





Darwin Initiative Main Annual Report

To be completed with reference to the "Project Reporting Information Note": (https://www.darwininitiative.org.uk/resources-for-projects/information-notes-learning-notes-briefing-papers-and-reviews/).

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

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Darwin Initiative Project Information

Project reference	28-028
Project title	Pairing community conservation areas with sustainable aquaculture in Lake Victoria
Country/ies	Kenya
Lead partner	Conservation International Foundation
Project partner(s)	FFI, Pathfinder International, Victory Farms LLC
Darwin grant value	£399,454.00
Start/end dates of project	1 October 2021 – 30 June 2024
Reporting period (e.g. Apr 2021 – Mar 2022) and number (e.g. Annual Report 1, 2, 3)	1 October 2021 – 30 March 2022; Annual Report 1
Project Leader name	Leonard Akwany
Project website/blog/social media	None
Report author(s) and date	Leonard Akwany, Robin Abell (29 April 2022)

1. Project summary

Lake Victoria, a global biodiversity hotspot, historically supported more than 400 fish species.¹ It is the **second most productive inland fishery globally**, whose annual catch of up to 800,000 tonnes has a total annual value of are tied to the lake's fishery value chain, but the export of fish leaves lake communities' food and nutrition insecure.³

Twenty percent of all aquatic lake species assessed are **threatened with extinction**.⁴ Overfishing, illegal and unregulated fishing, economic needs, introduced species, littoral wetland

¹ Sayer, C.A., Máiz-Tomé, L. and Darwall, W.R.T. 2018. Freshwater biodiversity in the Lake Victoria Basin: Guidance for species conservation, site protection, climate resilience and sustainable livelihoods. Cambridge, UK and Gland, Switzerland: IUCN. xiv +226pp. https://portals.iucn.org/library/node/47642

² LVFO. 2007. LVFO Regional plan of action for the management of fishing capacity in Lake Victoria. Jinja, Uganda, LVFO. Available online at:

 $[\]underline{http://www.fao.org/tempref/FI/DOCUMENT/IPOAS/regional/lakevictoria/RPOACapacity.pdf}$

³ Ainsworth, R., Cowx, I.G. and Funge-Smith, S.J. 2021. A review of major river basins and large lakes relevant to inland fisheries. FAO Fisheries and Aquaculture Circular No. 1170. Rome, FAO. Rome, FAO. Available online at: https://doi.org/10.4060/cb2827en

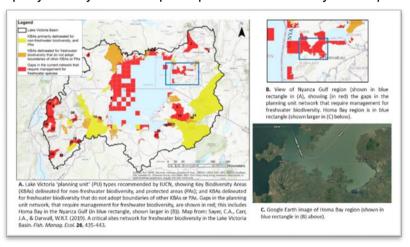
⁴ Sayer et al. 2018

loss, climate change, and land-based pollution threaten native fish. 5 Fisherfolk are increasingly exploiting small pelagic species and intensifying fishing effort, with impacts on native fish populations and livelihoods. Weak transnational lake governance also impedes effective fishery management.

Cage-based aquaculture is emerging as a promising source of regional food security and economic development among individuals, communities, and enterprises, but it brings risks including: i) added pollution; ii) disease introduction; iii) competition from escapees; iv) encroachment into spawning grounds, fishing routes, and landing sites; v) territorial conflicts; and vi) exploitation of the wild fisheries for feed.⁶ Lack of zoning and best practices for aquaculture's responsible expansion and lack of clear mechanisms for conserving freshwater ecosystems by aquaculture companies are putting the lake at risk. Fisherfolk communities have traditional ecological knowledge of fish breeding grounds, but protection of those areas is constrained due to ineffective governance structures at all levels (county, sub-county, and Beach Management Unit (BMU)), limited incentives, disenfranchised BMU leadership, insufficient resources (e.g. patrol boats, personnel, monitoring tools) - all of which have limited community-level stewardship of Lake Victoria's native fish, and specifically of key fish breeding areas.8

To mitigate this, the project is engaging with the fisherfolk community, civil society, and an aquaculture company to develop sustainably financed and incentive-based community conservation areas (CCAs) alongside responsible aquaculture. Specifically, we explore how an aquaculture out-grower model that includes community participation in enhanced livelihoods (cage aquaculture and potentially irrigated farming and ponds) can be leveraged alongside other incentives to catalyze the creation and sustained management of fringing wetlands and nearshore areas that serve as fish breeding grounds. While this project cannot solve the problem of weak transnational governance, input to the Lake Victoria Fisheries Organization (LVFO) provides that regional institution with argumentation for enhanced conservation activities.

The project is being implemented in Homa Bay County, Kenya in the area of Sindo, previously identified as a priority for a lake-wide network of aquatic protected areas. The project works with the BMUs of two communities - Roo and Ukula - that have existing agreements with the aquaculture company Victory Farms to participate in a community development program.



Map 1: Project area, showing gaps in the IUCN planning unit network that require management for freshwater biodiversity.

⁶ Musinguzi, L., Lugya, J., Rwezawula, P., Kamya, A., Nuwahereza, C., Halafo, J., ... & Osinde, R. 2019. The extent of cage aquaculture, adherence to best practices and reflections for sustainable aquaculture on African inland waters. Journal of Great Lakes Research, 45(6), 1340-1347. https://doi.org/10.1016/j.jglr.2019.09.011

https://repository.maseno.ac.ke/bitstream/handle/123456789/2258/STATEOFCAGECULTUREformail%20%281%29. pdf?sequence=1&isAllowed=y

⁵ Ainsworth et al. 2001

⁷ Orina PS., Ogello E., Kembenya E., Githukia C., Musa S., Ombwa V., Mwainge VM., Abwao J., Ondiba RN and Okechi JK. 2018. State of cage culture in Lake Victoria, Kenya. Kenya Marine and Fisheries Research Institute. Available online at:

⁸ Ainsworth et al. 2021

⁹ Sayer et al. 2019 Darwin Initiative Annual Report Template 2022



Map 2: Location of BMUs in project region, with two target BMUs highlighted

2. Project stakeholders/ partners

Conservation International works in partnership with Fauna and Flora International (FFI), Pathfinder International, and Victory Farms Ltd. to deliver this project.

Victory Farms' original out-grower model, which included the establishment of environmental protection zones, served as the genesis of the idea of combining responsible aquaculture, sustainable inland fisheries, and conservation. The project is working with two community-level BMUs that have an existing partnership with Victory Farms. The two BMUs sit along a portion of Lake Victoria's coastline identified for its high aquatic biodiversity values. Victoria Farms has also convened a local BMU Council, composed of 10 BMUs, which will serve to help with scaling the project to additional neighbouring BMUs. At the initiation of this project, Victory Farms' community relations coordinator served as a liaison to the two local communities, and Victory Farms continues to be present in community discussions.

