Darwin Initiative Main and Post Project Annual Report

To be completed with reference to the "Writing a Darwin Report" guidance: (http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2020

Darwin Project Information

Project reference	25-009
Project title	Fish for Tomorrow – Community sustainable fisheries management Nkhotakota District, Malawi
Country/ies	Malawi
Lead organisation	RIPPLE Africa
Partner institution(s)	District Fisheries Office, Nkhotakota District
Darwin grant value	£314,269
Start/end dates of project	1st July 2018 – 31st March 2021
Reporting period (e.g. Apr 2019 – Mar 2020) and number (e.g. Annual Report 1, 2, 3)	April 2019 – March 2020 Annual Report 2
Project Leader name	Geoffrey Furber
Project website/blog/social media	www.rippleafrica.org
Report author(s) and date	Pam Haigh 24th April 2020

1. Project summary

70% of people in Malawi, one of the world's poorest countries, live in poverty. Malawi's population has grown from 5 million in 1975 to almost 20 million today and this growth is identified in the National Fisheries Policy as the main driver contributing to poverty, environmental degradation and unemployment. There is 80% livelihood and food security dependency on natural resources contributing to biodiversity loss - particularly noticeable in Lake Malawi, home to an estimated 800 to 1000 different fish species, most of them endemic to the lake.

In the 1970s, fish provided 70% of animal protein, but consumption has declined dramatically from 14kg/capita/year, to less than 6kg with serious nutritional implications for pregnant and lactating women, children and HIV sufferers. This also means a decline in economic benefits along the fish value chain and allied industries, the value of which is estimated at over $1 billion/year.

Certain species have become over-exploited and fishers have changed effort, using longer and smaller meshed nets to catch Usipa (*Engraulicypris sardella* - a freshwater sardine) and Chambo (*Oreochromis sp*) – including anti-malaria mosquito nets. This indiscriminate use of undersized mesh means fish are caught before they have a chance to breed. Three of the formerly most common species, *Oreochromis squampinnis, Oreochromis karongae* and

Oreochromis lidole are now classified as critically endangered on the IUCN Red List. While Usipa are still classified as Least Concern on the IUCN Red List, numbers being caught are decreasing dramatically and fishers are noticing fewer fish in the lake, leading to the fear that this species too will soon become endangered. The problem has been exacerbated by a lack of government enforcement of regulations due to chronic underfunding of fisheries, and previous failed top-down attempts to introduce participatory fisheries management. Without action, stocks of many other species in the lake will also soon diminish.

Fish for Tomorrow educates government, local leaders and lakeshore communities that the whole beach livelihood, associated value chains and nutritional well-being depend on sustainable fisheries behaviour. Women are actively engaged in the project as they are heavily involved in the processing and selling of the fish caught and also want to stop illegal fishing damaging their family livelihoods. The nutritional benefits of the project benefit the broader Malawian population and those in neighbouring countries who rely on fish in their diets.

The project covers the three northern fishing strata of Nkhotakota District. These are shown on the map at Annex 4 as Strata 5.3, 5.4 and 5.5.

2. Project partnerships

We are working in partnership with the Nkhotakota District Fisheries team to deliver the project. This is the same model that we developed in Nkhata Bay District and our team in Nkhotakota have offices in the same building as the Fisheries team and RIPPLE Africa staff and fisheries extension workers work together to support the project. Malawi's Director of Fisheries supports our partnership and is keen for us to develop the same relationship with other District Fisheries officers and their teams in all of Malawi's lakeshore districts, given sufficient funding. We do not fund the salaries of the fisheries staff as these are funded by the Government of Malawi but in order to build the capacity of the team and enable them to get out to visit the fishing communities and develop strong relationship with the fishers themselves, RIPPLE Africa funds travel and subsistence costs as there is little government money available for this. Without this funding, the Fisheries Department cannot afford to operate or maintain vehicles and the support enables their activities to be done effectively.

The District Fisheries Officer (DFO) there is Symon Ngwira. When he replaced the original DFO, Mr Ngwira was already familiar with the Fish for Tomorrow project and was keen to see the project make an impact in the new district in which he is working. The positive working relationship that we have with him and his team has really helped the project progress in Nkhotakota District. The Director of Fisheries has been very supportive of the project and has assigned one of his deputy Directors, Mrs Kazembe to be Ripple Africa's liaison officer at the Department of Fisheries, further strengthening the partnership at the national as well as at the district level.

We have also developed a strong partnership with the District Executive Council in Nkhotakota District, who are the local governance structure for the district. They are key stakeholders in the project and their active and enthusiastic support for the project underpins its success. We are currently working closely with them to discuss ongoing funding for the project through the collection of District Fishing Permits which will guarantee the sustainability of the project after Darwin Initiative funding ends.

3. Project progress

3.1 Progress in carrying out project Activities

We have continued to make good progress against the project activities. Details are shown at Annex 1. We have changed the name used for our conservation committees from Fish Conservation Committees (FCCs) to Beach Village Committees (BVCs) as this is a term recognised around the world and we want to adopt a consistent approach with other

organisations carrying out similar projects in other parts of Malawi. However we have continued to use the term FCC in this report for ease of reporting.

