

Final Evaluation of the FishTrade Project

Improving food security and reducing poverty through intraregional fish trade in sub-Saharan Africa (FishTrade) implemented by WorldFish

Final report
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List of abbreviations

ARSO	African Organisation for Standardisation
AU	African Union
AU-IBAR	African Union – InterAfrican Bureau for Animal Resources
AWFishNET	African Women Fish Processors and Traders Network
CAADP	Comprehensive Africa Agriculture Development Programme
CAMFA	Conference of African Ministers of Fisheries and Aquaculture
CGIAR	Consultative Group for International Agricultural Research
CFTA	Continental Free Trade Area
CGIAR	Consultative Group on International Agricultural Research
COMESA	Common Market for Eastern and Southern Africa
CRP	CGIAR Research Programme
CSO	Civil Society Organisation
DRC	Democratic Republic of Congo
EAC	East African Community
ECOSTANDS	ECOWAS standards
ECOWAS	Economic Community of West African States
EQ	Evaluation Question
ET	Evaluation Team
ETLS	ECOWAS Trade Liberalization Scheme
EU	European Union
FAO	Food and Agriculture Organisation
FCWC	Fisheries Committee for the West Central Gulf of Guinea
GDP	Gross Domestic Product
GHI	Global Hunger Index
KII	Key Informant Interviews
LVFO	Lake Victoria Fisheries Organization
M&E	Monitoring and Evaluation
MAAIF	Ministry for Agriculture, Animal Industry and Fisheries
MEL	Monitoring, Evaluation and Learning
MS	Member States
MSc	Master of Science (master's degrees)
MT	Metric Ton
NATMAZ	National Traders and Marketeers Association of Zambia
NEPAD	New Partnership for Africa's Development
OECD DAC	Organisation for Economic Co-operation and Development - Development Assistance Committee
OSBP	One Stop Border Post
PFRS	Policy Framework and Reform Strategy for African fisheries
REC	Regional Economic Communities
RFB	Regional Fisheries Bodies
RFP	Request for Proposals
SADC	Southern African Development Community
SADCSTAN	SADC Cooperation in Standards
SDG	Sustainable Development Goals
SME	Small and medium enterprises
SPS	Sanitary and phytosanitary
ToC	Theory of Change
ToR	Terms of Reference
USAID	United States Agency for International Development
WAFICOS	Walimi Fish Cooperative Society

Evaluation Team

This evaluation was carried out by a team of independent evaluators from Landell Mills – James Keeley (Team Leader), Imogen Mullett and Ellie McGovern. They were supported by Valerie McDonnell-Lenoach (Quality Assurance) and John Linton (Aquaculture, fisheries and fish trade advisor).

Executive Summary

Evaluation purpose, scope and objectives

The purpose of this evaluation is to provide a robust, external, independent evaluation of the European Union-funded *Improving food security and reducing poverty through intraregional fish trade in sub-Saharan Africa* (FishTrade) project managed by WorldFish, in partnership with the African Union – InterAfrican Bureau for Animal Resources (AU-IBAR) and the New Partnership for Africa's Development (NEPAD), between 2015 and 2018. The evaluation is a summative, impact evaluation based primarily on desk-based work and key informant interviews with a short period of fieldwork in Zambia and Malawi. It provides a set of evidence-led, actionable recommendations for future project design and implementation.

The evaluation was designed to:

- Review the degree to which the project was able to achieve its four key result areas and the extent to which gender was considered and results reflected gender equity improvements.
- Review the project Theory of Change and evaluate delivery of targeted outcome and impact results, determining whether assessments can be made about the level of achievement of impact and output results and if/how these can be linked to the project interventions through plausible impact pathways.
- Identify factors that enabled or constrained achievement of the results envisaged by the project, how obstacles were addressed and what actions could have been taken to mitigate challenges.
- Make recommendations for stakeholders on lessons for the design of similar projects in the future

The evaluation used a range of methods, including detailed document review, key informant interviews and a remote survey of project stakeholders. A deep dive case study was undertaken for Zambia in the southern corridor. Zambia was chosen as a significant amount of project research was undertaken there, as well as some important project interventions, which the team were able to visit. It was also possible to meet a range of both national and regional level stakeholders. The project used the range of methods to triangulate findings in response to a series of evaluation questions organised according to the OECD DAC evaluation criteria and therefore assessed the project's relevance, coherence, effectiveness, efficiency, impact and sustainability.

The FishTrade project

The Fish Trade project was implemented in four corridors: western, central, eastern and southern. The project involved at least 21 countries, with different levels of activity in each. Formally the corridors were:

- Corridor A: Dakar to N'djamena, through Senegal, Mali, Burkina Faso, Niger, Ghana, Nigeria and Chad;
- Corridor B: Dar es Salaam, to Durban, via Zimbabwe, Botswana, Zambia, Malawi, Mozambique and DRC;
- Corridor C: Mombasa to Goma, via Kenya, Uganda, Burundi, Rwanda and DRC;
- Corridor D: Libreville to N'djamena via Gabon, Cameroon and Chad.

In practice, the research sometimes moved outside of these corridors, and a small number of activities were undertaken outside them as well.

The project had four main activity areas: research on fish-trade routes and cross-border fish trade to inform policy; development of recommendations on policy, regulation, standards to be used to engage policy-makers to promote change and better implementation for enhanced fish-trade; capacity building to improve the capacity, competitiveness and opportunities for non-state actors engaged in the fish trade; and activities to improve implementation of fish trade policies and regulations, including in relation to disease management and food safety.

These activities translated into the following result areas:

- Result area 1: intra-regional fish trade information enhanced
- Result area 2: fishery policy and regulatory frameworks strengthened
- Result area 3: capacities, competitiveness and trade opportunities for non-state actors expanded
- Result area 4: implementation of appropriate policies, certification, procedures, standards and regulations

Delivery of these results was expected to contribute towards an outcome of enhanced fish trade, measured by increased volumes and values of intra-regional fish trade and fish exports, as well as improvements in competitiveness.

Realisation of outcomes is in turn expected to make a contribution towards impacts of enhanced food and nutrition security and improvements in assets and incomes for fish-dependent communities.

Evaluation Findings

Relevance

EQ1 To what extent were the FishTrade objectives relevant to the needs of intended beneficiaries?

The objective of the project was: 'to improve food and nutritional security and reduce poverty in sub-Saharan Africa by enhancing the capacities of regional and pan-African organizations to support their member states to better integrate intra-regional fish trade into their development and food security policy agendas'.

Project documentation identified fish-dependent communities in two ways. The first definition is broad, identifying over 400 million urban and rural consumers of fish. The second focuses on key actors specifically involved in fish trade, namely, fish producers, processors and traders. The project was relevant to beneficiaries in both senses, as enhanced fish trade is expected to improve access to nutritious fish; and because integration of intra-regional fish trade into development and food security policy agendas is expected to benefit participants in the fish trade value chain.

Coherence

EQ2 To what extent were project activities and outputs consistent with the project objectives?

The evaluation found that the main results areas were coherent with the project objectives. Activities pursued to achieve different results were largely coherent, although for the second result area several activities were carried out, including procurement of inspection equipment for the Guinean fisheries sector to facilitate export to the EU, and pre-assessment for certification of three west African shrimp fisheries, which while being worthy endeavours on their own terms, were not coherent with the main focus of the project on small-scale intra-regional fish trade, and in particular the trade in low-value fish.

Effectiveness

EQ3 How successfully has knowledge of fish trade routes been enhanced? Is this informing policy development?

The project produced an impressive range of high-quality research outputs on different aspects of the informal fish trade. Important findings were shared on the scale of the informal fish trade, the main routes for fish trade, the challenges faced by cross-border traders, and the need for policy and regulation to better support cross-border trade.

Research findings were shared with policymakers at regional and national levels. Government officials in Malawi and Zambia indicated that research from the project has completely changed their perception of the scale, importance and issues faced by informal fish trade, and would inform policy development.

EQ4 Have fishery policies and regulatory frameworks been strengthened in the participating countries and regionally?

The project has produced many recommendations for change in policy, regulations and standards. These have been shared with policymakers and have contributed to raising of the profile of fish trade issues at the Council of Fisheries and Agricultural Ministries for Africa (CAMFA). Key achievements of the project include harmonisation of fish and fish product standards in the SADC region, and development of a Green Card pilot for small-scale fish trade with COMESA to be piloted in Zambia. In terms of national level policies, the project has influenced the design of the Fisheries Policy in Malawi and the Fisheries and Aquaculture Policy in Uganda. ECOWAS has also developed a Comprehensive Strategic Framework for Sustainable Fisheries and Aquaculture Development in West Africa, which drew directly on research from the project. Beyond this the

project has contributed to awareness raising, which help create the preconditions necessary for changes in policy and implementation in the medium-term.

EQ5 How have capacity, competitiveness and opportunities for non-state actors increased or changed?

The project carried out on the ground capacity building trainings with seven fish processing and trading organisations, on subjects ranging from business development to improving quality and reducing post-harvest losses. AU-IBAR also organised capacity building workshops at a continental level for cooperatives and associations. The overall assessment of these activities was positive. The project also contributes to the establishment of the African Women FishTraders and Processors Network (AWFishNET) which has the potential to be an important network advocating for women fish traders across the continent and at regional and national levels.

The Evaluation Team was able to meet groups who had been trained by the project at two sites in Zambia (Luangwa and Kasumbalesa). In both cases the project had helped to improve the capacity of the groups to trade effectively, and in one case (Luangwa) traders had become more competitive in the market, through improvements in the quality of fish processing, a reduction in post-harvest losses, and greater capacity to aggregate and reduce transaction costs.

In relation to this capacity building element, the evaluation team found that interventions were somewhat standalone, with insufficient attention being paid to replication or sharing of lessons from the capacity building activities. The creation of AWFishNET had the potential to help with scaling out and replication, but connections were not fully made to the local level interventions supported by the project (for example in Luangwa).

The project also scoped out how to support geo-coded trade portals as a way of improving access to information for fish trade. This was a well-conceived activity, but the portal that was supported is now not functioning following the end of the project. This suggests that inadequate attention was paid to planning for future sustainability.

EQ6 To what extent has the implementation of policies, certifications, standards etc improved?

The project worked at Busia in Uganda on the Kenya-Uganda border to include fish within the framework of the One Stop Border Post (an approach gradually being introduced across Africa, where all cross-border procedures can be carried out at one site, with clear information on the process, and no need to repeat them at the second border). The project linked this work to capacity building with the local fish trader association and awareness raising and training of officials and traders. The intervention contributed to improved implementation of policies on trade facilitation and was very successful in terms of increasing levels of formal trade and helping traders access higher value markets in Kenya. The project began the process of developing a second pilot at Kye-Ossi in Cameroon, it is unclear how far this had proceeded by the end of the project.

The project also supported pre-assessments of fisheries in Gabon, Guinea and Nigeria to meet certification standards under this stream of work.

In relation to cross-border trade, studies were carried out on fish diseases and food safety. These yielded valuable information to inform implementation of policy, but it is not clear that the research has been put to use.

Efficiency

EQ7 To what extent was the implementation of FishTrade efficient?

Efficiency was assessed in terms of cost-effectiveness, timeliness and suitability of the delivery model adopted. Some aspects of the project were very cost-effective, for example, using students to carry out research built longer term research capacity, but enabled far more studies to be carried out than if research consultants had been used. Close supervision by academics and WorldFish helped ensure quality was not compromised.

The project was also able to partner with FishGov to share costs for some of the high-profile think tank meetings.

The project completed a significant amount of research, meetings and other activities within the lifespan of the project. Most of the research was completed in good time to allow for dissemination, but some activities, including production of research summaries, were completed very late in the project allowing limited time for

communication with relevant stakeholders. Other key project activities such as piloting of the COMESA Green Card could not be fully implemented within the lifespan of the project.

In relation to the delivery model, the evaluation team observed that each of the three lead organisations carried out quite distinct streams of work. There were clear linkages between the AU-IBAR led think tank meetings and the research and interventions conducted by WorldFish, but the pre-assessment activities and support for fisheries development in Guinea supported by NEPAD were disconnected to the main focus of the FishTrade project. The management model contributed, therefore, to a certain level of fragmentation across activities, and less than optimal level of strategic coherence.

The project was also ambitious in choosing to focus on four corridors and 21 countries. It may have been more efficient - in terms of costs and achieving synergies across activities - to have concentrated on one or two corridors.

Impact

EQ8 To what extent has the project contributed to improved food and nutritional security and wealth generation among African fish-dependent communities?

The evaluation found that the wide geographical scope of the project, short implementation period, and lack of baseline and end line data for project impact indicators, meant that it was not possible to measure the level of contribution of the project to achievement of outcomes and impacts. The evaluation reviewed proxy indicators for changes in intra-regional fish trade, assets and income, and hunger status for five years covering the project period and after. However no suitable indicators were identified that both covered the time period and correlated well with the fish-dependent communities targeted by the project.

The remote survey was inconclusive on the level of change for food and nutritional security and wealth generation. Field work findings in Zambia found (based on a small number of interviews and focus group discussions) that in Luangwa, capacity building with cooperative members had contributed to an improvement in incomes and assets through reduction in post-harvest losses and capacity to aggregate and store fish at the warehouse constructed by the project. These benefits had not necessarily spread beyond the partner cooperatives, although fish handlers (all men) had seen incomes rise, which was linked to the expansion of cooperative trading. In Kasumbalesa (location of a large market for fish trade on the border with DRC), evidence on incomes was less positive. Traders said that sale prices for fish had increased, and slightly more than the cost of buying fish, but this did not translate into increased profits as increases in transport costs and levies were greater than the gains from price rises. Increased volumes of sales were not compensating for reduced margins. Others commented that increased competition in the market kept prices down. A more detailed survey would be needed to deliver more robust and conclusive information on these points, and to determine how changes in prices affect the affordability of fish.

In relation to food and nutrition security, remote survey informants did not offer conclusive findings, although there was a general perception that more food was available. At the field work site in Luangwa, informants suggested that food nutrition and security had improved. In Kasumbalesa, it was suggested that the opposite was true.

Key informant interviews generally supported the view that increased fish trade will contribute to an impact of improved food security and nutrition as anticipated by the project ToC. However, cases were mentioned where increased trade had resulted in a decline in the availability of affordable fish for specific groups of poor consumers.

The evaluation was not able to conclude that the project had contributed to the expected impacts at a macro-level, although in specific cases a plausible contribution to desired impacts could be identified. The evaluation also found that the ToC did not fully capture the reality of linkages between changes in trade and income, asset and food and nutrition impacts, where unanticipated effects were also in evidence.

EQ9 In what ways did the project contribute to a change intra-regional fish trade?

Proxy fish trade data suggested that intra-regional fish trade for five focal countries has increased (these countries were chosen because they had the highest concentration of project activities across the four

corridors). This was confirmed by remote survey data and key informant interviews, as well as findings from field work interviews and focus group discussions.

Evidence was presented of increased volumes and value of trade in Zambia. However, field work suggested that more competitive trade has been associated with lower margins for traders, which is not offset by increased volumes sold. This was not the case in Luangwa where specific interventions by the project had helped to improve the market position of cooperative traders.

Sustainability

EQ10 To what extent are project results likely to be sustained?

The evaluation found a mixed picture on sustainability, assessed in terms of likelihood of positive results being continued, and generation of new activity building on previous interventions. The project did not develop a formal sustainability or exit strategy (although the ET was informed by the project team that sustainability concerns were addressed in project planning meetings).

New projects (involving former FishTrade project partners) such as FishGov2 (led by AU-IBAR) and PESCAO in west Africa (led by FCWC) will help to maintain the momentum of activity on fish trade. Governments in Malawi and Zambia are also taking actions to revise policy or make changes to improve cross-border trade (for example, through decentralisation of SPS testing to border posts in Malawi). The World Bank has also supported investment in a warehouse with inspection and cold storage capacity at the Busia One Stop Border Post (in Kenya).

Notwithstanding these achievements, the project did not plan for sustainability adequately in relation to some core activities. For example, there was a lack of documentation of the benefits of the One Stop Border Post (OSBP) pilot and the strategy for scaling out and replication of the experience. No clear mechanism was developed for sustaining and replicating, or institutionalising capacity building trainings. The geo-coded trade portal developed in Uganda has not continued beyond the end of the project.

Sustainability should be considered more explicitly in future project design. A formal sustainability plan should have been produced as specified in the project MEL framework.

Lessons learned and success stories

Lessons learned

Several lessons can be learned from the project. One important one is the value of well-designed policy research and its contribution to policy and practice.

Another lesson is that projects such as FishTrade need both well designed MEL frameworks, and also to invest in clear reporting, monitoring, collection of data and evidence on results, and lesson learning. These aspects were not sufficiently well done, in what was otherwise a successful project.

Success stories

The project can claim several success stories. These can be related to the outcome areas in the Theory of Change and are as follows:

Shift in attitudes

- Production of a body of quality research that has contributed to a shift in understandings of the scale, importance and challenges of cross-border fish trade among key stakeholders in many governments and regional organisations.

Change in capacity

- Successful establishment of a sustainable knowledge network of researchers and university partners across Africa with capacity to research and provide technical advice on different aspects of intra-regional fish trade.

