms, without fear. • Empower partners and collaborators and then lead from behind: It is tempting for the project lead organization to want to lead everything, take credit for everything and be prominent. We have, however, learned that higher impact is achieved when project partners and collaborating organizations and communities are given space to lead from the front as partner leads from behind. • It will take time to develop community-driven green production and private sector links: The vision continues beyond the Darwin Initiative project. <p>These lessons were also shared with another Darwin project in Yala Swamp (Annex 352). Fundamentally, the work in Yala Swamp benefitted from lessons learned within previous interventions in Tana River Delta, where Nature Kenya and the IMTC trialled the LUP and SEA approach.</p>

Project summary	Measurable Indicators	Progress and Achievements
<p>Activity 6.3: TDCN carry out baseline and end of project representative household surveys to measure impact of project on the wellbeing of the target population</p>	<p>Completed</p> <p>In 2019, socio-economic survey was done (Annex 327). This study was conducted in 15 villages across Tana Delta, the same villages were the baseline survey were conducted namely Bularahma, Hewani, Moa, Didewaride, Chalaluma, Onkolde, Shirikisho, Ozi, Dideade, Idsowe, Hamesa, Hurara, Nduru, Golbanti and Handaraku. A total of 515 households were interviewed using the standard questionnaire pre-developed for the survey. End of project socio-economic study was done (Annex 307) and livelihoods data summarised (Annex 308) updating the beneficiaries' data generated in year 3 (Annex 281).</p> <p>Results show that mean cattle annual household income is Ksh █████ up from Ksh █████ reported in YR3 representing 49.46% increase. Mean pastoralist HH income increased by 26.41% meeting project target of 25% increase in HH income. Crop farmers average annual income increased from Ksh █████ at baseline to Ksh █████ at the EOP representing an increase of 76% average annual household income. Poultry producers also recorded a 38% increase in average HH income compared to Yr3 results. Inadequate rainfall, crop and animal diseases and Human Wildlife Conflict (HWC) are the greatest challenges affecting both crop and livestock productivity in Tana Delta. Farmers, pastoralists and fishermen all reported significant decline in the cases of conflicts reported and associated loss of productive HH assets. Fishermen reported 100% decline in loss of fish resulting from conflicts over access to fishing areas. Pastoralists also reported 93.94% and 93.61% reduction in loss of cattle and goats respectively from project baseline to EOP. Crop farmers reported a 76.98% reduction in crop loss resulting from conflicts between baseline and EOP. Human Wildlife Conflict was the main form of conflict reported with attacks on crops and livestock being the dominant complains. Scarce pasture and water, destruction of wildlife habitats, inadequate land demarcation, and high poverty levels were the main drivers of conflicts cited by respondents (Annex 307 and 308). For details on the findings, see activity 5.13 under output 5.</p>	
<p>Activity 6.4: Present these to the Interministerial Committee (IMTC), the Delta's Development Board, the Ministry of Water, Environment and Natural Resources, NEMA and other key bodies through face-to-face meetings and other appropriate channels</p>	<p>In March 2018 lessons from Tana Delta LUP implementation and the project were shared to IMTC (including the National Treasury) and members of the Inter-County Land Use Planning Committee that is coordinating formulation of a land use plan for Yala Swamp, informed by SEA and modelled after the Tana process (Slide 12 in annex 320). On 25 May 2019, the work in Tana Delta was presented at the Kenya Forest Working Group (KFWG) (see Annex 328). Project progress and recommendations were compiled and presented at four different meetings including two County Steering Group Meetings, the Preparation of the CIDP II, and the preparation of the County Integrated Monitoring and Evaluation Policy formulation meeting (Annex 326). Project progress was presented at 4 county level meetings and the national</p>	

