



Darwin Initiative Main: Final Report

To be completed with reference to the “Project Reporting Information Note”:
(<https://www.darwininitiative.org.uk/resources/information-notes/>).

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

Submission Deadline: no later than 3 months after agreed end date.

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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 Organisation	Conservation International Foundation
Project partner(s)	Fauna & Flora, Pathfinder International, Victory Farms LLC
Darwin Initiative grant value	£399,454.00
Start/end dates of project	1 October 2021 – 30 June 2024
Project Leader name	Leonard Akwany
Project website/blog/social media	https://www.conservation.org/projects/conservation-international-ventures-llc/community-conservation-in-lake-victoria
Report author(s) and date	[REDACTED] , 31 July 2024

1 Project Summary

This project worked in **Lake Victoria, Kenya** 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 aim of the project was to work with two Kenyan Beach Management Units (BMUs), community and conservation health experts, as well as an aquaculture company, to develop and implement sustainably financed lake-based community conservation areas. This was envisioned to happen alongside on-going engagement with the fisheries ministries and aquaculture sector across Lake Victoria.

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 [REDACTED].² The livelihoods of around four million people are

¹Sayer, 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>

²LVFO. 2007. LVFO Regional plan of action for the management of fishing capacity in Lake Victoria. Jinja, Uganda, LVFO. Available online at: <http://www.fao.org/tempref/FI/DOCUMENT/IPOAS/regional/lakevictoria/RPOACapacity.pdf>

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, introduced species, littoral wetland loss, climate change, and land-based pollution threaten native fish.⁵ Driven by economic need, fisherfolk are increasingly exploiting small pelagic species and intensifying fishing effort, with impacts on native fish populations and livelihoods. Weak transnational lake governance also impeded effective fishery management.

Cage-based aquaculture has emerged 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 were also putting the lake at risk.⁷ In addition, although fisherfolk communities have traditional ecological knowledge of fish breeding grounds, **protection of those areas had been constrained** due to ineffective governance structures at all levels (county, sub-county, and BMUs), limited incentives, disenfranchised BMU leadership, insufficient resources (e.g. patrol boats, personnel, monitoring tools) – all of which limited community-level stewardship of Lake Victoria's native fish, and specifically of key fish breeding areas.⁸

To mitigate this, the project engaged with the fisherfolk community, civil society, and an aquaculture company to develop sustainably financed and incentive-based **community conservation areas (CCAs)**, tied to responsible aquaculture. Specifically, the project explored how an aquaculture out-grower model that includes community participation in enhanced livelihoods (cage aquaculture and potentially irrigated farming and ponds) could be leveraged alongside other incentives to catalyse the creation and sustained management of fringing wetlands and nearshore areas that serve as fish breeding grounds. This approach aimed to integrate economic benefits with environmental conservation, ensuring the health and sustainability of critical ecosystems while improving the economic prospects of local communities. While this project could not single-handedly solve the problem of weak transnational governance, the project's inputs to the Lake Victoria Fisheries Organization (LVFO) provided the regional institution with arguments for enhanced conservation activities.

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. Available online at: <https://doi.org/10.4060/cb2827en>

⁴ Sayer et al. 2018

⁵ Ainsworth et al. 2001

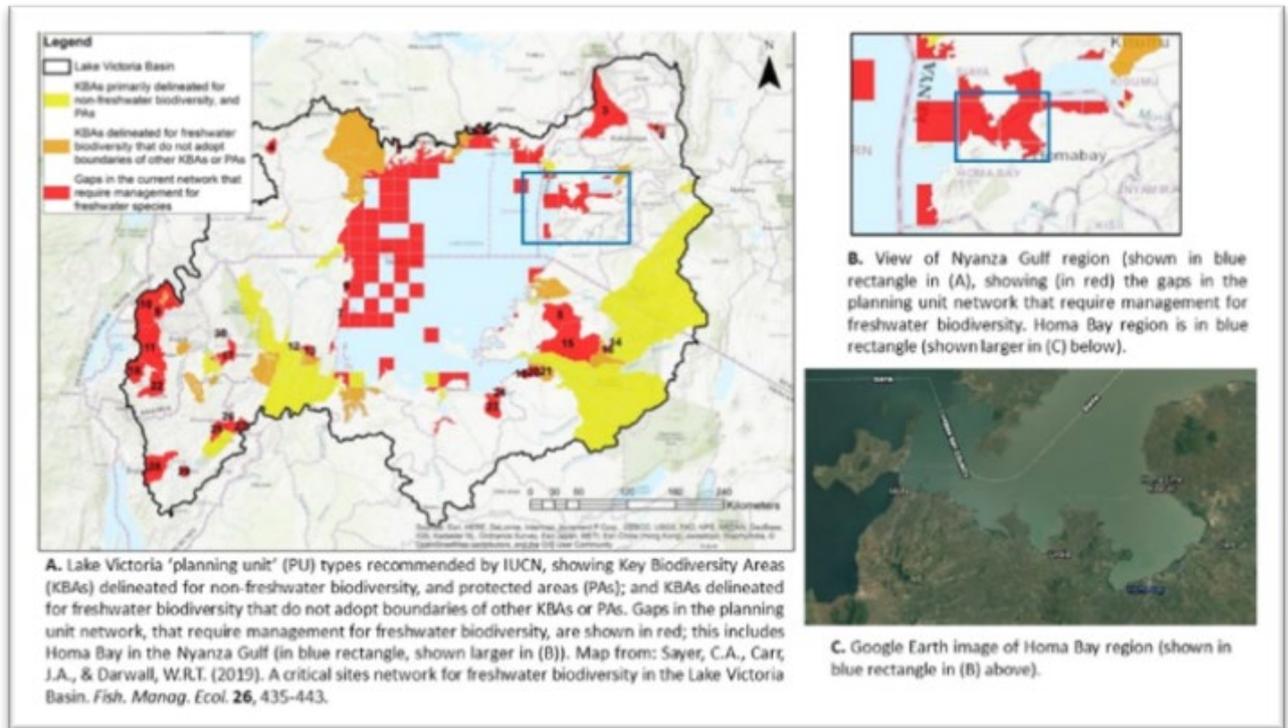
⁶ Musunguzi, L., Lugya, J., Rwezawula, P., Kanya, A., Nuwahereza, C., Halafo, J., ... & Osinde, R. 2019. The extent of cage aquaculture, adherence to best practices and reflections for sustainable aquaculture on African inland waters. *Journal of Great Lakes Research*, 45(6), 1340-1347. <https://doi.org/10.1016/j.jglr.2019.09.011>