- Successful integration of fish as a commodity within the One Stop Border Post process at Busia on the Kenya/Uganda border. Project capacity building activities have helped fish traders to engage with formal trade routes and reach higher value markets in Kenya. Following on from the project intervention, the World Bank has invested in a warehouse facility at Busia with cold storage and inspection facilities.
- Capacity building at Luangwa through construction of a facility for traders, and support for two cooperatives. The groups the project worked with were able to substantially reduce post-harvest losses and improve the quality of their fish. The facility and new organisational skills have contributed to enhanced and more profitable trade by the cooperatives; the cooperatives have also invested money from increased profits in new facilities, such as a new toilet block.
- Agreement on a Green Pass for fish to be implemented between Luangwa and Kasumbalesa in Zambia. This will mean that fish only need to go through one SPS inspection, rather than facing inspections on import and before export from Zambia. This will encourage time and cost savings for traders (time being important given the perishability of fish).
- Harmonisation of eleven fish and fish product standards with the SADC region, providing a framework to facilitate trade in fish at the continental level.

Improved base of support

- Successfully raising the profile of fish trade with continental and regional level stakeholders, including influencing the design of the ECOWAS Comprehensive Strategic Framework for Sustainable Fisheries and Aquaculture Development in West Africa. At a national level evaluation evidence demonstrates that the respective fisheries and aquaculture policies of the Governments of Malawi and Uganda have been informed by the project.

Conclusions

The FishTrade project achieved significant results in three years with a relatively modest budget. **The primary contribution of the project is the knowledge generated and shared from the research it supported.** The project **also made important contributions in developing standards for fish trade in SADC, and piloting the integration of fish into a One Stop Border Post.** Several policy processes were also influenced (in Malawi, Uganda and Zambia, and to some extent at a regional level in ECOWAS), and the project contributed to capacity building of female fish processors and traders in several countries and across the continent through the development of the African Women Fish Traders and Processors Network.

Overall the research was of high quality, and some of the findings were important in that they contained new information, which some evaluation informants claim is contributing to a shift in the discourse on fish trade on the continent. The research was effectively communicated and, in a limited number of cases, contributed to changes in policy or implementation of policies. Notwithstanding this **more could be made of the research that has been produced: some of the technical papers and theses could be made into briefings, or research summaries.**

The project made a decision to go for breadth rather than depth – working in four corridors, rather than concentrating on one or two corridors. For the research this was arguably a strength as evidence and comparisons were generated across a range of countries and four corridors making it possible to make more persuasive arguments at a continental level. There were useful project interventions in three of the corridors, but **it is likely that more would have been achieved if trade facilitation interventions had been concentrated in one corridor, working with the relevant REC and a limited number of focal countries to achieve maximum impact.**

It was not possible to measure the contribution of the project to the outcome of increased fish trade or the impact targets of food security, nutrition and livelihood improvements across all four corridors, or the outcome indicators specified in the FISH CRP. However, increases in volumes and value of trade and levels of formal trade were reported at project intervention sites. The expectation that the results of the project will contribute to enhanced fish trade as set out in the project Theory of Change is plausible.

Changes in food security and nutrition are a function of many variables and over a short time period it is unlikely that changes at scale will be observed that can be attributed to the project. Nevertheless, it is plausible that

enhanced fish trade will lead to improvements in food and nutrition security and in incomes and assets of fish trade stakeholders in aggregate over time. In specific instances, this was reported at project intervention sites. However, there are also caveats to this, in that in some cases an increase in competition and the volume of trade had been linked to squeezed margins (and thereby incomes) for some fish traders, which was not compensated for by increased volumes traded. Likewise demand for fish products and an increase in trade in some specific cases may have made fish less available as a protein source for some poorer groups. This aspect of fish trade development warrants further research.

Recommendations

Based on the evaluation findings, the Evaluation Team makes the following recommendations:

1. WorldFish should consider producing additional briefings and other knowledge products from the research that has been produced, as soon as possible. This would maximise the impact from the investments already made. Priorities briefings should include: documentation of the process of supporting integration of fish into the One Stop Border Post at Busia and what the impacts have been; documentation of the harmonisation of SADC fish standards, and issues related to implementation by governments and use of the standards by producers. There are many other technical papers where a briefing would add value to the research already funded: for example, work on fish diseases and trade; work on food safety and SPS issues; briefings could also be produced for each of the regional fish trade policy research and framework papers.
2. WorldFish should liaise now with COMESA on the implementation of the Green Pass pilot, to ensure that the lessons from this initiative are well captured and disseminated. It would be good to carry out a robust baseline survey at this point in order to be able to measure outcomes and impact.
3. WorldFish should support further research on the process of integrating fish into the One Stop Border Post. This should be started this year. This could include evaluation of the impact of the work in Busia and sharing of lessons. This would help to maximise sharing of evidence and lessons from this intervention and contribute to the case for scale out.
4. For the work on harmonisation of standards, WorldFish should carry out research analysing the process of implementation in SADC Member States, researching progress and how to facilitate successful implementation. It would be good to do this in the next one to two years to build on the momentum that was established.
5. WorldFish could consider working with AWFishNET to support action research partnership. WorldFish could build capacity in action research tools to allow networks of women processors and traders to document their concerns and priorities in relation to fish trade. Researchers could be trained in how to go and ask questions, collect and analyse data, and how to make short films, and how to work with professional researchers to produce useful research outputs. This could link to the groups that have been supported by the FishTrade project in Busia, Luangwa, Kasumbulesa and Tema, and would increase the impact of the investments already made in these places.
6. In order to minimise negative impacts from expansion of fish trade, WorldFish should undertake research exploring the links between increases in intra-regional fish trade and food security and nutrition, and how to minimise negative impacts from fish becoming a more valuable and increasingly traded commodity on the continent, also ensuring that fish trade policy reform supports inclusive growth. There could be value in exploring this issue with IFPRI. This is something that could be integrated into research strategy over the medium term.

1. Introduction

1.1. Purpose and scope of the evaluation

The purpose of this evaluation is to provide a robust, external, independent evaluation of the European Union-funded *Improving food security and reducing poverty through intraregional fish trade in sub-Saharan Africa* (FishTrade) project managed by WorldFish, in partnership with the African Union – InterAfrican Bureau for Animal Resources (AU-IBAR) and the New Partnership for Africa's Development (NEPAD), between 2015 and 2018. The evaluation is a summative, impact evaluation based primarily on desk-based work and key informant interviews with a short period of fieldwork in Zambia and Malawi. Its purpose is to provide a final assessment of the FishTrade project and a set of evidence-led, actionable recommendations for future project design and implementation.

The scope of the evaluation is split between several areas:

- Its **temporal scope** covers the period of project implementation (2015-2018) but in order to assess potential change at impact level, the team assessed changes over a five-year period up to 2020.
- The evaluation's **thematic scope** covered a range of issues related to project results areas including knowledge production, capacity building, trade facilitation as well as the broader areas of rural and economic development and intra-regional trade.
- Its **geographic scope** covered sub-Saharan Africa along four key trade corridors, which will be outlined in more detail in Section 3.
- The evaluation's **programmatic and sectoral scope** was complex – it covered fish value chains for a diverse range of species across the African continent and looked at aquaculture, fisheries, but primarily fish trade.
- The evaluation's **analytical scope** looked at all six OECD DAC criteria. The team examined: the **relevance** of FishTrade's design and implementation to intended beneficiaries; the **coherence** of the WorldFish response through FishTrade in terms of coherence of objectives, outputs and activities; project **effectiveness** in terms of achieving the intended results; project **efficiency**, in terms of time and cost-effectiveness and -efficiency – whether the project achieved its objectives with the best possible use of resources available; the **impact** of FishTrade and development work carried out by other actors to bring about instrumental and transformative change¹; and the **sustainability** of FishTrade results, given the financial and environmental factors at play.

1.2. Evaluation Objectives

The evaluation is an accountability and learning exercise. It aims to facilitate accountability to beneficiaries in fish-dependent communities and fish trading and processing organisations by assessing the achievements of the project and determining whether the project was an appropriate and successful response to development issues they faced. It also aims to enable WorldFish, its partners and the wider international development community to benefit from lessons learning for future projects on similar technical, thematic or results areas. Effective dissemination of the final evaluation results by WorldFish is therefore important to ensuring the evaluation meets its accountability and objectives. As such, the evaluation team (ET) proposes that WorldFish draws up an action plan for internal and external dissemination of the evaluation results to maximise learning outcomes and demonstrate accountability to beneficiaries. To achieve these, the evaluation set out to:

- Review the degree to which the project was able to achieve its four key result areas and the extent to which gender considerations were taken into account and results reflected gender equity improvements.
- Review the project Theory of Change (ToC) and evaluate delivery of targeted outcome and impact results, determining whether assessments can be made about the level of achievement of impact and output results and if/how these can be linked to the project interventions through plausible impact pathways.
- Identify factors that enabled or constrained achievement of the results envisaged by the project, how obstacles were addressed and what actions could have been taken to mitigate challenges.
- Make recommendations for stakeholders on lessons for the design of similar projects in the future.

¹ The project M&E strategy states: "FishTrade is not solely accountable for realising the impact. Therefore, the impact indicators will measure long-term cumulative effects of the efforts of the project and other actors over time."

2. Context

2.1. Fisheries and trade reform

Economic development in sub-Saharan Africa is a longstanding source of debate among international and national policymakers. A common rhetoric of African nations being described as ripe with potential has characterised discussions, yet nations across the continent have seen varying levels of economic growth and many have been affected by financial crises caused by a number of factors including political change and instability, conflict and price volatility of primary commodity exports. Agriculture has long been seen as a driver of economic growth for a large majority of African nations and international donors have invested heavily in agricultural development programmes as a result. More recently, there has been heightened interest in value chain and markets systems approaches to agricultural development, and thus a move towards investment along the value chain, not just to maximise production for small-scale producers, but to increase efficiency, build strong market links and maximise profitability.

Historically, a strong emphasis has been placed on crop and livestock commodities in agricultural development policymaking with relatively little attention given to fisheries, aquaculture and fish trade. This is despite extensive access across the continent to productive oceans, seas, lakes, rivers, floodplains and fish farms (Nsengimana *et al*, 2015). Accordingly, as a whole, Africa contributes relatively little to fish trade internationally (PFRS, 2014). The FishTrade project came at a time when trends in policymaking began to shift. The Abuja summit in 2005² represented an important milestone in a changing policy rhetoric, triggering fisheries programmes with an increased emphasis on drawing higher economic returns from fish trade. Subsequent summits among agriculture and fisheries policymakers, stakeholders and experts (Conference of African Ministers of Fisheries and Aquaculture (CAMFA) meeting in 2010, Think Tank events in Nairobi, Abidjan and Douala in 2012, and Johannesburg, Mangochi and Naivasha in 2013) consolidated this shift towards viewing fish trade as an important source of wealth creation, and therefore sustainable economic development. Nevertheless, the sector has remained plagued by structural problems preventing it from realising its economic potential – inadequate governance, institutional weaknesses, over exploited stocks, and lack of investment are among the many problems faced by the sector (PFRS, 2014). The publication of the *Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa* (PFRS) and extension of the Malabo Declaration in 2014 therefore came at a time when the sector remained weak in its ability to provide the returns required to facilitate economic growth and poverty reduction. Despite progress towards the establishment of policy frameworks at a regional level, including free trade areas and momentum towards regional fisheries protocols (in the Southern African Development Community (SADC) region for example), adapted trade regulation and reform has been lacking.

The Abuja summit may have built momentum for fish trade receiving the required attention from policymakers – indeed, it was at this summit that the landmark PFRS (AUC-NEPAD, 2014) was endorsed to facilitate the development of coherent policy. However, the FishTrade project was developed at a time when, although regional trade bodies including SADC, ECOWAS and the EAC existed to regulate and drive sub-regional trade while paving the way for continent-wide trade integration, there was a marked absence of standalone, or wider comprehensive agricultural or trade policies that suitably accounted for the trade of fish (Hara, 2017; Onyango, 2017). Policy related to fish trade in Sub-Saharan Africa was historically based on scientific studies of aquaculture, and fisheries production, conservation and management rather than trade (PFRS, 2014) and has, in effect, not kept up with the changing nature of fish trade (Onyango, 2017). Therefore, just as policymakers woke up to the potential economic benefits of strengthening fish trade, significant steps were still required for this recognition of the benefits to be translated into fish trade being understood and properly conceptualised in policy. At this time, the PFRS aptly captured key internal and external drivers of fisheries and fish trade (see Table 1 below) and suggested there were opportunities to take advantage of growing political will, the potential for public-private partnerships, a growing global and continent-wide demand for fish and seafood as well as untapped resources and unexploited opportunities for job creation, technological development and development of best practices.

² In 2005, the AU-NEPAD Fish For All Summit was held where African Union Heads of State and Government endorsed the Action Plan for the Development of African Fisheries and Aquaculture.

Table 1: Internal and external drivers

Internal Drivers	<ul style="list-style-type: none"> • Historical focus on production – <i>heavy emphasis on revenue maximisation and increasing production without consideration of resource productivity or sustainability.</i> • Poverty of those involved in fishing and fish farming – <i>often marginalised groups form the main body of the fishing population. They lack rights over resources, advocacy support, skills to expand businesses, and rely on depleting fish stocks as a sole source of income.</i> • Limited fisheries management and aquaculture development – <i>this sector lacks public funds for management and development of resources and infrastructure so must become more efficient.</i> • Increasing demand – <i>wider sensitisation efforts have resulted in increased demand for fish, which is increasingly recognised as more nutritious across Africa.</i> • An interconnected sector – <i>African fisheries’ eco-geography, investment and trade is interconnected so a joint approach is needed to manage shared ecosystems and increase international competitiveness.</i> • Market-based solutions – <i>development goals are increasingly reflecting an interest in market-based economies and market-based solutions to development issues.</i>
External Drivers	<ul style="list-style-type: none"> • Population growth – <i>African nations are facing issues of high population rates therefore this is putting increased pressure on key sources of nutrition.</i> • International commitments – <i>many African countries are not yet meeting their obligations under international fisheries, maritime and biodiversity instruments.</i> • Climate change – <i>changes in aquatic systems are commonly observed and the implications of rising sea levels, changing water temperatures, salinity and currents as well as extreme weather events for the livelihoods of fish-dependent communities is significant.</i> • Decentralisation – <i>local authorities have increasingly taken control of regulations around fishing without necessarily having the required skills, knowledge and capacity to oversee them.</i>

2.2. Food and nutritional security and livelihoods

Launched in March 2015, the FishTrade project set out to tackle one of the African continent’s major development challenges – that of addressing chronic hunger and malnutrition affecting millions in Africa alone. Prior to the launch of the project, over 25 per cent of the world population affected by hunger were located in sub-Saharan Africa and many of the countries targeted by the FishTrade project were in crisis. In fact, two major humanitarian crises – namely, those in the Central African Republic and South Sudan – of “significant regional impact”, categorised by extreme hunger and severe/acute malnutrition cut across, or spilled over into the trade corridors targeted by WorldFish and its partners.³ Equally, the project came at a time of consensus on global and regional development goals related to food security and nutrition, with the post-2015 agenda on hunger and poverty concretised in the Sustainable Development Goals (SDGs) and the 2014 Malabo Declaration extending regional commitments for “Transforming Africa’s Agriculture for shared prosperity and improved livelihoods: Harnessing Opportunities for Inclusive Growth and Sustainable Development”⁴. It is therefore important to note that across the wide geographic coverage of the project, the dynamics of food security vary greatly. The FishTrade project targeted a food source ripe with potential for pro-poor growth and inclusive development – fish is both an important source of protein among a significant proportion of sub-Saharan Africa’s population and appears to absorb significant proportions (12.3 million⁵) of populations of disadvantaged or vulnerable populations including women⁶ (3.4 million). However, fish value chains remained poorly understood. The project aimed to support directly and indirectly the more than 400 million urban and rural poor increasingly dependent on low-value fish for food and nutritional security at a time of significant

³ <https://www.unocha.org/sites/unocha/files/GHO-2015.pdf>

⁴ <http://www.fao.org/food-loss-reduction/news/detail/en/c/250883/>

⁵ de Graaf, G. and Garibaldi, L. 2014. The Value Of African Fisheries, FAO Fisheries and Aquaculture Circular No. 1093 FIPS/C1093 (En), the Food And Agriculture Organization Of The United Nations Rome, 2014.

⁶ Ayilu RK, Antwi-Asare TO, Anoh P, Tall A, Aboya N, Chimatiro S and Dedi S. 2016. Informal artisanal fish trade in West Africa: Improving cross-border trade. Penang, Malaysia: WorldFish. Program. Brief: 2016-37.

change in the policy sphere with regards to fisheries and fish trade as well as the links to economic growth and development.

The FishTrade project was designed to trigger change along fish value chains enabling African nations to tap into unexploited opportunities for job creation, private sector development for pro-poor wealth generation and, in turn, improved food and nutritional security. In order to meet this objective, the project had to recognise specific dynamics affecting production and fish markets (see Table 1). Therefore, although the project aimed to “improve food and nutritional security and reduce poverty in sub-Saharan Africa by enhancing the capacities of regional and pan-African organisations to support their member states to better integrate intra-regional fish trade into their development and food security policy agendas”, and thus set out to take a top-down approach, recognition of the fact that those who served to benefit from improvements in policy require support to overcome these obstacles, was critical. Firstly, the project came at a time where there was a need for capacity building for fisherfolk and increased market opportunities for small-scale fish businesses. Secondly, support needs to be adapted to the specific vulnerabilities of those involved in the value chain (such as women, those with low literacy skills, etc.). Thirdly, the approach needed to be adapted to a cross-border market that is constantly changing due to climate change and population growth leading to increased pressures on a limited set of resources. Thus, information available at the time of the project inception showed that project’s ability to bring about livelihoods and food/nutritional security outcomes and meet its overarching objective is therefore intrinsically linked to its and other actors’ ability to create systemic change around these key areas. In short, the food security and livelihoods benefits and intra-regional fish trade needs must be dealt with concurrently.

