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)

Submission Deadline: 30th April 2023

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● Darwin Initiative Project Information

Project reference	29-022
Project title	Community-led fisheries management in the Mara Wetlands, Tanzania
Country/ies	Tanzania
Lead Partner	WWF-UK
Project partner(s)	WWF-Tanzania, IHE Delft, Tanzania Fisheries Research Institute (TAFIRI), Victoria Farming and Fishing Organization (VIFAFIO), Lake Victoria Basin Water Board (LVBWB), Mara Regional Administration and Local Government Authorities
Darwin Initiative grant value	£517,303
Start/end dates of project	01 June 2022 - 31 March 2025
Reporting period (e.g. Apr 2022 – Mar 2023) and number (e.g. Annual Report 1, 2, 3)	June 2022 - March 2023, Annual Report 1
Project Leader name	Katherine Elliott
Project website/blog/social media	N/A
Report author(s) and date	Katherine Elliott (WWF-UK), John Kimaro (WWF-Tanzania), Christian Chonya (WWF-Tanzania), Mae Tortajada-Suils (WWF-UK), John Simaika (IHE-Delft), Ken Irvine (IHE-Delft) 28/04/23

1. Project summary

The Mara Wetlands (see map annex 4), covering 387 km^2, are among the largest tracts of intact papyrus swamp in sub-Saharan Africa. Located in Tanzania where the Mara River flows into Lake Victoria, the Wetlands host globally important biodiversity and provide important ecosystem services including fisheries that underpin local food security. Approximately 110,000 people living in 27 villages rely on the Wetlands for their livelihoods and are vulnerable to deterioration in wetland conditions. Fish provide a major source of nutrition and income to households within the area.

However, overfishing and illegal fishing methods are causing declines in fish catches and average size of fish caught. An Integrated Management Plan (IMP) for the Mara Wetlands,

published by the Tanzanian government in 2018, called for action to address this. The inventory of flora and fauna that was undertaken to support the IMP revealed significant data gaps, especially on fish diversity, populations, behaviour and habitat use. These data gaps preclude design of effective management interventions to protect biodiversity while improving livelihoods. During initial community consultations with villages surrounding the Wetlands, the use of illegal fishing methods and declining fish stocks were highlighted as key challenges to address.

Responding to the IMP and building on recent initiatives, this project aims to establish a monitoring approach and produce baseline data for fish habitats and biodiversity that will serve as a foundation for future management. Using the baseline data, the project will support communities and local authorities to design fisheries co-management plans that will encourage sustainable fishing practices, enhance livelihoods resilience and reduce threats to fish stocks and diversity. It will explore the potential for new income streams, especially for women, through adding value to fish products. Lastly, it will facilitate enabling conditions for sustainability and scale-up of impacts once Darwin funding ends.

2.   Project stakeholders/ partners

WWF-UK has worked in close collaboration with all partners to develop and implement the first year of this project. The local project partnerships were proposed and developed by WWF-Tanzania, which has been responsible for in-country coordination and regular contact with TAFIRI, VIFAFIO, LVBWB and the Mara Regional Secretariat. WWF-Tanzania's Project Coordinator maintains regular contact with local partners and stakeholders through email, phone and in-person meetings. WWF-Tanzania supports these local partners with capacity building, training, mentoring, and resources for effective project implementation. This includes enhancing technical skills, organisational development, and community engagement to support local partners to achieve project and organisational goals.

The project has also been supported by an international partnership with IHE Delft, who have contributed technical assistance, staff expertise and the capacity of three Masters research students to achieve the project's objectives. IHE Delft's support aims to build the capacity of TAFIRI, VIFAFIO and local fishers on aspects of situational analysis, ecological surveys, community fisheries monitoring, natural resource governance, value chain enhancement and gender issues.

During the inception phase of the project (June - September 2022) we focused on collaboration, planning and contracting arrangements between partners. This included signing grant agreements, training project staff on financial and technical reporting, and environmental and social safeguards. We also established collaborative ways of working, including weekly virtual partnership calls, to discuss project progress, adaptive management, key work areas, review and management of risks, and other priorities. From September 2022 - March 2023, several in-person collaborative activities have also taken place involving all project partners, including:

External launch event: The project was formally launched on 19 September in Musoma, during an event with key stakeholders including project partners, Civil Society Organisations (CSOs), government and local community representatives (see annex 5 for photos). The event focused on introducing the project to stakeholders, receiving feedback from participants for adaptive management and securing local buy-in. Participants included members of Community groups - Water User Associations (WUAs), Beach Management Units (BMUs) - the Ward Executive Officer (WEO), Village Executive Officers (VEOs) and Village chairpersons, as well as representatives from women's groups involved in wetland activities. In total, 48 (36 male, 12 female) participants attended the launch event.

Inception workshop: 20 participants (14 male, 6 female) representing all project partners participated in an inception workshop in Musoma from 20-21 September 2023 (see annex 6). This provided a valuable opportunity for partners to collaborate in person. The workshop included discussions on partnership principles, roles and responsibilities, learnings from other projects, ways of working and WWF's Environmental and Social Safeguard Framework (ESSF).

Sessions also included a review of the logframe, activities, budget and timeline, as well as development of a monitoring and evaluation framework, communications strategy and updated risk register.

Ecological fieldwork: There was strong collaboration between all project partners during the ecological fieldwork in December 2022, when two IHE staff and three IHE Masters students travelled to Tanzania to collaborate with TAFIRI, WWF-Tanzania and VIFAFIO on the fisheries assessments, habitat assessment and socio-economic assessments. This collaboration continued through virtual collaboration and sharing of results with the wider project team during a zoom research-sharing webinar.

Progress meeting: WWF-Tanzania and TAFIRI convened an in-person partner meeting from 20-21 February, 2023, at the TAFIRI offices in Mwanza. The event was attended by 30 participants representing project partners, including WWF Tanzania (3), LVBWB (2), TAFIRI (22), VIFAFIO (1), IHE (1), and Mara Regional Secretariat (1) who represented Fishery officers from Local Government Authorities (see annex 7). The meeting served as a crucial platform for partners to exchange updates on the progress of the project's activities and engage in discussions on challenges and opportunities encountered during implementation. There was also an opportunity for partners to share synergies between existing projects to ensure efficiency and maximise results.

Engagement with the UK High Commission in Tanzania: In September 2022, WWF-Tanzania's Freshwater Lead and WWF-UK's Project Lead visited the UK High Commission in Tanzania to meet with Abdalla Shah (Climate Change and Environment Advisor) to discuss the project and WWF's work across Tanzania.

3.   Project progress

3.1   Progress in carrying out project Activities

During the inception phase of the project, the following activities took place:

Activity 0.1 Stakeholder and community consultations: In October 2022, a series of project stakeholder consultations took place (in collaboration with a USAID-funded Mara River Catchment project) with community members in the project area, village executive officers, village chairpersons, Community Based Organisations (WUAs, BMUs), District Executive Directors' staff, District Commissions' staff, and all implementing partners (TAFIRI, VIFAFIO, LVBWB and Mara Regional Office staff).

A follow up consultation with local communities was undertaken between 27-31 March 2023, through a series of meetings with 294 members of Village Assembly from 14 villages surrounding the Mara Wetlands as part of the project's community engagement efforts. The purpose of the meetings was to consult the relevant Village Assemblies on the project, seek feedback and provide further details on WWF's Environmental and Social Safeguarding policies and Grievance Mechanisms (GM). The meetings were held in each village for one day, providing an opportunity for Village Assembly members to gain a comprehensive understanding of the project and its objectives, including sustainable use of the wetlands. Community engagement is a continuous activity that will be done throughout the project - the 14 villages selected for this initial phase were strategically selected as those connected to existing WUAs, the remaining villages will be further consulted during Year 2.

Activity 0.2 Inception meetings: The project was formally launched with key external stakeholders on 19 September in Musoma and was followed by an internal inception workshop with project partners from 20-21 September. (See section 2 for further details).

0.3 Grievance mechanisms established. During the Village Assembly meetings (detailed under activity 0.1) the Village Assembly members were given the opportunity to elect two ombudspersons (one male and one female), to act as contact persons in their respective villages, providing a reliable channel for the community to voice their concerns. These ombudspersons are responsible for receiving and addressing any grievances from the community related to the project and reporting them to the WWF safeguard focal point for appropriate action. Furthermore, the project will install the suggestion boxes at public areas, to allow communities to submit their grievances anonymously (see annex 8).

The following activities took place to support the achievement of output 1.

1.1 Undertake a fisheries situation assessment adapting methods used in the Kafue Flats, Zambia, including:
1.1.1 Review existing data on the fishery; boat and gear type; fishing methods; preferences in size/life-stage of species caught; preferences and constraints to fish trading. During June - September 2022, all project partners sought information on existing data on the Mara wetlands fishery, however published data was very limited. The Mara Wetlands Integrated Management Plan produced in 2018 has been a major reference source, with few additional references since then. Existing GIS shapefiles, including information from drone surveys, have been compiled and shared among partners.

1.1.2 Fish market surveys: number of fishers by gender/age/location/tenure; governance dynamics and regulation of fishing; reliance on fish for food and livelihoods.
This research study was undertaken by an IHE Masters student in collaboration with WWF-Tanzania and VIFAFIO. The research examined fish markets and value chains across five districts (Musoma, Butiama, Rorya, Serengeti, and Tarime) surrounding the Mara wetlands. Semi-structured questionnaire-based interviews were organised face to face with fisherfolks at the landing sites and fish markets between December 5 and January 13, 2023. Six villages (Kinesi, Nyabange, Wegero, Buswahili, Iseresere, and Wegita) in three clusters covering the upper, middle and lower segments of the wetlands were selected and targeted for carrying out the survey based on: 1) availability and willingness of fisherfolks to voluntarily participate in the study, 2) dominance of fishing as a source of livelihood, and 3) presence and accessibility of fish landing sites. Four main physical fish markets across the area were also visited to observe composition of fish species and market dynamics of fish traders. A total of 80 respondents, including fishermen and traders, were interviewed. Full survey results are available in annex 9 and the information will be used to guide livelihoods strategies during the project.

1.1.3 Socio-economic surveys assessing poverty reduction including economic (income and market improvement), social (equity, legitimacy and governance participation) and poverty and biodiversity perceptions.
The socio-economic baseline survey was led by TAFIRI (comprising a team leader and six data enumerators) from 7-23 December 2023. The survey covered 18 villages across four administrative districts (Butiama, Rorya, Tarime and Musoma) surrounding the Mara wetlands. Simple random sampling techniques were used to select the households, with 496 interviews undertaken. The survey questionnaire included questions on demographic characteristics, fishing activities and livelihoods, access to and use of natural resources, institutional capacity for fishery governance, social and economic well-being.