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

⁸ Ainsworth et al. 2021

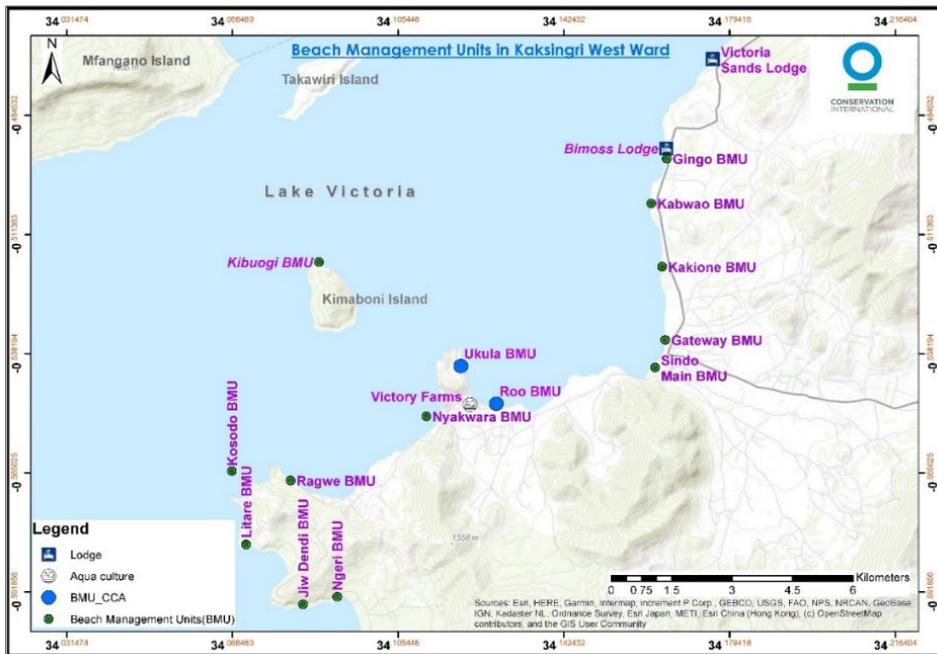
In addition, this project had a strong gender component and worked diligently to strengthen women’s agency, foster women’s economic empowerment, amplify voices, and cultivate greater female inclusion and leadership within the BMUs.

The project was 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.⁹ The project worked with the BMUs of two communities - Roo and Ukula - that had pre-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.

⁹ Sayer et al. 2019



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

2 Project Partnerships

Throughout the project’s implementation, Conservation International worked in close partnership with Fauna & Flora, Pathfinder International, and Victory Farms Limited 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 worked with two community-level BMUs that had 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 convened local BMU Council, composed of 18 BMUs continues to be critical for scaling the project to additional neighbouring BMUs and wider initiative for establishment of CCAs and re-introduction of native tilapia among 18 BMUs of Sindo Bay has started with four BMUs of Ragwe, Nyakwara, Sindo Gateway and Gangu BMUs.

Fauna & Flora and Pathfinder International were both brought into this project as partners for their relevant expertise and contributed to the project in impactful ways. Fauna & Flora undertook a similar Darwin-funded project to establish terrestrial community conservation areas in lakeside areas in Uganda. Pathfinder International brought 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 CCAs establishment and operationalization, assisted in facilitation of in-person community workshops and participated in a writeshop for an Aquatic CCAs Guideline and White Paper. **Pathfinder International** was equally involved in training fisherfolk women on entrepreneurship and village saving and loaning, networking with micro-financing institutions, organizing learning exchange for women self-help groups and monitoring of gender related indicators.

Each of the project partners experienced internal staff changes during the project lifespan, which was approved through a Change Request form submitted by CI. The CI project lead worked closely with the partner organizations during these transitions to ensure a productive transition in

the work and alignment among all partners. The project partner Victory Farms had higher turnover than the other partners and there were challenges around timeliness and quality of financial reporting, which required additional oversight and support from CI. Despite these challenges, the partners were seen as effective implementation partners.

The partnership was operationalised through **periodic joint and bilateral meetings**. The partnership implementation leads identified from each partner organization communicated often, met regularly, and joined in the field for project activity implementation. The partnership created a **WhatsApp Field Team Platform** for sharing, updating and communicating on project implementation matters. The platform involved CI, Fauna & Flora, Pathfinder International, Victory Farms, Kenya Fisheries Service, Kenya Marine and Fisheries Research Institute, Homabay County Government Fisheries Office, BMU Council and County Government BMUs Liaison Office.

The partnership achievements during project lifespan include detailing baseline socio-economic information from participatory surveys and dialogues, training communities on CCA monitoring and surveillance, leadership, governance, and resource mobilization, women entrepreneurship, village savings and loaning, empowerment group organization and facilitating learning exchanges. The partnership has also defined the CCA incentives package with the fisherfolk communities and integrated learning from community conservation area case studies from Uganda and a conservancies model from Laikipia in Kenya. Key outputs were the Aquatic CCAs Guideline and associated White Paper and Site Conservation Plans.

The project also involved **other relevant local and Government institutions** which contributed and supported in project implementation during its lifespan. The Kenya Marine and Fisheries Research Institute (KMFRI) assisted in baseline and appraisal fish species and limnological studies, developing Aquatic CCAs white paper and Best Practices Guideline, and providing technical advice and fingerlings for native tilapia restocking. Their contributions have been instrumental in establishing effective conservation practices and supporting the sustainable management of aquatic resources. The Kenya Fisheries Service (KeFS) and Homabay County Fisheries Office at the Suba-South Division, Kaksingiri West Ward level facilitated inclusion of the BMUs agenda within sub-sector development at both national and county government levels, supported training on CCA monitoring, surveillance and community triggered process of gazetting CCAs and development of the Aquatic CCAs white paper and Best Practice Guideline. They also supported consultations on anchoring CCAs in freshwater ecosystems in national laws and policies. Further, CI, through the Darwin Project Lead, became a member of the National Ramsar Committee coordinated by Kenya Wildlife Service, which in turn is the focal point of Ramsar Convention. CI also participated in developing the National Ramsar Report, including the Ramsar Site Information Sheet and was able to directly feed relevant project information into the Ramsar reporting process. CI maintained contact with the Convention on Biological Diversity (CBD) through the Ministry of Environment and associated agency of National Environment and Management Authority for engagement and sharing results that will advance the Kenyan government's commitment to the CBD conventions and through CI Policy Coordinator participated in the ongoing NBSAPs revision in alignment with new Kunming-Montreal Global Biodiversity Framework. CI engaged LVFO and its national affiliate in Kenya, KMFRI, as an entry point for sharing models of CCAs and responsible aquaculture in the Lake Victoria region. Specifically, this was done through consultation for the best practices guidance and aquatic CCAs white paper development.

CI maintained relationships with broader BMU networks for the purposes of ultimately **scaling the CCA approach via adoption by other fisherfolk communities** through participation in BMU Council monthly meetings. CI also engaged with the County Government CEC office, County Government BMUs Liaison Office, National BMU Network, the Homabay County BMU Network, Kenya Marine and Fisheries Research Institute and Victory Farms for a wider initiative

of establishing CCAs and re-introducing native fish species (specifically, native Tilapia or *Oreochromis esculentus*) through wild collection in satellite water bodies and local breeding. This led to 75, 000 fingerlings being restocked at the established CCAs. Further, a partnership was developed with **Women Enterprise Fund (WEF) and Wanawake Wavuvu (WAWA-Kenya)** for women's enterprise training, financing, empowerment and learning exchanges and this resulted in training of 175 women.

Finally, the project team actively engaged with **UK High Commission in Kenya** through project site visits, participation in Kenya Darwin Initiative Grantees workshop, linkage to Lake Region Blue Economy Multi Agency Action Plan Technical Committee Meetings and informal update meetings with the UK High Commissioner.