3. Project background

3.1. Project objectives

The main objective of the FishTrade project was to support improvements in food security and nutrition by helping regional and pan-African organisations to support their Member States to better integrate intra-regional fish trade into development and food security agendas.

FishTrade was designed to cohere strongly with the policy imperative of supporting economic growth and livelihood development and improved food security and nutrition through enhanced intra-African trade as mandated by the Malabo Declaration in 2014. The project links to continent-wide policy processes that recognise the importance of agricultural trade and the specific contribution of the fisheries sector to dynamic African economies. African policymakers, through processes such as the African Fisheries Reform Mechanism, have worked towards evidence-based reform of the fisheries and aquaculture sector to support pro-poor trade and growth. The project was designed to support these endeavours through specific interventions in the field of fish trade. This evaluation assesses the contribution of this work, its Theory of Change, and proposes recommendations useful for the design of similar initiatives in the future.

3.2. Project result areas

The Improving food security and reducing poverty through intraregional fish trade in sub-Saharan Africa (FishTrade) project is an EU-funded (€5.5m) project that sought to support the strengthening of intra-regional fish trade in Africa, implemented by WorldFish and its partners the African Union - AU-IBAR and NEPAD, during the period 2015-2018.

The project committed to⁷:

- “Provide information on the structure, products and value of intra-regional fish trade in Sub-Saharan Africa for sharing with relevant stakeholders through national, regional and continental policy dialogues and other appropriate channels;
- provide a set of recommendations on policies, certification procedures, standards and regulations;
- build capacity for trade among private sector associations, women fish processors and traders and aquaculture producers, to make better use of expanding trade opportunities through competitive small and medium-scale enterprises;
- promote the adoption and implementation of appropriate policies, certification procedures, standards and regulations by key stakeholders participating in intra-regional trade in the four selected corridors in Sub-Saharan Africa.”

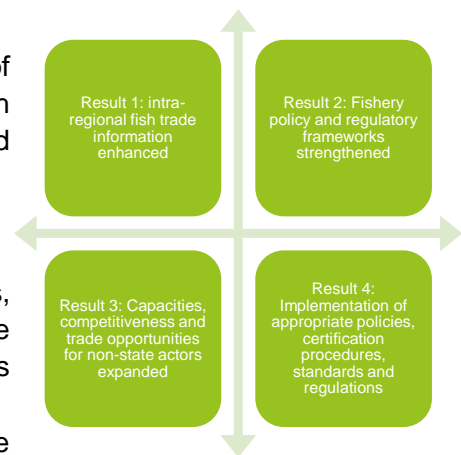


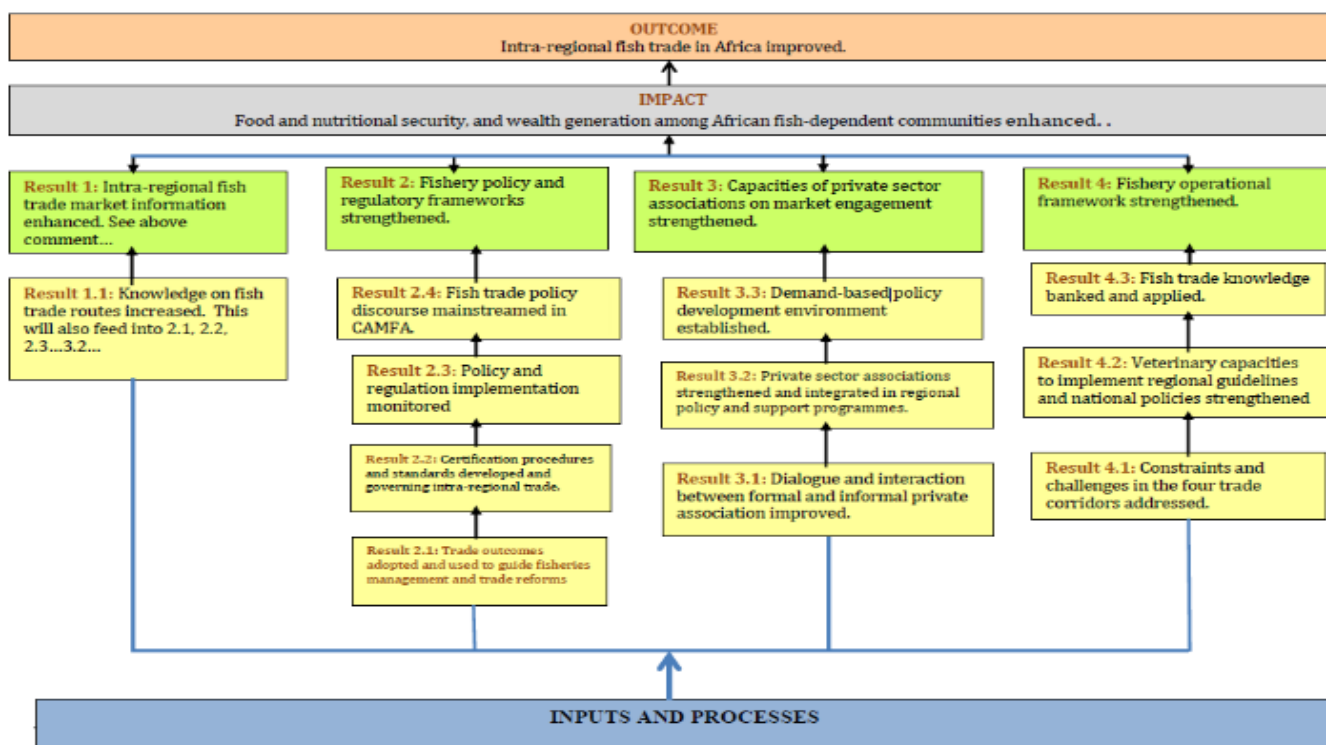
Figure 1: FishTrade result areas

These commitments translate into four result areas (see Figure 1 above) in pursuit of the overarching project goal of **enhancing food and nutritional security, wealth generation among African fish-dependent communities**.

In short, the four results area activities were inter-connected, with research case studies of trade routes, for example, carried out and disseminated in pursuit of result area 1 feeding into policy briefs, standards and regulations produced under result area 2. In turn, capacity building and the development of technology and advocacy tools under result 3, was based on the knowledge and learning products developed on the basis of

⁷ FishTrade for a Better Future Project Message Guide – Version 1, June 2016

Figure 2: FishTrade Results Framework



research work under results areas 1 and 2. All three of these result areas fed into result area 4 which built on the outputs of the first three result areas to encourage improved implementation of policies, regulations and standards. These results areas and their sub-components are outlined in the project results framework in Figure 2.

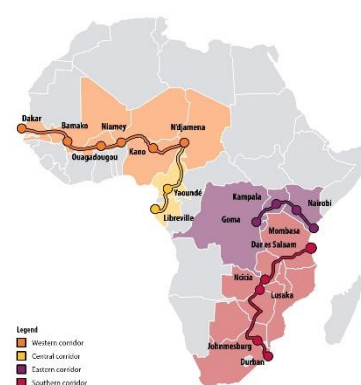
3.3. Project strategy

The FishTrade project was guided by a focus on three strategic areas. Firstly, the project targeted developing **capacities** among regional and pan-African organisations to improve development and food policy agendas and better integrate intra-regional fish trade as well as building skills sets to enhance private sector capacity and competitiveness. This was in response to a lack of institutional capacity to support poorly understood fish value chains. Secondly, it aimed to support **policy formulation** with a view to increasing intra-regional trade volume and value. That is, by enhancing the policy framework guiding fish trade, trade between countries would be made easier. Thirdly, the project targeted improvements in the private sector, again with an emphasis on knowledge generation but instead with a market focus, facilitating the **exchange of market information**.

A fourth element of the formal project strategy⁸ was formed so that the project is organised along four trade corridors selected from official transport links targeted for spatial development by the African Union⁹ (see Figure 3):

- Western Corridor (A): Dakar to N'djamena, through Senegal, Mali, Burkina Faso, Niger, Ghana, Nigeria and Chad;
- Southern Corridor (B): Dar es Salaam, to Durban, via Zimbabwe, Botswana, Zambia, Malawi, Mozambique and DR Congo;
- Eastern Corridor (C): Mombasa to Goma, via Kenya, Uganda, Burundi, Rwanda and DR Congo;
- Central Corridor (D): Libreville to N'djamena via Gabon, Cameroon and Chad.

Figure 3: Map of focal fish trade corridors



⁸⁸ According to the FishTrade M&E Framework, four policy strategy areas are highlighted. However, ⁹ Project Document

As such, the project was geared towards supporting the NEPAD Fisheries and Aquaculture Action Plan, the CAMFA Resolutions, and Regional Economic Communities' (RECs¹⁰) Fisheries and Aquaculture Strategies. Though targeting outcomes for sub-Saharan Africa as a whole, both in terms of *livelihoods* development and intra-regional trade, this approach was geared towards targeting “low hanging fruit”, or documented trade routes in which, it was viewed at the project planning stages that the FishTrade project could have the most significant influence. In short, from the outset, the project acknowledges in its design that this is a first step in what must be a wider network of efforts along fish value chains to improve the market as a whole, and that efforts to build knowledge, capacity, policy and operational frameworks would need to be part of a wider effort to support fish-dependent communities in order to bring about pro-poor economic growth and the livelihoods improvements that potentially come out of focussed market development.

¹⁰ COMESA, SADC, ECOWAS, EAC, ECCAS and IGAD

4. Methodology

4.1. Evaluation approach

This evaluation took place between December 2019 and February 2020 and was designed to respond to the requirements laid out in the Terms of Reference (ToR) and Request for Proposals (RFP), according to which the ET must:

- a) *Review project documents and reports available from WorldFish and project implementation partners.*
- b) *Consult key stakeholders, including but not limited to Regional economic communities (RECs), regional fisheries bodies (RFBs), national departments/ministries of fisheries, national universities and the Donor, to capture their evaluation information needs.*

In addition, the team were required to:

- Design a sufficiently robust study methodology within the limits of existing data, institutional arrangements, and budget.
- Demonstrate clear complementarity between/amongst the mixed methods of choice.
- Carry out high quality data collection, and data analyses.
- Succinctly author the evaluation report, while incorporating feedback from stakeholders in a timely, objective and transparent manner.
- Identify lessons learned and develop practical recommendations for WorldFish/FISH, the Donor, and the project stakeholders that may help inform the design and implementation of similar projects and activities in the future.

During the inception phase, the team reviewed the proposal-stage approach in liaison with WorldFish to comply with these requirements and address key challenges related to the wide scope of the FishTrade project (both geographically and in terms of impact and outcome goals) and adopted an approach that complied with the above requirements. Methodological limitations and deviations from the original ToR/RFP are outlined in Section 4.6 below.

4.2. Analytical framework

In response to the original RPF, the ET designed a set of Evaluation Questions (EQs) to carry out the evaluation in line with the OECD DAC criteria which were further adapted in consultation with WorldFish during the inception phase. The final set of EQs cover a range of components of the FishTrade project – the team used an Evaluation Matrix (see Annex 1) as the analytical base for the evaluation guided by focussed EQs and sub-EQs. As a project evaluation that targets system-wide improvement and which is non-linear, answers to questions are multi-faceted, responding, in some cases, both to the quality of WorldFish’s overall response through FishTrade and its partners (AU-IBAR, NEPAD, etc.) and counterpart organisations. The final set of EQs agreed are outlined in Table 2 below.

Table 2: Evaluation Questions

Relevance	1. To what extent were the FishTrade objectives relevant to the needs of intended beneficiaries?
Coherence	2. To what extent were project activities and outputs consistent with the project objectives?
Effectiveness	3. How successfully has knowledge of fish trade routes been enhanced? Is this informing policy development? 4. Have fishery policies and regulatory frameworks been strengthened in the participating countries and regionally? 5. How have capacity, competitiveness and opportunities for non-state actors increased or changed? 6. To what extent has the implementation of policies, certifications, standards etc

	improved?
Efficiency	7. To what extent was the implementation of FishTrade efficient?
Impact	8. To what extent has the project contributed to improved food and nutritional security and wealth generation among African fish-dependent communities? 9. In what ways did the project contribute to a change intra-regional fish trade?
Sustainability	10. To what extent are project results likely to be sustained?

4.3. Evaluation design

The evaluation design and approach drew on the team’s experience in carrying out complex project, programme and strategic evaluations as well as knowledge and experience of project and programme implementation of development programmes working to strengthen similarly complex value chains along with feedback from WorldFish provided through comments on the proposal and inception report and through three remote meetings held between November and December 2019. The mixed-methods approach was underpinned by several different design components to result in sound analysis of project design, implementation results, outcomes and impact and comprehensive answers to the agreed EQs. These evaluation design components are summarised below.

Table 3: Evaluation design outline

Design component	Comments
Mixed methods evaluation	In line with the evaluation design agreed at inception, a mixed methods approach was taken. This allowed the team to draw on a wide base of qualitative and quantitative primary and secondary data, drawn from a range of sources. Due to a lack of baseline quantitative data (particularly relating to outcome and impact indicators), the team has drawn on secondary proxy indicators in some cases and sourced primary data. This has allowed findings to be triangulated so that findings are non-biased and evidence-led.
Theory-based evaluation	After a thorough initial assessment of the FishTrade Theory of Change (ToC) against a checklist during the desk phase, the ET used contribution analysis to assess causal linkages and infer contribution of FishTrade to change. This theory-based method offers a step by step approach to assess contribution to targeted outcomes and reduces uncertainty about the contribution an intervention is making to observed results. Contribution analysis was useful in this case as it allowed the team to test against the ToC during primary data collection, enabling the team to identify a contribution ‘story’ ¹¹ and highlight areas of weakness in causal pathways in the current ToC on which to base recommendations for future project design. The team’s analysis focussed on two distinct areas: the formal ToC articulated in the project document and more implicit theories of change related to the underlying assumptions on the way in which research-based project outputs lead to policy change.
Gender- and age-responsive evaluation	Given the project’s target population, the consultation strategy and data collection tools were designed to enable the ET to disaggregate as much as possible based on age and gender. In addition, for field-based data collection, female-only beneficiary discussion groups were held in addition to mixed groups and individual female marketeers. For desk-based analysis of primary and secondary data, the team examined evidence on gender at the design stage; (ii) evidence of quality engagement and participation of women in implementation; (iii) evidence of how gender and age issues were addressed by the intervention, and the results achieved in the area; (iv) M&E data disaggregated by sex and age. In the synthesis phase of the evaluation, the team carried out specific gender analysis per EQ – a summary of which is included in Annex 7 and the results of which are embedded into the final set of evaluation findings.
Participatory, utilisation-focussed evaluation	A utilisation-focussed approach to the evaluation has been undertaken, working on the assumption that involving the end user of the evaluation findings in the evaluation process, while maintaining independence, the final set of findings and recommendations can be more carefully adapted to ensure utility. Through strategic engagement with WorldFish and its partners, through early consultation, validation of findings through review of deliverables and validation sessions, the team has maintained a participatory approach throughout.

¹¹ https://www.betterevaluation.org/en/plan/approach/contribution_analysis

Case study	A case study approach was used to take a ‘deep dive’ into project results for specific project sites (Malawi and Zambia) along the Southern trade corridor. The case study design is outlined in Section 4.5 below.
Multi-country evaluation	The FishTrade project covered a range of project sites (over 21 countries ¹² along four trade corridors) across an expansive continent. To maximise even coverage of areas outside of the case study locations, the consultation strategy was adapted to incorporate opinion from the wider project geographic scope and the team draw heavily on project documentation and data to provide analysis for the project as a whole. In addition, five countries (Cameroon, Ghana, Malawi, Uganda and Zambia) that were judged to be of particular strategic importance to the project ¹³ , were selected as focal countries for the evaluation to add an additional layer of analysis that would not be possible for all 21 countries.
Synthesis, triangulation and validation of evidence	At the end of the field phase, a first set of findings were drawn up based on data collected so far (primarily related to the case study) and were presented to the WorldFish team in Lusaka, with colleagues in the wider M&E team dialling in remotely. This represented the first set of synthesised analysis. A second synthesis exercise was carried out by the evaluation team leader during the synthesis phase following further remote interviews and documentary review to bring together evidence drawn from the full range of data sources. Given the evaluation’s purpose of providing strategic recommendations for future project implementation, it is important that the case study draws out lessons learned particularly for areas in which there was less activity in other trade corridors. By pairing a case study of an area where there is a high concentration of project activities with wider consultation from a pool of stakeholders covering areas of lower intensity of activities, and triangulating results, the team has been able to pull together a set of recommendations that draw on this learning.