FFI and Pathfinder International were both brought into this project as partners for their relevant expertise. FFI undertook a similar Darwin-funded project to establish terrestrial community conservation areas in lakeside areas in Uganda. Pathfinder International brings its expertise in gender and its experience undertaking a project with Homa Bay BMUs that included protecting fish breeding areas. Both partners have provided inputs to the design of community engagements, and they have assisted in facilitation of in-person community workshops.

The partnership has been operationalised through **periodic joint and bilateral meetings** for the purposes of planning activities and their implementation, firming up technical approaches, developing baseline dialogues and survey tools, and sharpening indicators. The partnership has identified implementation leads from each partner organization that meet regularly and join in the field for project activity implementation. The partnership achievements have included working together to organize a local project inception and planning meeting with local stakeholders, developing participatory tools for baseline dialogues and surveys, and jointly organizing and facilitating the baseline dialogues and surveys in two communities of Roo and Ukula (Activity 1.6).

The project continues to involve **other relevant local institutions**. Through a contract paid by a separate funding source, the Kenya Marine and Fisheries Research Institute (KMFRI) is undertaking follow-up surveys on native fish species and limnological conditions in the jurisdictions of targeted BMUs at Sindo Bay. The Kenya Fisheries Service (KeFS) and Homabay

County Fisheries Office at the Suba-South Division, Kaksingiri West Ward level have been included in awareness-building around CCAs and in the facilitation of baseline dialogues and surveys. Discussions are also underway with KeFS and target BMUs on joint enforcement and gazettement of CCAs. KeFS is a new national government agency, and the project facilitated the first meeting and introduction of KeFS fisheries officers and the county government Fisheries Officer at the ward level. The officers have committed to work together and support our project. Formal contact has been made with focal points for Ramsar and the Convention on Biological Diversity (CBD) in the Ministry of Environment and associated agencies of the Kenya Wildlife Service and the National Environment and Management Authority, for engagement and sharing results that will advance the Kenyan government's commitment to the two conventions. The LVFO is being engaged progressively as an entry point for sharing models of CCAs and responsible aquaculture in the Lake Victoria region; specifically, the project lead has discussed with LVFO the need for synergies with ongoing LVFO projects (especially the True Fish aquaculture project) and will focus increasingly on LVFO engagement in the coming year.

For the purposes of ultimately scaling the CCA approach via adoption by other communities, relationships with broader BMU networks are being established and the project approach shared with them. The project lead initiated courtesy call meetings with the National BMU Network, the Homabay County BMU Network, and the Sindo Bay BMU Council composed of 10 BMUs where Victory Farms has cage aquaculture concessions. Additional outreach was undertaken to 14 BMUs in the Administrative Kaksingri West Ward in Suba South Sub-County (corresponding to Sindo Bay).

As detailed in the project communications plan (Annex 4.4), the project team will actively engage the **UK High Commission in Kenya** in the coming year around key project milestones, and specifically the signing of agreements to establish the two CCAs.

3. Project progress

3.1 Progress in carrying out project Activities

In this reporting period (6 months) the project carried out the activities as planned. The focus was anchored primarily on the following areas: (I) participatory dialogues and consultations with the two target fishing communities to draft CCA boundaries and goals, (ii) laying the foundation for participatory planning and visioning among community members, and (iii) beginning negotiating community agreements covering incentives, citizen science monitoring, and CCA enforcement.

During the reporting period, significant progress has been made on the following activities:

<u>Output 1, Activity 1.1:</u> With each community, facilitate a draft delineation of CCA boundaries and goals for the CCA, using a combination of species/ecological data/knowledge and community knowledge/preferences.

The project began with a one-day meeting with the project partners, BMU leadership, county Fisheries Office, Kenya Fisheries Service, and KMFRI to introduce the project's scope and objectives, to review the indicators and appraise their validity, and to respond to initial questions and concerns. This was followed by a 2-day meeting with each community (Roo and Ukula) from 1st-4^h March, 2022, reaching a total of 128 people in Roo (61) and Ukula (67) communities (Annex 4.2). The aim of the meeting was to orient the BMU leadership and its community members to the project as well as to conduct the baseline survey dialogues (Activity 1.6, described below) and generate a draft identification of potential CCA sites. The project facilitators, drawn from CI, Pathfinder, FFI, Victory Farms and KeFS, adopted a focus group discussion (FGD) approach and conducted 15 FGD sessions comprising a total of 10-15 pax per FGD group. The dialogues involved the participation of women, youth, and persons with disabilities.

Meeting Title	Dates	Purpose of Meeting	Total Number Reached	Number from Roo BMU	Number from Ukula BMU
CCA Awareness and Mobilization	15 & 16/12/2021	To create awareness about the project, mobilize BMU communities and share on challenges facing the fisheries in the target community. This meeting involved BMU assembly members	78	40	38
Local Inception and Planning Meeting	28/02/2022	Sharing about the project and its status among stakeholders and partners, reviewing the indicators and planning on baseline dialogies and surveys and reviewing the tools and agreeing on joint road map for project implementation	14	2	2
Baseline Dialogues and Surveys	1-4/3/2022	Undertaking participatory dialogues and surveys to collect diverse social, economic and ecological information, identification of CCA sites, BMUs responsibilities etc	128	61	67

The FGD groups focused on the following areas: I) The state of the Lake Victoria ecosystem years back; ii) The current state of the ecosystem; iii) Challenges faced by the fisherfolk; iv) CCAs, incentives, and sustainable aquaculture; V) Income and alternative livelihoods options; VI) Gender equality, roles and women's participation in CCAs and sustainable aquaculture; and VII) Natural resource problems, threats ranking, and interventions. Each group presented to the entire class their thoughts on a particular area they discussed, and the participants added inputs/sought clarification on areas they were not agreeing with.

As a result of the discussions, the BMU members agreed that CCAs will constitute 1) the vegetated riparian zone, (ii) the core fish breeding zone, and iii) an illegal fishing-free zone. Ngou and Roo Bay areas for Ukula and Roo respectively were identified for CCAs, and draft hand-drawn delineations were completed through a participatory process (Annex 4.1). The communities used local knowledge such as areas of no waves/calm waters, vegetated riparian areas with reeds/papyrus, and the presence of fish eggs and young fish as suitable for CCAs.

Output 1, Activity 1.2: Conduct a set of dialogues with communities on rights, identity, and gender, possibly separate for men/women, to lay the foundation for participatory planning and visioning.

These dialogues involved the participation of 128 community members from diverse common interest and user groups, including fisherpersons, farmers, fishmongers, traders, women, youth, clan elders, persons with disabilities, religious leaders, and local administrators. The participants discussed incentives and inputs that would be required for CCA establishment, maintenance, and monitoring. The following were highlighted: I) fish cages for aquaculture enterprise, ii) fishing gear for deeper waters, iii) solar irrigation for farming away from the riparian zone, iv) "omena" (Cyprinid fish) drying technology and racks, v) training on book-keeping literacy, vi) alternative business development, vii) provision of potable water, viii) women-led fishing boats, ix) sports fish CCA tournament for youth (CCA branded uniforms and trophies), x) capital for business, xi) life jackets, xii) monitoring boats and a token for CCA monitoring keepers. In addition to the two communities of Roo and Ukula, these meetings had the participation of Pathfinder International,

Fauna and Flora International, Victory Farms, KMFRI, KeFS, and the county government Fisheries Office.