3 Project Achievements

This project aimed to generate a significant impact by enhancing the protection and restoration of Lake Victoria's fish biodiversity and associated wild capture fisheries, in conjunction with the expansion of responsible aquaculture. This initiative represents a crucial preliminary phase towards achieving the broader objective. It has established the foundational elements necessary for the model's realization, which is a substantial and diligently earned component of a successful sustainable development strategy. By laying this groundwork, the project enables the model to be scaled and positioned for greater adoption, thereby amplifying its overall impact.

3.1 Outputs

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

The **site conservation plans**, including science-based monitoring and surveillance protocols for management and monitoring of the CCA sites, were developed and operationalised during the project lifespan (Indicator 1.1), including provision of engines for monitoring boats. **Conservation Agreements** were created detailing conservation actions, benefit packages, and monitoring and sanctions, as a part of the community's formal commitments to implement and enforce the CCAs were developed and executed (Indicator 1.2). The two CCAs were mapped and demarcated in terms of riparian, fish breeding, and fishing zones, totalling 1137 ha under CCAs (Indicator 1.3). The designed multi-stakeholder and governance structure for the CCAs included BMUs and other various user groups, such as farmers, women's groups, youth groups, the Kenya Fisheries Service, County Government Fisheries, local administration, Victory Farms, and the BMU Council. This structure served as the vehicle for CCA planning and management, ensuring a comprehensive and collaborative approach to sustainable fisheries and environmental conservation (Indicator 1.4). The following capacity building and livelihood **incentives** were formalized and implemented during the project lifespan, including: a Women's Financial Literacy Training, focused on group savings and leading to the creation of empowerment savings and loaning groups, linkages with the Women Enterprise Fund, and a learning exchange on alternative livelihoods (Indicator 1.5). Other livelihood incentives included fishing boats for the women groups, restoration and farming materials for riparian farmers, seed funds for five women groups, and improved fishing nets for vulnerable fishers. See Annex 5.1.1 & 5.1.2 for the Conservation Plans & Agreements.

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

The project successfully developed a **sustainable finance plan** for the joint CCAs, laying the groundwork for their success beyond the project's funding period (Indicator 2.1). This plan was formulated through CI desktop reviews and consultations on sustainable financing approaches,

including devolved funds, trust funds and impact investing. The sustainable financing plan (Annex 5.2) details the following as viable financing options:

- Private finance, such as impact and corporate investors
- Public finance
- Development Funders/Donors finance

Other financing options in the plan include enhancing existing BMU funding through: Annual BMUs registration fees, BMU non-members/other BMUs landing fees, and hiring out BMU assets such as halls and boats. The plan also aims to leverage Homabay Beach Management SACCOs for low-interest loans and emphasis lobbying for increased allocation of fisheries conservation and development funds in the County Integrated Development Plan (CIDP) under devolved county government funds. Applications for national government affirmative action funds, such as women, youth and Uwezo funds, were encouraged. The plan also included lobbying for more funds from the Ministry of Blue Economy and seeking zero-interest loans from Kenya Fisheries Trust Fund.

The plan also proposes establishing a CCAs Trust Fund and tapping into blended financing from impact investing, private and public financing, development and conservation funders, NGOs, and funding opportunities through nature credits or biodiversity funds. Climate change adaptation or mitigation funds could also be utilized to provide freshwater ecosystems, fisheries, biodiversity or livelihoods/poverty reduction. Currently, the following **financial mechanisms are operational**: income generating activities; enhancement of BMU members contribution and associated fees; and 100,000 USD from HP Foundation under the Lake Victoria Restore Project to support riparian restoration as integral part of Aquatic CCAs and associated forested watersheds (Indicator 2.2).

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

A **guidance document** was created on the collaborative establishment of CCAs with BMUs, and afterwards was disseminated throughout the East Africa community, targeting the aquaculture sub-sector (Indicator 3.1), which can be found in Annex 3.1 of this report. The project used Victory Farms' cage aquaculture as a case study to document best practices and opportunities for responsible aquaculture and collaborative conservation between aquaculture enterprises and fisherfolk communities. This effort was augmented by consultations and a co-creation writing workshop with BMUs, Kenya Fisheries Service, Kenya Marine and Fisheries Research Institute, Aquaculture Associations and Lake Victoria Fisheries Organization.

This resulted in the development of an Outline of thematic areas to detail for best practices and opportunities, which include:

- Concessions Management/Cage Sighting
- BMU Council
- Benefits Sharing Agreements/Corporate Social Responsibility
- Wastes Management Circular Economy
- Environmental Safeguards/Water Quality/Biosecurity/Escapees
- Social Environmental Safeguards

The guidance document was socialised during the Sindo Bay CCAs Dialogues Forum, which took place from 21-23 February 2024 and involved 14 Beach Management Units, County Government Fisheries Department, Kenya Fisheries Service, Kenya Marine and Fisheries Research Institute, Kenya Coast Guards, Cage Aquaculture Farms, Farmers Groups, Women Groups and BMUs Network. The guidance document was also disseminated to national and regional partners in the country through workshops, directly with relevant stakeholders via e-mail,

and as well as through the Aquaculture Working Group e-mail listserv (including 50-60 relevant stakeholders working on the topic in Kenya) and KMFRI contact lists, etc. (Indicator 3.2).

Output 4: A foundation is laid for strengthening, via fisheries policy and governance, enabling conditions for the establishment, enforcement, and resourcing of aquatic CCAs

The development of a “Strengthening Fisheries Policy and Governance for Aquatic Community Conserved Areas in Lake Victoria” white paper on aquatic CCAs and dissemination in the East Africa community was completed (Indicator 4.1). This was developed through literature reviews, consultations and co-creation writeshops with grass-root, sub-national, national and regional stakeholders on aquatic CCAs, and factored-in the following themes:

- Rationale for CCAs in Lake Victoria Fisheries Conservation
- Case studies of CCA manifestations in Lake Victoria region
- Analysis of the existing gaps in policies and other governance instruments with regards to CCAs/enabling environment.
- Incentives for CCAs adoption and scaling
- An analysis of how CCAs fit in the new global biodiversity framework under freshwater biodiversity protection and other conservation areas.

A copy of the “Strengthening Fisheries Policy and Governance for Aquatic Community Conserved Areas in Lake Victoria” white paper can be accessed in Annex 3.2 of this report.

The co-creation writeshop specifically involved the following stakeholders: BMUs, BMUs network, County Governments, Kenya Fisheries Service, Kenya Marine and Fisheries Research Institute, Lake Victoria Fisheries Organization. The white paper was socialised during a Sindo Bay CCAs Dialogues Forum which involved 14 Beach Management Units, County Government Fisheries Department, Kenya Fisheries Service, Kenya Marine and Fisheries Research Institute, Kenya Coast Guards, Cage Aquaculture Farms, Farmers Groups, Women Groups and BMUs Network. It was then disseminated to national and regional partners (Indicator 4.2).