4.3.1. Data collection methods and techniques

To address the EQs, a range of primarily qualitative¹⁴ data collection methods and techniques were employed. By deploying a range of complementary methods, the team were able to collect a range of different types of data covering the main project activities, objectives and result indicators. Through depth and breadth of data collection the team have triangulated results, tested theoretical assumptions, and reached a range of robust and reliable conclusions on the achievements of the project, and provided recommendations for future use. The main approaches adopted included:

A. Secondary document and data review and analysis

The WorldFish project produced a substantial range of public-facing documentation, including academic papers, policy briefings, technical reports and conference proceedings. The ET has carried out a thorough project review of a large sample of documentation (including the Project Document, the Mid-Term Review and the Final Project Technical Report, the M&E Framework document, project partner reports, including conference reports, financial statements for the project, and back to office reports as well as academic papers and publications) made available by WorldFish and its partners NEPAD and AU-IBAR, key informants as well as externally sourced documents and reports. A full list of references is included in Annex 4. In the absence of baseline and end line surveys and quantitative data, the ET explored the suitability of proxy indicators to assess achievements against outcome and impact indicators. In the end suitable indicators were only found for outcome indicators. Qualitative analysis of trade and livelihoods indicators was also carried out.

The phased approach to the evaluation allowed several layers of documentary and data review and analysis to be carried out throughout the evaluation. A preliminary documentary review of a sample¹⁵ of project documents took place during the inception and desk phases in order to ensure appropriate data collection strategies were in place for remote and field-based primary data collection. Documentary review of key project materials was carried out in preparation for individual key informant interviews, and data and documentary extraction and review followed to provide an immediate level of triangulation for informant responses to interview questions.

¹² We note that the WorldFish website states that 21 countries are covered by the project, however, we find there to be at least 22 across all trade routes, based on documentation reviewed so far: Botswana, Burkina Faso, Burundi, Cameroon, Côte D’Ivoire, Chad, DRC, Gabon, Ghana, Kenya, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda, Zambia and Zimbabwe.

¹³ Malawi and Zambia were the locations for the greatest number of studies in the Southern Corridor; Uganda in the East; Ghana in the West and Cameroon in the Central Corridor – see a selection of reports available here: <https://www.worldfishcenter.org/fishtrade>. In addition, Ghana, Uganda and Zambia were also the sites of the most significant capacity building interventions supported by FishTrade.

¹⁴ Although the team relied heavily on qualitative methods, these were supplemented by quantitative primary and secondary datasets.

¹⁵ This review first looked at project and M&E documents including annual reports and internal communications, as well as communication outputs to (a) confirm

In the synthesis phase, analysis of all reviewed documents, datasets and evidence drawn from primary data collection took place to add a final layer of scrutiny to the desk work carried out by the team and ensure rigorous analysis of the ToC and EQs.

B. Primary data collection

The team drew on a number of primary data collection techniques to supplement existing data for the evaluation. These were adapted slightly from those originally proposed and are outlined in the table below.

Table 4: Primary data collection methods and techniques

Data collection method	Relevance to the evaluation design
Semi-structured Key Informant Interviews (KIIs)	Interviews were held (in Zambia, Malawi and remotely) with a range of stakeholders at strategy-, partner-, project-level according to an interview discussion guide. Some target populations were also represented through detailed interviews with representative organisations. The key informant interviews were structured around a set of questions drawn from the EQs and aimed to cover the full range of DAC criteria wherever possible. More detail on the consultation strategy, stakeholder mapping and sampling can be found in Section 4.2. Annex 2 includes an interview guide for the key informant interviews and an anonymised list of stakeholders consulted can be found in Annex 3.
Informal KIIs	To incorporate a wider range of beneficiary views into the evaluation, the team carried out short (5-10 minute) interviews with fish traders and marketeers in field locations. Discussions primarily focussed on EQs related to the key case study questions (outlined in the case study design below).
Focus group discussion (FGD)	Focus group discussions were the main tool for consultation with target populations and beneficiaries and enabled the team to have detailed discussions on livelihoods (including food and nutritional security), wealth creation and trade patterns. By posing relatively open questions in these discussions, the team were able to draw out a more authentic contribution story (i.e. by reducing pro-project bias through prompting desired replies). This resulted in important findings on the project's ToC which are addressed later in this report.
Detailed Questionnaire	For some informants who were not available in-person or for a remote interview, a selection of questions, primarily drawn from the list of key informant interview questions were shared with individuals based on their role in or association with the FishTrade project.
Remote survey	To reach a wide range of stakeholders and enhance the geographical coverage of the evaluation, the team conducted an electronic survey of stakeholders in focal countries and regional organisations with an interest in fish trade, and with connections to the project. This survey was designed to widen the evidence base on results areas and offer some perspectives on the degree to which there have been changes for the outcome and impact result areas. This survey also allowed the team to triangulate reporting of results in the different corridors with informants from each. The survey questionnaire is available in Annex 2 and results are analysed in detail in Annex 5 while findings are integrated into Section 5.

4.4. Stakeholder mapping, sampling and sample frame

Consultation strategy

During the inception phase, the team mapped FishTrade project stakeholders to confirm that ample stakeholders at strategy (those involved in project design or overseeing implementation at a corporate level), partner (strategic personnel at partner WorldFish organisations), project (those directly involved in implementation at a local level), target population (those directly targeted) and final beneficiary (those implicitly targeted) level were identified. This overarching stakeholder types were then broken down into specific groups for analysis (see below analysis of the stakeholder sample). Different stakeholders were then invited to participate in the evaluation. Any apparent gaps identified by the team were filled in consultation with implementation staff, and the team continued to add to the list of consultees as additional stakeholders were identified in interviews.

The team's initial consultation strategy aimed to collect primary data at strategy, partner and project level across all trade corridors through semi-structured key informant interviews (both in-country and remote) and a remote survey. Target population and final beneficiaries were targeted through focus group discussions for case study (Corridor B only). This was adapted slightly during the field visits and subsequent data collection to include informal interviews with individual beneficiaries and detailed questionnaires sent to those unavailable for remote interview.

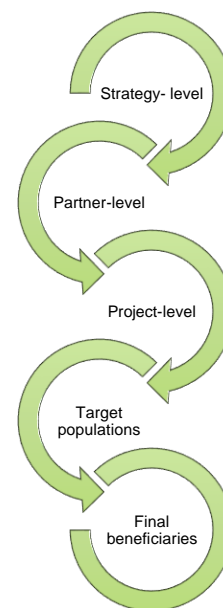
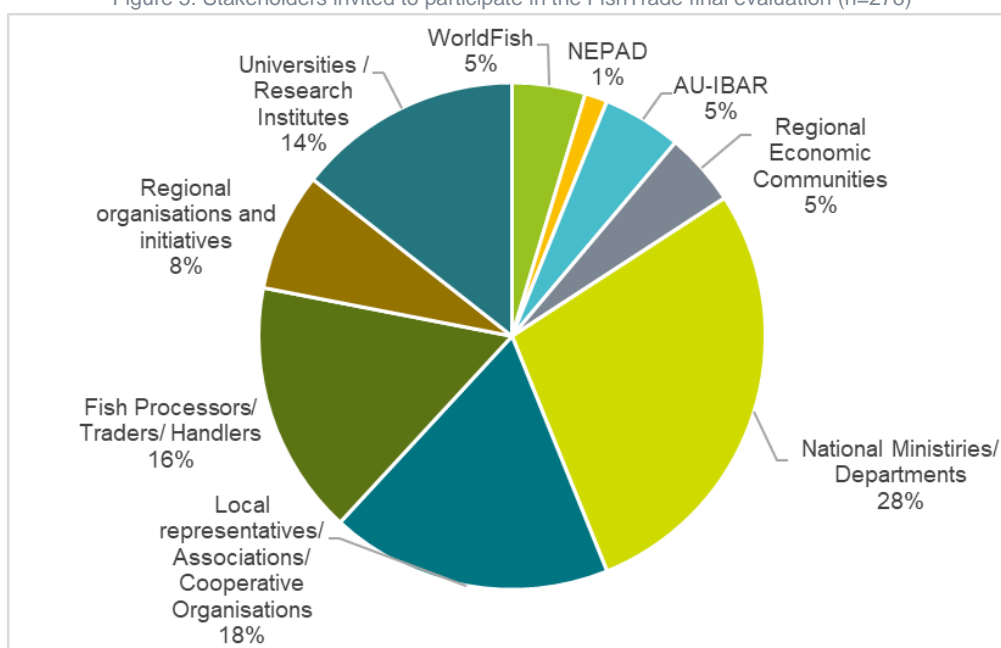


Figure 4: Stakeholder levels

Stakeholder sample

A total number of 278 stakeholders¹⁶ were invited to participate in consultation for the evaluation. Depending on availability, engagement with and knowledge of the FishTrade project and thus usefulness to answering the EQs, stakeholders were invited to participate through one or more consultation methods of remote survey, in-person or remote interviews, focus group discussions or shorter individual discussions. Key stakeholder categories identified included staff of WorldFish and key partner organisations (e.g. NEPAD, AU-IBAR), representatives of regional economic communities, national ministries and departments, local fish trade representatives, associations and cooperative organisations, individual fish processors, traders and handlers, regional organisations and initiatives, and staff and students of universities and research institutes.

Figure 5: Stakeholders invited to participate in the FishTrade final evaluation (n=278)

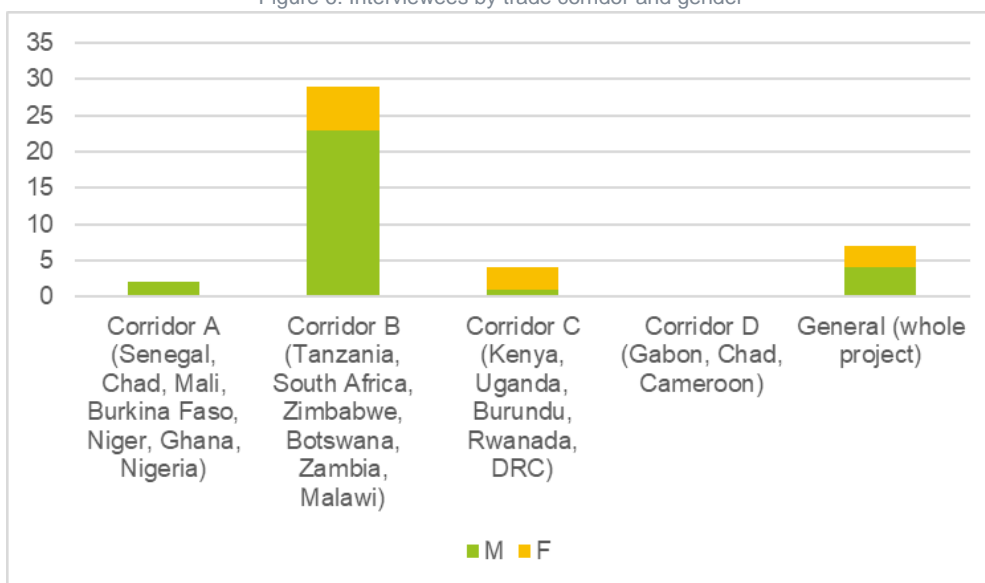


¹⁶ (approximate figure due to unknown figure of successfully delivered remote survey invites)

For the data collection method of **remote survey**, the ET identified a total of 213 stakeholders with available contact details suitable for invitation to become survey participants. This stakeholder identification was achieved through consultation with WorldFish and partners, in addition to document review (e.g. FishTrade workshop attendee lists) and further research through online sources and enquiries with known contacts. Stakeholder mapping was undertaken to ensure sufficient coverage amongst stakeholder categories. The remote survey method was selected as an appropriate choice for these stakeholders to collect a high volume of aggregable data from stakeholders with varying levels of knowledge of, and direct involvement in the FishTrade project and contextual environment of fish trade. Due to the size of the available stakeholder population, and the approximate usual survey response rate of external surveys being between ten and fifteen per cent, a sampling approach was not used for this data collection method in order to maximise the number of responses with the intended effect of increasing the representativeness and reliability of data collected from the survey. Remote survey requests were therefore distributed to all 213 stakeholders, however approximately 15 per cent of these requests did not reach the intended stakeholders despite the best efforts of the ET, meaning the remote survey approximately successfully reached a maximum of 180 identified stakeholders. A target number of responses for the remote survey was calculated using the equation: Population size / expected response rate = target number of responses. With a population size of 180, and expected response rate of 15 per cent, the target number of responses for the remote survey was 27. At the time of closure of the survey, this target had been successfully met with 30 responses collected.

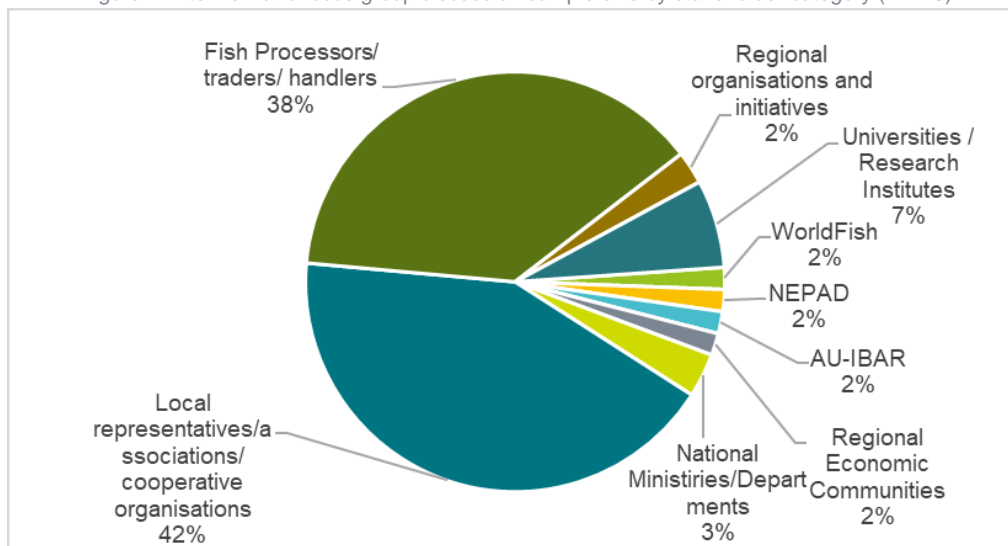
From the stakeholder population identified, the ET purposefully selected key stakeholders from across the categories for interview by identifying those likely to hold a more detailed level of knowledge and direct engagement with the FishTrade project. This purposive sample were invited to participate in either **in-person or remote-interviews** in order to collect more in-depth information about opinions and experiences of the FishTrade project design, implementation, outcomes and impact. The sample included a range of actors across the geographic scope of the FishTrade project – interviewees by trade corridor and gender are depicted in Figure 6 below. Where the number of selected stakeholders identified in a single category were high and discussion amongst a group could lead to additional insights (for example, a large number of fish traders discussing diverse or similar experiences), these stakeholders were invited to consultation **through focus group discussions**.

Figure 6: Interviewees by trade corridor and gender



Qualitative analyses typically requires a smaller sample size than quantitative analyses, thus the goal of the ET in calculating the sample size for consultation through these qualitative methods was to have a large enough sample size to cover a variety of opinions, but to limit the sample size at the point of saturation. Due to this intended goal of the qualitative sample, the ET did not calculate a statistical sample size target as this was not beneficial to the approach. Rather, the ET monitored the level of consultation by key stakeholder category, and variance or convergence of views, until reaching a point of saturation for each stakeholder category. The total number of individuals consulted through in-person interview, remote interview or focus group discussion was 118. The percentage distribution of stakeholders consulted by interviews and focus group discussions by stakeholder category is represented in the following graph:

Figure 7: Interview and focus group discussion sample size by stakeholder category (n=118)



4.5. Case study design

The Southern Corridor (Corridor B – running from Dar es Salaam, to Durban, passing through Zimbabwe, Botswana, Zambia, Malawi, Mozambique and Democratic Republic of Congo) was selected as a case study for the evaluation to facilitate a layer of deeper level analysis across the project results areas. The team’s field visits were designed around maximising data collection for the case study and analysis of the project as a whole. As such, the team elected to visit Zambia and Malawi. This both enabled maximal engagement with WorldFish (as lead implementing partner) project staff, including the Project Lead, better ensuring even coverage of project wide results and allowed the team to evolve a strong case study design.

Zambia is an important node for Southern Corridor activity, linking to Mozambique, Zimbabwe, Malawi, Botswana and Tanzania and therefore a Zambia-centric case study could allow for analysis of the trade corridor as a whole. The case study could therefore represent an important source of information to test the strength of the project’s ToC as well as more implicit theories underpinning the project approach. The case study was devised on the basis that Corridor B also appears to have been the trade corridor in which a broader spread of project activities can be found across the four result areas.

i. Targeted results

The project document notes that the FishTrade project will work with ‘*existing and planned policy processes and direction of the African Union (AU), RECs and key stakeholders. Specifically, the action will complement and directly contribute to the strengthening of institutional capacity to enhance governance of the fisheries sector.*’ This logic was tested through a range of key informant interviews with officials and participants for specific policy processes and fisheries trade reform actions.