3.2 Progress towards project Outputs

We explained in the last annual report that we have revised the number of Fish Conservation Committees that we needed to establish in the project area as the initial number of 42 was based on the number of beach landing sites in the three strata. However, several of the beach landing sites are quite small and it has been agreed that we will have one FCC covering two beach landing sites where this is more appropriate. The number of fully trained and active FCCs that we now have in place in the project area is 35. Details are shown at Annex 1 against each output on the logframe.

3.3 Progress towards the project Outcome

We have continued to make good progress against the project outcome. Details are shown at Annex 1.

3.4 Monitoring of assumptions

Assumptions for Output 1	
Fish Bylaws for Nkhotakota District are signed off by District Councillors and Executive Committee before the project start date.	Signed on 22nd May 2018 prior to the start of the project.
Traditional Authorities, Senior Chiefs, Village Headmen, community members and District officials are fully supportive of the project and its introduction into the new areas.	All are supportive – regular stakeholder meetings are held.
Catch data systems developed in Nkhata Bay District can be replicated in Nkhotakota District and we are able to find fishers who can be trusted to give accurate data on a daily basis.	We are using the same catch data systems in both districts and are carrying out spot checks on data to ensure accuracy and reliability.
Assumptions for Output 2	
Community members, particularly women, agree to join Fish Conservation Committees.	In some areas, women have been more reluctant to join. Particularly where the population is predominantly Muslim. We have worked with Chiefs in these areas to encourage more to join and have achieved our 30% overall female membership target. We are now monitoring the impact of committee participation on women's wellbeing.
Data collected is accurate.	We are carrying out regular and scheduled spot checks on data relating to the FCCs' activities to ensure continued engagement in the project, accuracy and reliability.
Baseline survey is done to enable us to identify increased understanding.	Now completed and this forms part of the FCC Performance Monitoring questionnaire.
FCC members are active and effective.	We have established a monitoring system for FCCs which scores each on how effectively they are carrying out their role. Annex 5 shows the format with a summary of results for Nkhotakota District.

Men are fully prepared to involve women in committee activities and family decisions.	This is ongoing and is to be measured by community surveys – we have carried out the first set of surveys.
Socio-economic survey developed is effective in assessing women's views.	This is ongoing and is to be measured by community surveys – we have carried out the first set of surveys.
Minimal political interference.	We have established good working relationships with district governance structures and with Fisheries at the national level. Malawi's Director of Fisheries, Friday Njaya is very supportive of the project and is keen for us to continue to work in the project area and the other two districts in which we are working.
Assumptions for Output 3	
Chambo breeding areas are easy to identify.	Fisheries, local communities and Ripple Africa staff have now identified 11 in the project area.
Community members are willing to become members of the Fish Conservation Committees in breeding areas and understand their responsibilities.	No problems with recruitment of FCC members in the project area, apart from the issue with women members in some areas mentioned above.
Fish Conservation Committees in the breeding areas are active and effective at carrying out their protection duties.	The monitoring system for FCCs at Annex 5 assesses how the FCC is performing generally and we undertake regular inspections of Chambo breeding areas – see Annex 6 for a map, photos and summary of the inspections for the breeding areas in Nkhotakota. Chia Lagoon is not in the project area and the newly identified Luluzi breeding area has not yet been assessed.
Community members understand the need for the project and the importance of natural vegetation in breeding areas.	This is ongoing and is being measured by community surveys – this is part of the monitoring process for the FCCs. Local community members and children are asked about their knowledge of the project and the FCC are then scored accordingly. Those FCCs getting a low score are asked to engage more with the community to increase their knowledge. Best practice is shared between FCCs on methods for doing this.
Political support for establishing nursery sanctuaries.	We have established good working relationships with district governance structures and with Fisheries at the national level.
Climate change does not cause lake to recede exposing sanctuaries.	Some breeding areas in the project area are seasonal and dry up in the dry months. We work with FCCs to determine how to best protect baby fish when this occurs.

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

We have been seeing many more baby Chambo fish in the breeding areas and the numbers of larger fish being caught indicate that the restrictions on net sizes are having a positive impact on the number of Chambo growing to adulthood in the lake which are then in turn able to breed and increase numbers still further. This is demonstrated also by the catch data which shows

that many more larger fish are being caught now compared with last year and the period before the project commenced - with a consequent large increase in income for some fishers.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

The project addresses:

- SDG 1 – End Poverty by improving income security for fishers and fish sellers
- SDG 2 – End Hunger as fish is an important animal protein source
- SDG 5 – End Gender Inequality by empowering women as FCC members
- SDG 14 – Life Below Water by introducing and enforcing conservation bylaws
- SDG 17 – Partnerships for the Goals, building the capacity of District Fisheries.

5. Project support to the Conventions, Treaties or Agreements

The project supports Malawi's Convention for Biological Diversity targets as follows:

- **Target 4 -** through development of local bylaws with relevant stakeholders and national and district Fisheries offices
- **Target 7 -** through harvesting within ecological limits
- **Target 11 -** by protecting fish nurseries and breeding areas, encouraging plant growth and minimising damage caused by drag nets
- **Target 12 -** increasing mesh sizes and protecting breeding and nursery areas will help prevent extinction of known threatened species
- **Target 15 -** through empowering members of fishing communities in Nkhotakota to take ownership of their fish resource, diversify their livelihoods, access family planning services and manage fish stocks sustainably. The project also encourages women to become active project participants.