The socio-economic data (see annex 10 for further details) revealed that Mara wetlands provide critical social and economic support to the local population through agriculture (52%), fishing (28%) and livestock rearing (10%). Fishing dominated as a major source of income for over 70% of households in Baruti, Kinesi, Kyamwami, Machinjioni and Nyabange villages. Of the 28% of households engaged in fishing activities, the majority (86%) are involved as fishers, followed by fish vendors/mongers (8%), fish processors (4%) while boat makers and suppliers of fishing equipment comprised one percent each. Results indicate that more women (23%) are involved in post-harvest activities compared to 1% of men.

The peak fishing season (December to April) could be attributed to long rains that favours reproduction, recruitment and migration of fish in the inland reservoirs. Despite the wetlands fishery being critical for livelihoods, 92% reported a declining trend in fish catches over the past three years. People believed this was due to climate change (43%), overfishing (20%), unsustainable fishing practices (20%), poor management (12%), and chemical pollution (3%). The survey indicated varying understanding of fisheries regulations, for example 68% of respondents are aware that the use of poison, mosquito nets, beach seines and gillnets of less than 3 inches are prohibited.

The majority (79%) of respondents were not actively engaged in fisheries associations. Only (13%) reported active engagement and 8% were occasionally involved. This low level of

engagement though can be attributed to lack of effective fisheries associations within the wetlands and absence of gazetted landing sites where those engaged in fishing can assemble to discuss issues affecting them. Further analysis shows that 82% of those engaged in fisheries are not fully engaged in natural resource management through either meetings, participating in activities or representation on groups.

Despite the lack of participation in resource management, there seems to be good working relations between stakeholders with respondents reporting low levels of conflicts amongst the various stakeholders found within the wetlands. There were varying responses on basic governance issues such as participation, gender equality, legitimacy and voice, information sharing and opinions on natural resources.

1.1.4 Seasonal ecological surveys to assess diversity, distribution and abundance of species, and to identify indicator species.
In February 2023, WWF-Tanzania and TAFIRI collaborated with Flying Labs (a local Tanzanian organisation) to survey the Mara wetlands using unmanned aerial vehicles (drones) equipped with two sensors to obtain photogrammetry data regarding the status of the wetlands i.e., vegetation cover, habitat assessment, wetland health assessment, degradation status and fisheries assessment. This was to fill the gap on data availability within Wetlands which poses difficulty in targeting effective conservation interventions. The design and analysis of the drone survey results is supported by IHE-Delft. An internal activity report is available as annex 11, although the analysis of the data is still underway with full results expected in May 2023 - we will share the report separately once complete.

1.1.5 Habitat mapping of fishing "hotspots", reproduction sites, niche habitats for refugee and threatened species.
During September - December 2023, TAFIRI, IHE Delft and WWF collaborated on planning for the initial baseline ecological assessment of the Mara wetlands. This included weekly virtual planning calls and a short scoping trip by TAFIRI and WWF-Tanzania staff in October 2022 to identify suitable sampling sites. Planning for the surveys included production of methodology, equipment and logistical needs, and how best to align fish and habitat surveys with an assessment of local fisherfolk catch.

The ecological survey was conducted from 6-20 December 2022 at nine sites across the Mara wetlands, representing the Lower, Middle and Upper Catchment (see annex 12 for photos). The research involved 18 TAFIRI staff (9 scientists, 3 technicians, 4 lab scientists, 1 Director and 1 driver) and two IHE staff. Two Masters students of IHE participated in the surveys, enabling a greater collection and processing of data which enhanced the scope of the work. The students have produced two MSc thesis as part of their course. One of these was an investigation that supported the distribution of fish and their use of the wetland (De La Cruz Alvarez, 2023) (see below and annex 13). Initial research findings of this work were shared across all project partners during a zoom call in January 2023.

Summary points of main findings from the fish ecological survey by De La Cruz Alvarez (2023) are:
● This study sampled 9 sites across the Mara Wetland to determine fish abundance and diversity following the dry season in stream, wetland, and backwater ecosystems for a period of two weeks using monofilament gillnets.
● There is evidence that the Mara Wetland acts as a refuge for Lake Victoria fish species, and that haplochromine cichlids breed in the wetland.
● A total of 21 species were collected belonging to 17 genera and 8 families during the survey, but previous work suggests that at least 40 species occur there. The survey work showed that there was a clear divide between fish communities of wetland (predominantly cichlids, lungfish, and catfishes) and stream (predominantly mormyrids, mochokids and cyprinids) habitats.
● Diversity in the Mara Wetland was highest in stream ecotones, though low when compared with observations in the Mara River.
● The riparian vegetation was the most diverse refugium, with small fish species not observed in sites cleared of papyrus and aquatic macrophytes.

- Alien tilapiine species were prevalent throughout the sampled sites, indicating possible displacement of endemic species and/or hybridization of *O. niloticus* and *O. leucostictus.*

The wider ecological survey done by TAFIRI to provide a situational assessment of fish and fisheries of the Mara Wetland (see annex 10), provided:

- An update on the biodiversity and fish abundance of the fishes of the Mara wetland.
- Biological information of fish species e.g. fecundity and diet composition;
  Total number of fishing effort units in terms of fishers, fishing crafts and fishing gears;
- Information on water chemistry; and
- Information on relative abundance and species distribution of phytoplankton and macro benthos.

The fish collected by the setting of the nets by TAFIRI team (so-called fishery-independent data) across the wetland sampling sites showed a fish biomass dominated by *Mormyrus kanume,* followed by *Protopterus aethiopicus, Clarias gariepinus, Marcusenius victoriae, and Synodontis victoriae*; while catches from the fisheries dependent (catch by local fisherfolk) sampling were dominated by O*reochromis niloticus, P. aethiopicus, C. gariepinus and Lates niloticus. Clarias gariepinus, haplochromine group, M. victoriae and P. aethiopicus* dominated in the lower stratum of the Mara River wetland; while *M. victoriae, O. leucostictus and B. profundus* were the most dominant in the mid stratum, and *M. kannume* in the upper stratum. The species composition of the lower or lower part of the wetlands was higher (16 fish species) compared with the mid (5 fish species) and upper (6 fish species) parts of the wetlands.

There was a general trend found of decreasing relative biomass, relative abundance and species richness from lower to upper wetland areas. The relative abundance CPUE in a target of four hours fishing duration, and species richness varied between the lower-wetland and other two areas further up the wetland, while there was a slight difference between the mid-wetland and the upper-wetland. The relative biomass decreased from 9254 ±190 g/net in the lower wetland to 257 ± 12.44g/net in the middle part of the wetland, then increased in the upper part of the wetland to 1905 ± 220 g/net. Moreover, the relative abundance decreased from 133 ± 2.4 fish/net in the lower-wetland to 28 ± 2.6 fish/net in the mid-wetland, and slightly increased to 39 ±2.8 fish/net in upper-wetland.

1.3 Co-design a method for future management and monitoring of regulations with local authorities*:*

WWF-Tanzania worked closely with Lake Victoria Basin Water Board (LVBWB) during a series of workshops totalling 16 days, to strengthen the North and South Mara Water User Associations (WUAs) through constitution review, a leadership election, and workshops to develop two Sub-catchment Management Plans for safeguarding water resources and fisheries along Mara Wetlands (see annexes 14 and 15). WUAs are grassroots organisations for water resources management within a defined sub-catchment - their main function is to support conservation activities, assist with conflict management over water uses and facilitate water allocation through a permitting system. During Year 2-3 of the project, WWF Tanzania in collaboration with LVBWB will further facilitate WUAs to establish a community-led River Health Assessment for the wetlands monitoring; that enables local people to track changes in water quality, habitat, illegal activities and instigate practical solutions to pollution and unsustainable practices around the wetlands.

3.1 Value chain analysis to identify opportunities for diversifying/increasing incomes.

During February - March 2023, WWF Tanzania supported VIFAFIO to conduct a value chain analysis to identify key opportunities for diversifying and increasing community income. VIFAFIO engaged representatives from the Small Industries Development Organization (SIDO) to develop and test a questionnaire, which was used to map the main value-chain actors on the fish value chain and assess profit distribution among actors. VIFAFIO conducted meetings with BMU and Village Leaders and provided training to 6 community enumerators to support the survey. The survey data has been analysed using SPSS software and the report is being finalised (this will be submitted separately once complete).

The value chain analysis identified opportunities within the fish value chain that are suitable for women, including cold chain management, fish processing facilities, and value addition. These opportunities could potentially provide women fishmongers with increased access to markets, improved processing and preservation techniques, and added value to their fish products. This is expected to contribute to enhanced livelihoods, increased income, and improved economic empowerment for women in these communities.

3.2 Capacity building for 730 women and 10 PWD fishmongers and entrepreneurs on value chain enhancement and financial management through training of trainers.

VIFAFIO in collaboration with Local Government Authority (LGAs) (8 Village Executive Officers, 8 Village Chairpersons, 4 Fisheries officers), and communities (4 WUA members and 6 community-based enumerators) developed a training guide manual, with nine modules on best practices on fish handling and fish preparation (see annex 16). This training module is in a draft format and will be finalised during year 2. During March 2023, the training manual was used to train 30 out of 50 women fisher mongers/entrepreneurs on fish value chain products, to build their capacity on aspects of the fish value chain. Topics covered included fish preservation techniques, fish processing, fish transport, good hygiene practice, sanitation and health, The training also covered topics on value chain addition including marketing and developing opportunities for fish by-products such as fish oil. The activity identified a total of 140 fishmongers/entrepreneurs (128 women, 12 male) to be targeted during year 2 of the project. During scoping discussions VIFAFIO identified six actors along the value chain (fishermen, middleman /traders, processors, transporters and consumers) who are firmly involved in fish production, value addition, distribution and marketing. The project will seek to work with these different stakeholder groups during year 2 and 3 of the project.

Scoping work identified that while there were several women's groups registered in the villages, they were primarily engaged in activities such as poultry, farming, animal husbandry and small businesses. As a result, VIFAFIO and WWF-Tanzania supported the establishment of seven Women's Groups (Wanawake wachuuzi) focused on fisheries, with the aim to form a further 33 Women's Groups during year 2 of the project (each group has been 5-10 members). Of these 50 groups, 20 will be selected to collaborate with for the establishment of VICOBAs.