Result area 1: intra-regional fish trade information enhanced
Result area 2: fishery policy and regulatory frameworks strengthened
Result area 3: capacities, competitiveness and trade opportunities for non-state actors expanded
Result area 4: implementation of appropriate policies, certification, procedures, standards and regulations

ii. Outcome and impact

One of the merits of involving a case study in this evaluation is that it allowed the evaluators to home in on data collection for outcome and impact indicators through consultation with beneficiaries. In Zambia, it was possible to visit two border sites: Luangwa Cross-Border Fish Traders Association (on the Zambia, Mozambique and Zimbabwe border) and Kasumbulesa (Zambia-DRC border) where focus group discussions were conducted with fisher associations and cross-border traders. In addition, a range of regional, national and local policy-level organisations were consulted to triangulate results and highlight areas of convergence and variance in stakeholder opinion on key issues. By visiting two locations where direct interventions with beneficiaries took

place, the team were able to test the project ToC through focussed, participatory discussion structured around three focal topics, while also producing data on the targeted project results areas. The focal topics were:

- Experience of the FishTrade project.
- Changes in fish trade income and living, 2015-2020.
- Formal versus informal trade.

iii. Gender and age

The case study was gender- and age- sensitive in design and the team were able to ensure that the sample of targeted beneficiaries who were consulted included men and women from a range of ages. One female-only focus group discussion was held to ensure coverage of issues experienced differently or exclusively by women in the final evaluation findings. In one field location, a discussion was held with a large group of young, male fish handlers as no women were occupied in that occupation at the time of the field visit. This group discussion skewed the sample consulted towards an uneven gender balance as additional participants joined throughout the session. Otherwise, groups were mixed with close to 50:50 gender split and women traders and marketeers were consulted individually. Overall, 83 people were consulted and target population and beneficiary level of which 41% were women. See Figure 6 above for gender disaggregated data on interviewed stakeholders.

In order to disaggregate impact and outcome findings by other types of vulnerability, and to avoid evaluator-led bias towards analysis of specific groups, all stakeholders consulted were asked to identify vulnerability within their communities and how trade and livelihoods issues affected those groups differently. These responses have been triangulated and incorporated into the final set of findings. A summary of the gender analysis by EQ can be found in Annex 7.

4.6. Methodological limitations

Deviations from the ToR

The evaluation design was evolved carefully and in consultation with WorldFish, however, it is important to note two main points of deviation from what is implied in the ToR/RFP¹⁷:

- Based on discussion with WorldFish staff it is evident that no specific baseline data has been collected related to the outcome and impact indicators for the FishTrade project. The evaluation work is therefore largely qualitative, while drawing on quantitative data sets, rather than being based on a more equal split between quantitative and qualitative approaches.
- The RFP suggests that: ‘the use of mobile data collection systems for field-based collection of quantitative data is preferred.’ Given that it was not possible (due to time and resource constraints) to carry out a mobile survey in the field this kind of quantitative data was not collected. The remote survey allowed remote collection of quantitative data from a small sample of respondents.

Limitations

The geographic scope of the evaluation was very broad, resulting in a high volume of potential stakeholders for consultation and an extensive range of locations targeted for outcome and impact level change. In addition, the FishTrade project came to a close in 2018 so it is some time after the project was implemented that the evaluation was carried out. As a result, there are some shortcomings in the evidence base, which the team mitigated against through the following approaches.

Firstly, the wide geographic scope and limited time and resources available for the evaluation meant that the ET was not able to interview a full range of stakeholders on the ground in all four corridors. This limitation was mitigated by carrying out remote (telephone or Skype) interviews of reasonable quality with a range of stakeholders. Although a reasonable number of stakeholders across the project were consulted (see sampling approach above) and the case study grounded findings in a good understanding of the situation on the ground for locations where there was a high concentration of activities, a larger study could have involved field work

¹⁷ These deviations were outlined in the inception report and remain unchanged.

across all four corridors. In addition, the project actions have been linked with several changes in policy, regulations and standards and certifications. The case study methodology has allowed the team to probe these result areas for one part of the Southern Corridor, but for other corridors there are limits on the degree of triangulation of reported results that is possible.

Secondly, although the minimum target was reached for survey response, response rates were low. With a small number of responses, the team acknowledges the need to be cautious therefore about the level of confidence in the conclusions drawn from the survey and results are used carefully in the main findings. Nevertheless, the remote survey has still been a useful tool to triangulate findings from document analysis and KIIs. These triangulated findings have been used to form the final evaluation results.

Finally, baseline data for the outcome and impact indicators were not collected and the methodology does not allow us to attribute clear causality to outcome and impact level changes, or to specify the level of change. The case study interviews were used to probe this issue and draw out indicative figures for these areas. However, these can only be drawn on anecdotally and do not represent a robust dataset. Due to time and resource constraints, this ET were not able to carry out an in-depth quantitative survey of key stakeholders addressing the impact and outcome results. The following two approaches were therefore adopted to allow for analysis at outcome and impact level:

- Critical review of the theory of change – the team's theory-based and case study approach has allowed for in-depth analysis of key assumptions and causal pathways, and the sustainability of results. A critical review of the ToC's underlying assumptions has resulted in important findings at outcome and impact level.
- Review of data sources – additional proxy datasets have been analysed in parallel with project data. It is possible to use secondary data sources to provide proxy indicators for outcomes¹⁸. However, no suitable proxy indicators could be agreed for impact indicators.

¹⁸ Project outcome and impact indicators refer to 'fish-dependent communities', and the Program Document identifies 400 million people in Africa as dependant on fish for nutrition (p.3). This number is also cited in a WorldFish document from 2009 [WorldFish, 2009, Fish Supply and Food Security for Africa, http://pubs.iclarm.net/resource_centre/WF_2466.pdf]. In 2009, total population in Africa was around a billion, however, the figures are derived from earlier data when the fish dependent population would have been between one half of the total population of Africa. Given this national indicators (used with caveats) are a reasonable proxy for the status of fish-dependent communities.

5. Evaluation Findings

5.1. Project design

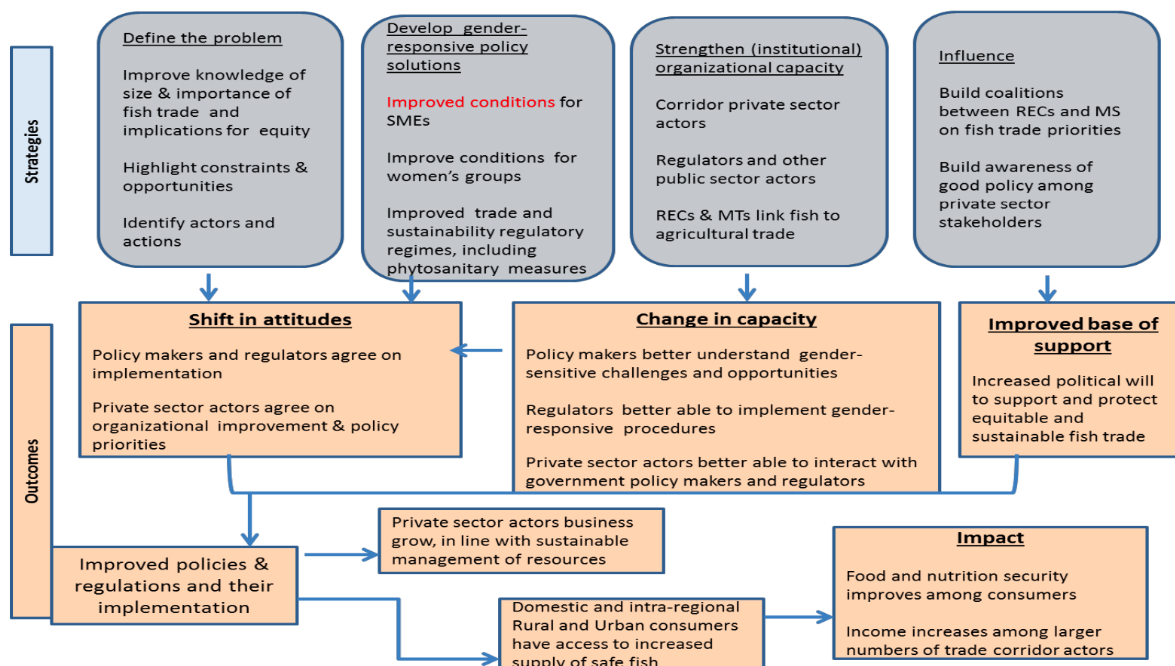
1.1.1. The Theory of Change (ToC) for FishTrade

The FishTrade project was designed with a ToC linking strategies to be used by the project to deliver outcomes and impact (see the graphic below). The ToC specifies four strategies to bring about change: (a) defining the problem (knowledge of fish trade, identifying constraints and opportunities and actors and actions); (b) developing gender responsive solutions (improved conditions for small and medium enterprises (SMEs) and women’s groups, and improved trade and regulatory regimes); (c) strengthening institutional capacity (of the private sector, policy-makers and RECs and MSs); and, (d) influencing (building coalitions, awareness raising).

Implementation of these strategies was envisaged to lead to three immediate outcomes: (1) an improved base of support for equitable and sustainable fish trade; (2) change in capacity (of policy-makers, regulators and the private sector); and (3) a shift in attitudes (among policymakers on implementation, and private sector actors on policy priorities). This part of the ToC makes certain assumptions, namely that it is possible to produce useful knowledge about the fish trade and identify constraints and opportunities, as well as gender-responsive solutions and that it would be possible to use this knowledge to build a base of support and shift attitudes.

Realisation of these immediate outcomes leads in turn to a set of intermediary outcomes (the ToC does not label them as immediate and intermediary, but it does suggest that one leads to the other). The intermediary outcomes are improved policies and regulations¹⁹, which lead to growth of private sector businesses and greater access to fish by domestic and intra-regional urban and rural consumers of fish. This successful outcome then contributes to an impact of improved food and nutrition security among consumers and increased incomes for trade corridor actors. There are several assumptions in this part of the ToC, namely that the improved capacity, and change in attitudes and base of support can translate into improved policy and implementation, notwithstanding that policy can take considerable time to change and may be resisted, and effective implementation in complex policy domains such as trade is often very difficult.

Figure 8: FishTrade ToC



¹⁹ WorldFish uses the following definitions for policies and strategies, and legal instruments and regulations: Policy or Strategy. A policy or strategy could be a written decision or commitment to a particular course of action by an institution (policy); or a (government, NGO, private sector) high level plan outlining how a particular course of action will be carried out (strategy).

Legal Instrument. Legal instruments include laws, defined as a Bill passed into law by highest elected body (Parliament, Congress or equivalent); or regulations, defined as a rule or norm adopted by government and backed up by some threat of consequences, usually negative ones in the form of penalties.

In addition to the ToC, project documentation includes a Logical Framework (logframe), which specifies four results areas, with subsidiary results, and a project outcome and impact objective. The Results are as follows:

- Information on the structure, products and value of intra-regional fish trade in food security in Sub Saharan Africa generated and made available to stakeholders.
- Recommendations on policies, certification procedures, standards and regulations, well embedded in national and regional fisheries, agricultural, trade and food security policy frameworks.
- Increased capacities for trade amongst private sector associations, in particular of women fish processors and traders and aquaculture producers, to make better use of expanding trade opportunities through competitive small- and medium-scale enterprises.
- Adoption and implementation of appropriate policies, certification procedures, standards and regulations by key stakeholders participating in intra-regional trade in four selected trade corridors in West, Central, East and Southern Africa.

The implementation strategy for realising these results had several elements. WorldFish worked with a network of universities across the continent to commission studies by postgraduate students of different aspects of the fish trade in the four corridors. Research was presented at Think Tank events convened by AU-IBAR (a coordinating partner on the project). AU-IBAR has a mandate as an AU organisation to work with fisheries ministers from Member States and with regional organisations to support implementation of the Policy Framework and Reform Strategy for African fisheries (PFRS), an African Union strategy. AU-IBAR's convening power would therefore be an important channel for raising awareness and encouraging better policy and implementation. The project also worked with regional standards organisations and COMESA (Common Market for Eastern and Southern Africa) on trade facilitation. In addition, the project carried out capacity building activities with non-state actor groups to support enhanced engagement with cross-border fish trade (often through better processing and handling of fish). The other strategy was to support a range of pilot activities to demonstrate how regulations or policies could be implemented or how certifications could be used to support enhanced fish trade (this included certification of three fisheries in the Gulf of Guinea and aquaculture farms in Kenya).

Other aspects of the strategy include working across the continent in all four corridors where possible and partnering with other initiatives to achieve synergies and achieve more with project resources – the project worked with the EU funded FishGov project, for example, carrying out several events jointly.

The project results were envisaged to bring about the outcome: *intra-regional fish trade improved*. This outcome in turn contributes to the impact: *food and nutritional security, and wealth generation among African fish-dependent communities enhanced*.

The outcomes for the project also link well to the WorldFish CRP Flagship Outcomes for 2020 (see Figure 9 below). Several outcomes are relevant, with Outcome 3.2 particularly focusing on fish production, processing and trade.

Figure 9: WorldFish CRP Flagship Outcomes to 2020

Outcome 1.4.

2.3 million poor men, women and youth access improved livelihood opportunities resulting from increased aquaculture production and associated value chains and enterprise development (of which 50% are women).

Outcome 2.2.

1.2 million people, of which 50% are women, assisted to exit poverty through livelihood improvements

Outcome 3.2.

0.2 million people, of which 60% are females have improved livelihoods as a result of nutrition sensitive fish production, processing and trading activities.

Outcome 3.3.

2.4 million fewer women, men and children suffering from deficiencies in essential micro-micronutrients (of which 50% are women), as a result of consuming greater amounts of high-quality nutritious fish.

Outcome 3.4.

4.7 million more women of reproductive age consuming more food groups as a result of increased fish consumption.

WorldFish CRP Flagship Outcomes to 2020

1.1.2. Assessing the theory of change

The project had a clear ToC and results framework, which evolved slightly over the course of the project. The ToC suggests that it is plausible that the delivery of project outputs will contribute to the identified outcomes over time. For example, in relation to the link between output and outcome levels, the ToC suggests that policy changes influenced by the project could make a plausible contribution to the outcome of increased levels of trade. In assessing this, it can be noted that it could be that increases in trade are driven primarily by significant economic changes (for example, growth in incomes translating to increased demand from DRC consumers, or China choosing to focus on exporting cheap tilapia), rather than by policy change *per se*. The project identified during the field visit that there had been a significant medium-term increase in fish trade in Zambia. This seems likely to have been driven by economic demand, rather than a specific policy change. However, it is nevertheless plausible that policy change could still have been a factor contributing to the change.

Likewise increases in fish trade do not always lead to improvements in income and assets for all fish-dependent stakeholders (as will be discussed below). It may be that there are gains in aggregate terms, with some losing and leaving the sector. Similarly, increased trade may be expected to improve food and nutrition security in aggregate terms, but there may well be fish-dependent stakeholders who experience a worsening of their food and nutrition security in some cases. It is also the case that changes in outcome and impact indicators such as incomes or nutritional status are subject to a range of factors such as economic shocks, changing terms of trade, political instability and climate variability. In this respect it is only possible to say that there has been a plausible contribution by the project to the outcome, and to note that there may be unanticipated outcomes that are not identified in the ToC.

In relation to project reporting and monitoring against the results framework, the ET found that reporting concentrated on reviewing achievements at the output level, with no commentary on outcomes or impact. As will be discussed in the sections below the project did not collect data to allow for evaluation of outcomes and impact against a baseline. As discussed below, this means that the evaluation is only able to comment on the plausibility of the steps in the logframe from outputs to outcomes and outcomes to impact, supplemented by limited evidence from the remote survey and field research.

The evaluation finds that the ToC is slightly unclear about whether the strategies that need to be followed to deliver the results were to be implemented sequentially or concurrently. For example, is knowledge first generated and then shared with policymakers to promote policy change and guide work on enhancing implementation? And, is this possible in a short duration project? In practice there have been both simultaneous and concurrent aspects to work on the results areas. Some dissemination and some interventions followed on from the completion of research (including the sharing of research findings at the Abuja Think Tank meeting towards the end of the project in 2017, and work on the One Stop Border Post (OSBP) at Busia). Other interventions proceeded at the same time as the research.

The evaluation observes that the ToC presents top-down model where research is generated to influence at an AU level through AU-IBAR informing RECs and Member States to bring about policy change. In practice, there was also a strategy of working through networks in particular countries where there was an interest in the work of the project and a receptiveness to inputs into policy (as in Uganda) or pilots supporting better implementation of policy (as with COMESA in Zambia). Change is likely to have been a result of both top-down and bottom-up activity.

5.2. Relevance

EQ1 To what extent were FishTrade project objectives relevant to the needs of beneficiaries?

This EQ seeks to understand whether the project clearly identified its beneficiaries and was designed with objectives that were appropriate to meet the needs of those beneficiaries.

An introduction to the FishTrade project on the AU-IBAR site²⁰ suggests that:

²⁰ <http://www.au-ibar.org/fishtrade-project-implementation/fishtrade-project-beneficiaries>

The ultimate beneficiaries of the project are fishermen, aquaculture producers, fisher folks engaged in fish processing and fish trading enterprises. About 50 percent are women who often depend exclusively on post-harvest activities as their source of income and economic empowerment. Other beneficiaries include the 400 million rural and urban African households whose food and nutritional security increasingly depends on low value fish.

Two categories of beneficiaries can be identified, firstly, those directly engaged with fish production, processing and trade; and secondly, urban and rural consumers of low-value fish. The project document also notes that the 'Partnership for African Fisheries Trade Working Group' was a direct beneficiary of the knowledge outputs produced by the project, which suggests that policy stakeholders are also understood as project beneficiaries.

The overall objective of the project was: 'to improve food and nutritional security and reduce poverty in sub-Saharan Africa by enhancing the capacities of regional and pan-African organizations to support their member states to better integrate intra-regional fish trade into their development and food security policy agendas.'