The project addresses the following AICHI targets

- **Target 1 -** ensuring that residents of Nkhotakota understand the value of biodiversity to economy and food security, and how they can conserve and use fish stocks sustainably
- **Target 4** - supporting government departments and stakeholders to achieve or implement plans for sustainable production, marketing and consumption of resources
- **Target 6** - ensuring fish stocks in Lake Malawi are harvested sustainably through by allowing fish to reach breeding age before being harvested, ensuring fish stocks are harvested legally, encouraging communities to fish in ways that have limited impact on threatened species or vulnerable ecosystems and ensuring that the impact of fisheries is within safe ecological limits.

The Country CBD Representative Lilian Chimphepo (PhD) who is the Principal Environmental Officer and Biosafety Focal Point in the Environmental Affairs Department is extremely supportive of the project and Force Ngwira, Ripple Africa's Country Director, is in regular contact with her to share progress.

6. Project support to poverty alleviation

Where the project has been working for a number of years, Chambo fishers are reporting that they are catching more and larger Chambo and other species of fish as bycatch - some of which have not been seen for years. They are making more money because larger fish fetch higher prices, increasing their overall income. The data and graphs at Annex 8 show the catch and income data that we have collected in the project area and demonstrate that by catching larger fish, the fishers are making more money. We are also now carrying out surveys of fishers to gather data on how much additional money that they are making, what they are using it for and whether they are involved in any savings activities. Annex 13 shows the questionnaires used and Annex 14 has some case studies that we have gathered at two beach landing sites in the project area, Kambindingu and Chizeo.

7. Consideration of gender equality issues

Women are encouraged to become members of the Fish Conservation Committee and in the project area they constitute 30% of total FCC membership. We have developed a questionnaire to measure the impact of their increased participation in the project on their wellbeing levels and we are now gathering the data on the impact of this – see Annex 9 for the questionnaire summary and for some case studies of the impact of the project on women's wellbeing.

8. Monitoring and evaluation

We have been fine tuning the methodology for monitoring catch and income throughout the project and have made changes to ensure that we are gathering meaningful data. When we started the project, we used the Fisheries catch data to establish our baseline figures and as these data are based on a 4 day catch sample, we wanted to gather more detailed data over longer time frames to measure project impact. This has proved fairly straightforward for Usipa catches where all the Usipa boats arrive back at a limited number of beach landing sites at around the same time each day when fishing takes place.

We have developed a simple sampling system for Usipa catches - we take one litre samples from the catch that is landed to assess how many small, medium and large fish the sample contains. Our handout at Annex 10 illustrates this.

However, for Chambo, this has proved to be more challenging for the following reasons:

- The boats come in at many more beach landing sites, often at inaccessible beaches, making checking on the accuracy of the data being gathered extremely difficult.
- Chambo fishers do not all fish at the same times – some land their catches very early in the morning and other fishers arrive back much later in the day.
- We have found when checking the accuracy of the data that fishers have under-reported their catch. This is consistent across all the areas in which the project is operating and we suspect this might be due to a fear of being taxed on larger fish catches if they report actual catch data.
- Some of our sample fishers had illegal nets confiscated during the reporting period meaning that there were significant gaps in the data reports until they obtained new nets.

In order to confirm what is really happening, we have therefore adopted a three-pronged approach to the data collection:

1. We were keen to use Fisheries catch data for 2018 and 2019 to compare with baseline data reported in the last annual report. However, we are conscious that the data only give a snapshot of the fish catches as they are based on small samples over a 4-day period. We are aware also that data is not collected consistently due to staff shortages and is often not checked for accuracy leading to misleading information on fish catches. We have requested the data for 2017-2018 but this has not yet been provided and the data for 2019 is for only part of the year. As there is a lot of missing data, we are reluctant to rely on these figures to demonstrate the impact of the project. However, we have attached what we have been able to get at Annex 7 for information.
2. Ripple Africa staff are now undertaking three-day sampling from 4 fishers in each stratum – this is a smaller number of fishers that we had originally intended to use but we are finding that it is much easier for us to check the accuracy of the data being provided. Our sample fishers note how many small, medium and large Chambo they have caught and this is then recorded so that we can assess the average income based on the average catch and multiplied by the average number of days fished to record catch and income.
3. We are also asking fishers in all our project areas to provide anecdotal data on their catches before the project started, and also for catches in 2018 and 2019. This gives us a much larger sample size as we are gathering these data from at least four fishers

overall in each stratum for each type of fish sampled. We have also found that the results are consistent from all the fishers who are reporting not only in the Darwin project area but also in other strata in Nkhotakota and in Nkhata Bay. The anecdotal data from the Darwin area is also backed up by the limited three-day sample data that we have gathered to date. See Annex 8.

9. Lessons learnt

9.1 Lack of cooperation between some chiefs and FCCs were preventing these FCCs from effectively carrying out all their duties.

Lesson learnt: We are holding more review and planning meetings between chiefs and FCCs in these areas to ensure that the Chiefs have a clear understanding of the measures which are needed and to gain their full support for the project.

9.2 Political Interference in the project – there were issues caused by some parliamentarians during the campaign period of the 2019 general election.

Lesson learnt: We have decided that we need to fully involve all district politicians, in particular the ward councillors, in decision making at community level. This really helped us to sort out potentially damaging issues that we might have faced in some wards which would have harmed progress towards our agreed outcome.