4.1 Update local and district plans to incorporate lessons from the project.

WWF Tanzania, in collaboration with Mara Regional and Local Government Authorities (RALGA), supported six districts to develop or review the District Environmental Action Plans (DEAPs). This project's target was to support the review of three DEAPs, however additional funding from the Mara River Catchment Conservation Project (MRCCP) funded by USAID through WWF-Tanzania allowed expansion of this activity to districts surrounding the wetlands. The workshops involved Mara RALGA environmental leaders, district environmental officers, key government agencies (LVBWB, RUWASA, TFS) and partner staff. The DEAPs are currently under respective District Council approval. WWF-Tanzania will follow the implementation of the DEAPs (particularly those surrounding the wetlands) to ensure they are updated based on the lessons and best practices generated from the project.

Furthermore, WWF Tanzania in collaboration with LVBWB, developed two Sub-Catchment Management Plans (SCMPs) (see annexes 14 and 15). Different meetings and workshops were organised to develop Mara North and Mara South Water User Associations (WUAs) draft SCMP through participatory meetings. SCMPs have incorporated wetlands conservation and fisheries activities for sustainable management of the wetlands and beyond.

4.3 Exchange insights with WWF's Freshwater Practice, Ramsar/CBD secretariats, InFish global professional network, Darwin Initiative secretariat

In March 2023 WWF-Tanzania, in collaboration with WWF's Blue Heart of Africa Initiative, organised an information sharing webinar with WWF-Zambia and project partners (TAFIRI, VIFAFIO and IHE Delft). During the webinar, the WWF-Zambia team presented their experiences on community led fisheries monitoring for upper Zambezi, Kafue Flats and Luangwa catchment. The knowledge and insights gained from WWF-Zambia will inform the

design of community led fishery monitoring through this project, and further learning exchanges are planned.

3.2   Progress towards project Outputs

Output 1. Fisheries co-management: *By 2025, adoption of one community-led fisheries co-management plan, based on initial fisheries situation assessment for the Mara Wetlands, and incorporating i) measures to protect habitat and breeding sites for fish stocks and refugee/threatened species, and ii) measures for ongoing monitoring and adaptive management of fish catch, indicator and threatened species and wider wetland health.*

At the project start, there was limited information on the Mara wetlands fisheries for baseline data, with information mainly taken from the Mara Wetlands Integrated Management Plan produced in 2018. By the end of year 1, we have completed baseline ecological surveys across 9 sites in the Mara wetland, to assess fisheries, habitat and biodiversity status and provide baselines for community fisheries management. The results of these surveys are summarised in section 3.1.

At this stage, as we have only completed the first baseline ecological study, it is too early to determine measures to protect habitat and breeding sites for fish stocks and refuge/threatened species. During year two and three of the project we will co-develop community monitoring systems, with plans to collect regular biodiversity and habitat distribution data through citizen scientists at specific sites across the wetland, building on insights from other projects such as WWF-Zambia's Kafue flats community fisheries management project. Results from the surveys will be shared with communities and relevant stakeholders for the development of community-led fisheries co-management plans.

Output 2. Fishing practices: *By 2025, increased fisherfolk capacity on sustainable fishing and monitoring practices, leading to reduced overfishing and declining pressure on refugee and threatened fish species.*

During year 1 information was gathered through socio-economic surveys to assess community perceptions and involvement with unsustainable fishing practices. This baseline information is evidenced in the socio-economic survey (see annex 10, table 24) in which community members from 495 households reported to have observed 335 instances of mosquito net use, 251 instances of unlicensed boats, 223 instances of water splashing and 80 instances of poisoning over the past year.

The capacity of fisherfolk to participate in sustainable fishing practices is assessed by participation in fisheries and natural resource management structures as per the socio-economic baseline survey. Results (outlined in section 3.1) indicate that the majority (79%) of respondents were not actively engaged in fisheries associations. Only 13% reported active engagement and 8% were occasionally involved.

During year 1 of the project, we assessed that there are two Beach Management Units (BMUs) involved in promoting and enforcing sustainable fishing practices in the wetland, which are located nearest to Lake Victoria. These BMUs are located in Nyarusurya (Musoma District) and Nyabange (Butiama District). There are no formal Community Management Units (CMUs) operating in the middle and upper wetlands. During year 2 and 3 of the project, we intend to support the development of four CMUs in the wetlands, with CMU records on fish landings and compliance with fisheries regulations used to evidence adherence with sustainable fishing.

Output 3. Value chain enhancement: *By 2025, enhanced fisheries value chains provide more resilient (i.e. diversified and/or increased incomes) livelihoods, especially for women.*

By the end of year 1, 140 fishmongers (128 women and 12 male) across 6 villages were identified as priority individuals to receive training on fisheries value chains and strategies to reduce post-harvest losses. During year 1, 30 fishmongers received training in the fisheries

value chain as trainers of trainers. The training guide manual had been developed in a participatory way between WUAs, village chairpersons, and fisheries officers based on the situational analysis of the fisheries value chain.

VIFAFIO and WWF-Tanzania supported the establishment of seven Women's Groups (Wanawake wachuuzi) focused on fisheries, with the aim to form a further 33 Women's Groups during year 2 of the project (each group has between 5-10 members). Of these 40 groups, 20 will be selected to collaborate with for the establishment of VICOBAs.

Output 4. Enabling conditions for scaling-up: *By 2025, enabling conditions (plans, finances, lesson-sharing) are in place to facilitate sustained impacts from the project, and to facilitate scaling-up of fisheries co-management for the benefit of livelihoods and biodiversity across the entire Mara Wetlands.*

At the start of the project there were no Sub-Catchment Management Plans (SCMPs) present in two WUAs (North and South WUAs) within the wetland. Those two existing WUAs had expired constitution and their leadership were out of their period of stay in leadership hence they were not active on fisheries activities.

By the end of year 1, two Sub-Catchment Management Plans (SCMPs) have been developed as an initial draft in Mara North and Mara South Water User Associations (WUAs) through participatory meetings with the elected committees. The SCMP is a valuable tool for water management, integrating strategies for wetland/habitat protection, water quality/quantity, and promoting sustainable livelihoods over unsustainable agricultural practices. Six District Environmental Action Plans (DEAP) have been reviewed and/or developed to incorporate project activities (including best practices and lessons) for sustainable wetlands management and wise use of its resources. By the end of year 1, one initial learning exchange was organised with project partners and WWF-Zambia.

3.3   Progress towards the project Outcome

Outcome: By 2025, community-led sustainable fisheries and improved value chains have increased resilience of livelihoods and have started to reduce threats to freshwater biodiversity in the Mara Wetlands.

During year 1 of the project, we have made good progress on establishing relevant ecological and socio-economic baselines to monitor the project's outcome. We are still on track to achieve the project's outcome and have provided specific updates on the outcome indicators below:

Outcome Indicators
0.0 By 2025, habitat distribution and biodiversity abundance and distribution of native (including identified threatened species) and non-native (including Nile perch and hyacinth) species are known and maintained.
Baseline: Fisheries and ecological baselines were set during the ecological surveys undertaken during Dec 22 - Feb 23. Relevant biodiversity indicators include:
- 17 fish species were identified at 9 sampling sites in the Mara Wetlands covering 330.42sq km, primarily in the lower catchment. (Several fish on the IUCN Red List were identified in the wetland, such as the critically endangered *Labeo victorianus* and the vulnerable *Haplochromis nubilu*)
- 132 species of macrobenthos were located in 8 sites, 3 sites were depleted due to low water quality.
- Catchment per unit effort (CPUE) provided a relative biomass of 9.2kg/net (lower catchment), 0.25kg/net (middle catchment), 1.9 kg/net (upper catchment).

0.1. By 2025, at least 190 km^2 (~50%) of the Mara Wetlands is under improved fisheries co-management, with measures in place to protect identified fish habitats and breeding sites; benefiting Lake Victoria refugee species and threatened species (e.g., haplochromine cichlids,

endangered native tilapias); and a monitoring regime is established based on indicators of fish stocks, threatened species distributions and populations, and wider wetland health.

Baseline: Wetland area is 387 km^2 with no formal fisheries management or monitoring.

Year 1 progress: No improved management yet, although the ecological surveys have provided initial data on wetland sites which may act as a breeding sites and refuge sites for threatened species, however more data is required to confirm this.

0.2. At least 510 fisherfolk have ceased the use of destructive fishing methods such as undersized nets. (Yr 2: 300; Yr 3: 210).

Baseline: ~ 20 to 30 fisher folks per village (total 27 villages in Mara Wetlands) currently fish using destructive gear.

Year 1 progress: The baseline results were updated (through the socio-economic survey) to show that 49% of fishers in the survey areas use undersized mesh nets. Current regulation stipulates mesh size to be over 3 inches. Further evidence of community perceptions of participation in illegal activities is available in the TAFIRI socio-economic report (annex 10, table 24).

0.3. By 2025, at least ~750 (60% of direct beneficiaries) around the Wetland including vulnerable poor people (510 men, 730 women and 10 persons with disability) report more resilient livelihoods through sustainable fish stocks, increased /diversification of income and/or value chain enhancement and improved governance.

Baseline: 0 people currently benefiting.

Year 1 progress: No results yet by the end of year 1.

0.4. Based on improved knowledge and lessons from this project, by 2025, 16 plans or guidelines have been agreed by local government and communities that will help to sustain impacts of the project in terms of fisheries co-management, livelihood resilience, and biodiversity in the Wetlands.

Baseline: 1 plan - the Mara Wetlands Integrated Management Plan which needs to be updated and guidelines agreed.

Year 1 progress: 6 District Environmental Management Plans (DEAP) developed, and within these, the fisheries components of 2 sub-catchment management plans (SCMP) drafted for 2 WUAs.

3.4   Monitoring of assumptions

Outcome assumptions

Assumption 1: With appropriate preventive measures against Covid-19 (e.g. social distancing, outdoor meetings, provision of Personal Protective Equipment) and by working closely with appropriate health experts at a local level in providing education and awareness to communities and project staff and stakeholders, the risks to health will be mitigated and communities will feel comfortable working with project staff.

Comments: Tanzania currently has a low covid risk. Activities have been able to continue as planned without covid restrictions.

Assumption 2: Through participatory consultations and co-creation processes, community members around the Mara Wetlands perceive potential for more resilient and equitable benefits from fisheries co-management of the Mara Wetlands, and have increased understanding on the value of sustainable fisheries for the resilience of their livelihoods.

Comments: This assumption holds true; the project has had a strong focus on participatory consultations during year 1.

Assumption 3: Capacity building on citizen science and provision of equipment will increase participation of Beach Management Units, Water Users Associations and collaboration with Local Government Authorities and the Mara catchment committee will result in improved fisheries co-management.

Comments: This assumption holds true, and will be closely monitored through the development, implementation and monitoring of the citizen science ecological monitoring component of the project during year 2.