This objective is clearly designed to benefit the narrower definition of fish-dependent communities: namely the producers, processors and traders who may benefit overall from reductions in trade barriers and from policy and regulatory reforms that promote enhanced fish trade. It is possible that there may be some losers from more open trade, particularly if new markets are created for commercial enterprises and artisanal informal sector producers are unable to compete. Small scale and poorly capitalised producers may also not be able to invest in the necessary equipment or processes to meet standards requirements. This would be a matter for research and mitigating action by governments.

In terms of the broader category of beneficiaries, enhanced intra-regional fish trade is expected to result in cheaper, better quality and more available fish. The field study found some evidence that project interventions to enhance trade had contributed to an improvement in the quality of fish through better post-harvest handling and more fish. Project research on how to improve the nutritive value of low-value fish such as silver cyprinids (*dagaa*) through better handling during trading processes is one example of an action supporting the project objective that would meet the needs of beneficiaries.

To conclude, project objectives were relevant to the needs of beneficiaries in overall terms.

5.3. Coherence

EQ2 To what extent were project activities and outputs consistent with the project objectives?

This EQ addresses the coherence of the project. The project objective, as noted above, was to 'enhance the capacity of regional and Pan-African organisations to support their member states to better integrate intra-regional fish trade into development and food security policy agendas'. Each result area is discussed in turn to identify whether it is coherent with this project objective. The coherence of activities with the result they were designed to contribute to is also considered.

Result 1: Information on the structure, products and value of intra-regional fish trade in food security in Sub Saharan Africa generated and made available to stakeholders

The activities undertaken include production of research (including corridor mapping and value chain analysis), development of policy briefings and dissemination of results to policymakers.

This result area clearly links to the objective as access to better information enhances the capacity of the regional and pan-African organisations. The activities undertaken are coherent with the intended result.

Result 2: Recommendations on policies, certification procedures, standards and regulations, well embedded in national and regional fisheries, agricultural, trade and food security policy frameworks

Robust recommendations on policies, standards, certifications and regulations help to enhance the capacity of the identified stakeholders to do their work. This result area is coherent with the objective.

Activities undertaken include support for a trade facility pilot linked to a OSBP; mapping of certification procedures and standards by African Organisation for Standardisation (ARSO); development of a conformity assessment framework for use at OSBPs; test trade related measures through application of the African Eco-labelling Mechanism linked to Fisheries Improvement Project and Aquaculture Improvement Project (in Kenya); think tank events; policy dialogues; contributions to the Special Technical Committee of the AU (with responsibility for fisheries).

These activities are coherent with the results and objectives, although work on certifications, while relevant to African markets, is somewhat distinct from work on policies, standards and regulations, and was more tangentially linked to the overall direction of work on improving cross-border trade. This particularly applies to the three pre-assessments of shrimp fisheries in the Gulf of Guinea, which look more like standalone activities rather than a coherent component of the project, reinforcing other project activities, in line with the project strategy. This section of the project also supported a review of fisheries policies in Guinea and procurement of equipment for testing to better meet requirements to export to the EU. In broad terms this facilitates fish trade, but it was poorly linked with the work on enhancing intra-regional fish trade. Guinea was also not a country identified in the corridor maps, or where any research took place.

Some activities also seemed excessively ambitious, for example, the 2016 Workplan has an activity that will: 'develop a Comprehensive Strategy or mechanism of overcoming the formulation and implementation constraints of existing policies, standards and regulations in line with AU guidelines by December 2016.' This activity can be understood as ambitious given the number of policies, regulations and standards that would be relevant, and the entrenched challenge of ensuring implementation of often conflicting policy objectives.

Result 3: Increased capacities for trade amongst private sector associations, in particular of women fish processors and traders and aquaculture producers, to make better use of expanding trade opportunities through competitive small- and medium-scale enterprises

Activities included: assessing the capacity of the private sector; development of guidelines for capacity strengthening; capacity building activities; coaching of women fish producers and traders; develop a fish trade portal; develop a strategy for strengthening existing portals.

This result area is less immediately obviously linked to the project objective. However, regional and pan-African organisations are supported by strong non-state actors and private sector organisations that help make clear the need and demand for inclusion of fish-trade priorities in development and food security policy development. There is therefore a level of coherence. Activities are coherent.

Result 4: Adoption and implementation of appropriate policies, certification procedures, standards and regulations by key stakeholders participating in intra-regional trade in four selected trade corridors in West, Central, East and Southern Africa

Activities included: testing trade facilitation through the OSBP; piloting OSBPs in other RECs; facilitating trade flows through conformity assessment framework pilots; assessment of disease and parasite risk in fish trade; assessment of the status of Competent Authorities for fish trade; harmonisation of veterinary services for fish; scaling up of Fisheries and Aquaculture Improvement Projects.

This result area is clearly coherent with the enhanced capacity objective specified above: that is to say if the regional and pan-African organisations adopt and implement the appropriate policies, regulations and other measures then it is assumed that this is equivalent to enhanced capacity to promote intra-regional trade at a policy level.

The activities are broadly coherent with the objectives.

To sum up, for this EQ, it is evident that there is coherence between project outputs and objectives, with the caveat that Result Area 3 is slightly less directly relevant to the specified objective. Activities in most cases are coherent, with some exceptions for Result Area 2.

5.4. Effectiveness

EQ3 How successfully has knowledge of fish trade routes been enhanced? Is this informing policy development?

This EQ addresses the first result area:

Information on the structure, products and value of intra-regional fish trade in food security in Sub Saharan Africa generated and made available to stakeholders

The indicators for this result are:

1. Knowledge on fish trade routes increased, with at least 4 scientific assessments of intra-regional fish trade completed in 4 sub-Saharan African selected corridors by month 18 of the action.
2. Number of publications and policy briefs.
3. Dissemination of Case Study Results.

(1) Knowledge of fish trade routes

The FishTrade project produced an impressive amount of high-quality research on different aspects of the fish trade in the four corridors. Knowledge was produced on: trade routes; on the scale of informal cross border trade; on the gap between formal policy and practice on the ground; on the challenges faced by border traders; on the importance of the trade in small pelagic fish (including in southern Africa, and the *dagaa* trade from Lake Victoria); on the role of women in the fish trade and the importance of trade for livelihoods; on the status of management of fish diseases in the fish trade in southern and eastern corridors; on processing challenges including post-harvest losses and food safety (for example, the risk of aflatoxin contamination during drying processes); and, on safety issues related to smoking of fish in west Africa. The project also produced research on the structure of fish trade value chains for several different countries or sections within the trade routes; econometric analysis was also undertaken of the benefits from fish trade in the RECs; and on the benefits of certification to meet EU standards.

One important area of knowledge generated by the project and communicated in policy briefings is on the barriers to intra-regional fish trade, which include lack of awareness of trade regulations, excessive and inappropriate administrative requirements, poor facilities and lack of infrastructure and corruption. **This research work helps to reframe the narrative around informal fish trade from smuggling, tax evasion, and illegality to job creation, entrepreneurship and livelihood resilience.** Research also showed **the critical importance of gender in the fish trade**, and the key roles women play in processing and trade, and the importance of the trade to their livelihoods.

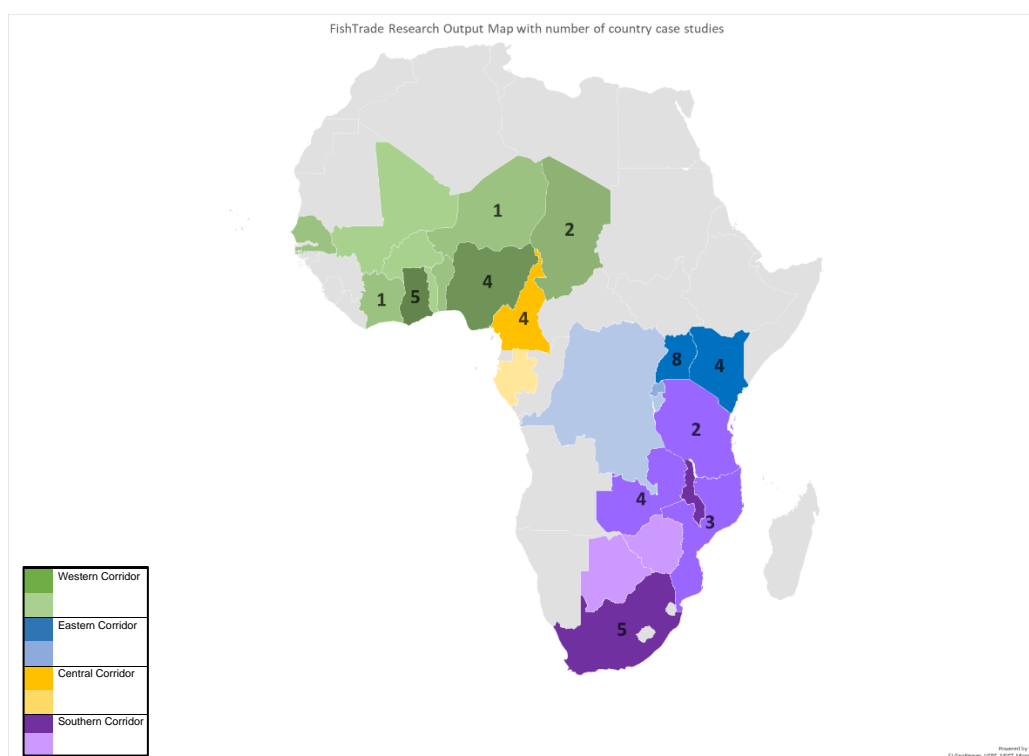
Research is not only important at a national level. At a continental and regional level, it is often stated that fish is a neglected commodity. By showing the level of trade the research indicated the importance of fish trade to GDP and export figures. It also corrected the view that exports and imports in and out of Africa is the only fish trade story, showing instead that intra-regional trade is significant and more importantly could be greater if trade facilitation measures were put in place. This aspect of the research was very well attuned to the policies promulgated in the Malabo Declaration emphasising the need to increase intra-regional trade.

In terms of formal outputs, the FishTrade page on the WorldFish website hosts **5 briefings, 11 position papers, 11 student dissertations, 3 scientific papers, 8 training manuals and 4 visibility outputs**²¹. A special issue of the AU-IBAR Special Bulletin on Fish and Fisheries Trade and Marketing, which can be linked to from the webpage, contains 20 papers (some of these are similar to those on the FishTrade webpage, but most are different papers). The graphic below shows the geographic focus of the different outputs. **There were less outputs for the central corridor, but roughly similar numbers of outputs were generated for the other three corridors.** The project also produced reviews of key policy and regulatory issues pertaining to the fish trade for each of the four corridors and linked this to frameworks for policy development and reform. These

²¹ These publications are available at: <https://www.worldfishcenter.org/fishtrade>

documents were presented at the AU-IBAR Think Tank meeting held in Abuja in 2017. As far as we are aware, they are not available on the internet.

Figure 10: Map of research outputs²²



While the overall body of work is impressive, and specific studies have been highly appreciated, **the work on corridor mapping and cross-border trade would have benefited from analytical work systematically comparing findings from the different research sites.** It is evident that corridor research summaries were produced, together with an overarching document, but these were only delivered at the very end of the project and are not available on the project webpage. The evaluation discovered that a common methodology was used for the research, however, it would be useful to have some externally facing discussion of the methodology, choice of countries and borders, and approach to the work.

The project produced 5 briefings. There are some excellent graphics in the policy briefing on West Africa; it would have been very good, however, if the same format could have been applied to the other case studies²³. Use of graphics would have improved the communication of the Southern Corridor work.

Many more briefings could also have been produced. For example, many of the technical papers and student theses would have benefited from being summarised as user-friendly briefings (several theses are dense in places, with econometric analysis that will be inaccessible to many). It would be helpful to have briefings produced for the policy reviews.

Some briefings could have been more specific in recommendations: for example, one has the recommendation: review policies and institutions for fish trade in Africa (policy brief 1)²⁴, this is odd as this was something the project was designed to do and had to some extent carried out. There is a lack of clarity in some briefings (see, for example, the table on fish and GDP growth for Ghana in Briefing 1)²⁵.

The use of the corridor concept is at times slightly confusing: for example, Corridor A covering West Africa is presented as running from Senegal through Mali and Burkina Faso to Ghana and to Niger and Nigeria, but the strongest data from the Ghana research is for trade along the coast with Benin and Togo. The important trade route from Zambia into DRC is also not captured. During the evaluation process it became evident that understandings of the corridor concept evolved during the course of the project. It would be good to update the

²² countries with numbers are where papers had specific case studies, the others highlighted but without numbers were included in whole corridor/regional focused papers.

²³ AU-IBAR funded a consultancy after the project finished to produce new corridor specific and continent wide maps using project data.

²⁴ https://www.worldfishcenter.org/sites/default/files/u24/Annex-18a-Policy-Brief_Role-of-intra-regional-fish-trade-economic-&-social-development-in-Africa.pdf

²⁵ https://www.worldfishcenter.org/sites/default/files/u24/Annex-1-Ayilu_Policy-Brief_2016-Cross-border-trade-in-West-Africa.pdf

webpage graphic to reflect this. More overarching analysis of the corridors and of the levels of trade at different points along the corridors could be useful. Specific implications of the different spatial trade patterns for RECs (going beyond the conclusion that intra-regional trade is important) could have been explored in more detail. The ET notes that to some extent this was carried out in subsequent consultancies after the end of the project commissioned by AU-IBAR.

Figure 11: FishTrade Corridors



(2) Informing policy

Informants for this evaluation almost overwhelmingly appreciated the usefulness of the knowledge generated by the fish trade project. In some cases, such as in Zambia, it had previously thought that only small amounts of fish were exported, and that the gap between imports and exports was over 100,000 MT per annum. Research by the project documented that over 100,000 MT of fish were actually being exported through the Zambian Copperbelt to DRC. This has significant policy implications in relation to regulation and revenue generation from the trade. According to Malawian Department of Fisheries informants, Malawian policymakers were similarly unaware of the scale of the informal fish trade.

Other pieces of research that had a significant impact on policymakers include the research on scale of the border trade between Kenya and Uganda at Busia. COMESA commented that they valued the work on the Busia border trade, and this informed the decision to work on the Green Card project and provide support to OSBPs. The Fisheries Committee for the Western and Central Gulf of Guinea (FCWC) dedicated fish trade as a priority focus for 2016, influenced by research from the project.

The project has been able to participate in high-level fora and share key messages from the project. These include presenting findings at the AU Special Technical Committee for Fisheries, at the Council of Ministers of the FCWC, and at meetings of SADC and EAC; and at National Information Sharing Workshops. The information sharing workshop in Malawi engaged stakeholders from government for trade, statistics and fisheries.

Policy briefs were presented at the Cairo High Level Policy Dialogue on African Fisheries and Aquaculture in 2018. The meeting was attended by 10 ministers of fisheries or agriculture, and representatives of RECs, RFBs and CSOs. The following commitments were made at the meeting in a statement on 'Enhancing market access and improving, strengthening intra-regional fish trade':

- Recommend AU and RECs to support MS to reform trade policies and regulations and provide infrastructure and technical support to fish traders and processors to contribute to the implementation of the Continental Free Trade Area (CFTA).
- Urge AU and RECs to strengthen the capacity and knowledge of MS to implement continental and regional trade rules.
- Encourage RECs and MS to provide incentives at regional and national levels to formalize the informal trade especially for women.

The ET notes that for the Think Tank meetings there was a focus on interaction with fisheries stakeholders, and engaging them in thinking about trade, rather than engaging trade stakeholders and encouraging them to pay attention to fish. Working with the latter group of stakeholders is perhaps more difficult and would need more attention in future interventions. At national level, for some of the countries both fisheries and trade stakeholders were engaged, and the work the project did with SADCSTAN (SADC Cooperation in Standards) and COMESA was with trade stakeholders.

(3) Building capacity in research and policymaking

One important aspect of the research was the use of students in the research process. Some of the studies were linked to master's (MSc) degrees supported by the projects, a few were done as part of PhD study. **Many informants felt that the project has helped to build a cadre of researchers with an interest in fish trade across the continent.** Some of these have gone on to work for institutions such as WorldFish or FCWC, others are Chief Fisheries Officers in fisheries directorates or departments (Malawi and Zambia) and have taken their knowledge into the work they do; others now earn a living as consultants with a specialism in fish trade. Informants commented that there were benefits to working with students rather than research consultants or senior academics, not least as students had time to spend extended periods in the field, something that was necessary to capture trade data and map informal routes at remote borders. Students were less expensive to recruit than more experienced professional consultants, or academics, and allowed the project to carry out several studies in each of the four corridors, which might otherwise not have been possible.

EQ4 Have fishery policies and regulatory frameworks been strengthened in the participating countries and regionally?

This question evaluates the second results area:

Recommendations on policies, certification procedures, standards and regulations, well embedded in national and regional fisheries, agricultural, trade and food security policy frameworks

This results area has several indicators:

1. Number of recommendations, guidelines, standards and regulations successfully entrenched in national frameworks and harmonised at regional level;
2. Number and quality of coordinated and harmonised policies at the continental level, particularly on cross-border fish trade issues.
3. Approaches for Implementation and Monitoring of these Policies, Standards and Regulations Recommendations.
4. Fish trade policy discourse mainstreamed in CAMFA, including number of strengthened RECs for developing regional and continental guidelines on intra-regional fish trade.