3.2 Outcome

The overall desired outcome for this project is that **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**. This outcome has been measured to be overall achieved through the following indicators, as detailed below:

In terms of formal protection, **Indicator 0.1** was that **CCAs of an estimated combined size of 1000 hectares are to have been delineated**. During the project CCAs were identified, mapped and demarcated, and zoned into riparian zones, fish breeding zones, and right fishing zones. This totalled 1137 ha. being delineated, which is evidenced in the two spatial maps of the delineations that are included in the site Conservation Plans (see Annex 5.1). Additionally, 75,000 fingerlings of native tilapia were restocked in the Aquatic CCAs.

Indicator 0.2 of the achievement of this outcome is that by the project end, **encroachment of illegal fishing into CCAs would be reduced from the baseline conditions**. Historical data showed close to 6 daily incidences of rampant illegal activity, based on data collected at Beach Seine and as evidenced in the Baseline Dialogues & Surveys Report from March 2022 (see Annex 5.3.3). By project end, communities were on average reporting 2 incidences of illegal fishing methods and gears per week, based on their regular monitoring visits, as shared with CI during the project implementation period. In addition, encroachment into restricted fish breeding zone was reduced to roughly 1 incidence per week through consistent patrol sub-committee monitoring, surveillance, and control due to project provided training and engines for patrol boats.

By the project end, **Indicator 0.3** of this outcome states that **limnological measures within established CCAs will show stabilization or improvement from baseline conditions**. The following baseline parameters were measured: water physico-chemical parameters (dissolved oxygen, temperature, pH, conductivity, and turbidity), phytoplankton communities, zooplankton, macrobenthos and native fish species. The in-depth baseline surveys were conducted in June 2022, forming the basis for the periodic monitoring by BMUs through citizen science and a developed community monitoring protocol, as well as by KMFRI through scientific surveys. The appraisal species and limnological surveys, carried out in April 2024, indicated no change in limnological conditions, therefore stabilization, except for improved turbidity, which was attributed to riparian area restoration and reduced soil erosion. This data is supported by evidence compiled in Annexes 5.3.1 & 5.3.2, & Annex 5.3.3 for evidence.

Indicator 0.4 indicates that the **population numbers of target freshwater fish species in CCAs will have improved from the baseline conditions by the project end**. Baseline surveys of fish species were undertaken, identifying the presence of native ngege species and several haplochromine species. Further in-depth fish species surveys were undertaken in June 2022, thereby completing the baseline fish species population data and forming the basis of monitoring. The appraisal species and limnological surveys undertaken in April 2024 and fish landing records by BMUs have indicated improved fish catch, including re-emergence of native tilapia (see Annexes 5.3.1 & 5.3.2, & Annex 5.3.3 for evidence).

Another notable indicator of this outcome, **Indicator 0.5, measured the incomes reported semi-annually for half of employable adults and youth in the two communities, and if those showed statistically significant increases, for both men and women, from baseline conditions**. A baseline study was conducted in March 2022, to assess the economic activities, livelihoods, and income level of community members (Annex 5.3.2). This indicator will require a longer timeline to be fully realized, as income levels are complexly linked to the broader contexts within which they exist. Although concrete data to assess income level increases is not yet available, there is evidence that there has been a significant improvement during the project period in the income levels of participating adults, based on feedback received during focus-group discussions. In addition, a monumental contribution of this project has been in laying the groundwork to ensure more access to income going forward. The project approached this indicator with a critical focus on gender equality, particularly in income access, and aimed to expand opportunity in a way that ensured increased female participation and ownership. A monumental amount of work was carried out during this project related to this and women focus-groups have reported shifts in their participation in the local economy. For more detail on this, please refer to Section 4.2 (Poverty Reduction) and Section 4.3 (GESI), as well as Annexes 5.4.1 and 5.4.2.

Indicator 0.6 measured if, **by the midway point of the project, men, women, and youth over the age of 18 of all participating households felt that their voices were heard and represented in processes of CCA planning and management**. Through focus groups held in the two communities, involving 740 households and directly impacting 2,960 individuals, participants reported an increased sense of representation in CCA planning and management. The formal inclusion of many female leaders in CCAs has also provided further assurance that more community members' voices will be heard, through this diversification of power and shift in power structures, creating an enabling environment for ongoing and greater participation by community members, particularly women and youth.

The final indicator of this outcome, **Indicator 0.7, measured if by the end of the project, annual incidences of sexual exploitation as a result of 'sex for fish' would show a statistically significant decrease from baseline conditions**. The baseline dialogues and surveys indicated that *jaboya*, the practice of selling sex for fish, was prevalent in the target BMUs. According to the qualitative focus group discussions with the five women-led groups throughout the project,

the groups indicated reductions in these incidences since the beginning of the project. This change is due to project interventions such as women self-organization, training, exposure, economic empowerment and improved voices in fisheries co-management and incorporation of gender focal point at the BMU level. The report on women empowerment work (see Annex 5.4) indicates these interventions and processes put into place for reduction of incidences.

The project's outcome also speaks to the scalability of the incentive-driven model to deliver livelihood improvements across Lake Victoria. The project has delivered an effective, replicable model that can be scaled with appropriate financing, across the Lake. The sustainable financial plan, aquatic CCAs white paper and guidelines, and stakeholders' partnership have each contributed to plans for replication, scaling, and wider adoption of responsible aquaculture in Sindo Bay and beyond. There is also equally motivated, strong support of the model by both national and county level government agencies, due to the positive outcome achieved through this project's intervention.

3.3 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 active and involved in project activities and receive co-benefits.	Men and women both actively participated in the project's consultative meetings, trainings on various themes, mapping and demarcation, design of commitments and incentives, development of CCAs site conservation and monitoring plans, among other engagements. Participants in these engagements included men, women, youth and persons with disability. The project witness the same engagement and participation by both genders, in regard to receipt of co-benefits.
CCAs can be effectively enforced, especially from fishing pressures from outside the communities.	This remains valid with enforcement through joint patrols by BMUs, Kenya Fisheries Service and County Government Fisheries Office. Public education, awareness campaigns, and consultations were undertaken to meet the constitutional threshold of public participation. Additionally, a Grievance Redress Mechanism (GRM) was made an integral part of Conservation Agreement.
Fish populations respond to CCAs within project timeframe	This remains valid and was informed by fish life cycle science. This result was attainable within the project lifespan due to 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 there are strong indications of proactive and positive government involvement in improving the blue economy. This is being achieved 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 sex-for-fish incidents.	Alternative livelihoods and economic empowerment of women were identified during the baseline dialogues and surveys as critical measures for reducing the 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 initiatives, trainings, and alternative livelihoods. The training on women enterprise, financial literacy, village saving and loaning, linkage with women enterprise fund and learning exchanges with more