Assumption 4: Fisheries situation assessments and other lessons learnt from this and other relevant projects will enable communities and local authorities to reach agreement on fisheries co-management plans.
Comments: This assumption holds true; however it will be closely monitored during year 2 of the project when the fisheries situation assessment results will be shared with local communities and other stakeholders.

Output 1 Assumptions

Assumption 5: Alternative remote systems of engagement to gather data will allow the timely completion of situation assessment in case of Covid or extreme events such as floods.
Comments: We have not needed to implement remote systems of engagement, as all activities have been able to take place in person as planned.

Assumption 6: Offline data collection on smartphones will allow effective information sharing in case of failure of telephone network coverage or power cuts.
Comments: This assumption holds true; we will be closely monitoring this during year 2 of the project when the E-CAS citizen science monitoring is developed using smartphones.

Output 2 Assumptions
Assumption 7: Beach Management Units have the capacity to enforce improved fishing practices, and fisherfolk perceive shared benefits and are willing to adopt new practices collectively.
Comments: We update this assumption to also include Community Management Units (CMUs) as a structure to enforce improved fishing practices. During our year 1 assessment, we determined that there are only two BMUs operating in the wetlands area. BMUs are formal structures in Tanzania that oversee management of lakes and oceans. However, rivers and wetlands do not have a formal structure to oversee fisheries management. So, the project proposes to support the establishment of four CMUs across the Mara wetlands and provide them with capacity to enforce improved fishing practices.

Assumption 8: Supplementary income from engagement in improved fisheries, participation in the design of restrictions, and provision of equipment such as replacement fishing gear, phones and internet access for BMU members as citizen scientist for biodiversity monitoring, will be enough to compensate for any initial losses from the application of legal practices.
Comments: This assumption holds true but will be closely monitored during year 2 and 3 of the project.

Output 3 Assumptions
Assumption 9: The 50 women trained as trainers are selected communally with the condition to train others and that will give them enough motivation to train the rest of the women engaged in fisheries in each group.
Comments: This assumption holds true, the 50 TOT will be closely supported and monitored by their respective Village Executive Officers and VIFAFIO. Initial consultations with communities have shown enthusiasm for the formation of these groups, and the government has also extended support towards group formation, ensuring smooth facilitation of the process.

Assumption 10: Women's groups are motivated to take up the opportunities and have support from the community to do so.
Comments: This assumption holds true. So far, seven women's groups have been identified to work with during year 2 of the project.

Assumption 11: Effective enforcement and BMU cooperation ensures demand for undersized/illegal sized nets reduces.
Comments: This assumption holds true, as we intend to work in close collaboration with BMUs during year 2 of the project. Our focus will be on building the capacity of BMUs in Monitoring, Control, and Surveillance (MCS), as well as facilitating the establishment of bylaws. These efforts are intended to effectively curb illegal fishing practices and ultimately promote sustainable fishing practices in the wetlands area.

Output 4 Assumptions
Assumption 12: Regional and Local Government Authorities are willing and capable to develop the Environmental Management Plans, including increase of budget allocation.
Comments: This assumption holds true. During Year 1; six environmental management plans known as "*District Environmental Action Plans (DEAP)" were* developed. However, the consensus for increased budget allocation is not yet reached - we are planning to address this in year 2 and 3 of the project.

Assumption 13: Equitable participation in resource governance, decision-making and benefit sharing is accepted/ implemented as co-developed by the same communities.
Comments: This assumption holds true.

Assumption 14: Village governments are supportive and include the initiative in the Village Development Plan for scaling up.
Comments: This assumption holds true.

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

The project's intended impact is: Protected fish habitats, sustainable fishing methods and improved value chains enhance the resilience of local livelihoods, sustain freshwater biodiversity and help to secure the ecological integrity of the Mara Wetlands.

Impact will be measured at the end of the project, as a comparison to the baselines on biodiversity and social aspects determined during year 1.

4.   Project support to the Conventions, Treaties or Agreements

We plan to engage the national Ramsar focal point in year 2-3 of the project offering lessons that can support a decision about potential designation of the Mara Wetland as a Ramsar site. During year 1, we have prioritised hearing views from local communities, including from some people who are sceptical about, or even opposed to, designation. Our recommendations to the government will be closely informed by continuing engagement with these communities.

There is strong alignment between the project objectives and several of the targets set out in the Kunming-Montreal Global Biodiversity Framework agreed by parties to the CBD in December 2022. In particular, Targets 9 (on sustainable harvests and benefits to people) and 10 (on sustainable fisheries) resonate with the project Outcome. At the national scale, the Tanzanian government has yet to revise its NBSAP for setting out priorities for implementation of the Kunming-Montreal framework. WWF-Tanzania is planning to support the Tanzanian government to revise its NBSAP.

5.   Project support to poverty reduction

The project intends to contribute towards poverty reduction for local communities surrounding the Mara Wetlands in the following ways:

Fishing communities: The project aims to improve the personal food security and income of community members who rely on fishing for their livelihoods. During year 2 TAFIRI will promote sustainable fishing practices, VIFAFIO will provide training on fish handling and processing, as well as facilitating access to markets through the establishment of cooperatives. These efforts are expected to contribute to enhanced livelihoods for the fishers by improving their fishing

productivity, profitability, and market access, ultimately leading to increased household income, better nutrition, and improved economic well-being for the fishing communities.

Local institutions: Community-led fisheries initiatives often involve engaging local communities in decision-making processes related to resource management, such as establishing community-based management plans (i.e., SCMP, BMUs/CMU-Management plans), setting fishery by-laws in respective BMUs/CMUs, and monitoring compliance. By empowering local communities to actively participate in the management of their fisheries resources, the project aims to contribute to improved community governance, increased ownership, and better stewardship of the wetland resources. This will lead to more sustainable and equitable use of the resources, reduced conflicts and improved long-term livelihoods resilience.

We have highlighted the year 1 progress compared to the original proposal submission changes expected below:

Change expected: 1,250 people (730 women, 510 men and 10 people with disabilities (PWD)) in 27 villages will have enhanced capacity to co-manage the fisheries on which they depend.
Year 1 progress: 64 stakeholders, (including 22 women) developed their capacity on community natural resource management through workshops and engagement in processes to strengthen the North Mara WUA through constitution review, election of leadership, and the development of Sub Catchment Management Plans (SCMP).

Change expected: 730 women and 10 PWD from vulnerable/poor households will have improved capability to use post-harvest technologies to reduce fish spoilage and to develop market strategies to enhance income from fish value chains.
Year 1 progress: 30 women trained as TOT on fisheries value chains and fish handling techniques.

Change expected: At least 60% of direct beneficiaries (equalling 750 people) including vulnerable poor people (men, women, persons with disability) will have increased livelihood resilience.
Year 1 progress: Impact not measurable yet.

Change expected: 50 local women's groups will be better represented in local governance structures (BMUs, WUAs, village committees) and have greater voice in the management of the Mara Wetlands.
Year 1 progress: Progress has been made on gender representation in Water User Associations - the South Mara has 66% women on the interim leadership group, and the North Mara has 50% women on its leadership group.

Change expected: 20 women's groups will report improved financial skills and access to microfinance through VICOBA for their members.
Year 1 progress: Seven Women's Groups focused on fisheries have been established through VIFAFIO. Scoping work on VICOBA's has identified strong potential in the lower wetland where there is regular fishing. This activity will take place during year 2 and Year 3.

6.   Gender equality and social inclusion

During the launch event, the project team proactively reached out to Women's Groups to ensure they had an opportunity to participate in collaborative discussions to share views and feedback on the project. During the launch event, we created women only breakout groups facilitated by TAFIRI female staff, to support women to share their voices and opinions on the project.

During the Village Assembly meetings (detailed under activity 0.1) the Village Assembly members were given the opportunity to elect two ombudspersons, which needed to include both one male and one female. By ensuring that there was a gender balance of

ombudspersons, this ensures that women have a female representative to contact in case of any concerns.

Women are actively encouraged to participate in all aspects of the project, particularly the training on fishery value addition and marketing led by VIFAFIO (who has at least one female staff involved in the training). So far 30 women have been trained as TOT on fisheries value chains and fish handling techniques. A further 128 women across 6 villages were identified as priority individuals to receive training on fisheries value chains and strategies to reduce post-harvest losses during year 2 of the project. VIFAFIO and WWF-Tanzania have also supported the establishment of seven Women's Groups (Wanawake wachuuzi) focused on fisheries during year 1 of the project.

Women have been encouraged and supported to take up leadership roles in project activities, including those in women's groups, TOT, and local institutions e.g. progress has been made on gender representation in Water User Associations - the South Mara has 66% women on the interim leadership group, and the North Mara has 50% women on its leadership group.

Please quantify the proportion of women on the Project Board[1].	45% women (out of 11 board members of WWF-UK's Thriving Habitats and Species Goal Board)
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[2].	**Project steering group:** 50% women **Partner organisations:** WWF-Tanzania: Senior leadership team (SMT) comprises 6 males and 2 females. IHE Delft - Senior leader team (Rectorate) comprises 2 males and one female. TAFIRI: - Mwanza Centre Director is a woman. VIFAFIO: Senior leadership team consists of 50% women.

7.   Monitoring and evaluation

During the project inception workshop, WWF-Tanzania led a session on Monitoring and Evaluation (M&E) for all project partners. This included guidance on developing a strong M&E framework, as well as an interactive session to complete the M&E framework for the project, including identifying measurable indicators, baselines, milestones, data sources, means of verification, frequency of measurement, and identifying roles and responsibilities for reporting. The M&E plan is owned by WWF-Tanzania but is a live google document which is available for all project partners to contribute to.

For activities facilitated by WWF Tanzania, the Project Executant prepares activity Concept Notes which provide a narrative on how the activity will be undertaken, and outlines the contribution of the activity to the project outputs and outcome, as well as alignment with the M&E plan.

WWF-Tanzania has regular bi-weekly progress meetings with partners to share updates on fieldwork activities and to monitor activities to ensure they align with the project deliverables. In collaboration with local project partners, WWF-Tanzania has developed Key Performance

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[1] 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.

[2] 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.

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Indicators (KPIs) & Milestones to track progress. During meetings, partners are encouraged to share project challenges, opportunities, learnings, and adaptive management.

WWF has started to use the Project Management Software Miradi to track project progress against outputs and outcomes. This is something we intend to increase use of during Year 2 and 3 of the project.

The ecological surveys provided initial baseline data, however this was only one survey and so the biodiversity data needs to be reviewed and refined during the project lifetime. During year 2 of the project we will be reviewing suitable indicators for biodiversity which are relevant to be measured through a citizen science approach.