Output 1, Activity 1.6: Measure baseline livelihood, governance, and gender indicators at CCA locations.

To measure baseline livelihood, governance, and gender indicators, participants were divided into groups and the sessions were conducted using a structured FGD approach that incorporated tools developed by the CGIAR Research Program on Fish Agri-Food Systems (FISH). The first part of the tool collected information on the basic characteristics of the participants. The second part solicited information on the four objectives: i) to assess the effects of gender inclusion and responsive innovation by women in the fishing industry; ii) to find out women's involvement in livelihood and wealth generation; iii) to assess women's involvement in Beach Management Unit Governance, and finally; iv) to assess gender-transformative approaches for scaling up women's participation in fishing. The project team used convenience sampling to select participants. The team conducted 6 FGDs in 2 BMUs targeting men, women, adolescents, and young people, reaching 61 people (21 men, 20 women, 20 adolescents and young people). Each FGD group consisted of a maximum of 11 people who participated voluntarily, and each participant was given an equal opportunity to respond to questions. Each session took on average 3 hours. The individual FGD's contributions were subsequently shared with the entire class for more inputs and clarifications.

Men, women, adolescents, and young people all noted the following as barriers to gender equality and women's empowerment in fishing: i) lack of capital; ii) lack of market access; iii) lack of drying racks/machines for drying fingerlings, resulting in losses during rainy seasons; iv) lack of a fish factory in Homabay forcing them to sell fish at low prices to agents/brokers who transport to other counties; v) poor infrastructure; vi) boating skills capacity gaps among women; VII) lack of family support for women in the fishing industry; viii) gender-based violence from the male fisher counterparts; ix) retrogressive gender norms such as; "A woman should not board a boat or wash a boat because if she does it's a curse and the boat will not get good fish catch" and "Beaches are places of prostitution, and women who fish are believed to be prostitutes"; x) lack of savings and poor financial management; xii) Fears related to changes of weather; defilement; use of Illicit drugs by men (bhang); heavy fishing gears; and fear-mongering by men; and xiii) dwindling fish stocks.

In relation to governance, the women mentioned, "Our BMU leadership is bloated and dominated by men – (ROO/Ukula BMUs)-The Chairman, Vice-Chair, and secretary are men. Only one executive position is held by a woman (Treasurer). The BMU leadership is not responsive to our needs; for a long time, market access has been a challenge for women; it is an individual's initiative, and on many occasions, women run into losses as people they send fish don't pay them. Yet, when such issues are raised to the leadership, the BMU leadership takes no action. Other issues not addressed include gender-based violence and loss of goods."

Women suggested that the executive share positions equally and listen to women's voices. Adolescents and young people confirmed that "The BMUs have no meaningful engagement with the adolescents; hence, their needs are unknown and are not addressed, especially in Roo BMU, unlike in Ukula, where two members of the BMU executive are adolescents."

On Income, the women confirmed that there is no disparity in payment, though *jaboya* (where women and girls trade sex for fish) is still a menace. The reasons shared for *jaboya* were lack of capital among the fisherwomen and dwindling fish stocks for the numbers of traders. Women highlighted the following potential mitigating factors for *jaboya*: I) If women were empowered and trained on boating and fishing then they would be less dependent on men; ii) Women could adopt

Adam R, McDougall C, Beveridge MCM and Marwaha N. 2021. Advancing gender equality and women's empowerment in fish agri-food systems: Four pathways. Penang, Malaysia: CGIAR Research Program on Fish Agri-Food Systems. Program Brief: FISH-2021-10.
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alternative livelihoods; iii) Women could work with male fishermen who are not practicing *jaboya*; iv) Leadership of the two BMUs could facilitate the selling of fish products at the banda (a location where all fish are collected at one point from all fishermen and sold to a willing buyer at the same point) and thus avoid contacts directly with the fishermen; v) A strong network of women could be built, to discuss and apprehend fishermen who practice *jaboya*; vi) Women could join savings and loan institutions both at the villages and banks, and take loans to procure fishing gears.

Completion of this activity in the first quarter of Year 2 will entail revisiting baseline data on income to account for potentially omitted sources of income among some community members, and finalization of the baseline dialogues and survey report.

During the reporting period, we were also able to start the implementation of the following activities:

Output 1, Activity 1.3: Conduct participatory and gender-focused design and negotiation of CCA agreements, including community commitments, incentives to be provided, monitoring frameworks for compliance, and outcomes.

The dialogues described above led to an agreement on the issues that will form the basis for CCA agreements. The BMUs confirmed that CCAs are imperative as places for generating fish seeds and restoring fish stocks, improving water quality, and stemming illegal fishing. A monitoring scheme will be undertaken by the BMU patrols sub-committee and will involve a citizen science approach of collecting data on fish species, limnological conditions and general surveillance. Compliance mechanisms will include by-laws and penalties, sensitization, enforcement support from KeFS, gazettement of the area as a conservation area with support from KeFS and marking of the area with buoys.

Output 1, Activity 1.5: Measure baseline biodiversity indicators at CCA locations.

Baseline fish and limnological surveys in Sindo Bay targeting Roo and Ukula Beach Management Units territorial waters were undertaken (using a separate funding source prior to the start of the project). This provided indicative baseline information on native fish species and limnological conditions prevailing in the target area of the lake. The following parameters were appraised; water physico-chemical parameters (DO, temperature, pH, conductivity, and turbidity), phytoplankton communities, zooplankton, macrobenthos, and fish samples were collected in triplicates at site (Annex 4.3). An in-depth baseline fish and limnological survey in Sindo Bay is planned for May, 2022 (also using a separate funding source). This will detail more robust baseline information on biodiversity indicators. Subsequently, a monitoring protocol will be developed and BMUs will be trained on citizen science-based monitoring of the CCAs.

There remains a need to agree on a harmonized baseline on illegal fishing. Fisheries agencies such as KMFRI, KeFS and the County Government fisheries office indicate that the use of illegal nets and associated incidences of illegal fishing are going up. However, the two target BMUs indicate a decrease in illegal activity in their area, with 2-4 reported incidences per month, representing a decline from historically rampant illegal fishing.

Output 2, Activity 2.1: Conduct desktop research and stakeholder interviews to develop possible sustainable financing mechanisms for managing and enforcing CCAs.

Initial work on this activity is underway in the form of desktop research on sustainable financing options that have been applied elsewhere. This activity is on track to be completed in Year 2, as planned.

Output 3, Activity 3.1: Develop draft guidance for influencing the broader sustainable aquaculture sector to support CCAs as a step towards achieving net positive impact.