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

We have looked at the comments from the last annual review and met with our team in Malawi and with our partner to discuss how we can address these.

1. Revise project timeline to reflect the realities of implementation (e.g. delays in completing activities and knock-on effects on other activities, if any).

   We have looked at the timeline and we are confident that we are on track now after a few delays at the start of the project, caused mainly because the funding was late reaching us in the first part of Year 1.

2. Consider revising the Outcome statement and Outcome-level indicators so that they better capture the project's biodiversity and livelihood deliverables. I.e. is the establishment and capacity building of FCCs and their increasing ownership of managing sustainable fishing actually delivering the improvements sought?

   We discussed this with LTS and have taken this into account when putting together our next Darwin Initiative bid but we hope that our notes on progress explain how the project is delivering the improvements sought.

3. Make more efforts to contact CBD representative?

   Our Country Director, Force Ngwira regularly provides project updates to the Environmental Affairs Department and the Fisheries Department, both part of the Government of Malawi. The Director of Environmental Affairs and the Director of Fisheries have both provided letters of support for our application to extend the reach of the project into Salima District. The letter of support for this from the Director of Environmental Affairs is at Annex 11.

4. Provide summarised numerical data from the FCC performance monitoring. (Similar to Annex 6 in AR1, but with data from Nkhotakota (rather than Nkhata Bay) for all 35 FCCs. Also hard data (as well as graphs) of fish catch.

   See the information at Annexes 5, 7 and 8.

11. Other comments on progress not covered elsewhere

Malawi had elections in May 2019 and the results were disputed as there was concern that the results had been falsified. Malawi's High Court decided in February 2020 to overturn the results and call for a new election in the summer of 2020. However, until the High Court decision was made in January 2020, there was a lot of anger about the results of the election which led to rioting and consequently some disruption to FCC activities with some FCCs becoming worried about taking part in any enforcement activities as they were concerned about potential repercussions. However, this has been less of a problem in the project area than in other parts of Malawi where the project is operating as the District Council and Police were better able to keep the rioters under control.

12. Sustainability and legacy

The main risk to the project is related to ongoing funding. Whilst we are extremely grateful for the Darwin Initiative funding which will enable us to run the project until March 2021, we are aware that we will need to find further funding to continue the work after that. Over the last twelve months, we have worked in partnership with District Fisheries Officers in Nkhata Bay and Nkhotakota Districts to develop a District Fisheries Permit system which will bring in income from fishers to enable the project to continue after the funding from Darwin Initiative ends next year. We are in the process of discussing this at national and district level with the Director of Fisheries and the District Commissioners, District Executive Councils and District Fisheries Officers of the two districts. Initial feedback is extremely positive and our estimates of the amount of income that the permits will bring in from fishers will enable District Fisheries to be much better financed. It seems only fair that if the fishers are making more money, then some of that money could be used to ensure that the impact of the project that has been seen to date continues over the longer term. The proposal paper is at Annex 12. However further discussions about the implementation of the fishing permits will now be on hold until after the current Covid-19 restrictions have been lifted.

13. Darwin identity

We have now added the Darwin Initiative logos to our forms and there is information on our website that acknowledges the support that we are getting from the Darwin Initiative. https://www.rippleafrica.org/get-involved/trusts-and-foundations/. We have also had several articles published in the Darwin Initiative Newsletter and always feature these on our social media channels.

14. Safeguarding

Ripple Africa has a Safeguarding policy in place and a Code of Conduct for all our staff working in the field. This covers bullying, harassment, sexual exploitation and abuse and also states that we encourage whistleblowing and confirms that there will be no adverse effects of reporting issues relating to any of the above. We have agreed disciplinary procedures in place which follow Malawian Labour laws for our field staff and all staff have been made aware of these and we have signed acknowledgements of this from all our staff working on the project. We have a very simple and clear code of conduct for all Malawian staff and we have regular staff appraisals to ensure that all staff adhere to the standards expected of them. Fisheries staff working on the project are also expected to work in the same way and they have to abide by the Government of Malawi safeguarding policies to ensure that this is the case.

Project expenditure. Table 1: Project expenditure <u>during the reporting period</u> (1 April 2019 – 31 March 2020)

Project spend (indicative) since last annual report	2019/20 Grant (£)	2019/20 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Monitoring & Evaluation (M&E)				
Others (see below)				
TOTAL				

1. More activities are now being carried out by Ripple Africa Staff and less by fisheries as Fisheries have had funding issues

2. Monitoring and Evaluation costs are included in Operating costs and Consultancy costs

3. The way we analyse our figures on our already established accounting system means that certain costs could appear in operating costs when a proportion of them could be Travel and Subsistence or overheads. This is because we monitor by recipient (ie Fisheries, Chiefs etc) rather than by cost area (ie T and S or overheads). But all individual payments are recorded on our account sheets and coded to produce the figures shown here