8. Lessons learnt

Project partners have shared several lessons learnt during the first year of the project, which we have used for adaptive management across this project and beyond. These include:

- It took longer than anticipated to finalise the grant contracting arrangements (as outlined in the half year report). For year 2 of the project, WWF-Tanzania has begun early work planning with partners to ensure smooth implementation of activities.
- It took some time for WWF-Tanzania to complete the staff recruitment, which meant some WWF-Tanzania staff had additional workload for the first 5 months of the project. We recommend future projects factor this into the inception phase.
- It has been very useful to have in-person meetings with all project partners for planning and collaboration. The success of the September inception workshop led to the prioritisation of another in-person partner meeting in February 2023. During year 2 of the project, we will aim to carry out more regular all-partner virtual meetings, to allow continued information sharing and planning across all partners.
- We needed to reallocate resources to ensure there was sufficient time and capacity for meaningful engagement with communities in the project area. This will continue to be a priority throughout project implementation to ensure community ownership and buy-in for the project, which is critical for long-term sustainability.
- WWF-Tanzania had the opportunity to maximise impact and resources by combining some activities e.g. district stakeholder engagement, with another recently awarded project USAID-funded known as the "Mara River Catchment" project.
- Despite undertaking an initial scoping trip for the fieldwork, there were some logistical challenges which posed challenges for smooth implementation e.g. some sites were not accessible. This highlighted the importance of detailed logistics planning across all partners for future fieldwork to ensure that we maximise resources and staff time across the project.
- To improve the efficiency of financial reporting we submitted a Change Request to reformat the project budget presentation to report on activities, as per the project logframe. This adaptive management allowed us to better align the budget planning and financial reporting with WWF-Tanzania's finance process, to improve efficiency and transparency.
- We underestimated the time and budget requirements needed for robust biodiversity data collection throughout the project, and more resources were required for this during year 1 than expected. During year 2 we will be looking to maximise opportunities for the E-CAS citizen science data collection and focusing on key biodiversity indicators.
- Although there has been some good initial progress made on gender, we plan to bring this together in a more integrated approach through the development of a gender plan in year 2.
- During field activities, WWF-Tanzania sometimes used a partner's car (i.e., LVBWB, TAFIRI, VIFAFIO or LGA) for example for drone activities. However, it was observed that some community members were cautious about the purpose of the vehicle (as these may have previously been used by departments involved for monitoring illegal activities). Moving forwards WWF-Tanzania will ensure that the WWF-Tanzania car is used for community engagement activities to ensure trust can be maintained.

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

We submitted an email (on 16 May 2022) responding to the feedback received when our project was funded.

●   10. Risk Management

During the first year of the project, we experienced challenges regarding community perceptions of the project in relation to Wetland gazettement, which posed a risk for community acceptance and involvement in the project. During initial stakeholder consultations with 27 villages in October 2022, some community members raised concerns about whether the Tanzanian government would gazette the wetland which could potentially lead to access restrictions. Some community members were concerned that the project was advocating for wetland gazettement, due to WWF's collaboration with government authorities. This concern highlighted the need for additional consultations and engagement with local communities.

During additional community consultations in March 2023, (reaching 252 village assembly members across 17 villages) WWF-Tanzania assured communities that this project is not facilitating the gazettement of the Mara wetlands, and provided clarification on the project's objectives to support community-led fisheries management and livelihoods. WWF-Tanzania will continue to have strong communication with communities on this issue.

In addition, WWF-Tanzania plans to meet with the Tanzania Vice President's Office and government authorities to better understand if there are plans for Mara wetland gazettement, and if so what the potential implications are for this project, and other WWF projects in the area. This information will be critical for the project to better plan and design a participatory sustainable management of the wetlands and wise use of its resources. If the wetland gazettement process does go ahead, WWF-Tanzania would develop an action plan as part of wider project work in the region, to advocate for full FPIC processes to be carried out on any proposed changes to access rights.

In October 2022 (during Village consultations), WWF-Tanzania undertook stakeholder consultations and community engagement with all 27 target villages in the Mara wetland to further engage and consult communities on the project's objectives. One of the 27 villages (Wegero) makes a significant portion of income from allowing people to move livestock into their village wetland area for grazing (up to 10,000 livestock at a time). There were some concerns from villagers that the project may restrict livestock grazing access rights and village revenue from livestock. At the time of the consultation the village didn't provide formal agreement to participate in the project, and the project continued with the remaining 26 villages.

However, since then, Wegero village has reconsidered their decision and formally requested to be included in the project. To address the community's concerns, ongoing stakeholder consultations and community engagement efforts are being conducted to ensure that their perspectives are considered and addressed. This includes transparently communicating the project's objectives, clarifying misconceptions about livestock grazing access rights, and fostering open dialogue with Wegero Village. The project aims to build trust and ownership among all 27 villages in the project area by actively involving the community. The expressed interest from Wegero village to participate in the project indicates a positive shift in community engagement and a potential resolution to initial reluctance to be involved in the project.

11.   Other comments on progress not covered elsewhere

We have no additional comments to add to this section.

12.   Sustainability and legacy

This project is an important component of the wider southern Kenya northern Tanzania programme, which WWF is committed to supporting this region and the broader landscape over

the next 10 years (minimum) to ensure effective & sustainable impact. During project design and inception there has been involvement of the Local Government Authorities, County Governments, local project partners and local communities, to ensure strong collaboration and buy-in for the project.

The project aims to provide a critical foundation for sustainable management of fisheries in the Mara Wetland. During Year 2 of the project, we will focus on using the baseline data to support the design and implementation of locally owned fishery co-management plans; strengthen equitable governance of BMUs and WUAs and build the capacity within the BMUs, WUAs, women's groups and fisherfolk on a range of skills to improve sustainability and resilience of fisheries and livelihoods.

During years 2 and 3 we will particularly focus on Output 4 which aims to facilitate enabling conditions for sustainability and scale-up of project impacts. As such, it forms the framework for our exit strategy. Project partners will play important roles in realising Output 4. Together, the partners will explore future funding opportunities for complementary projects, such as implementation of the revised Mara Wetland Integrated Management Plan and for implementation of additional livelihood opportunities for communities.

13.   Darwin Initiative identity

During the project launch event, we printed banners in both English and Swahili which included the Darwin logo alongside the WWF-Tanzania and Tanzania government logos. During the launch event WWF-Tanzania explained about the Darwin Initiative and the UK Government's contribution to the project during an introductory session.

WWF-Tanzania also printed an overview leaflet (in English and Swahili) summarising the project's objectives, with contact details of WWF-Tanzania key staff. These leaflets were distributed at the launch event (see annexes 17 and 18).

We developed an initial draft communications strategy during the inception workshop, however there was limited capacity and budget to fully develop communication materials during year 1. During year 2 of the project, we will prioritise the implementation of a communications strategy, which will be supported by a new communications officer dedicated to supporting WWF-Tanzania projects in northern Tanzania.

14.   Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?		No
Have any concerns been investigated in the past 12 months		No
Does your project have a Safeguarding focal point?	Yes - Salma Hegga (WWF-Tanzania ESSF Adviser), ▬▬▬▬▬▬	
Has the focal point attended any formal training in the last 12 months?	Yes -WWF-Tanzania has appointed a new ESSF Adviser during year 1 of the project. She has received formal training on WWF social policies delivered by the ESSF-interim officer at WWF Tanzania as part of the induction course in January 2023. She also completed the WWF network E-learning course on safeguards in January 2023.	
What proportion (and number) of project staff have received formal training on Safeguarding?		Past: 100% - 7 WWF staff in Bunda Field office, 6 (1 Female and 5 male) VIFAFIO staff, 17 (8 male and 9 female) TAFIRI staff.

Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses.
WWF-Tanzania initially experienced reluctance from Wegero Village regarding participation in the project (outlined in section 10 Risk Management), which has required additional community engagement and consultation to resolve.
Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify.
We will continue to prioritise ongoing community consultations regarding the project, ensuring regular communication with communities and the nominated ombudspersons to check on any grievances related to the project.

15.   Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2022 – 31 March 2023)

Figures in Table 1 below are indicative figures only.

Project spend (indicative) since last Annual Report	2022/23 Grant (£)	2022/23 Total Darwin Costs (£) DRAFT	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	£167,897	£167,897		

Please note, expenditures are currently indicative figures. We are still in the process of finalising expenditures with project partners. Although the budget was amended with a Change Request in March 2023, to reformat the project budget presentation to report on activities as per the project logframe, a variance of >10% is now anticipated on a number of budget lines; namely Travel and subsistence; Operating Costs and Other Costs. We will review budget line allocations of costs with partners in case of miscoding.

Table 2: Project mobilising of matched funding during the reporting period (1 April 2022 – 31 March 2023)

The figure in the first column of Table 2 below (secured to date) is an indicative figure only. We are still in the process of finalising the financial reports from partners.

	Matched funding secured to date	Total matched funding expected by end of project
Matched funding leveraged by the partners to deliver the project.	██████████████	██████████████
Total additional finance mobilised by new activities building on evidence, best practices and project (£)	██████████████	██████████████

16. **OPTIONAL: Outstanding achievements or progress of your project so far (300-400 words maximum). This section may be used for publicity purposes**

• Annex 1: Report of progress and achievements against logframe for Financial Year 2022-2023