	<p>established empowerment women groups were seen to actualize women's economic empowerment through income-generating activities and capital access.</p> <p>Overall, the impact of this change will need more time to create the desired impact, but the processes and change in gender dynamics within the BMUs and community have been put in place to catalyse this, which will lead to greater access to alternative incomes for women.</p>
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 their significant and requisite commitments made during the baseline dialogues and surveys. Communities also participated in trainings, CCAs mapping and demarcation, and inputs to the Conservation Agreements.
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, as consensus was reached in the expected timeframe.
A viable enforcement mechanism for CCAs can be designed and successfully implemented.	This remains valid, as the enforcement mechanism was designed and implemented.
BMU officials enforce and adhere to CCA rules	This remains valid, through enforcement and general adherence to CCA rules.
Communities trust BMUs as implementing bodies for CCAs	This remains valid, as there is a building trust by the communities of the BMUs
COVID will not prevent community meetings	This remains valid
Sustainable financing options can be identified, with equitable benefits for men and women.	This remains valid, sustainable finance options were identified, to benefit both genders.
Community members are motivated to participate in sustainable financing solutions (e.g. outgrower model, microcredit finance mechanisms).	This remains valid, as there was evident motivation to participate.
The collaborative conservation model between aquaculture enterprises and communities shows near-term success	This remains valid, as overall the collaboration was successful.
A critical mass of aquaculture companies (and associated communities) operating in Lake Victoria and the greater East Africa region are committed to or interested in sustainability, including development of CCAs	This remains to be seen, as many aquaculture players are entering Lake Victoria and there is a lack of transparency and accountability among some of them.
The LVFO remains an effective bridging institution for influencing each country's fisheries ministries	This remains valid
Conflict among the three riparian countries regarding lake fisheries management hasn't escalated, and there are enough shared interests for a single white paper to be useful	This remains valid

3.4 Impact

The impact that the project was 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 implemented project activities have built a strong foundation and contributed to the aforementioned overarching impact. These include the establishment of 1,137 ha of CCAs in Roo and Ukula for positive biodiversity improvement through restoration of a thriving capture fisheries population, including endangered fish species. The CCA for fish breeding and restocking with 75,000 fingerlings of native tilapia has improved fish stock and re-emergence of native fish species, further improving biodiversity. The development and implementation of site conservation plans for the CCAs, coupled with the capacity building of Beach Management Units' patrol sub-committees on monitoring, control, and surveillance, have significantly contributed to improved fish stock and biodiversity. This was achieved through the implementation of these strategies via a citizen science approach, engaging the community directly in the conservation efforts and fostering a collaborative environment for sustainable fisheries management.

The training of five women groups on women enterprises, leadership, governance and resource mobilization, along with their linkage to the women enterprise fund and seed fund, has contributed to progressive leadership, business acumen, initial capital and income-generating activities for economic empowerment and poverty alleviation. The social capital built through re-organizing and training of women empowerment groups on saving for conservation through village savings and loaning has contributed to women's empowerment and poverty alleviation among women in the marginalized target population. The incentive packages provided to community members through this project, as detailed in the conservation agreements, included alternative livelihood options, such as the provision of fishing boats for women and improved fishing gear for men, resulting in overall poverty alleviation. See project partner, Pathfinders, [impact article](#) on the change that has been created through this project.

The sustainable finance plan has provided blended financing options for securing CCAs going-forward and further supporting sustainable development. The development of the Aquatic CCAs white paper and guidelines contributed to the building of strong partnerships through the BMU Council and Sindo Bay CCAs Dialogues Forum. The involvement of cage aquaculture farms has also contributed to replication and scaling of Aquatic CCAs and responsible aquaculture practices.

4 Contribution to Darwin Initiative Programme Objectives

4.1 Project support to the Conventions, Treaties or Agreements

The project had contributed to national policy and international biodiversity conventions, treaties and agreements, as outlined below.

Specifically, the project contributed to created targets of the **Kunming-Montreal Global Biodiversity Framework** under the Convention on Biological Diversity (CBD). The creation and management of CCAs to protect fish breeding sites contributed to **Target 3**, by conserving areas of importance for biodiversity and ecosystem services through effectively and equitably managed "other effective area-based conservation measures."

The baseline and consequent appraisal fish species studies confirmed the presence and re-emergence in the project area of endangered fish species of (*Oreochromis esculentus*, *Oreochromis variabilis* and *Labeo victorianus*) and several haplochromine species are also present. The established 1137 hectares of CCAs contributes to **Target 4**, through improving the conservation status of threatened species. Through the restriction of fishing access to the

breeding areas of fish that are harvested, the CCAs contributes to **Target 5 and 9**, through applying an ecosystem-based approach to the sustainable management of fish stocks. Additionally contributed to **Target 5** call for the sustainable harvesting of wild species; **Target 9** on ensuring that the benefits of food security are achieved through the sustainable management of wild species of fauna. These fish constitute critical natural capital for vulnerable communities, and so the CCAs contributes to **Target 1 and 2**, by safeguarding ecosystems that provide essential services. The community-led establishment of functional CCAs process has contributed to **Target 11**, related to positive incentives for the conservation and sustainable use of biodiversity.

This project has generated guidance for sustainable aquaculture, and as such contributed to **Target 10**, focused on the sustainable management of aquaculture to ensure biodiversity conservation. The guidance has been developed through multi-stakeholders' co-creation writeshop and socialised among national, regional and international stakeholders, equally tapping from the lessons learnt during the project implementation. Furthermore, the project contributed to **Target 10 and 15**, which addresses the sustainability and resilience of biodiversity and sustainable patterns of production in managed ecosystems, including aquaculture practices. The project also contributed to **Target 22 and 23** by enabling stakeholders' representation and gender equality through gender responsive approach for equal opportunity, capacity, and participation in prevailing gender-based violence and patriarchal fisherfolk communities. This was undertaken through economic strengthening and leadership training for active participation of women in male dominated fisheries co-management structures. The project also equally contributed to **Target 21** on knowledge-based governance and participatory management of freshwater biodiversity. Additionally, it contributed to **Target 19** for increased financial resources through blended financing as detailed in our sustainable finance plans for the CCAs.

The project contributed to **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 addressed 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." CI is closely engaged with **Ramsar and the CBD conventions** activities in Kenya through Kenyan Ministry of Environment and, associated agencies of the Kenya Wildlife Service and National Environment Management. CI is a member of National Working Committee on Ramsar and participated in updating Ramsar Sites Information Sheet for COP15 and advancing wetlands agenda in Kenya. CI through the Policy Coordinator participated in Kenya NBSAP revision where CI was vouching for more strategic attention to freshwater ecosystems and biodiversity and equally mobilizing for more action under freshwater challenge. The work of this project also contributes to the current NBSAP in terms of national reporting on conservation of freshwater ecosystems and associated biodiversity in Lake Victoria. CI's project lead is a member of **Ramsar Centre for Eastern Africa (RAMCEA)** and shares project mandate and updates to its Regional Governing Council composed of Ramsar Convention Focal Points and associated agencies from Kenya, Uganda, Tanzania and Burundi. The RAMCEA meetings provided an opportunity to connect with the Ramsar Focal Point in Kenya for reporting of the project results towards Kenya's national commitment to the Ramsar Convention, and for linking with the Africa Senior Advisor to the Ramsar Secretariat. Equally the project lead is involved on **freshwater challenge** and **inland waters OECMs** endeavours by FAO, UNEP among others aimed at freshwater ecosystems and fisheries restoration and area-based conservation critical for the wise use of Ramsar Convention and restoration under GBF.

4.2 Project support for multidimensional 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.¹⁰ Within fishing communities, there continues to be an **uneven distribution of wealth**, with women being affected disproportionately by poverty due to their lack of economic empowerment and lower status treatment.¹¹ 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 only 500-5000 KES per month; 32% reported incomes of 5000-6000 per month, and 19% reported incomes above 10,000 KES per month. There are income disparities among boat owners, crew members, and fish mongers, with boat owners earning the most.