The guidance document has been outlined and sections are being populated. This activity is on track to be completed in Year 3.

Output 4, Activity 4.1: Develop draft white paper with recommendations for strengthening, via fisheries policy and governance, enabling conditions for the establishment, enforcement, and resourcing of aquatic CCAs.

Initial research in support of this activity is underway. This activity is on track to be completed in Year 3.

3.2 Progress towards project Outputs

Output 1: Management and monitoring frameworks for each of the two CCAs, developed through participatory processes, are finalized and being implemented by BMUs

This output is expected to be completed by the end of the second financial year, and as such there is no measured change yet against the output indicators, all of which relate to the establishment of the CCAs. Because the baseline condition is that no CCAs currently exist, measurement against the indicators will demonstrate that written management and monitoring plans for two CCAs are complete, BMUs for each community have made formal commitments to implement and enforce the CCAs, the two CCAs are physically demarcated, multi-stakeholder governance and management structures for CCAs are in place and functional, and incentives (e.g. alternative livelihoods training, community savings groups, enhanced participation in Victory Farms' outgrower model) for each community, to foster CCA stewardship, are finalized and implemented.

Output 2: Sustainable financing plans for each of the two CCAs are developed to enable the CCAs' persistence beyond the life of the project

Progress against this output will be measured by the end of the second financial year, by the completion of sustainable financing plans for each CCA that account for the opportunity costs of CCAs; and the operationalization of at least one financing mechanism by the end of the project. This output is in progress in terms of conducting desktop research on sustainable financing options globally, regionally, and nationally to inform development of sustainable financing plans (Activity 2.1).

Output 3: Best practices and opportunities for collaborative conservation between aquaculture enterprises and communities are generated

Progress against this output will be assessed using two indicators measured at the end of the project: a guidance document targeted to the East Africa aquaculture sector on the collaborative establishment of CCAs with BMUs will be developed, and the guidance document will be available to relevant stakeholders and publicized through relevant channels to increase awareness and uptake by the East Africa aquaculture sector. Draft guidance for influencing the broader sustainable aquaculture sector to support CCAs is a step towards achieving net positive impact (Activity 3.1). Victory Farms has been part of baseline dialogues and surveys with fisherfolk communities detailing incentives required for the establishment of CCAs, including outgrower model-generated incentives. Importantly, community dialogues offered an opportunity for BMU representatives to voice concerns related to cage aquaculture that will be addressed through the project. Those concerns include (I) the potential impact of escaped fish on wild fish genetics and disease; (II) the disposal of cage materials such as abandoned cages, anchors, and sinkers; (III) the use of appropriate materials for cages such as galvanized metal pipes; (IV) the risk of mass fish deaths within cages; (V) barriers to fishing boat navigation from cages; (VI) the use of wild fish for fish feed versus for nourishing local communities; (VII) the aggregation of wild capture fish for fish feeds; (VIII) hatcheries/processing plants' waste disposal and management; (IX) the location of cages and fingerlings ponds in fish breeding areas and fishing grounds; (X) the need for fisherfolk communities hosting aquaculture company concessions to benefit from concession fees being paid to the County Government; (XI) ensuring water quality and environmental sustainability in the waters where commercial aquaculture operations are operating; (XII) sharing aquaculture profits with hosting communities through corporate citizenship; and (XIII) the suspected use of explosives by aquaculture operators.

Output 4: A foundation is laid for strengthening, via fisheries policy and governance, enabling conditions for the establishment, enforcement, and resourcing of aquatic CCAs Progress against this output will be assessed using two indicators measured at the end of the project: a white paper targeted to the LVFO, and its national-level riparian country members will have been produced, and the white paper will have been presented to the LVFO and individual fishery officials and disseminated via relevant channels to increase awareness and uptake. An appraisal of supportive policies, laws, and regulations that can underpin functional CCAs is underway and is being complemented by an exploration of case studies in the Lake Victoria region. This line of inquiry has found no direct policy instrument for protecting freshwater ecosystems through creation of reserve areas. However, provisions that exist at the national level under wildlife and fisheries instruments for community conserved areas, and BMU regulations on co-management of territorial waters, provide regulatory anchors for the CCAs.

3.3 Progress towards the project Outcome

The four outputs are designed to generate the **outcome** that native fish species are protected by two communities via an incentive-driven model that will deliver livelihood improvements for 2,000 women, men, and youth and will be scalable across Lake Victoria. None of the output indicators are designed to have been achieved at this point in the project, but progress has been made against them.

By the first quarter of financial year 2, two CCAs of an estimated combined size of 1000 hectares are to have been delineated. Two CCA sites have been identified at Roo and Ukula and are ready for delineation and marking, with the sites including riparian zones, core fish breeding zones and illegal fishing-free zones.

By the project end, encroachment of illegal fishing into CCAs will be reduced from baseline conditions. Communities have reported 2-4 incidences of illegal fishing methods and gears per month, representing a decline from historically rampant illegal activity, though fisheries officers and researchers report that the use of illegal nets and associated incidences of illegal fishing are going up. This inconsistency needs to be resolved.

By the project end, limnological measures within established CCAs will show stabilization or improvement from baseline conditions. The following baseline parameters have been measured: water physico-chemical parameters (dissolved oxygen, temperature, pH, conductivity, and turbidity), phytoplankton communities, zooplankton, macrobenthos and native fish species. Further in-depth baseline surveys are planned in April-May 2022, and this will form the basis of periodic monitoring by BMUs through citizen science and a developed community monitoring protocol.

By the project end, population numbers of target freshwater fish species in CCAs will have improved from baseline conditions. Baseline surveys of fish species have been undertaken, identifying the presence of native Ngege species and several haplochromine species. Further indepth fish species surveys are planned for April-May 2022, and this will improve on the baseline fish species population data and form the basis of monitoring.

By the project end, incomes reported semi-annually for half of employable adults and youth in the two communities will show statistically significant increases. The baseline income levels of targeted fisherfolk communities have been documented, but these levels need to be revisited to include forms of non-monetary income.

By the midway point of the project, at least 75% of men, women, and youth over the age of 18 of all participating households will feel their voices are heard and represented in processes of CCA planning and management. The baseline dialogues and surveys identified all common interest and user groups to be involved in the CCA planning and management. These included men, women, youth, persons with disabilities, farmers, and fisherpersons.

By the end of the project, annual incidences of sexual exploitation as a result of 'sex for fish' will show a statistically significant decrease from baseline conditions. The baseline dialogues and surveys indicated *jaboya* is prevalent in the target BMUs.

Six months into the implementation of the project, those indicators are still considered adequate for measuring progress against the outcome. We are confident in the project's ability to deliver

on activities and associated indicators. The primary challenge that we foresee is the project's ability to deliver adequate incentives for the two BMU communities, and to find ways of extending the project model to neighbouring BMU communities that have expressed interest in interventions in their jurisdictions. The project team will be honest and transparent as to what is possible within this project scope and will clearly match incentives to the targets.