The project had some influence on development of policy, regulation and standards, and their implementation. **A key achievement of the project is harmonisation of fisheries standards for the SADC region.** The SADC website notes²⁶:

In our quest to promote intra-regional fish trade, SADC Secretariat, WorldFish and SADC Member States, working with the SADCSTAN, developed eleven harmonized fish standards for the SADC region as phase two of the Fish-Trade project. This activity was requested by Member States at the 35th meeting of the SADC Technical Committee on Fisheries held in Gaborone, Botswana during June 2016, and is in line with both the SADC Protocols on Fisheries and on Trade.

These standards have been formally adopted at a regional level, and sensitisation has been carried out on what needs to take place to and adopted to different extents by five Member States (including Malawi, Mozambique, Zambia and Zimbabwe). However, at the national level, states have their own processes; for example, in Malawi informants commented that 16 standards for fish are currently being reviewed, this larger number of standards

²⁶ SADC website News section at:

(larger than the 11 harmonised by SADC) provides a closer fit with the requirements of Malawi in terms of fish trade. The SADC standards can therefore only be described as entrenched at the national level to a limited extent. In Zambia a process of reviewing which standards should become regulations is underway. One issue noted by a fish processor in Zambia was that the cost of meeting the standards (certification and audit) can be significant for an SME, and deters them from following them. SADCSTAN – the part of SADC that handles standards – noted that they are aware of this and it may be that in the future audit costs can be covered. This point is made to show that although regional fish trade standards have been developed with support from the project, effective implementation of standards by governments and adherence by the private sector is something that will take more time to realise.

Another informant noted that it is a major challenge to harmonise implementation of standards as there is such variety in the levels of economic development in the participating countries. The commodities that are important varies between countries, as does capacity to implement. For example, in South Africa there are no standards for dried fish, as dried fish products have not been viewed as a significant commodity, when in fact large amounts are flowing to diaspora communities. Likewise, South African standards have prioritised fresh or frozen fish, which make assumptions about cold storage capacity, which may be difficult to meet in neighbouring Malawi.

These points are made to illustrate that the level of achievement required by the indicator is substantial. The project supported completion of formal harmonisation in the SADC region, which is in itself a significant achievement for a three-year project. Informants commented to the ET that the achievement of the project has been to raise awareness of what now needs to be done to develop a functioning regional standards system.

The COMESA Green Card process for small-scale traders has been developed for piloting in Zambia, Mozambique, Zimbabwe and DRC (it is expected to be endorsed in DRC in March 2020). This system establishes a Green Pass border committee in Luangwa, Zambia, where following inspection a pass is issued indicating that sanitary and phytosanitary (SPS) standards have been met for dried and smoked fish. The launch of the facility was attended by District Commissioners from Mozambique and Zimbabwe and officials from SADC. Another Green Pass Border Committee at Kasumbulesa in Zambia on the border with DRC will confirm that the fish can pass without need for further SPS checks.

The then Head of Sanitary and Phytosanitary at COMESA, Martha Byanima, was quoted by BizCommunity Zambia as saying that²⁷:

We will use this border crossing as a model for application of the COMESA 'Green Pass' for fish products. The Green Pass is a certification scheme to support trade in agricultural commodities. It should open the way to high-value markets by guaranteeing the safety and quality of the commodities. Hence, a number of follow-up activities are planned with WorldFish. These include reviewing cross-border trade regulations and procedures, streamlining the procedures in order to simplify them for small-scale cross-border fish traders, especially informal and women traders, and testing and rolling out the Green Pass.'

Three workshops were held at Luangwa with officials from Mozambique, Zimbabwe, and COMESA. District staff in Luangwa commented that they greatly enhanced understandings of cross-border trade issues. Sensitisation has taken place in Kasumbulesa (on the DRC border) on the Green Pass. The Cross Border Traders Association see it has a significant development and are eagerly awaiting its implementation; however they were concerned that even if government stakeholders (including at district level) had been trained on the scheme, many traders had still not understood the practical implications. Possibly there is a misunderstanding that the Green Pass will reduce a range of levies, whereas it will only deal with SPS issues. Notwithstanding this, when it is operational the Green Pass pilot will be a valuable test case of how to simplify one important aspect of cross-border trade, and will merit analysis and possibly further scale out, depending on the results.

In Malawi, officials in the Department of Fisheries commented that one important change, influenced by the project and critical for artisanal cross-border fish trade, is the move to decentralise issuance of SPS certificates. Previously fish traders would have to travel to Blantyre or Lilongwe for testing. Making this journey could be

²⁷ <https://www.bizcommunity.co.zm/Article/237/520/185192.html>

costly and time-consuming (considering the perishable nature of fish), and as a result many traders opted to follow informal routes. The Government of Malawi will establish facilities to carry out checks at 6 border posts.

The project can claim success in contributing to the **Malawi National Fisheries and Aquaculture Policy 2016**, and in particular the section on value addition, which includes commitments to put in place a legislative framework for quality fish for local and export markets, to adopt best practices in SPS to support value addition, and develop guidelines for certification of fish for domestic and export markets. This policy was developed early in the project, nevertheless informants in Malawi indicated that the project had a role to play in the development of the approaches finally adopted, through information sharing activities and participation in stakeholder dialogues.

In Uganda, according to an official from the Ministry for Agriculture, Animal Industry and Fisheries (MAAIF), the project contributed to review of the National Aquaculture Policy through financial and technical support. This policy subsequently became part of the **National Fisheries and Aquaculture policy**. The policy itself clearly incorporates several proposals that will facilitate trade in fish:

MAAIF will work with the Ministry of Trade, Industry and Cooperatives to expand the market infrastructure and streamline trade procedures to benefit farmed fish trade locally, regionally and internationally. This will require construction of cold chains, fish handling and storage facilities and supporting the general live-fish marketing infrastructure including a marketing information system. A special emphasis will be laid on promoting of fish associations and cooperatives by linking them to domestic and export markets.

In Tanzania, findings from the project on the extent of lost revenue from informal cross-border fish trade were shared with the fisheries Minister and the Permanent Secretary. A series of measures were then undertaken to tackle illegal trade including increasing border patrols. Officials were also made aware of the issue of trucks from DRC loading at landing sites and then unloading before the DRC border and taking across the border in small consignments to avoid tax. Government is using the weighbridge network and a customs post in a newly constructed market on the border with Zambia to track the progress of consignments and ensure that the correct tax is paid. Informants for this evaluation suggested these changes could be directly attributed to the awareness raised by the FishTrade project. The Tanzanian government has also built a warehouse at the border with Zambia to bring more trade within formal channels.

In Zambia, development of a Fisheries Policy is underway and has been informed by the project research and discussions with key stakeholders from the project. It is expected to address fish trade.

Within the **ECOWAS** region one informant noted that the United States Agency for International Development (USAID) support to trade facilitation and customs used reports from FishTrade on the western corridor to analyse the improvements needed in relation to cross border trade to develop some regulations on sanitary issues and trade. FishTrade project dialogue with ECOWAS has resulted in the development of a Comprehensive Strategic Framework for Sustainable Fisheries and Aquaculture Development in West Africa, which drew directly on research from the project. According to discussions with relevant staff the Fisheries Committee for Western and Central Gulf of Guinea (FCWC) has incorporated fish trade into its Regional Strategy.

The second indicator addresses harmonised and coordinated policies. The project had two approaches to this: a formal track through presentation of policy analysis at Think Tank meetings to inform RECs and MSs, and a second track where specific initiatives were undertaken on harmonisation. In relation to the former, consultancies were commissioned by AU-IBAR in each of the four corridors to develop frameworks for harmonisation of fish trade policies. These were presented at the Abuja meeting in August 2017. One aim of this meeting was to 'identify policy entry points to enhance intra-regional trade of fish and fish products in order to contribute significantly to the Malabo goals of tripling regional trade by 2025'. While this was a valuable objective, sharing of the framework strategies for each corridor came too late in the life of the project for it to be feasible to make significant achievements in this area before the end of the project. It is possible these outputs are now being taken forward through follow-on projects; however, it has not been possible to confirm this.

In terms of specific initiatives, the ARSO reviewed trade regimes and standardisation needs and identified standardisation gaps and a plan of action to address these and identified a set of standards for harmonisation

through the FishTrade project. A Compliance Assessment for Cross-Border Trade was developed to link the Simplified Trade Regimes of the EAC and COMESA regions, including a consultative process to establish equivalence arrangements (for the different trade regimes), followed by a piloting arrangement. Modules were developed for training of cross-border traders and others on standards.

ARSO made recommendations on standard harmonisation for all RECs. ECOWAS harmonised 3 agricultural and 14 food safety standards in 2017, and ARSO played a role in this, linked to FishTrade, but from the documents available it is not clear exactly what the contribution of the project was. Review of the ARSO database shows ECOWAS standards (ECOSTANDS) were adopted for frozen and smoked fish in 2015 and for fishmeal and salted fish of the *Gadidae* family in 2017. ARSO were however not able to make time to speak to the Evaluators, so we have not been able to fully triangulate their inputs.

One informant actively involved in project management in the fisheries sector in West Africa commented that the project contributed to improved understandings of the ECOWAS Trade Liberalization Scheme, and its implications for national and regional governance of fish trade.

Overall, there were some achievements at the regional level, including regional harmonization. Notwithstanding this informants noted that there is scope for much greater regional harmonization of fish trade, and the FishTrade project has raised awareness of the challenges that need to be addressed.

The third indicator relates to approaches for implementation and monitoring of standards, regulations and policies.

The work at the Busia OSBP contributed to better understanding of, and adherence to, border regulations (according to officials interviewed for this evaluation). This is discussed below. Another output that is relevant to this indicator is the development of a road map and pilot for testing African eco-labelling standards, which includes production of a manual for the audit of marine capture fisheries.

Results reported by the project (in the Final Project Report, 2018) in this area are of mixed quality and relevance in relation to the indicator. Some include presentations at meetings or events, which while useful are not really systematic approaches to monitoring reforms or implementation. The results also mention various methodologies, including econometric models for assessing the impact of meeting standards for fish exports, and for assessing the contribution of fish trade to food security; and safety standards on cross-border trade. These seem to relate to research outputs which, while valuable in helping policy-makers to think about policy choices, do not directly contribute to implementation or monitoring of implementation. These research outputs are available as research papers and not as briefings with key messages highlighted. In this respect it may be difficult for them come to the attention of policy-makers, and they are not very user friendly, notwithstanding the value of the research.

Perhaps a more useful way of looking at this is to see that the various capacity building efforts through the project (e.g. creation of African Women FishTraders and Processors Network (AWFishNET)) and the development of a cadre of young researchers some of whom are now in government, may have the function of pushing for implementation of policies at the local level, and monitoring the impacts of fish trade related policies as actually implemented (or not implemented).

The project has also raised awareness and built capacity to demand information – this can over time create a pressure to ensure that correct procedures are followed, and that fish-traders are not exploited because they lack accurate information.

For the **fourth indicator**, a number of think tank events were held (mostly coordinated by AU-IBAR and NEPAD) including in Abuja in 2017 and Cairo in 2018. Meetings were held with RECs and RFBs to share findings. In the case of FCWC the fish trade project had some impact resulting in FCWC taking on a member of staff for a year to work on fish trade issues, and adoption of fish trade as the priority focus for FCWC for 2016/7.

FishTrade held a joint closure meeting with the FishGov project in Cairo in 2018. The proceedings of this event would seem to illustrate that fish trade policy discourse has been mainstreamed in CAMFA (see the discussion in relation to results area 1).

To sum up the findings in relation to this effectiveness question, the team finds that the project has made some distinctive contributions – particularly in relation to the SADC standards, and development of a pilot for the COMESA green pass scheme. However, it is not possible to identify wide-ranging entrenching of changes in regulations, policies, standards and certifications at national and regional level. This undoubtedly reflects the relatively short duration and small size of the project in relation to the challenge of affecting change in complex processes across many countries and regions and possibly the limited scope of time between project closure and this evaluation. Nevertheless, at the level of dialogue, FT has made a contribution to policy processes, which over time may result in the type of changes in frameworks and action on the ground that analysis from the project has indicated is necessary.

Evaluation of this component links to the WorldFish CGIAR Indicator #11: *Number of policies, legal instruments or investments modified in design or implementation, informed by CGIAR research*. Based on the information shared with the Evaluation Team we can say that several policies e.g. Malawi fisheries policy, COMESA Green Pass pilot, the OBSP pilot in Busia and Uganda have been informed by the project.

EQ5 How have capacity, competitiveness and opportunities for non-state actors increased or changed?

This question addresses Result Area 3, which was:

Increased capacities for trade amongst private sector associations, in particular of women fish processors and traders and aquaculture producers, to make better use of expanding trade opportunities through competitive small- and medium-scale enterprises.

The result area has three indicators:

1. Number of private enterprises applying good practices (including technologies where appropriate) as a result of project assistance.
2. Capacity building, Networking and Institutional Strengthening of private sector associations through the development of guidelines and good practices for continent- wide dissemination.
3. User-owned information and advocacy tools and mechanisms.

The project helped to build capacity through: support for the establishment of cooperatives and a fish trader network; trainings on processing, handling and trade; and through attempts to develop trade information portals. The EQ sub-questions evaluate achievements through assessment of capacity built, greater competitiveness, and enhanced opportunities.

The project report notes that seven civil society organisations working in the fields of fish production, processing and trade were given capacity building support by the project. Two of these were in the western corridor, three in the east, and two in the southern corridor. Some of the organisations were specifically for women (for example, the Tema Manhean Fishmongers and Smokers Organisation); some had a cross-border focus (organisations in Luangwa and Kasumbulesa in Zambia, and Busia on the Kenya-Uganda border); another worked with fish farmers (WAFICOS) in Uganda. Trainings were provided depending on the needs of the organisation on subjects such as fish handling and processing and business management.

The ET were able to speak to groups who had been given capacity building training. **The two cooperatives at Luangwa were created with the support of the project: Twaleta Fish Traders Cooperative and Luangwa Women Fish Traders Cooperative. Both groups clearly appreciated the trainings they had been given on fish processing and handling and felt that these had resulted in substantial reductions in post-harvest losses (some commented that losses were previously 30 to 40 per cent and were now negligible).** Fish traders in the cooperative's incomes had improved through the greater volumes they could handle, better handling and reduced losses, and improved capacity to negotiate with transporters, and to access new markets. The women cooperative members felt that they could now engage in buying fish directly from Mozambique, which had only been done by men in the past. The cooperative members felt better off, with more resources to invest in schooling and housing. In terms of training the groups felt that while they had made gains in processing, they needed more support in business management skills.

The ET found, however, that the skills that had been imparted to the women in the cooperative were not necessarily being shared with other women traders who were not members. Notwithstanding this, the cooperative had saved money and invested in a toilet block, which was of benefit to the wider community of traders. Some fish traders commented that the cooperative was able to help with pre-financing of purchase of fish in Mozambique with payments recouped when fish was sold at the DRC border.

In Kasumbelesa, traders and marketeers were given training in how to process, smoke, handle fish. Informants felt that what they were trained in was appropriate to their needs and based on a prior needs assessment..

Some frustration was expressed by fisheries officials in Kasumbalesa, who commented that the project had proposed the formation of a management committee to coordinate the large and chaotic market. An initial meeting was held under the auspices of the project. Fisheries officers and the police department were involved and follow up meetings were held, but there was no further input from the project despite an expectation that facilitation and guidance would be provided; subsequently the committee then ceased to meet. This example suggests that **some capacity building activities were slightly *ad hoc* and would have benefited from more careful coordination and management of expectations.**

Capacity building was an important part of the work at Busia. The researcher involved in the work commented that **the project had encouraged traders to form groups, and bulk up their produce, this reduced the unit cost of transport and fees and levies but enabled access to more lucrative markets in Eldoret and Nairobi (in Kenya).** Prior to the project intervention many traders would only sell close to the border with much lower margins.

The ET was able to speak to AWFishNET. This network was formed following trainings for women on fish processing through the FishTrade and FishGov projects in 2016, from a desire to have a platform for advocacy at a continental level for women fish traders, particularly on issues such as value addition, taxation, streamlining of regulations to make cross-border trade easier and development of an enabling environment to attract investment and access markets. The network is a network of national associations. It is currently in the process of consolidating or establishing national networks across the continent with funding from Swedebio (currently there are 11 networks). AWFishNET participated in the most recent Comprehensive Africa Agriculture Development Programme (CAADP) biennial meeting in 2019 and were able to raise awareness of the network and its objectives.

The project correctly identified the importance of geo-coded trade information portals as a way of sharing information about fish markets, prices and linking buyers and sellers. A review of different regional trade portals was carried out, but it is not clear how the information that came out of that was used to produce a strategy for portal development as was originally planned. The project in the end supported the Walimi Fish Cooperative Society (WAFICOS) data base managed by LVFO for the Walimi Fish Farmers Network. An informant from WAFICOS noted that the scheme was greatly appreciated by fish farmers with good connectivity who were able to make use of it to link to buyers.

EQ6 To what extent has the implementation of policies, certifications, standards improved?

This EQ looks at achievements in relation to the fourth result area:

Adoption and implementation of appropriate policies, certification procedures, standards and regulations by key stakeholders participating in intra-regional trade in four selected trade corridors in West, Central, East and Southern Africa

This result area has several indicators:

1. Catalysis and facilitation that leads to change in institutional capacity for compliance with policies, standards and regulations as well increased FishTrade in the Four Corridors by early 2015.
2. Increase in level of knowledge and experiences of the impact and benefits of food safety and quality schemes shared to inform decision making by 2016.
3. Increased Monitoring and Documentation of the Performance of FishTrade in the Corridors, and Share Lessons Learnt.