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
Impact Protected fish habitats, sustainable fishing methods and improved value chains enhance the resilience of local livelihoods, sustain freshwater biodiversity and help to secure the ecological integrity of the Mara Wetlands.		Baseline data collected, impact will only be determined by the end of the project upon comparison of data on ecological integrity and livelihood results.	
Outcome By 2025, community-led sustainable fisheries and improved value chains have increased resilience of livelihoods and have started to reduce threats to freshwater biodiversity in the Mara Wetlands	0.0 By 2025, habitat distribution and biodiversity abundance and distribution of native (including identified threatened species) and non native (including Nile perch and hyacinth) species are known and maintained. 0.1. By 2025, at least 190 km2 (~50%) of the Mara Wetlands is under improved fisheries co-management, with measures in place to protect identified fish habitats and breeding sites; benefiting Lake Victoria refugee species and threatened species (eg haplochromine cichlids, endangered native tilapias); and a monitoring regime is established based on indicators of fish stocks, threatened species distributions and populations, and wider wetland health. 0.2. At least 510 fisherfolk have ceased the use of destructive fishing methods such as undersized nets. 0.3. By 2025, at least ~750 (60% of direct beneficiaries) around the Wetland including vulnerable poor people (510 men, 730 women and 10 persons with disability) report more	0.0 - 17 fish species were identified in the mara wetlands covering 330.42sq km, primarily in the lower catchment. 132 species of macrobenthos were located in 8 sites, 3 sites were depleted due to low water quality. 0.1 - No improved management yet, though possible identification of the wetland as a breeding site and refuge for threatened species - more data required to confirm. 0.2 - Baseline identified - 49% undersized nets (<3 inches) in survey area in December 2022. 0.3 - 28% report climate resilience on the baseline, though not yet development of resilient livelihoods.	Sharing of results of the situational analysis for the development of community co-management plans. Development of regular monitoring with citizen scientists to assess biodiversity and species distribution. Emphasis on monitoring control and surveillance, training to fisher folks directly and through BMU/CMU on sustainable fishing practices. Developing 8 Management plans based on improved knowledge and lessons learned from this project targeting the LGA, communities and local institutions (i.e., BMU/CMU) and reviewing the Mara Wetlands Integrated Management Plan. Supporting implementation of sub-catchment management plan for 2 WUAs. Advising mechanisms for the implementation of DEAP to the LGAs

	resilient livelihoods through sustainable fish stocks, increased /diversification of income and/or value chain enhancement and improved governance. 0.4. Based on improved knowledge and lessons from this project, by 2025, 16 plans or guidelines have been agreed by local government and communities that will help to sustain impacts of the project in terms of fisheries co-management, livelihood resilience, and biodiversity in the Wetlands	0.4 Progress on plans / guidelines: 2 sub-catchment management plans developed for the 2 Water Users Associations Three District Environmental Action Plans developed, implementation is required.	Updated Integrated Wetland Management Plan to be reviewed and updated in Year 2. Community-led fisheries co-management plan to be updated in Year 3. 2 BMU guidelines to be reviewed and 4 CMU guidelines to be developed in Year 2 and 3. Community-led River Health Assessment Guidelines to be revised to fit the wetlands context in Year 2. Tigite Sub-Catchment Management Plan will be revised in Year 2.
Output 1 **1. Fisheries co-management** By 2025, adoption of one community-led fisheries co-management plan, based on initial fisheries situation assessment for the Mara Wetlands, and incorporating i) measures to protect habitat and breeding sites for fish stocks and refugee/threatened species, and ii) measures for ongoing monitoring and adaptive management of fish catch, indicator and threatened species and wider wetland health	1.1 Fisheries situation assessment for the Mara Wetlands completed and disseminated to fisherfolk and relevant local authorities (by end Yr 1). 1.2 Community-led fisheries co-management plan agreed by local communities (with minimum 60% fisherfolk participation from 27 villages) and authorities, with specific measures for habitat/population protection, e.g. no take zones, off seasons, minimum net mesh sizes (by end Yr 2). 1.3 At least 6 Beach Management Units (BMUs) and 3 Water User Associations (WUAs) develop and start to implement citizen science approaches (such as existing e-CAS platform) to monitor fish catch & stock, indicator/ threatened species and wider wetland health, providing quarterly data updates to the Mara Regional and Local Government Authorities and TAFIRI (From Yr 3).	1.1 Initial ecological surveys carried out in Dec-Feb to monitor habitat and biodiversity and set the baselines (see section 3.2 and annexes 9-13). 1.2 No plan yet. 1.3 No citizen science approaches developed yet.	

Activity		
Activity 1.1 Undertake a fisheries situation assessment adapting methods used in the Kafue Flats, Zambia, including: ● 1.1.1 Review existing data on the fishery; boat and gear type; fishing methods; preferences in size/life-stage of species caught; preferences and constraints to fish trading; ● 1.1.2 Fish market surveys: number of fishers by gender/age/location/tenure; governance dynamics and regulation of fishing; reliance on fish for food and livelihoods. ● 1.1.3 Socio-economic surveys assessing poverty reduction including economic (income and market improvement), social (equity, legitimacy and governance participation) and poverty and biodiversity perceptions. ● 1.1.4 Seasonal ecological surveys to assess diversity, distribution and abundance of species, and to identify indicator species. ● 1.1.5 Habitat mapping of fishing "hotspots", reproduction sites, niche habitats for refugee and threatened species.	1.1.1 Data reviewed during Oct 22 - March 23. 1.1.2 Market surveys conducted in December 2022 (annex 9) 1.1.3 Surveys conducted at household level in Dec 22 (annex 10) 1.1.4 First ecological survey conducted and analysed (annex 10,12,13) 1.1.5 Not yet completed. Spatial data from drones and sites collected (annex 11), but further data is required to identify hotspots.	1.1.4 Seasonal ecological surveys to be developed for citizen scientists in the communities to collect data to monitor biodiversity trends.
Activity 1.2, Support communities and local authorities to design co-management plans, drawing on the situation assessment: ● 1.2.1 Develop measures: no-take zones/off-seasons for stock recovery; catch diversification; minimisation of threatened species catch; regulation of fishing gear and enforcement by BMUs. ● 1.2.2 Documentation of measures in a Mara Wetlands fisheries plan and dissemination to fisherfolk and other stakeholders.	1.2.1 Not yet done 1.2.2 Not yet done	Establishment of 4 Community Management Units (CMUs) for the wetlands and strengthen two existing BMUs which border the lake / wetland area.
Activity 1.3 Co-design a method for future management and monitoring of regulations with local authorities (MRFRU-Mara Regional Fisheries Resources Protection Unit & TAFIRI) and communities (BMUs, WUAs): ● 1.3.1 Strengthen WUAs as community groups for effective sub-catchment management plans (SCMPs). ● 1.3.2 Training to 2 WUAs on citizen led wetland and water quality monitoring. ● 1.3.3 Mara Regional Fisheries division (MRFD) and TAFARI train 6 BMUs to support enforcement of fisheries regulations ● 1.3.4 Develop a business case for MRFD to finance BMUs. ● 1.3.5 Facilitate BMUs to conduct regular patrols through provision of equipment	1.3.1 Strengthening of the South and North Mara WUAs in constitution review, election of leadership, conducting and inception on development of Sub catchment Management Plan (SCMP) (see annex 14&15) 1.3.2 Not yet done 1.3.3 Not yet done 1.3.4 Not yet done 1.3.4 Not yet done	Training to 2 WUAs on citizen led wetland and water quality monitoring. Mara Regional Fisheries division (MRFD) and TAFARI train 6 BMUs to support enforcement of fisheries regulations. Facilitate BMUs to conduct regular patrols through provision of equipment.
Output 2. Fishing practices: By 2025, increased fisherfolk capacity on sustainable fishing and monitoring	2.1. At least 510 fisherfolk trained on and engaged in sustainable fishing	2.1 - Not yet done 2.2 - 2 BMUs engaged in the development of wetland management plans

practices, leading to reduced overfishing and declining pressure on refugee and threatened fish species.	practices such as legal nets, off seasons, no take zones, etc. 2.2. At least 6 Beach Management Units across 27 villages engaged in the promotion and enforcement of sustainable fishing practices. (By end of Yr 1). 2.3 By Yr 3 a reduction by half in the number of breaches of the sustainable fishing measures (that are set out in co-management plans) by the fisherfolk from the baseline set in Yr 1.	2.3 - Not yet done
Activity 2.1 Capacity building on sustainable fishing practices and monitoring methods/citizen science for fish catch and biodiversity for fisherfolk through BMUs: ● 2.1.1 Train 6 BMU leaders as Trainer of Trainers (TOT) to train 510 fishers. ● 2.1.2 Identify 27 enumerators from BMUs to train on basic species identification using indigenous names. ● 2.1.3 Training 13 fisher folk on Electronic Catch Assessment Survey (eCAS) for data collection on fish catch. Data delivered to TAFIRI database daily.	2.1.1 Not yet done 2.1.2 Not yet done 2.1.3 Not yet done	Train 6 BMU leaders as TOTs. Identification of enumerators from BMUs and training of 13 fisherfolk on eCAS system.
Activity 2.2 Co-creation of a system for the implementation and engagement of fisherfolk on sustainable fishing practices including the use of legal nets, off seasons and no take zones: ● 2.2.1 Campaign to wider community over the impact of improper fishing gear on long term community livelihoods, poverty and biodiversity. ● 2.2.2 Develop a business plan through VICOBA for the provision of proper equipment and support the procurement of the proper size fishing nets. ● 2.2.3 Facilitate fishing gear exchange with the destruction of unsustainable gear. ● 2.2.4 Create a system of control / surveillance over the use of proper gear within the BMUs.	2.2.1 Not yet done 2.2.2 Identification of VICOBAS in the region, new VICOBAs to be established in the lower part of the wetland. 2.2.3 Not yet done 2.2.4 Not yet done	Campaign to wider community over the impact of improper fishing gear on long term community livelihoods, poverty and biodiversity.

Output 3. Value chain enhancement: By 2025, enhanced fisheries value chains provide more resilient (i.e. diversified and/or increased incomes) livelihoods, especially for women.	3.1. At least 10 People With Disability (PWD) and 730 women are engaged on and using training and equipment to reduce post-harvest losses and develop market strategies to enhance income from the fish value chain. (Yr 2: 400 women and 10 PWD, Yr 3: 330 women). <u>Baseline:</u> 0. 3.2. At least 20 women's groups are linked to VICOBAs to facilitate investment in new market opportunities to enhance incomes from the fishery value chain (Yr 2: 10 groups, Yr 3: 10 groups). <u>Baseline:</u> 3 women groups linked to VICOBA.	3.1 - 30 fishmongers trained on fisheries value chain, selected from 6 communities, out of an initial 140 fishmongers (128 female, 12 male). 3.2 - There are 7 newly instituted Women's groups of fishmongers although not yet linked to Village Community Banks (VICOBAs) in the area.	
3.1 Value chain analysis to identify key opportunities for diversifying/increasing incomes.		3.1 Analysis of the value chain conducted, with identification of the gaps through participation of all stakeholders	Training of more women through TOT approach.
3.2 Capacity building for 730 women and 10 persons with disability (PWD) fishmongers and entrepreneurs on value chain enhancement, post-harvest technologies and financial management: ● 3.2.1 Train 50 women in the Training of Trainers on value chain enhancement and post harvest technologies to train another 730 women and 10 PWD. ● 3.2.3 Strengthen cooperatives as a financial arm of BMUs to sell fish products and facilitate training on financial skills/record keeping.		3.2.1 30 women trained, selected from 140 fishmongers (annex 16) 3.2.3 Not yet done	Selecting 20 additional women as TOT on value chain enhancement and post harvest technologies to train another 730 women and 10 PWD Identification and registration of a further 33 women's groups / fishery cooperatives to reach a total of 40, of which the most appropriate 20 will be selected for VICOBAS in Year 2.
3.3 Support strengthening of women-based village community banks (VICOBA) to support loans, savings and business investment, seed funding and cooperatives: ● 3.3.1 Strengthen the governance of women-based village community banks (VICOBAs) to support loans, savings and business investment. ● 3.3.2 Provide seed funding to VICOBAs.		3.3.1 Not yet done 3.3.2 Not yet done	Formation of 20 women's groups fishery VICOBAs, who will receive training on financial literacy and investment in Year 2 Seed fund to be provided in Year 3, for outstanding VICOBAs.