3.4 Monitoring of assumptions

Risks and assumptions identified during the project proposal phase still largely hold true.

Assumption	Status
Men and women in two communities are	This remains valid as men and women have been
active and involved in project activities and receive co-benefits.	actively participating in our community consultative outreach and baseline dialogues and surveys. Participants in our baselines dialogues and surveys were 270 persons including men, women, youth and persons with disability drawn from various user and interest groups. We project the same on receiving co-
	benefits.
CCAs can be effectively enforced, especially from fishing pressures from outside the communities.	This remains valid with enforcement through joint operations by BMUs and Fisheries Service. A Grievance Redress mechanism (GRM) needs to be established for reporting on CCA issues to BMUs. The GRM should also involve agencies such as the Kenya Fisheries Service and the County Fisheries Office.
Fish populations respond to CCAs within project timeframe	This remains valid and informed by fish life cycle science. This result should be attainable within the project lifespan assuming strict adherence to CCAs' restrictions.
National elections in riparian countries during project lifetime will not lead to changed mandates around Lake Victoria fisheries and economic development	This remains valid as strong indications are towards proactive and positive government involvement in improvement of the blue economy through strengthening the enabling environment and triggering investment flow into the sub-sector.
Women gain enough alternative income so as not to need to buy from fisherfolk who demand sex for fish, and they are willing to report sexfor-fish incidents.	Alternative livelihoods and economic empowerment of women were identified during the baseline dialogues and surveys as critical for reducing sexual exploitation of women through sex-for-fish culture. Several alternative income sources were proposed, including value addition to fish products, post-harvest losses avoidance measures, savings and loans, trainings, and alternative livelihoods.
Communities choose to establish aquatic or riparian CCAs as a result of the participatory development process	This remains valid as fisherfolk communities voluntarily participated in the identification of CCAs, detailing the significance and requisite commitments from them during the baseline dialogues and surveys.
The opportunity costs of CCA establishment can be compensated for with viable incentives	This remains valid as indicative incentives were identified during the fisherfolk communities' outreach and baseline dialogues and surveys.
Communities are able to come to consensus within the expected timeframe	This remains valid
A viable enforcement mechanism for CCAs can be designed and successfully implemented.	This remains valid
BMU officials enforce and adhere to CCA rules	This remains valid
Communities trust BMUs as implementing bodies for CCAs	This remains valid

COVID will not prevent community meetings	This remains valid
Sustainable financing options can be	This remains valid
identified, with equitable benefits for men and	
women.	
Community members are motivated to	This remains valid
participate in sustainable financing solutions	
(e.g. outgrower model, microcredit finance	
mechanisms).	
The collaborative conservation model	This remains valid
between aquaculture enterprises and	
communities shows near-term success	
A critical mass of aquaculture companies (and	This remains to be seen, as many aquaculture players
associated communities) operating in Lake	are entering Lake Victoria and there is a lack of
Victoria and the greater East Africa region are	transparency and accountability among some of them.
committed to or interested in sustainability,	
including development of CCAs	
The LVFO remains an effective bridging	This remains valid
institution for influencing each country's	
fisheries ministries	
Conflict among the three riparian countries	This remains valid
regarding lake fisheries management hasn't	
escalated, and there are enough shared	
interests for a single white paper to be useful	

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

The impact that the project is designed to achieve is the restoration of Lake Victoria fish biodiversity and linked wild capture fisheries alongside the expansion of responsible aquaculture, with well-being benefits for riparian and regional communities.

The project activities geared towards achieving this overarching impact are in progress. Positive biodiversity impact rests on the establishment of CCAs for restoration of a thriving capture fisheries population, including endangered fish species. The identification of wild capture fisheries populations in the targeted areas (Activity 1.5) and the drafting of CCA area boundaries in the Roo and Ukula BMU jurisdictions (Activity 1.1) through participatory community consultative outreach (Activity 1.2) and baseline dialogues (Activity 1.6) has set the stage for establishment of functional CCAs that will be composed of riparian zones, fish breeding areas and illegal fishing-free zones. Additionally, identification of potential incentives (Activity 1.3) such as alternative sources of income and livelihoods for men, women, youth and persons with disabilities, including outgrower model participation, is a first step towards generating a positive impact on poverty alleviation. Dialogues with community members and Victory Farms have identified areas of concern related to aquaculture expansion, and further consultations and negotiations around incentives will be undertaken with an eye to ensuring that aquaculture operations are conducted responsibly for the benefit of all.

4. Project support to the Conventions, Treaties or Agreements

The creation and management of CCAs to protect fish breeding sites will contribute to **Aichi Target 11**, by conserving areas of importance for biodiversity and ecosystem services through effectively and equitably managed "other effective area-based conservation measures." Consultations between project staff and representatives of the two target communities have laid the foundation for the establishment of CCAs, which will take the form of Other Effective Area-Based Conservation Measures (OECMs). Community members have acknowledged the need to protect fish breeding sites and have identified the challenges of effectively doing so given current resources.

A baseline study commissioned as a complement to this project and funded by a separate source has confirmed the presence in the project area of one endangered fish species (*Oreochromis*

esculentus), several haplochromine species, and there are indications that two more endangered species (*Tilapia variabilis* and *Labeo victorianus*) are also present. Thus, once established, the CCAs should contribute to **Target 12**, through improving the conservation status of threatened species. By restricting fishing access to the breeding areas of fish that are harvested, the CCAs will also contribute to **Target 6**, through applying an ecosystem-based approach to the sustainable management of fish stocks. These fish constitute critical natural capital for vulnerable communities, and so the CCAs will also contribute to **Target 14**, by safeguarding ecosystems that provide essential services. Facilitated discussions with communities around appropriate and relevant incentives for establishing and adhering to the CCAs have been undertaken through participatory consultative outreach (Activity 1.3) and baseline dialogues and surveys (Activity 1.6); this process is contributing to **Target 3**, related to positive incentives for the conservation and sustainable use of biodiversity.

This project is also generating guidance for sustainable aquaculture, and as such will contribute to **Aichi Target 7**, focused on the sustainable management of aquaculture to ensure biodiversity conservation. The guidance has been partly drafted, based on parallel processes being undertaken through complementary projects.

The project is equally relevant to the first draft of the CBD's **new Global Biodiversity Framework** as it is to the Aichi targets. ¹¹ For instance, draft Target 5 calls for the sustainable harvesting of wild species; Target 9 is focused on ensuring that the benefits of food security are achieved through the sustainable management of wild species of fauna; and Target 10 addresses the sustainability and resilience of biodiversity in managed ecosystems, including aquaculture practices.

The proposed project also aligns with the **Ramsar Convention**'s mission for "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world." It addresses goal 3.12 of the Convention's 2016-24 Strategic Plan to achieve "enhanced sustainability of key sectors such as water ... aquaculture and fisheries, when they affect wetlands, contributing to biodiversity conservation and human livelihoods."