4. No capital purchases this year

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2019-2020

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Impact Lake Malawi fishing communities manage fish resources sustainably and improve biodiversity through protection of endangered species, breeding areas and regulation of fishing gears thereby securing their livelihoods and improving nutrition.		Progress over the last 12 months has been good – the Fish Conservation Committees have been actively enforcing the District Bylaws and there have been positive changes in catch and income for fishers. Increased numbers of baby Chambo are now being seen in the breeding areas and the larger numbers of large fish available demonstrate that overall fish stocks are increasing.	[redacted]
Outcome Fishing communities, supported by Fisheries Department in Nkhotakota District are empowered and take ownership of managing sustainable fishing methods, reducing illegal practices and protecting breeding/nursery sanctuaries for Chambo and Usipa	0.1 420 Fishers and community members are trained and active members of 42 Fish Conservation Committees by July 2019. Of these 125 will be women 0.2 All Chambo breeding / nursery areas in Nkhotakota District will be identified by September 2018 and will be protected by FCC members by March 2019. 0.3 Fishers earnings stabilised by catching larger Chambo and Usipa and therefore earn a higher income from April 2019 until project end compared with baseline (to be established)	0.1 As reported in the last annual report, we revised the number of FCCs to 35 as some beach landing sites are close enough for two to be managed by one committee. All are now fully established and trained. Of 350 committee members 106 are women – just over 30%. We are monitoring their performance against a number of indicators to ensure that they are actively conserving the fish in their area. 0.2 We identified ten Chambo breeding areas in the project area last year and protecting each of these is the responsibility of the nearest FCC. We have recently identified one new breeding area called Luluzi in the north of Nkhotakota but as this is in a hard to reach area and can only be accessed during the summer months, we have not yet fully assessed it. However, Luluzi FCC are going to be monitoring	0.1 We will continue to support and monitor the performance of the 35 BVCs. This will enable us to identify any issues and provide retraining as required. 0.2 We will continue to carry out an annual audit of the breeding areas to measure the effectiveness of the protection that the BVCs are offering here. 0.3 Fishers earnings will continue to be measured along with the catch data for the project area using the same method.

		this new breeding area. season. Protection is being carried out by ensuring that FCCs stop all fishing activities in breeding areas, respect the closed season and confiscate all mosquito nets (used for Chambo and Usipa). 0.3 We have measured fishers' earnings in order to compare this against our baseline – see Annex 8. Earnings are based on predicted income figures - beach prices multiplied by average fish catches – see above for details of how catches are being measured.	
Output 1. **Establish and train 42 fish conservation committees in Fishing Strata 5.3, 5.4 and 5.5 and local leaders and support them in managing fishing practices in their beach areas**	1.1 42 Fish Conservation Committees each containing 10 members - 30% of whom are female and 60% of whom are non-fishers - established by Dec 2018. All member details and details of fishers and fishing gears used at the landing sites where they will operate entered onto database by March 2019. 1.2 Training of all FCCs will cover fish management and conservation, impact of family size and other family lifestyle choices on the natural environment, finance issues and committee management. Priorities for training committees will be in the Chambo nursery and breeding areas, but all FCCs will be fully trained by July 2019 1.3 All FCCs will be encouraged to actively patrol their beach area, confiscate nets and train other	1.1 Target revised as we only needed to establish 35 FCCs/ BVCs. Details of FCC membership and fishers and landing gears were entered onto the Access database by the target date. 1.2 We have trained all established FCCs in the areas on • Fish management and conservation • Impact of family size and other family lifestyle choices on the natural environment. • Finance issues • Committee management (leadership skills) All FCCs were fully trained by July 2019. 1.3 We have established an FCC performance template which will be used to measure the activities of each FCC and highlight any retraining needed – summary at Annex 5. This includes whether the wider community is aware of	

	members of their community – from when they are fully trained until March 2021. This FCC led training will mirror the training that the FCC received, including the importance of fish as a natural resource and of sustainable fishing as a means of improving nutrition and household income. It will also highlight the impact of continued human population growth on future prospects for both fisheries and livelihoods 1.4 More than 125 female FCC members feel that they are empowered and fully involved in the project and fish value chain by December 2019	the fish conservation practices so that we can assess how active each FCC is in communicating with their fellow community members and local children. 1.4 Female membership details have been collected for all FCCs and we are measuring the impact of committee membership on women's wellbeing and feelings of involvement in the project. Because the number of FCCs is now 35, the target number of female committee members is now 105 – we have 106. See Annex 9 for details of how we are measuring the impact of the project on women and some case studies.	
Activity 1.1 Agree with Department of Fisheries which staff will work in the chosen areas – reassign staff as required		This was done in conjunction with the District Fisheries Officer and RIPPLE Africa staff and Fisheries Extension Workers are all now in place. There have been no staff changes this year.	We will continue to work in partnership with the District Fisheries team to ensure that staffing levels are maintained and that any issues are quickly addressed.
Activity 1.2 Meet with Fisheries extension workers, Traditional Authorities, Group Village Headmen and Village headmen to launch project and agree where the FCCs will be located in communities where this has not already been done. Share by-laws.		This activity was carried out at the start of the project in order to identify the number and location of FCCs needed in the project area. Bylaws were shared with all stakeholders as part of this process.	We will continue to address any ongoing concerns through our regular stakeholder meetings – these are scheduled quarterly meetings with occasional addition meetings in between as required.
Activity 1.3 Meet with community members to launch the project, discuss how the project will benefit community members and seek volunteers to join the FCC where this has not yet been formed. Particular focus on encouraging women to participate		This has been done now in all areas and is the reason for the decision to reduce the planned number of FCCs.	We will continue to monitor FCC performance and suggest membership changes as required.
Activity 1.4 Generate an FCC register and enter details of all fishers at beach landing sites onto RIPPLE Africa database		Done – see Output 1.1 above.	Changes are recorded twice a year.