Project summary	Measurable Indicators	Progress and Achievements
		<p>SSGs workshop in September 2019 (Annex 333). In June 2019, a presentation on the project and Nature Kenya work in Tana Delta was made to national government agencies, county governments of Tana River and Lamu and community representatives during the launch of the GEF TRI project (Annex 324). The project manager (George Odera) shared the project scope: with the Tana River County officials on 17th March (Annex 329) and MCAs from Garsen North and Garsen Central on 29th June 2019 (Annex 330). Serah Munguti (Project leader) and members of the IMTC shared the project with the Rt Hon H E Raila Odinga (Annex 331), the National Liaison Committee Meeting on 30th July 2019 (Annex 332) and the GEF UNEP The Restoration Initiative Project launch (Annex 334). Paul Matiku presented the project to the Cabinet Secretary for Environment on 21 June 2019 (Annex 335) and further in a memorandum to the cabinet that Nature Kenya drafted for the Cabinet Secretary for environment on 24th June 2019 (Annex 336) and a cabinet memo on 15 July 2019, to catalyse national action on Sea water intrusion (Annex 337). Other presentations included submissions to county or national government on budget tips and (Annex 342,343, 348) and presentations to the Project National Steering Committee including partners for the GEF/UNEP Restoration project (Annex 346, 350).</p>
<p>Activity 6.5: Monitor records of discussions within and between these bodies, and the content of policy and planning documents, to ensure that the lessons shared are taken into account</p>		<p>Completed</p> <p>Nature Kenya participated in nearly all the important planning processes in Tana River County as detailed in section 2 of this report. Nature Kenya provided input into Tana River County Integrated plan (CIDP). As a result, LUP, SEA and CCA are explicitly mentioned in the CIDP (see Annexes 151, 152). Nature Kenya submitted a memorandum to the National Assembly urging for SEA to be conducted for inter-basin water transfers, and establishment of environmental flows (Annex 321). Nature Kenya contributed to various county policy processes including the County Integrated Development Plan II formulation team; the development of the County Integrated Monitoring and Evaluation Policy; Annual Development Plan for 2018/19, budget development process 2019/20 financial year, County Fiscal Strategy Paper (Annex 343).</p> <p>In August 2019 the Physical and Land Use Planning Act, 2019 became law with sections on land use planning borrowing heavily from the Tana LUP development process http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/2019/PhysicalandLandUsePlanningAct_No13of2019.pdf.</p> <p>On 27th September 2019, the Nature Kenya Advocacy Manager and members of the Inter Ministerial Technical Committee on Sustainable Management of Deltas held a briefing meeting with H.E. The Rt. Hon. Raila Odinga and briefed him about the work in Tana and Yala Deltas</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>(see Annex 331). As a result, the Yala Land Use was signed by the former prime minister. Yala is his birth place and political stronghold. When he signed the Siaya and Busia Governors also signed the Land Use Plan.</p> <p>On 21st June, the Nature Kenya Executive Director Dr. Paul Matiku held meetings with the Garsen Member of Parliament, two Members of the Tana River County Assembly, the Cabinet Secretary Ministry of Environment and Forestry, Director General Kenya Forest Service among other high level national and county government officials (Annex 54). The meeting discussed national coordination of conservation efforts in the Tana Delta and other Kenyan deltas. As a result of this meeting Nature Kenya drafted and submitted to the Cabinet Secretary a policy brief (Annex 335) and a cabinet memo (Annex 337) on conservation and development issues in the delta. On 22nd July 2019 Nature Kenya Executive Director and Advocacy Manager met the Member of Parliament of Garsen Constituency (the delta) and held further discussions including the role of the MP in catalysing discussions with upstream counties on development of a water sharing mechanism.</p>
<p>Activity 6.6: Carry out broader dissemination activities aimed at non-specialist audiences</p>		<p>Completed</p> <p>Dissemination of project objectives and activities was done at the World Wetlands Day celebrations, and in 32 village meetings mainly targeting local communities (Annexes 314 and 318). Senior staff at Kenya Forestry Research Institute submitted an abstract based on the findings of the project's participatory rural appraisal and household wellbeing baseline survey to Forests and Livelihoods: Assessment, Research, Engagement (FLARE) symposium in Denmark (Annex 322).</p> <p>Articles on the project were published in the Nature Kenya newsletter "Nature Net" (1 article) and Darwin newsletters (2 articles). Three articles published in the Kenya Birding magazine (one each year) that is distributed to NK's supporters and distributed at the UK Bird Fair in 2017, 2018 and 2019. Broader dissemination was done through global environment related celebrations including World Environment Day (WED), Desertification day, wetlands day, World Migratory Bird Day and others. Numerous newspaper articles were published including https://www.independent.co.uk/voices/campaigns/giantsclub/climate-change-kenya-tana-delta-b1808095.html; https://naturekenya.org/2017/11/01/bringing-the-tana-delta-land-use-plan-to-action/ ; https://naturekenya.org/2019/07/29/major-restoration-initiative-for-tana-river-delta/ ; https://www.standardmedia.co.ke/arts-culture/article/2001396597/inside-restoration-plan-to-save-chocking-tana-delta ; https://www.the-star.co.ke/counties/coast/2019-06-22-tana-river-delta-forest-restoration-begins/;</p>