Formal contact has been made with focal points for Ramsar and CBD conventions in the Kenyan Ministry of Environment and associated agencies of the Kenya Wildlife Service and National Environment Management, to inform them of the project and lay the foundation for sharing of results to advance the Kenyan government's commitment to the Ramsar Convention and CBD. Future meetings and engagement are planned with relevant ministries and agencies, such as the Ministry of Environment and Forestry, Kenya Wildlife Service, and the National Environment Management Authority as the project advances. This will be both at the national and devolved levels of government.

5. Project support to poverty reduction

Kenya is a lower-middle-income country. However, the distribution of household wealth is unequal, and according to the Kenya National Bureau of Statistics, in 2018 Homa Bay County was 34th out of 47 counties in terms of GDP per capita. Within fishing communities there is also an **uneven distribution of wealth**, with women being affected disproportionately by poverty due to their lack of economic empowerment and lower status. In our baseline dialogues and surveys that involved 128 persons from the two fisherfolk communities of Roo and Ukula, 49% of the participants reported incomes of the permonth, and 19% reported incomes above.

¹¹ CBD. 2021. First draft of the post-2020 Global Biodiversity Framework. CBD/WG2020/3/3.

¹² Kenya National Bureau of Statistics. List of counties of Kenya by GDP (2017). Available online at: https://www.nyongesasande.com/list-of-counties-of-kenya-by-gdp/.

¹³ Lwenya, C. A; Lwenya, K.R.; Abila, Richard O.; Omwega, R. (2006). Gender participation in fisheries management of Lake Victoria, Kenya. In: Odada, Eric & Olago, Daniel O. (Ed.) Proceedings of the 11th World Lakes Conference: vol. 2. p. 266-272.

disparities among boat owners, crew members, and fish mongers, with boat owners earning the most.

Through the baseline dialogues and surveys (Activity 1.6), the following **poverty-related problems** were identified by community members: access roads of poor condition, poor access to markets, poor access to finance institutions, human-wildlife conflicts (a disabled victim of a crocodile attack participated in the dialogues), lack of potable water, poor access to sanitation services, climate change-induced droughts and floods, deforestation and encroachment into riparian areas, overfishing and illegal fishing, limited livelihood sources, and limited capital.

Two communities – Roo and Ukula – are expected to benefit directly in terms of poverty alleviation over the course of the project and beyond. Near-term benefits will be derived from incentives (in the process of being negotiated with community members; Activity 1.3) to compensate for reduced fishing opportunities in and around fish breeding areas. Care is being taken to ensure that men, women, adolescents, and people with disabilities benefit from the negotiated incentive packages. Potential incentives identified during the baseline dialogues and surveys (Activity 1.6) include fish cages for community aquaculture enterprises, fishing gears for deeper waters, solar irrigation for farming away from the riparian zone, *omena* drying technologies and racks, training on book-keeping literacy, savings and loans and alternative business development, provision of potable water, women-led fishing boats, a sports fishing CCA tournament for youth (with CCA branded uniforms and trophies), capital for business, life jackets, monitoring boats, incentives for CCA monitors, and others.

Longer-term benefits are expected to take the form of greater fishery productivity resulting from the protection of fish breeding areas, which would translate to greater income for employable men, women, and youth and potentially increased food security (noting that wild caught fish are often sold rather than consumed within fishing communities). Additional indirect benefits are expected to include empowerment of typically marginalized community members in decisions around CCAs, which may translate to greater equity in community decision-making more broadly.

6. Consideration of gender equality issues

As explained in the proposal, gender inequality and gender-based violence are prominent issues in Lake Victoria communities, with environmental degradation and reduced fish catch acting as key drivers. Men dominate governance and decision-making, income generation, land and property ownership, and even decisions about reproductive health. Women are marginalized along the fisheries value chain, being relegated to roles of small-scale fish mongers and processors. The exchange of sex for fish so that women can feed their families has been well-documented. An outcome indicator for this project is the reduction of incidences of sexual exploitation because of 'sex for fish.'

Although women do not typically fish themselves, they are integral to the fish value chain and a reduction in the already reduced catch can affect them directly. In addition to driving sex for fish, reduced fish catches have led women to pursue new livelihoods that generate low incomes, like running food and clothing kiosks and farming small plots. Low incomes, in turn, lead to school dropouts, child labour, early pregnancies, and domestic conflicts. For that reason, negotiations with communities on incentives for protecting fish breeding areas are being undertaken with a particular eye to ensuring that benefits will accrue to women as well as men, though those incentives may not be identical in nature. Baseline gender conditions were documented through Activity 1.6 (described above).

The sexual exploitation of women through sex-for-fish culture can be reduced indirectly through women's involvement in governance, livelihoods, and income-generating activities (economic empowerment). The BMUs have made attempts to address *jaboya* culture through education and sensitization of their members, promoting the economic empowerment of women, the fair selling of fish to fish mongers, and offering *jaboya* reporting avenues. They also recognize the need to have such issues in the BMU by-laws. They recognize culture contributes to many problems such as child-labour as a means of generating family income. The challenges with

jaboya culture include women suffering in silence because their sexual relationships are assumed to have occurred between "consenting" adults.

7. Monitoring and evaluation

The M&E Plan (Annex 4.5) developed at the project outset has been refined through interactions with partners and community members over the first six months of the project to aid joint monitoring of the indicators under the leadership of Conservation International. Community dialogues and surveys have been undertaken to detail the baseline conditions of indicators (Activities 1.5 and 1.6), providing the foundation for monitoring change over the project lifespan. As detailed in Part 3, inconsistent baseline information for the illegal fishing indicator needs to be resolved.

The project outcome is that native fish species are protected by two communities via an incentive-driven model that will deliver livelihood improvements for 2,000 women, men, and youth and will be scalable across Lake Victoria. The outcome is designed to reflect and respond to impacts that are expected to be generated by the project outputs and activities. Because the livelihood improvements will be both direct and indirect across the two communities, it is possible that observed improvements may not be wholly attributable to the project. At the same time, external forces (e.g. climate change-related water level fluctuations) could lead to negative impacts on livelihoods that the project would be unable to counteract.

Because the CCAs at the heart of this project must align with community interests, the process of engaging with the two communities and providing a platform for equitable participation has been essential over the project's first six months and has constituted an area of achievement. Community member participation in dialogues has been recorded in registration lists, which are categorised in terms of gender, livelihoods and role in the BMU or community (Annex 4.2). Community members will continue to be engaged in numerous ways, including through their production of citizen science for monitoring biodiversity indicators. Additionally, government officials have been successfully engaged, which will be important for the outcome's sustainability and scalability.

The logframe and workplan have guided internal monitoring of project progress. Although the project's start was delayed by several months due to delays in the project approval, the original workplan has continued to serve as a map for ensuring that activities stay on track. As of now there are no adjustments needed to the workplan.