Activity 1.5 Adapt current training materials to include training on how population increase affects natural resources and on family planning with reference to local support available		Done – training now includes this in the Darwin area.	We will continue to stress this in any retraining activity carried out.
Activity 1.6 Train newly formed FCCs in management - priority to be given to those located near breeding areas		Done – see Output 1.2 above.	This will be done as needed for newly elected committee members.
Activity 1.7 Monitor and support all FCCs to ensure that they are following local bylaws and spreading the message to other community members on the project		We have a planned programme of monitoring inspections for all FCCs retraining is done as required. See FCC Performance Summary at Annex 5.	We will continue to monitor performance and identify those committees in need of further support and training.
Activity 1.8 Develop socioeconomic survey to assess women's wellbeing and involvement and carry out initial survey to establish baseline		Baseline survey has now been carried out and we will be undertaking annual surveys to measure the impact of involvement in the project on women's wellbeing - see Output 1.4 above.	We will continue to undertake annual surveys to measure impact .
Activity 1.9 Carry out quarterly surveys to compare results against baseline		We are now carrying out the surveys as part of our normal monitoring process.	We will continue to carry out the surveys as part of our normal monitoring process.
Output 2. **Identify all Chambo breeding and nursery areas and ensure that protection measures and sanctuaries are in place for all of these**	2.1 Survey Strata 5.3, 5.4 and 5.5 between July and September 2018 to identify and map Chambo breeding areas 2.2 Provide more in depth training on Chambo and Usipa breeding cycle, seasons and need for protection of breeding areas. Particularly the importance of preserving natural vegetation such as reeds in shoreline areas, which offer protection for the Chambo fry. Also the importance of using larger mesh and closed season for Usipa. Targeting those FCCs who will be closest to the sanctuaries and responsible for their protection by November 2018.	2.1 Ten Chambo Breeding areas were identified by the target date. Mapping has now been completed and the map is at Annex 6 along with a summary of the breeding areas. 2.2 Training of all FCCs located in breeding areas was carried out before November 2018. We are checking their understanding of their responsibilities and knowledge of the bylaws as part of the FCC monitoring cycle.	

	2.3 Ensure that FCCs stop all fishing activities in breeding areas, respect the closed season and confiscate all mosquito nets (used for Chambo and Usipa) as a priority by February 2019 2.4 FCC members will train non FCC community members on the importance of protecting fish breeding areas and respecting closed seasons by July 2019	2.3 This is part of the FCC Performance Monitoring process. 2.4 This is part of the FCC Performance Monitoring process.	
Activity 2.1. Carry out survey with District Fisheries to identify all Chambo nursery and breeding areas and develop simple management plans		10 Chambo breeding areas have now been identified and the FCCs responsible for each of these have management plans in place. Each breeding area is audited annually to assess how best to continue protecting it. See Annex 6 for a map, photos and summary of the breeding areas.	FCCs management plans for the area include details of how they will protect the breeding area. We will continue to assess their success through the Audit programme.
Activity 2.2. Produce map of breeding and nursery areas of Chambo		This has been done – see Annex 6.	Any additional breeding areas identified will be mapped.
Activity 2.3. Work with Fisheries to identify the breeding cycle and seasons of different sizes of Usipa		Changes in Usipa breeding patterns have been observed over the last 12 months and we are working now with Fisheries to identify how best to measure the impact of this in the project area. We will be working with sample fishers who will use larger meshed nets to assess catch results to minimise smaller Usipa being caught.	We will continue to work with Fisheries to improve our knowledge of Usipa breeding cycles.
Activity 2.4. Provide additional training to FCCs in nursery and breeding areas on protection of their breeding Chambo population, in particular the need to protect reeds and other protective vegetation		See Output 2.2 above.	Retraining will be carried out as required following breeding area inspections.
Activity 2.5. Explain the biology of the fish and the need to allow juveniles to grow, and initiate a program to confiscate all mosquito nets for Chambo and Usipa		Training includes information about the need to protect baby fish and the importance of using the correct meshed fishing gear.	Ongoing support and retraining as required.
Activity 2.6. Monitor activities of FCCs in breeding areas to ensure that the lagoons etc are being protected and to monitor fish numbers		The FCC performance summary at Annex 5 shows how we monitor the	Ongoing support and retraining as required.