Output 4. Enabling conditions for scaling-up: By 2025, enabling conditions (plans, finances, lesson-sharing) are in place to facilitate sustained impacts from the project, and to facilitate scaling-up of fisheries co-management for the benefit of livelihoods and biodiversity across the entire Mara Wetlands	4.1. At least three (3) Local Government Authority Environmental Management Plans have been developed incorporating lessons for improved Mara Wetlands fisheries co-management, and the Mara Wetlands Integrated Management Plan has been updated in line with them. (By end of Yr 3). 4.2. In at least 27 villages, fisheries co-management guidelines are established, inclusive of all groups of people including women, to enable future monitoring and adaptive management and to identify finance streams that can support more resilient livelihood opportunities (Yr 3). 4.3. By Yr 3 insights from the project have been exchanged with other projects in Africa and shared with at least 10 key national and international forums, or policy decision-makers, eg national ministries, Ramsar Focal Point, CBD Focal Point, WWF network, global InFish professional network, other projects including relevant Darwin Initiative funded projects.	4.1 - 6 District Environmental Assessments (DEA) took place as a first step for the development of management plans. 4.2 - Co-management guidelines developed together with elected Water User Association (WUAs) committees for 2 sub-catchments. 4.3 First initial information-sharing webinar within the WWF-Zambia on the Kafue flats project.
4.1 Develop/update local and district plans to incorporate lessons from the project: - 4.1.1 Review the current District plans (4 Districts). - 4.1.2 Influence/lobby District plans to incorporate lessons learnt from the project.	4.1.1 6 District Environmental Action Plans reviewed around the wetland 4.1.2 Not yet done	
4.2 Support identification of potential finance for future fisheries co-management: - 4.2.1 Influence/lobby District plan to incorporating lessons learnt from the project - 4.2.2 Share the fisheries co-management funding strategy with potential development partners.	4.2.1 Not yet done 4.2.2 Not yet done 4.2.3 Not yet done	

● 4.2.3 Review of BMU and cooperative by laws and constitution - ensuring 10% goes to resource protection.		
4.3 Exchange insights with WWF's Freshwater Practice, Ramsar/CBD secretariats, InFish global professional network, Darwin Initiative secretariat: ● 4.3.1 Organize online workshops/conferences/webinars for sharing lessons learnt. ● 4.3.2 Develop/package information materials (technical papers, policy briefs, etc) on lessons learnt/ insights. ● 4.3.3 Disseminate and share project stories through global communication mechanisms including social media platforms and the WWF supporter magazine	4.3.1 One session organised with WWF Zambia for the sharing of lessons with the Kafue flat project 4.3.2 Not yet done 4.3.3 Not yet done	Information sharing session with WWF-Tanzania Rumaki project working on community fisheries. Development of communications strategy and sharing of project stories through various communications channels.

- **Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)**

Project summary	SMART Indicators	Means of verification	Important Assumptions
Impact: Protected fish habitats, sustainable fishing methods and improved value chains enhance the resilience of local livelihoods, sustain freshwater biodiversity and help to secure the ecological integrity of the Mara Wetlands. (Max 30 words)			
Outcome: (Max 30 words) By 2025, community-led sustainable fisheries and improved value chains have increased resilience of livelihoods and have started to reduce threats to freshwater biodiversity in the Mara Wetlands.	0.0 By 2025, habitat distribution and biodiversity abundance and distribution of native (including identified threatened species) and non native (including Nile perch and hyacinth) species are known and maintained. <u>Baseline:</u> TBD from fisheries assessment. 0.1. By 2025, at least 190 km^2 (~50%) of the Mara Wetlands is under improved fisheries co-management, with measures in place to protect identified fish habitats and breeding sites; benefiting Lake Victoria refugee species and threatened species (eg haplochromine cichlids, endangered native tilapias); and a monitoring regime is established based on indicators of fish stocks, threatened species distributions and populations, and wider wetland health. <u>Baseline:</u> Wetland area is 387 km^2 with no formal fisheries management or monitoring.	0.0 Fish size frequency catch data and distribution in the Wetlands; drone surveys of wetland habitat extent; Catch per unit effort (CPUE) survey data from TAFIRI to assess fisheries benefits. 0.1. Fisheries co-management plans in place; annual monitoring reports of management changes adopted; compliance with habitat protection measures such as no-take zones; repeated habitat surveys. 0.2. Data on number of fisherfolk using improved fishing gear and ceasing use of destructive gear from Beach Management Unit records; case studies on use of sustainable equipment and fishing practices; household survey reports. 0.3. Household survey reports (Yr 1 and Yr 3) to assess poverty reduction in a two fold process, around economic improvement such as income, access to loans and market capacity but also increased equity with participation of all groups in fisheries co-management and	With appropriate preventive measures against Covid-19 (eg social distancing, outdoor meetings, provision of Personal Protective Equipment) and by working closely with appropriate health experts at a local level in providing education and awareness to communities and project staff and stakeholders, the risks to health will be mitigated and communities will feel comfortable working with project staff. Through participatory consultations and co-creation processes, community members around the Mara Wetlands perceive potential for more resilient and equitable benefits from fisheries co-management of the Mara Wetlands, and have increased understanding on the value of sustainable fisheries for the resilience of their livelihoods. Capacity building on citizen science and provision of equipment will increase participation of Beach Management Units, Water Users Associations and collaboration with

	0.2. At least 510 fisherfolk have ceased the use of destructive fishing methods such as undersized nets. (Yr 2: 300; Yr 3: 210). <u>Baseline:</u> ~ 20 to 30 fisher folks per village (total 27 villages in Mara Wetlands) currently fish using destructive gear.	decision making, ownership and responsibility around citizen science and governance.	Local Government Authorities and the Mara catchment committee will result in improved fisheries co-management.
	0.3. By 2025, at least ~750 (60% of direct beneficiaries) around the Wetland including vulnerable poor people (510 men, 730 women and 10 persons with disability) report more resilient livelihoods through sustainable fish stocks, increased /diversification of income and/or value chain enhancement and improved governance. <u>Baseline:</u> 0 people currently benefiting.	0.4. Copies of conservation plans agreed by communities and ratified by regional governments which have been informed by fisheries situation assessment and lessons learnt from this project, including: - Updated Integrated Wetland Management Plan (1). - Community-led fisheries co-management plan (1). - Beach Management Unit guidelines (6 BMU with one guideline each) (6). - Community-led River Health Assessment Guideline (1). - Tigite Sub - Catchment Management Plan (1). - District Environmental Management Plan (3). - Water User Associations (WUAs). Guidelines for 3 WUAs (3).	Fisheries situation assessments and other lessons learnt from this and other relevant projects will enable communities and local authorities to reach agreement on fisheries co-management plans.
	0.4. Based on improved knowledge and lessons from this project, by 2025, 16 plans or guidelines have been agreed by local government and communities that will help to sustain impacts of the project in terms of fisheries co-management, livelihood resilience, and biodiversity in the Wetlands <u>Baseline:</u> 1 plan - the Mara Wetlands Integrated Management Plan which needs to be updated and guidelines agreed.		
1. Fisheries co-management By 2025, adoption of one community-led fisheries co-management plan, based on initial	1.1 Fisheries situation assessment for the Mara Wetlands completed and disseminated to fisherfolk and	1.1 Baseline fisheries situation assessment survey.	Alternative remote systems of engagement to gather data will allow the timely completion of situation assessment in case of

fisheries situation assessment for the Mara Wetlands, and incorporating i) measures to protect habitat and breeding sites for fish stocks and refugee/threatened species, and ii) measures for ongoing monitoring and adaptive management of fish catch, indicator and threatened species and wider wetland health.	relevant local authorities (by end Yr 1). Baseline: No assessment in place. 1.2 Community-led fisheries co-management plan agreed by local communities (with minimum 60% fisherfolk participation from 27 villages) and authorities, with specific measures for habitat/population protection, e.g. no take zones, off seasons, minimum net mesh sizes (by end Yr 2). Baseline: No community-led fisheries co-management plan in place. 1.3 At least 6 Beach Management Units (BMUs) and 3 Water User Associations (WUAs) develop and start to implement citizen science approaches (such as existing e-CAS platform) to monitor fish catch & stock, indicator/ threatened species and wider wetland health, providing quarterly data updates to the Mara Regional and Local Government Authorities and TAFIRI (From Yr 3). Baseline: No citizen science project in place.	1.2 Documented fisheries co-management plans, signed off by relevant community groups and local authorities. 1.3 Quarterly data updates submitted by BMUs/WUAs to authorities and TAFIRI.	Covid or extreme events such as floods. Offline data collection on smartphones will allow effective information sharing in case of failure of telephone network coverage or power cuts.
2. Fishing practices: By 2025, increased fisherfolk capacity on sustainable fishing and monitoring practices, leading to reduced overfishing and declining pressure on refugee and threatened fish species.	2.1. At least 510 fisherfolk trained on and engaged in sustainable fishing practices such as legal nets, off seasons, no take zones, etc. (By end of Yr 2). Baseline: 0.	2.1. Training course registers; follow-up survey on fishing practices.	Beach Management Units have the capacity to enforce improved fishing practices, and fisherfolk perceive shared benefits and are willing to adopt new practices collectively. Supplementary income from engagement in improved fisheries,

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	2.2. At least 6 Beach Management Units across 27 villages engaged in the promotion and enforcement of sustainable fishing practices. (By end of Yr 1). Baseline: 1 Beach Management Unit.	2.2. Beach Management Unit records on fish landings and enforcement patrols.	participation in the design of restrictions, and provision of equipment such as replacement fishing gear, phones and internet access for BMU members as citizen scientist for biodiversity monitoring, will be enough to compensate for any initial losses from the application of legal practices.
	2.3 By Yr 3 a reduction by half in the number of breaches of the sustainable fishing measures (that are set out in co-management plans) by the fisherfolk from the baseline set in Yr 1. Baseline: To be determined in Y1.	2.3 Beach Management Unit records on fish landings and enforcement patrols.	
3. Value chain enhancement: By 2025, enhanced fisheries value chains provide more resilient (i.e. diversified and/or increased incomes) livelihoods, especially for women.	3.1. At least 10 People With Disability (PWD) and 730 women are engaged on and using training and equipment to reduce post-harvest losses and develop market strategies to enhance income from the fish value chain. (Yr 2: 400 women and 10 PWD, Yr 3: 330 women). Baseline: 0.	3.1.Training report; survey report including women's income from women's groups records and household survey.	The 50 women trained as trainers are selected communally with the condition to train others and that will give them enough motivation to train the rest of the women engaged in fisheries in each group. Women's groups are motivated to take up the opportunities and have support from the community to do so. Effective enforcement and BMU cooperation ensures demand for undersized/illegal size fish reduces.
	3.2. At least 20 women's groups are linked to VICOBAs to facilitate investment in new market opportunities to enhance incomes from the fishery value chain (Yr 2: 10 groups, Yr 3: 10 groups). Baseline: 3 women groups linked to VICOBA.	3.2. Survey of women's groups, VICOBA membership records, and market monitoring study to identify percentage of value added fishery products in the market and market access.	