8. Lessons learnt

The partnership planning, coordination and implementation went well through virtual and physical meetings, and this was clearly aided by designating partners' organizational and field implementation leads. The engagement of local stakeholders such as BMUs, KeFS, the County Fisheries Office and KMFRI in mobilization and implementation has laid a strong foundation for local stakeholders' support, follow-up, replication, scaling and continuity of implementation. The imperative of adequate community mobilization and consultation through consultative community outreach and baseline dialogues and surveys has resulted in strong fisherfolk communities' project support and interest; we will work to capitalize on this for their proactive participation and ownership. There is need for more engagement with BMU Networks at the county and national levels for replication and scaling. Our engagement with LVFO and national agencies equally needs to improve to cultivate ground for national and regional replication and scaling of our model.

There are many needs in the community, as was evident during the identification and prioritization of problems via the baseline dialogues and surveys. The project risks raising high expectation from the community, so it has been and will continue to be very important to be honest and transparent in terms of the project mandate and deliverables.

Lastly, there is a challenge to ensure participation of diverse users and interest groups in the implementation of project activities. There is a need to understand different groups' daily, monthly and seasonal calendars to cater for fishing, market, funeral, religious, farming times and employment schedules for those on formal employment in places such as Victory Farms, which

has a high percentage of women in its workforce. Going forward, the project will take care to factor those calendars into the scheduling its activities to ensure reasonable participation by all.

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

This project is in its first year and so there have been no previous reviews.

10. Other comments on progress not covered elsewhere

The project is targeting two BMUs for the establishment of CCAs. However, our community outreach has expanded to deliberately target the 14 BMUs situated in Sindo Bay of Kaksingiri West Ward. The aim is to proactively nurture and establish networks for scaling of CCA model through adoption by other BMUs.

To help inform our identification of viable finance strategies for CCA sustainability after the project has concluded (Activity 2.1), a group of master's students from George Washington University's International Development program is undertaking a *pro bono* consulting project. The consulting effort will conclude in May 2022.

The development of recommendations for how responsible aquaculture can incorporate and support conservation will benefit from the outputs and processes of three other aquaculture-focused projects, one of which is focused on Kenya. Specifically, those projects are producing information on enabling conditions for responsible aquaculture, and the Kenya project is connecting Conservation International with key aquaculture companies who would be target audiences for this project's guidance document.

In collaboration with KMFRI and using a separate source of funding, baseline fish and limnological surveys in Sindo Bay were undertaken prior to the start of the project. The surveys, which also involved participation of the Roo BMU and Victory Farms, resulted in indicative baseline information on native fish species and limnological conditions in the target area of the lake. The following parameters were appraised: water physico-chemical parameters (DO, temperature, pH, conductivity, and turbidity), phytoplankton communities, zooplankton, macrobenthos, and fish species presence/absence. A more in-depth study, also using a separate funding source, is planned for April-May, 2022 to address some unresolved research questions.

11. Sustainability and legacy

The profile of the project has been enhanced at the local level among stakeholders such as the BMU networks, the County Government Fisheries Department, KMFRI, KeFS, and the County Administration. Specifically, all 10 BMUs in the local BMU Council are interested, and the Homabay BMU Network has expressed their interest in the initiative as they are planning for the protection of fish breeding areas in conjunction with KMFRI and the County Governments. As project activities are within the formal mandates of KeFs and the county fisheries offices, they are both interested in tapping into the project to improve their engagement with targeted fisherfolk communities.

There is need to enhance the project's profile nationally and regionally, which the project will do through engagement with national agencies, stakeholders and LVFO. The project team will kick-start use of communications channels, including social media, to share project milestones and significant stories. The exit strategy remains intact, through training and capacity building of BMUs and associated local institutions, development of sustainable financing plans, and facilitation of replication and wider adoption of our model through the provision of a white paper and guidance document. Project activities to date have involved fisherfolk communities and local stakeholders; whom we reach through planned meetings and BMU assemblies. The project undertakes reporting, feedback and validation sessions with communities, including reporting back the results of the fish and limnology study for feedback and validation. Project baseline dialogues and surveys included BMU and community assembly sessions, to enable community members to provide feedback and validate discussions.

12. Darwin identity

Because the project has been in effect for only half a year, it has not yet been widely publicized. However, the launch of the project was announced via Conservation International's quarterly freshwater newsletter, which reaches an external audience (Annex 4.6). That newsletter is accessible here: https://mailchi.mp/f7a743124744/fall-2019-ci-freshwater-newsletter-13821671

The relevant portion of the newsletter reads:

With funding from the UK Government through the Darwin Initiative, Conservation International is partnering with Fauna and Flora International, Pathfinder International, and Victory Farms to develop and demonstrate a new model for responsible aquaculture and inland fisheries that conserves native species and produces long-term benefits to people through community-based incentives. The team will work with two Kenyan Beach Management Units to develop and implement sustainably financed lake-based community conservation areas. We will also engage the fisheries ministries and aquaculture sector across Lake Victoria to scale the model.

The Darwin logo was not used in conjunction with this announcement because a second project, funded by the French government, was announced in the same newsletter story.

The project has also been promoted in a CI-Africa LinkedIn post (Annex 4.6), which uses similar language as above. This post has reached an audience of 1366 people.

The project communication plan (Annex 4.4) details additional communications opportunities that will contribute to donor visibility. The formalization of community conservation agreements that will underpin the CCAs will be an important project milestone, and the UK High Commission in Kenya will be invited to participate in the signing ceremony.

13. Impact of COVID-19 on project delivery

Kenya, and specifically the Lake Victoria Region, have experienced a high rate of COVID-19. This has resulted in lockdowns, curfews, and restrictions on movement and public gatherings/meetings. Our project has adapted through virtual meetings with partners, initial consultations of limited size, and adherence to national health agency guidelines of social distancing, use of masks, sanitizers and washing of hands. In the last four months, Kenya has witnessed decreased cases of reported COVID and an increased supply of vaccines. This has provided an opportunity to undertake critical community mobilization and outreach, including baseline dialogues and surveys; our meetings have been held in outdoor or open spaces and we have provided sanitizers and masks to participants. Therefore, there are no major long-term delays expected. We shall continue providing masks and sanitizers in our community meetings and adhering to national health agency guidelines as precautionary public health measures. Virtual meetings at the level of partners and for national or regional level consultations will continue.

14. Safeguarding

Please tick this box if any safeguarding or human rights violations have occurred during this financial year.

If you have ticked the box, please ensure these are reported to ODA.safeguarding@defra.gov.uk as indicated in the T&Cs.

CI has a Child Protection and Safeguarding policy, workplace conduct policy, and policy on the Prevention of Sexual Exploitation, Abuse & Harassment (Annex 6) which collectively apply to this

project and meet Darwin requirements on Safeguarding. CI also has a grievance mechanism that tracks all grievances raised and their response.