		activities of the FCCs and assess their effectiveness.	
Activity 2.7. Develop community survey to assess knowledge of all community members on need to protect breeding areas		We have built this into the FCC Performance monitoring process and we have therefore decided that we do not need an additional community survey.	We will continue to measure this as part of the FCC performance monitoring process.
Activity 2.8. Carry out quarterly surveys to assess community knowledge		See above.	See above.
Output 3. Measurement systems for Chambo and Usipa catches and income of fishers are developed and introduced, collecting accurate data to measure the success of the project and feedback to community management	3.1 Develop the catch monitoring system to operate in this project area by Dec 2018 3.2 Data collectors are selected and trained by April 2019 3.3 From April 2019, collect data on a daily basis for selected data collection fishers and establish economic value chain that the catch will generate segregated for Chambo and Usipa 3.4 Fisher's income generated by catches of larger Chambo and Usipa will increase by an average of 20% per annum against the baseline figure from April 2019 until project end.	3.2 This has been established and we are collecting catch data for Chambo and Usipa along with beach prices to enable us to identify the economic value of the catch. The 3 day catch data system started in Feb 2020. 3.2 Achieved by target date. 3.3 We are getting daily information from sample fishers on their catch, the size of fish caught and also for days on which they are not fishing, the reasons for this (moon, wind etc). This will be shared with the Fisheries Research Unit to increase their knowledge on fishing activities in the area. 3.4 See Annex 8 for catch and income data. Although the income varies between beaches and is affected by market prices, the average increase in income for Chambo across the three strata from 2017 until 2019 is 224%. For Usipa income, our most reliable data is from Chizeo beach and here the average increase in income from before the project started until today is 63%.	
Activity 3.1. Agree with partners how the catch monitoring system will work in Nkhotakota District		All partners are happy with the new monitoring system.	We will assess whether any changes are required.
Activity 3.2. Select and train the fishers who will collect the data and the extension workers who will monitor the data collection process		Done – see Output 3.2 above. The 3 day catch data system started in Feb 2020.	We will continue to collect the data in line with our monitoring system.
Activity 3.3. Train the administrator in Nkhotakota to input the catch data onto the spreadsheet system already developed for Nkhata Bay District		Done.	We will continue to carry out checks to ensure that data is entered correctly
Activity 3.4. Collect the catch data and monitor to ensure that it is accurate		We conduct simple checks at the landing site to measure accuracy of data collection. We cross check with	To continue as now.

	data from other landing sites to identify any anomalies.	
Activity 3.5. Collect prices of different sizes of fish from the market on a quarterly basis to enable income assessment to be kept up to date	We have a monthly reporting system in place to identify beach selling prices to enable us to identify values of fish catches.	To continue as now.
Activity 3.6. Collect family income data through socio-economic survey to measure change in impact of fish caught on households	We have developed a questionnaire which is now being to gather evidence of the impact of the project on household income, to evaluate how the extra income is being used and to identify savings activities. This is shown at Annex 13 and there are case studies about this at Annex 14.	

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Lake Malawi fishing communities manage fish resources sustainably and improve biodiversity through protection of endangered species, breeding areas and regulation of fishing gears thereby securing their livelihoods and improving nutrition. .			
Outcome: Fishing communities, supported by Fisheries Department in Nkhotakota District are empowered and take ownership of managing sustainable fishing methods, reducing illegal practices and protecting breeding/nursery sanctuaries for Chambo and Usipa.	0.1 420 Fishers and community members are trained and active members of 42 Fish Conservation Committees by July 2019. Of these 125 will be women 0.2 All Chambo breeding / nursery areas in Nkhotakota District will be identified by September 2018 and will be protected by FCC members by March 2019 0.3 Fishers earnings stabilised by catching larger Chambo and Usipa and therefore earn a higher income from April 2019 until project end compared with baseline (to be established)	0.1 Database of FCC membership and fishing gear used, training records, minutes of meetings and surveys of FCC activities 0.2 Mapping of Chambo breeding areas and assessment of natural habitat, quarterly tracking of FCC activities, such as net confiscations and awareness training 0.3 Catch quantities and income from fish sales per month	• Fish Bylaws for Nkhotakota District are signed off by District Councillors and Executive Committee before the project start date • Traditional Authorities, Senior Chiefs, Village Headsmen, community members and District officials are fully supportive of the project and its introduction into the new areas • Catch data systems developed in Nkhata Bay District can be replicated in Nkhotakota District and we are able to find fishers who can be trusted to give accurate data on a daily basis.
Output 1. Establish and train 42 fish conservation committees in Fishing Strata 5.3, 5.4 and 5.5 and local leaders and support them in managing fishing practices in their beach areas	1.1 42 Fish Conservation Committees each containing 10 members - 30% of whom are female and 60% of whom are non fishers - established by Dec 2018. All member details and details of fishers and fishing gears used at the landing sites where they will operate entered onto database by March 2019. 1.2 Training of all FCCs will cover fish management and conservation, impact of family size and other family lifestyle choices on the natural environment, finance issues and committee management. Priorities for training committees will be in the Chambo	1.1. Details on database of FCC membership and date established 1.2 Record of training and post training questionnaires to ensure that members understand their roles and responsibilities, their understanding of the project and their understanding of how lifestyle changes will positively	• Community members, particularly women, agree to join Fish Conservation Committees • Data collected is accurate • Baseline survey is done to enable us to identify increased understanding • FCC members are active and effective