During project lifespan, there were further interventions aimed at creating lasting impact on poverty reduction, notably a Women’s Financial Literacy Training on enterprises, the creation of savings and loaning groups, linkages with the Women Enterprise Fund on qualifications for interest free loans, a learning exchange on alternative income generating activities and seed fund for small income generating activities. The self-organization and training of women through five self-help groups, economic empowerment through group saving and loaning, seed fund, and securing of fishing boats—have all contributed to the improvement of women’s voices in fisheries co-management. This was further enhanced by exposure and the inclusion of a gender focal person in associated BMUs. These efforts have had a significant impact, reduced the vulnerability of women in the community.

Several other activities were also undertaken which indirectly contributed to the reduction of poverty, including designation of functional 1137 ha of CCAs in the two communities, 30 metres riparian area, trainings on citizen science monitoring and surveillance, training on leadership, governance, resource mobilization and advocacy, and provision of life jackets. This was augmented by 75,000 restocking of native tilapia in the established CCAs. Through these activities, fish breeding and re-emergence of native tilapia species in the catch was enhanced, and the increased fish landings improved the livelihoods and income of the two target fisherfolk communities. This approach ensured that jointly men, women, adolescents, and people with disabilities benefit from the negotiated incentive packages.

In addition, the sustainable finance plan, site conservation plan, and associated co-management and protection of CCAs together placed the recovery of fishery resources on the right track in terms of benefit on improved fishery productivity, income and food security for employable men, women, and youth. The developed and socialised aquatic CCAs White Paper and Guideline has provided a knowledgebase for replication and scaling of aquatic CCAs, responsible aquaculture and restocking of aquatic environment with native fish species for improved fish stock, food security, fishery livelihoods and income, biodiversity conservation and resilience of associated ecosystems and communities.

4.3 Gender Equality and Social Inclusion (GESI)

Please quantify the proportion of women on the Project Board ¹² .	There are 4 women members on the Project Implementation Committee, made up of CI and all partners (9 individuals in total). The breakdown
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¹⁰ 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/>.

¹¹ 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.

¹² A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

	per organization is as follows: 2 Pathfinder International, 1 Victory Farms, 1 FFI.
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women ¹³ .	<p>The project partner organizations have varying level of female leadership, as highlighted below.</p> <p>Pathfinder International: The project is supported by two female senior leadership members from the US office, two female field staff in Kenya, as well as a female country representative in the Kenya office (more than 50%).</p> <p>FFI: The project is supported by two female senior leadership members from the UK office and one female field staff in Kenya (more than 50%).</p> <p>Victory Farms: The project has one female finance officer supporting the project (less than 50%).</p>

GESI Scale	Description	Put X where you think your project is on the scale
Not yet sensitive	The GESI context may have been considered but the project isn't quite meeting the requirements of a 'sensitive' approach	
Sensitive	The GESI context has been considered and project activities take this into account in their design and implementation. The project addresses basic needs and vulnerabilities of women and marginalised groups, and the project will not contribute to or create further inequalities.	
Empowering	The project has all the characteristics of a 'sensitive' approach whilst also increasing equal access to assets, resources and capabilities for women and marginalised groups	X
Transformative	The project has all the characteristics of an 'empowering' approach whilst also addressing unequal power relationships and seeking institutional and societal change	

From the onset of this project, the challenges around gender and sexual exploitation in the target fisherfolk communities around Lake Victoria has been acknowledged, particularly the sex-for-fish (jaboya) culture. To address this, the project incorporated a gender issues competency partner (Pathfinder), to developed gender-related indicators, collected baseline information, and design responsive interventions focused on women's self-organization, economic empowerment, and raising their voices in fisheries co-management.

CI and Pathfinder conducted focus group discussions with women in the two partner communities of Roo and Ukula on gender-related empowerment issues and needed interventions. A Gender Analysis was also conducted by Pathfinder (see Annex 5.4.1), which identified and explained

¹³ Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

gender gaps and its impact on the vulnerability of women. From this, a tailor-made plan of needed interventions was implemented, which included the following project activities, focused specifically on the gender component of this project:

- Establishment of 5 female focus-groups
- Entrepreneurship Trainings: Business management training for 175 women (from the 5 focus-groups)
- BMU Trainings & Awareness-raising: 65 BMU leaders from the 2 BMUs (Roo & Ukula) were trained on gender responsive fisheries, co-management leadership, the need for women leadership and participation in BMU governance and decision-making
- Creation of gender departments within BMUs through a Gender Focal Person
- 50% increase in women's participation in leadership within the BMUs (from 5 to 10 women leaders)
- Grants of KES 50,000/group provided to the female focus-groups for voluntary savings & loan
- 1 Learning Exchange visit organized with the Kenya-based organization WA-WA KENY for 30 female representatives from the 5 groups, focused on: cage fish farming, village savings and loaning
- Provision of 2 fishing boats for women's economic empowerment

The impact of these interventions during the project implementation period led to increased self-confidence and self-efficacy for the female participants, self-reported increases in income, and a growth in female leadership in the BMUs. Through focus group discussions, there is also already evidence that there has been a decrease in incidences of the need for the sex-for-fish practices. Longer term, it is foreseen that this will have increasing positive impacts in the community, especially in increases in female income, therefore reduced sex-for-fish, as well as cultural shifts in gender norms and cultural practices around women's role in sustainable fishing practices. Please see Annex 5.4.2 for the final support of the gender empowerment work undertaken through this project.

4.4 Transfer of knowledge

The project has successfully transferred knowledge on the practicalities of operationalizing freshwater CCAs as Key Freshwater Biodiversity areas, not only for conservation and improvement of fish stock but also for *in situ* conservation of associated biodiversity. The establishment and operationalization of 1137 hectares of Aquatic CCAs in Lake Victoria has been documented in a guideline and white paper to support its wider adoption and application in the region and across Africa. These efforts are also recognized as potential OECMs under the Kunming-Montreal Global Biodiversity Framework Target 3 on protected areas and OECMs. Furthermore, knowledge on the practicalities of native tilapia species restocking in Aquatic CCAs, facilitated through partnership among CI, Victory Farms, and KMFRI, has been successfully transferred. The project has turned discussions on Freshwater CCAs and Native Fish Species Restocking into tangible actions, documenting these efforts as a case study. This documentation has been shared through conferences, congresses, webinars, and other platforms, promoting wider adoption and application of these practices.