While no allegations or complaints were made during the reporting period, CI has a clear investigation and disciplinary procedure in place. Any CI Staff or Delivery Partner who suspects, experiences, observes, or becomes aware of conduct that violates CI's policies, is obligated to report the possible violation immediately through CI's established grievance reporting mechanisms as outlined in our external and internal communications Conflict Resolution and Formal Complaints Policy.

Reports should be submitted to Conservation International's Ethics Hotline. This resource provides employees, grantees, and other partners and beneficiaries with a globally accessible, multilingual reporting tool the gives the ability to report incidents anonymously. It is available 24 hours a day, seven days a week, by logging on to at www.ci.ethicspoint.com or by dialing a toll-free number from anywhere in the world where Conservation International works that can be found on the website.

CI manages all policy and ethics violation allegations in a consistent matter, including safeguarding concerns for potential violations of Child Protection and SEAH policies. Reports are entered directly onto the Ethics Hotline secure server to prevent any possible breach in security. These reports are routed and made available to a very limited team who are responsible for evaluating the incident. Each of these report recipients has had training in keeping these reports confidential. These include: Cl's two system administrators, including a Vice President of Cl People Operations (Human Resources) and our General Counsel's Office Risk Management lead, as well as executive leadership, including the CEO, Chief People Officer and General Counsel. Should any of these individuals be named in the report, that individual will not see the report as designed within the system.

The review process typically includes:

- Receipt of the report is typically acknowledged by a CI lead within 2-3 business days.
 This confirmation and further communications will take place within the Ethics Hotline
 online portal or via phone. This may not include additional time for any translation needed
 to respond to the reporter in the submitted language.
- Determination if allegation is ethics or policy violation. A request for more information may be made to the reporter.
- If the issue raised is not an ethics or policy violation, the reporter is informed of the most appropriate way to resolve the concern.
- If the issue raised is an ethics or policy violation, an investigation may be conducted by trained staff from CI People Operations, GCO or external investigators or attorneys. A lead or leads from one of those groups will be responsible to move the case forward.
- Evidence is reviewed.
- Interviews are conducted with parties involved and witnesses, possibly in an off-site and confidential space or during off-hours, as needed.
- The lead will look for opportunities for acquiring more evidence and will also seek names of other potential witnesses or affected individuals.
- Report reviewed by Chief People Officer and General Counsel and routed to the CEO.
- Decision is made on next steps. As appropriate and with the expressed desire of the victim, CI will make reports to state agencies with authority over the criminal prosecution of SEAH offenses. If an investigation confirms that a SEAH violation by CI Staff has occurred, CI will take disciplinary action, up to and including termination as appropriate. Violation of this Policy, failure to comply with the applicable contractual language in the CI sub-contract or CI sub-award by a CI Delivery Partner will result in remedial action, which may include termination of the sub-contract or sub-award for cause and disqualification from future contracts or grants with CI.
- Lead investigator communicates to reporting party that the investigation has concluded.
- The Audit Committee of CI's Board of Directors is notified of all reports.

CI has shared the Prevention of Sexual Exploitation, Abuse, and Harassment policy with project partners. CI also has a whistleblower policy and a specific Code of Ethics. CI is rolling out a new Darwin Initiative Annual Report Template 2022

institutional Safeguard System to all projects starting in July 2022, which will screen for environment & social risks and design mitigation measures as needed. This process is being led by the Environmental and Social Accountability team.

15. Project expenditure

Table 1: Project expenditure during the reporting period (1 Oct. 2021 – 31 March 2022)

Project spend (indicative) since last Annual Report	2021/22 Grant (£)	2021/22 Total 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)				
Monitoring & Evaluation (M&E				
Others (see below)				
TOTAL				

^{*}Total costs for 2021-2022 should be considered as draft since pending financial information from the partners will be received after the deadline for the submission of this technical progress report.

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

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

Lake Victoria capture fisheries stock is declining and haphazard cage aquaculture development promises to offer another layer of threat if not structured responsibly. The project "Pairing community conservation areas with sustainable aquaculture in Lake Victoria" is engaging with the fisherfolk community, civil society, and an aquaculture company to develop sustainably financed and incentive-based community conservation areas (CCAs) alongside responsible aquaculture. Specifically, we explore how an aquaculture out-grower model that includes community participation in enhanced livelihoods can be leveraged alongside other incentives to catalyze the creation and sustained management of fringing wetlands and nearshore areas that serve as fish breeding grounds. The project is being implemented in Homa Bay County, Kenya in the area of Sindo, previously identified as a priority for a lake-wide network of aquatic protected areas. The project works with the BMUs of two communities - Roo and Ukula - that have existing agreements with the aquaculture company Victory Farms to participate in a community development program.

In this reporting period (6 months) the project carried out the activities as planned. The focus was anchored primarily on the following areas: (i) participatory dialogues and consultations with the two target fishing communities to draft CCA boundaries and goals, (ii) laying the foundation for participatory planning and visioning among community members, and (iii) beginning the negotiation of community agreements covering incentives, citizen science monitoring, and CCA enforcement.

The project has established a strong functional partnership among project partners and state and non-state local stakeholders for inclusive delivery of the project. These include Pathfinder International, Fauna and Flora International, Victory Farms, the Kenya Fisheries Service, the Kenya Marine and Fisheries Research Institute (KMFRI), the County Government Fisheries Office, the Local Administration, and associated Beach Management Units (BMUs) and their networks. The project has undertaken baseline dialogues and surveys following a participatory rural appraisal approach with the Roo and Ukula fisherfolk communities to secure baseline information about the prevailing ecological, social and economic context to inform design of responsive interventions. This involved participation of 128 community members of diverse common interest and user groups, including fisherpersons, farmers, fishmongers, traders, women, youth, clan elders, persons with disabilities, religious leaders, and local administrators. The project also started negotiations around CCA agreements, including community commitments, incentives to be provided, monitoring frameworks for compliance, and outcomes. As a result of the discussions, the BMU members agreed that CCAs will constitute 1) the vegetated riparian zone, (ii) the core fish breeding zone, and iii) an illegal fishing-free zone. Ngou and Roo Bay areas for Ukula and Roo, respectively, were identified for CCAs, and draft handdrawn delineations were completed through a participatory process. Baseline fish and limnological surveys in Sindo Bay have been undertaken in collaboration with KMFRI and with the participation of the Roo BMU and Victory Farms. This resulted in indicative baseline information on native fish species and limnological conditions prevailing in the target area of the lake. On responsible aquaculture, the project has undertaken stakeholders' consultations with KMFRI, BMUs and Victory Farms on critical issues facing aquaculture in the lake, including those related to water quality, carrying capacity, and cage siting, among other social and environmental safeguards-related issues.

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the correct template (checking fund, type of report (i.e. Annual or Final), and year) and deleted the blue guidance text before submission?	X
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-noiects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	X
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.	X
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.	No
Have you involved your partners in preparation of the report and named the main contributors	Х
Have you completed the Project Expenditure table fully?	
Do not include claim forms or other communications with this report.	•