Project summary	Measurable Indicators	Progress and Achievements
		https://www.independent.co.uk/voices/campaigns/giantsclub/climate-change-kenya-tana-delta-b1808095.html .
Activity 6.7: Advocate to KWS to provide wildlife management support to the Tana Delta ICCA as a private community managed conservancy.		Completed KWS is on board. It is a member of the CCA management committee and co-chairs the committee alongside the County Governments. On 27 th to 29 th January 2021, KWS Senior Warden from Lamu County, Mr. Matthias Mwavita trained the ICCA Committee (Annex 150).
Activity 6.8: Advocate to KFS and County Government to provide management support for forest management especially the gazetted community forests within the CCA		Completed KFS and County Governments are on board. Both are members of the CCA management committee. On 27 th to 29 th January 2021, Mr James Mwangombe from the head of KFS Biodiversity Unit trained the ICCA Committee (Annex 150). KFS is a member of the CCA Management Committee. KFS also trained the CCA Management Committee on legal provisions for CCAs in Kenya under forest conservation laws. The Kenya Forest Research Institute (KEFRI), that supports KFS and Kenya at large on Forestry research are also fully on board and have developed 5 Participatory Forest Management Plans and Management Agreements (Annex13,27,36,37,38,67,68,73, 126,127,168) and trained the five Community Forest Associations (CFAs) and 4 WRUAs on tree growing including seed collection and tree nursery establishment (Annex 62, 63, 66).
Activity 6.9: Write articles and disseminate widely via Nature Kenya communication channels and CBD meetings and other events.		Completed Below are links to Kenya Birding and Nature Net issues with Tana Delta articles: Kenya Birding 13: https://drive.google.com/file/d/1hVKmqnyGEZhvWLSQFb0eVRMV3wt3hRTx/view?usp=sharing Kenya Birding 14: http://naturekenya.org/wp-content/uploads/2020/09/Kenya-Birding-Issue-14.pdf Nature Net August 2019: https://drive.google.com/drive/u/2/folders/1gPChxq8CgDbWr1qM_UJ_AKR_fd4lvbOB Nature Net February 2020: https://drive.google.com/drive/u/2/folders/1k-A_vresd-L4rYpB3x840M0zmc6ntwep Nature Net November 2020: https://drive.google.com/drive/u/2/folders/1k-A_vresd-L4rYpB3x840M0zmc6ntwep Nature Net February 2021: https://drive.google.com/drive/u/2/folders/1-c44RHvoJxQlqKxPJBKRDSbV1_R3Zy0V

Annex 3 Standard Measures

We use these figures as part of our evaluation of the wider impact of the Darwin Initiative programme. Projects are not evaluated according to quantity. That is – projects that report few standard measures are not seen as being of poorer quality than those projects which can report against multiple standard measures.

Please quantify and briefly describe all project standard measures using the coding and format of the Darwin Initiative Standard Measures. Download the updated list explaining standard measures from <http://darwin.defra.gov.uk/resources/reporting/>. If any sections are not relevant, please leave blank.