4.5 Capacity building

The project's lead, Leonard Akwany, was invited to participate in numerous events, both regionally and internationally, during the project's implementation period. His status and recognition for his knowledge and technical skillset are evidenced by the invitations he received to participate in the following:

- **Aquatic Restoration Experts Working Group:** Invited to join the working group by FAO

- **Aquatic Restoration and Global Biodiversity Framework:** Invited by FAO to present in a webinar
- **Inland Waters OECMs Experts Workshop:** Invited by FAO to participate and author the Africa Report on Inland Waters Area-Based Conservation
- **National Wetlands Working Group:** Invited to join for the preparation of Ramsar Convention/COP Report
- **Ramsar Centre for Eastern Africa (RAMCEA) Governing Council:** Invited to join the governing council

5 Monitoring and evaluation

The project's M&E Plan was a Participatory Monitoring, Evaluation, Reporting and Learning (PMERL) approach. This approach was developed at the project's outset and refined through interactions with partners and community members during the initial period of the project, ensuring a collaborative and inclusive process. Under the leadership of CI, the PMERL approach has guided joint monitoring of the indicators throughout the project's lifespan, facilitating effecting tracking of activities and outcomes. This continuous refinement and collaboration have been crucial in adapting to challenges and achieving the project's objectives

Community dialogues, gender assessments, and fish species biodiversity and limnological surveys were conducted to detail the baseline conditions of social, economic, biological and physical indicators providing the foundation for monitoring change over the project lifespan. The project's outcomes were designed to reflect and respond to the expected impacts generated by its outputs and activities. However, since the livelihood improvements were both direct and indirect across the target communities, the observed improvements were not wholly attributable to the project alone. At the same time, external forces (e.g. climate change-related water level fluctuations and floods) led to negative impacts on livelihoods that the project was unable to counteract.

Various data collection tools were used to capture results on interventions, including registration lists from all project activities, which were categorised in terms of gender, livelihoods, and role in the BMU or community. Community members were engaged in numerous ways, including through their production of citizen science for monitoring biodiversity indicators. Additionally, government officials from Kenya Fisheries Service, Homabay County Government Fisheries Office and Kenya and Marine Research Institute were successfully engaged, which has been important for the outcome's sustainability and scalability.

The logframe and workplan guided internal monitoring of project progress and ensured that activities were on track.

6 Lessons learnt

A significant lesson learned from this project is the critical role that **meaningful partnerships** play in a project's ability to create impact. These partnerships include formal project implementation partners, as well as invested participation from local networks and the public sector. The implementing partners of this project contributed **expertise in very specific areas**, such as gender empowerment, best practices in CCAs creation, local stakeholders' mobilization, media outreach, species and limnological science. Although this combination of partners might fall outside the norms of a standard consortium of partners, their **diverse and unique set of expertise** ensured comprehensive support across all project facets, as well as an integration of scientific, social, and local knowledge. These elements were pivotal in helping the project achieve its outcomes and objectives effectively. This is a valuable lesson for future projects, when making decisions about which partners are a best fit for a desired project outcome.

In addition, **engagement with local stakeholders**, such as BMUs, KeFS, the County Fisheries Office and KMFRI, was also instrumental in mobilizing and implementing activities, as this collaboration laid a robust foundation for local stakeholders' support, follow-up actions, replication

of successful practices, scaling up, and continuity of implementation. Through this project it also became evident that the **closely interlinked work with community common interest groups** was an effective tool for **conflict resolution** when there was potential for conflicts to arise (e.g. restoration of riparian zones with farmer groups), as well as for implementing specific interventions (e.g., designation and mapping of CCAs, consensus on designation of 30 metres riparian areas, sensitization on gender-awareness with BMU leadership, etc.). The project also emphasized community mobilization and consultation through **consultative community outreach**, baseline dialogues, and surveys. This approach resulted in strong support and interest from fisherfolk communities, leading to proactive participation and ownership of project activities. These efforts fostered broader goodwill and legitimacy among participants, thereby increasing the likelihood of successfully meeting the project's objectives.

7 Actions taken in response to Annual Report reviews

The comments received in previous year reviews of CI's Annual Reports were addressed and taken into full consideration during each year of implementation. In last year's report review, there were comments speaking to the project's need for more concrete data related to fish populations and household budgets. The data related to fish populations has been provided in this report, whereas the data related to household budget has been discussed at length in the previous sections of this report.

8 Sustainability and Legacy

The project's sustainability strategy focused on the active involvement of government agencies and local institutions, such as BMUs, KFS, County Government Fisheries Office, KMFRI, Local Administration, County BMU Network, BMU Council, and Victory Farms. These entities participated in planning and implementing activities, ensuring alignment with their mandates and fostering continuity of the project's goals. CI shared project milestones and success stories through platforms like the Sindo Bay CCAs Dialogues Forum, social media, and multi-stakeholder forums on fisheries and wetlands. This dissemination aimed to showcase achievements, promote replication and scaling of Aquatic CCAs, and encourage aquaculture farms to participate in aquatic conservation efforts.

Capacity building targeted BMUs and local institutions, equipping them with knowledge, skills, and resources like monitoring, control, and surveillance equipment. This effort has resulted in empowered BMUs and improved local stewardship. Key documents, such as the Aquatic CCAs white paper and best practices guidance, ensure a sustained legacy beyond the project period. Training sessions, CCA designation, mapping, and sustainable finance plan development involved fisherfolk communities and local stakeholders, building local capacity and fostering a sense of ownership. Site conservation plans and prioritized interventions provide a roadmap for joint action beyond the project, positioning communities for support from state and non-state development partners. The establishment of functional CCAs and restocking with 75,000 fingerlings have improved fish stocks and reintroduced native species, boosting fishery income and motivation to protect CCAs.

Additionally, training and empowering five women self-help groups ensure sustained female engagement in fisheries co-management, aquatic CCA protection, and income improvement. These efforts contribute to the project's goal of fostering long-term sustainability and resilience within the target communities.

9 Darwin Initiative identity

The project utilized the developed communication plan to publicise the project activities, milestones and Darwin Initiative. Initially, the launch of the project was announced via CI's quarterly freshwater newsletter (see link in Annex 5), which reaches an external audience. In addition, the project's webpage recognizes support received from UK Government through

Darwin Initiative facility. The project has also been promoted in a CI-Africa LinkedIn post which uses similar language as above. This post reached an audience of 1366 people. The project used UKAID and Darwin Initiative Logo in the CCA information board, which is strategically located in Roo Beach, as well as on printed materials such as T-shirts and football uniforms used by Roo and Ukula Youth Teams in Homabay County Football League.

Understanding Darwin Initiative as funder of our project has been communicated in the project’s workshops, BMU community assembly consultation forum, and outreaches such as national wetlands committee and Eastern Africa Ramsar Centre meetings. Equally in international conferences, congresses and webinars such as the Oslo Conference on Environmental Law, 9th World Fisheries Congress in Seattle, USA, FAO Workshop on Inland Waters and Area-Based Fisheries Conservation in Rome, Italy, FAO Webinar on Aquatic Restoration and Global Biodiversity Framework and Poster and Roundtable Presentation in Lower Zambezi Fisheries Co-Management Linking and Learning Workshop in Siavonga, Zambia (see Annex 5-Supplementary Material for copies of presentations, links to related posts and articles).

10 Risk Management

The project has not encountered any critical risks in the project lifespan and has therefore not needed to make any significant adaptations to the project design or enter any risk in the risk register template. The initial start of the project experienced the challenges of COVID-19 and last year of project implementation encountered floods, which resulted into pause and delays in project implementation. However, the staff and all partners adhered to COVID-19 safety protocols and rescheduled activities accordingly when inclement weather caused delays, resulting in overall successful implementation.