	nursery and breeding areas, but all FCCs will be fully trained by July 2019 1.3 All FCCs will be encouraged to actively patrol their beach area, confiscate nets and train other members of their community – from when they are fully trained until March 2021. This FCC led training will mirror the training that the FCC received, including the importance of fish as a natural resource and of sustainable fishing as a means of improving nutrition and household income. It will also highlight the impact of continued human population growth on future prospects for both fisheries and livelihoods. 1.4 More than 125 female FCC members feel that they are empowered and fully involved in the project and fish value chain by December 2019	impact on natural resource availability and income that they can generate 1.3 Record of FCC activities including net confiscations, questionnaire and survey results, photos, case studies and feedback from extension workers 1.4 Survey of female FCC members to measure their involvement levels and wellbeing, case studies	• Men are fully prepared to involve women in committee activities and family decisions • Socio-economic survey developed is effective in assessing women's views • Minimal political interference
Output 2. Identify all Chambo breeding and nursery areas and ensure that protection measures and sanctuaries are in place for all of these	2.1 Survey Strata 5.3, 5.4 and 5.5 between July and September 2018 to identify and map Chambo breeding areas 2.2 Provide more in depth training on Chambo and Usipa breeding cycle, seasons and need for protection of breeding areas. Particularly the importance of preserving natural vegetation such as reeds in shoreline areas, which offer protection for the Chambo fry. Also the importance of using larger mesh and closed season for Usipa. Targeting those FCCs who will be closest to the sanctuaries and responsible for their protection by November 2018.	2.1 Accurate map of all breeding areas 2.2 Training record of FCCs in breeding areas and photos 2.3 FCC activity logs, case studies, questionnaires to test understanding of	• Chambo breeding areas are easy to identify • Community members are willing to become members of the Fish Conservation Committees in breeding areas and understand their responsibilities • Fish Conservation Committees in the breeding areas are active and effective at carrying out their protection duties • Community members understand the need for the project and the importance of

	2.3 Ensure that FCCs stop all fishing activities in breeding areas, respect the closed season and confiscate all mosquito nets (used for Chambo and Usipa) as a priority by February 2019 2.4 FCC members will train non FCC community members on the importance of protecting fish breeding areas and respecting closed seasons by July 2019	this issue with FCC members and other members of the community	natural vegetation in breeding areas • Political support for establishing nursery sanctuaries • Climate change does not cause lake to recede exposing sanctuaries
Output 3. Measurement systems for Chambo and Usipa catches and income of fishers are developed and introduced, collecting accurate data to measure the success of the project and feedback to community management	3.1 Develop the catch monitoring system to operate in this project area by Dec 2018 3.2 Data collectors are selected and trained by April 2019 3.3 From April 2019, collect data on a daily basis for selected data collection fishers and establish economic value chain that the catch will generate segregated for Chambo and Usipa 3.4 Fisher's income generated by catches of larger Chambo and Usipa will increase by an average of 20% per annum against the baseline figure from April 2019 until project end.	3.1 Details of fishermen on the database and written details of how the monitoring system will operate 3.2 Training records 3.3 Records of daily catches – quantity of fish caught and their size - entered onto monitoring database, lifestyle questionnaire results, case studies 3.4 Income earned by catch data monitors, survey responses from non catch data monitors to establish validity of measurement system	• The monitoring system being used in Nkhata Bay District can be easily replicated in Nkhotakota District • Fishers selected as data collectors are honest and provide accurate data • Baseline assessment of income is available to measure impact of the project on household income
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) Agree with District Council and Department of Fisheries the issuance of By-laws for Nkhotakota District, modelling on Nkhata Bay 1.1 Agree with Department of Fisheries which staff will work in the chosen areas – reassign staff as required 1.2 Meet with Fisheries extension workers, Traditional Authorities, Group Village Headmen and Village headmen to launch project and agree where the FCCs will be located in communities where this has not already been done. Share by-laws. 1.3 Meet with community members to launch the project, discuss how the project will benefit community members and seek volunteers to join the FCC where this has not yet been formed. Particular focus on encouraging women to participate 1.4 Generate an FCC register and enter details of all fishers at beach landing sites onto RIPPLE Africa database 1.5 Adapt current training materials to include training on how population increase affects natural resources and on family planning with reference to local support available 1.6 Train newly formed FCCs in management - priority to be given to those located near breeding areas 1.7 Monitor and support all FCCs to ensure that they are following local bylaws and spreading the message to other community members on the project			

1.8 Develop socioeconomic survey to assess women's wellbeing and involvement and carry out initial survey to establish baseline
1.9 Carry out quarterly surveys to compare results against baseline

2.1 Carry out survey with District Fisheries to identify all Chambo nursery and breeding areas and develop simple management plans
2.2 Produce map of breeding and nursery areas of Chambo
2.3 Work with Fisheries to identify the breeding cycle and seasons of different sizes of Usipa
2.4 Provide additional training to FCCs in nursery and breeding areas on protection of their breeding Chambo population, in particular the need to protect reeds and other protective vegetation
2.5 Explain the biology of the fish and the need to allow juveniles to grow, and initiate a program to confiscate all mosquito nets for Chambo and Usipa
2.6 Monitor activities of FCCs in breeding areas to ensure that the lagoons etc are being adequately protected
2.7 Develop community survey in key breeding areas to assess knowledge of all community members on need to protect breeding areas
2.8 Carry our quarterly surveys to assess community knowledge, including baseline survey to monitor effectiveness of training

3.1 Agree with partners how the catch monitoring system will work in Nkhotakota District
3.2 Select and train the fishers who will collect the data and the extension workers who will monitor the data collection process
3.3 Train the administrator in Nkhotakota to input the catch data onto the spreadsheet system already developed for Nkhata Bay District
3.4 Collect the data and monitor to ensure that it is accurate
3.5 Collect prices of different sizes of fish from the market to enable income assessment to be kept up to date
3.6 Collect family income data through socio-economic survey to measure change in impact of fish caught on households

Annex 3: Standard Measures

N/A

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
Established codes								

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)

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

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	✓
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	N/A
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	N/A
Have you involved your partners in preparation of the report and named the main contributors	✓
Have you completed the Project Expenditure table fully?	✓
Do not include claim forms or other communications with this report.	