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
Training Measures							
1a	Number of people to submit PhD thesis						
1b	Number of PhD qualifications obtained						
2	Number of Masters qualifications obtained						
3	Number of other qualifications obtained						
4a	Number of undergraduate students receiving training						
4b	Number of training weeks provided to undergraduate students						
4c	Number of postgraduate students receiving training (not 1-3 above)						
4d	Number of training weeks for postgraduate students						
5	Number of people receiving other forms of long-term (>1yr) training not leading to formal qualification (e.g., not categories 1-4 above)						
6a	Number of people receiving other forms of short-term education/training (e.g., not categories 1-5 above) No of people trained in questionnaire administration, biodiversity monitoring, CCA legal framework, entrepreneurship, crop, fish, livestock, bee, tour guiding, energy saving technology and poultry production	1320	Kenyan	234M;255F	Training in surveys/socio bio-physical	English	

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
6b	Number of training weeks not leading to formal qualification						
7	Number of types of training materials produced for use by host country(s) (describe training materials) ToR for VNRLUCs, 1 CCA management committee ToR, Guidelines for implementation of FLR, ToR for Tana Land Use Advisory Committee; ICCA constitution	6	Kenyan			English	
Research Measures		Total	Nationality	Gender	Title	Language	Comments/ Weblink if available
9	Number of species/habitat management plans (or action plans) produced for Governments, public authorities or other implementing agencies in the host country (ies) 1 CCA management plan, 4 Participatory Forest Management plans, 4 Forest Management Agreements, 20 VNRLUC Restoration Action Plans; 5 Sub catchment management plans	35				English	Participatory process?
10	Number of formal documents produced to assist work related to species identification, classification and recording.						
11a	Number of papers published or accepted for publication in peer reviewed journals 3 papers to be published in peer reviewed journals summarized from the ecosystem services assessment, 1 paper from Baseline household socio-economic wellbeing and conflict data, 1 paper summarized from	6				English	

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
	the ecological reports for PFMPs						
11b	Number of papers published or accepted for publication elsewhere						Location?
12a	Number of computer-based databases established (containing species/generic information) and handed over to host country						
12b	Number of computer-based databases enhanced (containing species/genetic information) and handed over to host country						
13a	Number of species reference collections established and handed over to host country(s)						
13b	Number of species reference collections enhanced and handed over to host country(s)						

Dissemination Measures		Total	Nationality	Gender	Theme	Language	Comments
14a	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work Number of stakeholder consultative meetings and/or workshops held (legal frameworks for establishment of CCAs, biodiversity monitoring, 45 Community consultative meetings formation of VNRLUCs, management planning development, 14 village meetings for annual socioeconomic survey, consultative meetings with the county executives and members of county assembly), 25 VNRLUC meetings for ICCA committee establishment, meetings with MP, Cabinet Secretary	237				English	

Dissemination Measures		Total	Nationality	Gender	Theme	Language	Comments
14b	<p>Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.</p> <p>Number of meetings held with decision makers (1 meeting with Governor Tana River, meetings with county executives, 1 meeting with planners, meetings with MCAs, 1 meeting with MP, Cabinet Secretary and H.E. Raila Odinga)</p>	37				English	

Physical Measures		Total	Comments
20	Estimated value (£s) of physical assets handed over to host country(s)	██████	No assets but these are perishable equipment (computers, printers, boat Engine, rice huller) given to local communities.
21	Number of permanent educational, training, research facilities or organisation established		
22	Number of permanent field plots established		Please describe

Financial Measures		Total	Nationality	Gender	Theme	Language	Comments
23	<p>Value of additional resources raised from other sources (e.g., in addition to Darwin funding) for project work <i>(please note that the figure provided here should align with financial information provided in section 9.2)</i></p> <p>Value of resources raised from RSPB and GEF (i.e., in addition to Darwin funding) for project work</p>	██████					

Annex 4 Aichi Targets

Please note which of the Aichi targets your project has contributed to.

Please record only the **main targets** to which your project has contributed. It is recognised that most Darwin projects make a smaller contribution to many other targets in their work. You will not be evaluated more favourably if you tick multiple boxes.