4. Enabling conditions for scaling-up: By 2025, enabling conditions (plans, finances, lesson-sharing) are in place to facilitate sustained impacts from the project, and to facilitate scaling-up of fisheries co-management for the benefit of livelihoods and biodiversity across the entire Mara Wetlands.	4.1. At least three (3) Local Government Authority Environmental Management Plans have been developed incorporating lessons for improved Mara Wetlands fisheries co-management, and the Mara Wetlands Integrated Management Plan has been updated in line with them. (By end of Yr 3). <u>Baseline</u>: 1 district plan is in progress.	4.1. District Environmental Management Plans and budgets; revised Mara Wetlands Integrated Management Plan.	Regional and Local Government Authorities are willing and capable to develop the Environmental Management Plans, including increase of budget allocation.
	4.2. In at least 27 villages, fisheries co-management guidelines are established, inclusive of all groups of people including women, to enable future monitoring and adaptive management and to identify finance streams that can support more resilient livelihood opportunities (Yr 3). <u>Baseline:</u> 0.	4.2. List of participants (indicating gender) in minutes/reports of planning workshops and community meetings; number of gender-specific management recommendations in planning and monitoring documents; gender-specific contributions and benefits reflected in project progress reports; household surveys assessing governance and inclusivity as part of wellbeing; end of project fisheries situation assessment incorporating value-chain opportunity analysis particularly for women.	Equitable participation in resource governance, decision-making and benefit sharing is accepted/ implemented as co-developed by the same communities. Village governments are supportive and include the initiative in the Village Development Plan for scaling up.
	4.3. By Yr 3 insights from the project have been exchanged with other projects in Africa and shared with at least 10 key national and international forums, or policy decision-makers, eg national ministries, Ramsar Focal Point, CBD Focal Point, WWF network, global InFish professional network, other projects including relevant Darwin Initiative funded projects. <u>Baseline:</u> 0.	4.3. Documentation of policy briefings, technical papers and forums shared with or presented to key audiences.	

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1) – keep each activity to approx. 25 words

0. Inception phase:
- 0.1 Stakeholder consultations with Beach Management Units (BMUs), Water User Associations (WUAs), women's groups, village leaders, women's groups, persons with disabilities, local and regional government.
- 0.2 Inception Meeting with all partners and stakeholders including community representatives.
- 0.3 Grievance mechanisms established.

1. **Facilitate fisheries co-management plans, drawing on a fisheries situation assessment:**

1.1 Undertake a fisheries situation assessment adapting methods used in the Kafue Flats, Zambia, including:
- 1.1.1 Review existing data on the fishery; boat and gear type; fishing methods; preferences in size/life-stage of species caught; preferences and constraints to fish trading;
- 1.1.2 Fish market surveys: number of fishers by gender/age/location/tenure; governance dynamics and regulation of fishing; reliance on fish for food and livelihoods.
- 1.1.3 Socio-economic surveys assessing poverty reduction including economic (income and market improvement), social (equity, legitimacy and governance participation) and poverty and biodiversity perceptions.
- 1.1.4 Seasonal ecological surveys to assess diversity, distribution and abundance of species, and to identify indicator species.
- 1.1.5 Habitat mapping of fishing "hotspots", reproduction sites, niche habitats for refugee and threatened species.

1.2 Support communities and local authorities to design co-management plans, drawing on the situation assessment:
- 1.2.1 Develop measures: no-take zones/off-seasons for stock recovery; catch diversification; minimisation of threatened species catch; regulation of fishing gear and enforcement by BMUs.
- 1.2.2 Documentation of measures in a Mara Wetlands fisheries plan and dissemination to fisherfolk and other stakeholders.

1.3 Co-design a method for future management and monitoring of regulations with local authorities (MRFRU-Mara Regional Fisheries Resources Protection Unit & TAFIRI) and communities (BMUs, WUAs):

- 1.3.1 Strengthen WUAs as community groups for effective sub-catchment management plans (SCMPs).
- 1.3.2 Training to 2 WUAs on citizen led wetland and water quality monitoring.
- 1.3.3 Mara Regional Fisheries division (MRFD) and TAFARI train 6 BMUs to support enforcement of fisheries regulations
- 1.3.4 Develop a business case for MRFD to finance BMUs.
- 1.3.5 Facilitate BMUs to conduct regular patrols through provision of equipment.

2. **Build capacity for sustainable fishing practices, to help implement the co-management plan:**

2.1 Capacity building on sustainable fishing practices and monitoring methods/citizen science for fish catch and biodiversity for fisherfolk through BMUs:

- 2.1.1 Train 6 BMU leaders as Trainer of Trainers (TOT) to train 510 fishers.
- 2.1.2 Identify 27 enumerators from BMUs to train on basic species identification using indigenous names.
- 2.1.3 Training 13 fisher folk on Electronic Catch Assessment Survey (eCAS) for data collection on fish catch. Data delivered to TAFIRI database daily.

2.2 Co-creation of a system for the implementation and engagement of fisherfolk on sustainable fishing practices including the use of legal nets, off seasons and no take zones:

- 2.2.1 Campaign to wider community over the impact of improper fishing gear on long term community livelihoods, poverty and biodiversity.
- 2.2.2 Develop a business plan through VICOBA for the provision of proper equipment and support the procurement of the proper size fishing nets.
- 2.2.3 Facilitate fishing gear exchange with the destruction of unsustainable gear.
- 2.2.4 Create a system of control / surveillance over the use of proper gear within the BMUs.

3. Enhance fisheries value chain to improve local livelihoods:

3.1 Value chain analysis to identify key opportunities for diversifying/increasing incomes.

3.2 Capacity building for 730 women and 10 persons with disability (PWD) fishmongers and entrepreneurs on value chain enhancement, post-harvest technologies and financial management:

- 3.2.1 Train 50 women in the Training of Trainers on value chain enhancement and post harvest technologies to train another 730 women and 10 PWD.
- 3.2.3 Strengthen cooperatives as a financial arm of BMUs to sell fish products and facilitate training on financial skills/record keeping.

3.3 Support strengthening of women-based village community banks (VICOBA) to support loans, savings and business investment, seed funding and cooperatives:

- 3.3.1 Strengthen the governance of women-based village community banks (VICOBAs) to support loans, savings and business investment.
- 3.3.2 Provide seed funding to VICOBAs.

4. Facilitate enabling conditions for scaling up:

4.1 Develop/update local and district plans to incorporate lessons from the project:

- 4.1.1 Review the current District plans (4 Districts).
- 4.1.2 Influence/lobby District plans to incorporate lessons learnt from the project.

4.2 Support identification of potential finance for future fisheries co-management:

- 4.2.1 Influence/lobby District plan to incorporating lessons learnt from the project
- 4.2.2 Share the fisheries co-management funding strategy with potential development partners.
- 4.2.3 Review of BMU and cooperative by laws and constitution - ensuring 10% goes to resource protection.

4.3 Exchange insights with WWF's Freshwater Practice, Ramsar/CBD secretariats, InFish global professional network, Darwin Initiative secretariat:

- 4.3.1 Organize online workshops/conferences/webinars for sharing lessons learnt.
- 4.3.2 Develop/package information materials (technical papers, policy briefs, etc) on lessons learnt/ insights.
- 4.3.3 Disseminate and share project stories through global communication mechanisms including social media platforms and the WWF supporter magazine.

WWF's Environmental and Social Safeguards Framework will be used to manage risks, uphold human rights, and support better outcomes.
Regular stakeholder feedback opportunities will be built into project design, and grievance mechanisms will be established.

■ **Table 1** **Project Standard Indicators**

DI Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DI Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DI-B11	By 2025, habitat distribution and biodiversity abundance and distribution of native (including identified threatened species) and non-native (including Nile perch and hyacinth) species are known and maintained.	Area identified as important for biodiversity (ha) in the Mara wetlands	Number (ha)	None	33,042			33,042	33,042
DI-D01	By 2025, at least 190 km2 (~50%) of the Mara Wetlands is under improved fisheries co-management, with measures in place to protect identified fish habitats and breeding sites; benefiting Lake Victoria refuge species and threatened species (eg haplochromine cichlids, endangered native tilapias); and a monitoring regime is established based on indicators of fish stocks, threatened species distributions and populations, and wider wetland health.	Hectares of habitat in the Mara Wetland under sustainable management practices	Number (ha)	None	0			0	19,000

DI Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DI Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DI-B09	At least 510 fisherfolk have ceased the use of destructive fishing methods such as undersized nets	Number of individuals/hh reporting a decrease in unsustainable practices such as the use of destructive fishing methods as a result of project activities	Number	village	0			0	510
DI-D02	By 2025, at least ~750 (60% of direct beneficiaries) around the Wetland including vulnerable poor people (510 men, 730 women and 10 persons with disability) report more resilient livelihoods through sustainable fish stocks, increased /diversification of income and/or value chain enhancement and improved governance.	Number of people around the wetland whose disaster/climate resilience has been improved through sustainable fish stocks, increased /diversification of income and/or value chain enhancement and improved governance	Number	Gender Disabilities	30			30	750
DI-B02, B03, B04	Based on improved knowledge and lessons from this project, by 2025, 16 plans and / or guidelines have been agreed by local government and communities that will help to sustain impacts of the project in terms of fisheries co-management, livelihood	Number of new improved (species, community, sustainable livelihoods) fisheries co-management plans available and endorsed	Number	None	2			2	16

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DI Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DI Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
	resilience, and biodiversity in the Wetlands								

■ **Table 2** **Publications**

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)

● 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?	Yes
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	Yes – see comment below
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.	Yes
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
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 16)?	
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	

The report is less than 10MB, however the attachments as supporting evidence are more than 10MB so will be sent as two separate emails.