11 Safeguarding

In early 2023, CI rolled out a new institutional safeguard system (the CI Safeguard System, CISS), to expand upon the support available to staff and partners through providing policies, standards, procedures, and guidance to ensure projects are effective, efficient, and equitable. To promote human rights, the CISS works to reduce equity gaps, promote gender equality, and improve social and environmental sustainability.

Has your Safeguarding Policy been updated in the past 12 months?	Yes/No, the policy remains consistent with the previously provided policy
Have any concerns been investigated in the past 12 months	Yes/No, there have not been any safeguard concerns raised to-date
Does your project have a Safeguarding focal point? Yes, Elijah [REDACTED], [REDACTED]	Yes/No [If yes, please provide their name and email]
Has the focal point attended any formal training in the last 12 months?	Yes/No [If yes, please provide date and details of training]
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 100% [9] [CI Project staff (2); Pathfinder International project staff (2), Victory Farms Project staff (2), Fauna and Flora (3)] Planned: 0% [0]

Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses.

There has been no challenges or instances to report on Safeguarding during the reporting/project period.

Please describe any community sensitisation that has taken place over the lifetime of the project; include topics covered and number of participants.

Our consultative, training and sensitization forum over the project period has involved covering of topics related to gender equality and equity, elimination of sexual exploitation through sex-for-fish or jaboya culture, and child labour in fishing and human rights.

Have there been any concerns around Health, Safety and Security of your staff over the lifetime of the project? If yes, please outline how this was resolved.

There have been no concerns around health, safety and security of our staff over the lifetime of the project.

12 Finance and administration

12.1 Project expenditure

Project spend (indicative) since last Annual Report	2024/25 Grant (£)	2024/25 Total actual Darwin Initiative 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	18,377	11,897.30		

**Total costs for 2024-2025 should be considered draft as CI's financial books for the end of the fiscal year will be posted in mid-August. Final expenditures for the reporting period will be presented in the final financial report.*

Staff employed (Name and position)	Cost (£)
Leonardo Akwany, Freshwater Director	
Dane Kingler, Aquaculture Director	
TOTAL	7,769.52

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

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

12.2 Additional funds or in-kind contributions secured

Matched funding leveraged by the partners to deliver the project	Total (£)
2021-2022	
2022-2023	
2023-2024	
2024-2025	
TOTAL	69,622.24

**Total match funding for 2024-2025 should be considered as draft as the final amounts will be reported in the final financial report as scheduled.*

Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project	Total (£)
Lake Victoria Restore Funding from HP Foundation. This is for riparian areas restoration and associated watershed	
TOTAL	

12.3 Value for Money

The budget for this project was designed and spent to generate effective outcomes as efficiently as possible. The project value for money is evidenced by the following.

- Investment in building the capacity of BMUs and associated fisherfolk communities on fisheries co-management for establishment of functional model Aquatic CCAs for improved and sustained fishery stock, native fish species re-emergence and livelihoods.
- Investment in training, self-organization and economic empowerment of five women groups for improved household and group level income, reduction of sexual exploitation, enhanced voice in fisheries co-management decision-making and proactive participation in protection of Aquatic CCAs
- Investment in lean project staff and co-financing to deliver project interventions in co-efficient manner
- Investment in strong local multi-stakeholders' partnerships and platforms involving 14 BMUs, Victory Farms, Kenya Marine and Fisheries Research Institute, Kenya Fisheries Service, County Fisheries Office and Local Administration in restocking, resourcing, sustaining, replicating and scaling Aquatic CCAs in the Sindo bay Area.

13 Other comments on progress not covered elsewhere

The successful establishment of Aquatic CCAs in Roo fishing villages, which has led to improved fishery stock, the re-emergency of native fish species, and improved income from fisheries, has sparked significant among neighbouring 12 Beach Management Units under the BMUs Council and Network. These BMUs are now seeking support for the establishment of Aquatic CCAs in their respective areas of jurisdiction.

In addition, the revision of project design to include the restocking of Aquatic CCAs with native tilapia (*Oreochromis esculentus*) resulting in further improvements in fish stock and catch rates, has garnered additional support for establishing more Aquatic CCAs. These areas are seen as critical refugia for fish breeding and essential for restocking with native fish species.

Expanding the establishment of CCAs and integrating restocking schemes in these other BMUs would still require additional financial resources, to successfully replicate and scale-up.

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

[I agree for the Biodiversity Challenge Funds Secretariat to publish the content of this section.](#)

The project "**Pairing community conservation areas with sustainable aquaculture in Lake Victoria**" has achieved significant milestones in developing and demonstrating a new model for responsible aquaculture and inland fisheries, while conserving species and producing long-term benefits to people through community-based incentives. 1137 hectares of community conservation areas (CCAs) were established, strategically zoned into riparian, fish breeding, and fishing zones. The project fostered multi-stakeholder collaboration to build a conservation plan, including a successful monitoring and surveillance scheme, through partnerships with Beach Management Units (BMUs), farmers groups, Kenya Fisheries Service (KFS), County Fisheries Office, and Local Administration, ensuring a robust conservation plan and governance framework.

Through these efforts, the CCAs became refugia for native fish species, particularly the native tilapia (*Oreochromis esculentus*), leading to increased fish stocks and improved incomes for fisherfolk in targeted BMUs. The initiative also involved restocking 75,000 fingerlings of native tilapia, illustrating a successful model of collaboration between aquaculture farms and aquatic CCAs. Local farmers engaged in regenerative agriculture, resulting in restored riparian zones, thereby enhancing soil conservation and agricultural yields. In addition, a sustainable financing plan was put in place, incorporating blended financing options and community contributions, which will be instrumental in maintaining and expanding the CCAs' impact far beyond the life of this project.

The project also catalyzed **economic empowerment among women** through entrepreneurship training, savings and loan groups, and seed funding for income-generating activities. These women's groups now own fishing boats, thereby reducing their vulnerability to exploitation and enabling active participation in fisheries co-management.

Strong partnerships have been a pivotal part of the success of the project and have played a large role in mobilizing communities across the 14 Beach Management Units, reducing encroachment and increasing the opportunity to scale-up the CCA model. This collaborative approach has extended to developing best practices guidelines and a white paper on aquatic CCAs, enhancing their potential as Other Effective Area-Based Conservation Measures (OECMs) under global biodiversity frameworks.

The project's impact has been widely shared through national, regional, and international platforms, including an upcoming FAO publication on inland waters fisheries management in Africa. It serves as a beacon of success in integrating conservation with sustainable aquaculture, paving the way for replication and scaling in similar contexts worldwide.

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)

Image	Annex 5: Photo 1, 2, 3	Native Tilapia Restocking, Kenya, Photo credit: Leonard Akwany		Yes / No
Image	Annex 5: Photo 4, 5, 6	Riparian Area Restoration, Kenya, Photo credit: Leonard Akwany		Yes / No
Image	Annex 5: Photo 7, 8	Improved Mature Tilapia Fish Catch, Kenya, Photo credit: Leonard Akwany		Yes / No
Image	Annex 5: Photo 9	Women Empowerment, Kenya, Photo credit: Leonard Akwany		Yes / No
Image	Annex 5: Photo 10, 11	Learning CCA Information Board, Kenya, Photo credit: Leonard Akwany		Yes / No