	Aichi Target	Tick if applicable to your project
1	People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	√
2	Biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	√
3	Incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio-economic conditions.	√
4	Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	√
5	The rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	√
6	All fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.	√
7	Areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	√
8	Pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.	
9	Invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.	
10	The multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, to maintain their integrity and functioning.	
11	At least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	√
12	The extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.	√
13	The genetic diversity of cultivated plants and farmed and domesticated animals and	√

	of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	
14	Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	√
15	Ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.	√
16	The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.	
17	Each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.	√
18	The traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.	√
19	Knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	√
20	The mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.	√

Annex 5 Publications

Provide full details of all publications and material that can be publicly accessed, e.g. title, name of publisher, contact details. Mark (*) all publications and other material that you have included with this report

Type *	Detail (title, author, year)	Nationality of lead author	Nationality of institution of lead author	Gender of lead author	Publishers (name, city)	Available from (e.g. web link, contact address etc)
Technical *	Rob Field, Paul K. Muoria, Paul Gacheru, Chris Magin, Paul Matiku, Serah Munguti, George Odera, Dickens Odeny. (2018) Lower Tana Delta Indigenous Community Conserved Area Ecosystem Service Assessment Report. RSPB/Nature Kenya.	British	United Kingdom	Male	Nature Kenya	https://naturekenya.org/wp-content/uploads/2021/06/Tana-ICCA-Ecosystem-Service-Assessment.pdf
Journal	Musingo T.E Mbuvi, Leila Ndalilo, Paul Matiku, Serah Munguti, George Odera (2020) 'Engagement of Decision makers for Improved management of shared Resources for Enhanced Community Benefits and adaptation to the Changing Climate in Tana River Delta, Kenya'	Kenyan	KEFRI, Kenyan	Male	Journal of Ecology and Environmental Sciences	http://www.rroij.com/open-access/engagement-of-decision-makers-for-improved-management-of-shared-resources-for-enhanced-community-benefits-and-adaptation.pdf
Journal	Musingo T.E Mbuvi, Leila Ndalilo, Paul Matiku, Serah Munguti, George Odera (2020): Yearning for an apple: The Changing lifestyle of Tana River Delta Communities in Kenya and implications on livelihoods and conservation of Natural Resources	Kenyan	KEFRI, Kenyan	Male	Natural Resources Management and Protection	www.scirp.org/journal/nr
	Serah Munguti and Odera George: Safeguarding the Tana River Delta coastal zone for biodiversity and livelihoods Kenya	Kenyan	Nature Kenya, Kenyan	Female	Darwin Newsletter, June 2020 Issue	https://www.darwininitiative.org.uk/assets/uploads/Darwin-Newsletter-June-2020-Safeguarding-our-

						Seas-FINAL.pdf
	Serah Munguti: Coping with the effects of the coronavirus on conservation in Tana River Delta, Kenya	Kenyan	Nature Kenya, Kenyan	Female	Darwin Newsletter, September 2020 issue	https://www.darwininitiative.org.uk/assets/uploads/Darwin-Newsletter-September-2020-Conservation-the-coronavirus-FINAL.pdf
Manual*	Matiku Paul and Makhanu Rudolf (2021) Sustainable Living in Rural Villages: A Guide for Village Resource Managers, Nature Kenya, Nairobi.	Kenyan	Nature Kenya, Kenyan	Male	Nature Kenya, Nairobi	https://drive.google.com/file/d/1ry6JAacasPIgf3EBu1vchoosJCn4N1kf/view

Annex 6 Darwin Contacts

To assist us with future evaluation work and feedback on your report, please provide details for the main project contacts below. If you are providing personal details on behalf of someone else, please ensure that they have agreed to sharing their information with us.

Please add new sections to the table if you are able to provide contact information for more people than there are sections below.

Please see our Privacy Notice on how contact details will be used and stored:

<https://www.gov.uk/government/groups/the-darwin-initiative#privacy-notice>.

Ref No	24-013
Project Title	Balancing water services for development and biodiversity in the Tana-Delta
Project Leader Details	
The Royal Society for the Protection of Birds	
Name	Bruce Liggitt
Role within Darwin Project	Leader
Address	
Phone	
Fax/Skype	
Email	
Partner 1	
Name	Paul Matiku
Organisation	Nature Kenya
Role within Darwin Project	National partner leader
Address	
Fax/Skype	
Email	
Partner 2 etc.	
Name	NA
Organisation	NA
Role within Darwin Project	NA
Address	NA
Fax/Skype	NA
Email	NA

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.	√
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 10)?	
Have you included means of verification? You should 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 need 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. However, we would expect that most material will now be electronic.	
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.	