Project reporting for this indicator highlights the installation of the border facility at Luangwa, Zambia, as a key achievement. This facility allows for storage of fish and reduced post-harvest losses. The facility is not yet fully operational as laboratory testing equipment has not yet been installed. When it is fully equipped it will allow for inspection of fish and operation of the COMESA Green Pass scheme for small-scale trade in fish. The facility will change the capacity of actors trading at Luangwa to meet food safety standards, and enable implementation of the Green Pass regulation. This activity can therefore be understood as indirectly contributing to meeting the indicator.

The project also made an investment to support the construction of a facility for women fish traders at Tema in Ghana. This facility has improved sanitation at an important landing site in Ghana and has contributed to improved safety of the fish being traded. The Tema site is promoted as a model for development of fish-trade infrastructure by the FCWC. As with the Luangwa facility this activity is reported as a contribution to Indicator 1, again this would be an indirect contribution based on the improvement in hygiene levels at the market and therefore capacity to meet food safety standards.

The incorporation of fish standards into the OSBP at Busia on the Uganda/Kenya border is an important pilot which shows how to reduce the burden of time consuming, duplicatory and unclear procedures on fish traders. The Busia OSBP which opened in 2016 had previously only covered crops, livestock and manufactured commodities. The project undertook a public awareness campaign using local radio to raise awareness about requirements for the OSBP and trained the Busia Fish Traders Association in how to meet the requirements of the trade regime and get the best from it through bulking of products. The project also worked with customs officials and safety inspectors.

Following on from the Busia model the project supported the development of a road map for supporting the establishment of a OSBP at Kye-Ossi in the central corridor, with capacity to handle fish trade.

These type of measures are valuable as they model how streamlining of trade can work in practice and make clear what the benefits can be to the economy and for those engaged in trade. Although some informants noted that OSBPs do not actually reduce the number of procedures involved in cross border trade, they just put them under a single roof and reduce duplication.

The project supported development of a framework for application of the Africa Eco-Labeling Mechanism (Eco Mark Africa) to fisheries. Related to this the project also supported pre-assessments of shrimp fisheries to assess alignment with the Eco Mark sustainability certification. Three fisheries were assessed: in Nigeria, Gabon and Cameroon. The project also contributed to a fisheries improvement plan for Guinea (working on this together with the FishGov project). The project provided pre-assessment training for a Kenyan and a Zambian aquaculture farm for Eco Mark sustainability certification (Aquaculture Improvement Projects). However, the ET understands that planned scaling up of Fisheries and Aquaculture Improvement Projects was not carried out.

Supporting improved fish disease management and enhanced food safety in fish trade

The project supported studies on fish diseases in the southern and eastern corridors. The Zambia study made a series of recommendations on building diagnostic capacity, improving awareness and implementation of biosecurity measures, construction of quarantine facilities, and improved reporting on fish diseases. The Eastern Corridor study covering Kenya, Uganda and Rwanda highlighted a series of problems including lack of clear guidelines for import of aquaculture materials, lack of regulation for imports of live fish, and inadequate processes at border crossings to manage the risk of trade in diseased fish. An urgent need to fish inspection capacity was identified. These findings were shared with AU-IBAR (to facilitate action by member states) and the Lake Victoria Fisheries Organisation. It is unclear however that actions have been taken to respond to the recommendations made.

For the southern corridor, and according to project reporting, the SADC Technical Committee on Fisheries endorsed the cross-border disease diagnosis and urged member states to adopt the approach to reduce risks from diseases and parasites in the fish trade.

In relation to food safety, studies in Uganda identified high levels of contamination of silver cyprinids with aflatoxins (cancer causing compounds produced by fungi) due to traditional processing practices. The study made recommendations on techniques for improved processing and handling and production of safer fish.

During the process of developing the facility at Luangwa and carrying out trainings on fish processing and handling, testing was carried out on fish which revealed that pesticides were sometimes used as preservatives. This raised awareness among policymakers of the need to improve implementation of SPS measures.

Another informant noted that the project helped in West Africa to promote the adoption of the FAO Improved Smoking Oven as a way to promote safe and good quality products without residues from toxic compounds.

In summary, the OSBP intervention in Busia, Uganda, was a good pilot showing **how** fish could be integrated within a One Stop Border system. The action which included trainings of traders at the site and work with officials has contributed to improved cross-border fish trade with benefits for artisanal traders. The project also produced useful analytical studies on fish disease and food safety aspects of cross-border fish trade. It is unclear, however, how these are being utilised.

5.5. Efficiency

EQ7 To what extent was the implementation of FishTrade efficient?

This EQ has three sub-questions: *How cost-effective was the project? Were the objectives delivered on time? Was the project delivered in the most efficient way compared to the alternatives?*

Some aspects of this EQ are not straightforward to answer in that the ET did not have enough information on the project finances and costs of activities to fully assess cost-effectiveness. For timeliness, we know when activities were completed, and when the timing of delivery would clearly have had implications for the utility of a project output. Evaluation of whether the project had the optimal design and delivery model is based on reflections from project informants, and the link between reported successes of the project and how they link to implementation responsibility and the range of activities carried out.

i. Cost effectiveness

The ET were not given enough information to make a full assessment of the cost-effectiveness of the project. Based on knowledge of similar projects with a budget of €5 million, the project was relatively cost effective given the range of activities that were successfully completed. The ET have not been able to see an expenditure report for different project activities, only an expenditure summary for major budget lines. However, data was shared on budget shares for project results areas. The allocations were Results Area 1: €940,000; Results Area 2: €1.33m; Results Area 3: €1.89m; Results Area 4: €2.14m. Comparing Results Area 1 (the research component of the project) with other areas, it can be seen that substantial impact was achieved for a relatively low budget compared to other Results Areas.

The use of students in the knowledge production part of the project appears to have been a cost-effective measure, allowing for research at more sites and in more corridors over a longer period of time than might have been possible if project resources funded more senior researchers. This does not seem to have resulted in a significant trade off in the quality of research as students were supervised by both academic advisers and the WorldFish project lead. The project was able to make resources go further by partnering with the FishGov project for some shared events. In these respects, it was cost-effective.

Budgets were allocated to each organisation linked to responsibilities for different result areas. It was not possible to interrogate this in detail as the team has not been provided with clear implementation plans for all activities and organisations linked to budgets, but nevertheless this model seems to have given each of the main partners quite a lot of autonomy in terms of determining activities. In the case of AU-IBAR the budget was utilised on trainings, conferences and think tank events designed to engage policy-makers and shape policy agendas. Given that costs for some of this work were shared with FishGov, and total AU-IBAR spend was under €600,000, this seems to have been relatively cost effective. In relation to NEPAD work (total expenditure €671,000), substantial resources would seem to have gone into activities such as the pre-assessments for certification and rehabilitation of the fisheries sector in Guinea that were somewhat tangential to the main value added of the project. **Based on this, the ET questions whether budgets should have been agreed in a different way, with allocations made on a year-by-year basis reflecting the strategy and priorities of the project, and emerging opportunities, with a clear narrative explaining the strategic justification for the allocation.**

ii. Timeliness

Challenges were experienced in relation to timeliness, partly because the project undertook so many activities, and because the overall project duration was quite short. Most of the student research projects were completed in time. Many completed in 2016 allowing plenty of time for dissemination (noted in Annual Report 2016). However, two or three were still ongoing when the project closed. This did not necessarily mean that results were not shared, but in the case of Tanzania, for instance, there were no written research outputs. The corridor synthesis reports were also only completed in 2018, which was too late for dissemination by the project. The four studies on fish trade policies and the linked frameworks for harmonisation of policies were also only produced in 2017, close to the end of the project, again leaving limited time for implementation.

The facility in Luangwa was completed just in time for the end of the project, but without time or resources for a formal launch. It stood empty for six months before COMESA were able to step in and fund the launch. The planned cold store and inspection equipment were not procured. Similarly, the harmonisation of food standards in the SADC region was a significant achievement of the project, but the project was only able to build on it with information sharing workshops in two countries in the region before the end of the project.

The study on contamination of *dagaa* in Uganda by aflatoxin, was completed in time, but the project did not plan enough time or resources for dissemination and training with the community, which was regrettable in relation to the expectations of the community and the research partners. Equipment procured for fish processing in Dakar was bought in time, but the required supporting infrastructure was not completed by government of Senegal before the end of the project.

It is also understood that there were some delays in disbursement related to the audit process, which affected timely completion of activities.

Overall, for some key project interventions timeliness was not as efficient as it could have been. There was not quite enough time to complete an activity and take the next action that would have contributed to greater effectiveness.

iii. Optimal management model

The third sub-question addresses whether alternative management and delivery models might have been more effective. The project was coordinated by three organisations: WorldFish, AU-IBAR and NEPAD, with WorldFish the formal contractual and reporting lead. A Steering Committee brought in other partners in addition to the coordinating partners to ensure oversight and to guide project activities. As noted, the way budgets were allocated across the projects to each coordinating partner appears to have given a significant level of management autonomy to that partner. Informants from WorldFish and NEPAD commented that the Project Coordination Committee met regularly and there was flexibility to adapt responsibility for different corridors or implementation areas. Nevertheless, **it would appear that to some extent the organisations managed their funds in line with what they thought were the most important priorities. This resulted in some level of fragmentation and lack of coherence across project activities.**

Another aspect of delivery is whether the project would have done better not to have spread itself so widely by covering all four corridors. Working in four corridors arguably helped in terms of contributing to a continental level discourse, although working at this level is somewhat remote from the dynamics of policy change in particular countries and regions and at particular border points. A mix of activities were carried out in the Eastern, Western, and Southern Corridors, with limited activity carried out in the Central Corridor. There was undoubtedly a trade-off between breadth and depth, and arguably there would have been benefits to concentrating efforts in one or two corridors in terms of knowledge production, advocacy of policy change within RECs and Member States and building synergies between different trade facilitation and capacity building actions. For example, the Women Trader Caravan from Senegal to Mali was an imaginative awareness raising activity that was applauded by informants who knew of it, but possibly it would have had more impact carried out from Mozambique through Zambia to DRC to raise awareness of that trade route, and to link to the other activities being carried out along the trade route. Concentrating the project in a more limited number of corridors would potentially also have reduced some costs.

A final point on delivery models is that there were no formal partnerships with particular countries. This had advantages in that the project could be relatively light touch, not incurring the transactional costs that come with

partnerships with line ministries, for example. However, for some project components the absence of institutional arrangements meant that fisheries departments or directorates felt a lack of ownership and were not well placed to continue to scale out capacity building trainings, to give one example.

In sum, there are certainly aspects to the project that were efficient, such as the linkages to other initiatives and the approach to knowledge generation. However, other aspects were less so, including completion of some research summaries at the end of the project allowing no time for dissemination or follow up, and execution of project interventions near to the end of the project, without leaving enough time for lesson learning or execution of an exit strategy. The project design also meant that budgets were controlled in a way that resulted in activities being carried out that did not contribute to the overall coherence of the project, and which therefore had an opportunity cost. There is a strong case to say that there would have been efficiency gains if the project had been less fragmented and had had a less ambitious regional focus; this could also have included institutional partnerships at the national level to encourage sustainability.

5.6. Impact

EQ8 To what extent has the project contributed to improved food and nutritional security and wealth generation among African fish-dependent communities?

The ToR for this evaluation notes that:

The intended impact of FishTrade is not a linear, cause and effect state but a test of the project's relevance; however it will not be the yardstick against which the project's performance will be measured. This is because FishTrade is not solely accountable for realizing the impact. Therefore, the impact indicators will measure long-term cumulative effects of the efforts of the project and other actors over time. The data collected through the impact indicators will document the distinction between instrumental change and transformative change. The former will be the change that will occur as a result of the project's efforts; while the latter will be change that will be sustained beyond and without the FishTrade's interventions.

Impact evaluation for this project has looked for evidence of how the project has contributed to cumulative change over time, and the contribution to achievement of the WorldFish CRP Flagship Outcomes (until 2020), documented in the Project Design section above. As no baseline or mid-term data on these metrics were collected by FishTrade, the ET sourced alternative secondary data sources with indicators that were as closely related as possible to the impact sub-questions, and geographical and temporal scope of the evaluation. However, following a review of the sources found, it was judged that these proxy indicators did not offer close enough correlation with the project beneficiaries, or fit well enough with project time periods, to be robust enough to allow meaningful comment on the achievement of impacts.

Comments for this sections are therefore based on findings from fieldwork and observations from review of project documents, supplemented by findings from the remote survey.

This EQ has three sub-questions: What changes in incomes for fish-dependent communities can be identified? What changes in assets for fish-dependent communities can be identified? What changes in the prevalence of hunger can be identified?

(1) Changes in income and assets for fish-dependent communities

The Evaluation Team was not able to identify a suitable proxy data set to provide data on levels of change in the incomes and assets for fish-dependent communities in the trade corridors targeted by the FishTrade project. The World Bank data on World Development Indicators provides data on Gross National Income per capita based on purchasing power parity (PPP)²⁸. However, the team felt that this proxy was too far removed from possible impacts on income and assets to which the project could have made a plausible contribution.

²⁸ World Bank, International Comparison Program database (2019) 'PPP GNI is gross national income (GNI) converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GNI as a U.S. dollar has in the United States. GNI is the sum of value added by all resident

To collect primary data on perceptions of changes in income and assets of communities reliant on small-scale fish trade since January 2015, the ET used the remote survey as an opportunity to gather stakeholder perceptions of changes in their country/region. Respondents were asked to choose whether the following indicators related to income and assets had increased, stayed the same, or decreased during the period from January 2015 to 2020: spending on food, investment in housing and household assets, contributions to savings schemes, purchase of equipment for businesses and spending on schooling.

Analysis of survey results (see Annex 5) found that for the indicators related to income and assets, respondents saw the most improvement in the purchase of equipment for business. However, overall, and in particular for changes in levels of spending on food and investment in housing and household assets, the majority of respondents answered that they could not say whether these indicators of income and assets had improved or declined in the period. This ambiguity may be due to the difficulty in generalising trends for entire communities and the challenge of visibility of income changes in a relatively short period of time. Given this, the data collected on perceptions of change in income and assets from FishTrade stakeholders was not relied upon by the ET as an accurate quantitative assessment of real change, but rather as a gauge of general popular assessment of directions of change, to be used as one of a number of data sources to understand these trends.

The field survey collected very limited data on income and assets during focus group discussions with traders and fish handlers at Luangwa and Kasumbalesa in Zambia. In Luangwa, the ET spoke to two traders' associations. Both associations were clear that their income and assets had improved over the life of the project. One indicator of this was that they had been able to save money to invest in a new toilet block at the project site. This perception was corroborated by interviews with officials in Luangwa such as the District Commissioner. Officials also noted the rapid growth of small retail outlets at the fish landing site, which was given as an indicator of rising incomes.

The team spoke to a group of 38 fish handlers. These young men (it is gendered work) could earn up to 200 Kwacha per day (around \$13). Comparing with five years previously the group confirmed that work had increased following expansion of the fish trade, and total earnings had increased. Some, depending on their family situations, or whether they were from the locality or not (and thereby incurred rental costs) had been able to invest in assets at home.

Other traders who were not part of the associations (or handlers) were much less positive about whether there had been changes in income and assets. These traders felt that incomes had not improved. There are several factors at work here. There seems to be some evidence that the costs of doing business have gone up (particularly levies and transport costs) by at least as much as any increase in the marginal profit from buying and selling fish (excluding costs). Also on the basis of limited evidence it seems that many people have come to Luangwa to trade fish as it was seen as a better livelihood option than many alternatives in Lusaka, and this has depressed prices for those who carrying out very small levels of trade (as opposed to those bulking up and working with transporters). The background to this is that there was a clear consensus among those we spoke to that the Zambian economy had been in a downturn for the previous few years, with rising prices and lower relative incomes.

In Kasumbalesa, a uniform view was that profits (and therefore net incomes) had declined in relative terms reflecting rising costs relative to increases in profit margins. This was perceived to be a direct result of increased competition in the fish trade often linked to the arrival of migrants from neighbouring countries engaging in fish trade.

The traders discussed above were all trading dried or smoked fish. The fresh fish trade is different, requiring larger capital to invest in containers, refrigeration and generators. It is predominantly male, whereas the dry trade is dominated by women. Two discussion groups were held with small-scale traders of dried fish²⁹. Both groups agreed that the dynamics of trade are markedly different for female marketeers trading dried fish compared to male traders. Although both genders were reported to buy and sell at similar prices, and make a similar margin after transportation costs, there was consensus that women faced more losses due to theft and wider security issues including gender-based violence. In a female only focus group, it was reported that

producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. Data are in current international dollars based on the 2011 ICP round.'

²⁹ National Association of Traders and Marketeers of Zambia (NATMAZ), and the Cross-Border Traders Association (CBTA) branch members in Kasumbalesa

women's roles within the family means that they tend to have less time available for trading, due to childcare responsibilities and pregnancy. Additionally, high numbers of female-headed households, with the female head responsible for as many as 15 children, were reported to be common in Kasumbalesa by several different stakeholder groups. Accordingly, stakeholders reported that women's incomes tended to go more into supporting their families (predominantly on food, healthcare, and where possible schooling), whereas men, more commonly supported by an additional income-earner within the household, tended to have more capital available to reinvest in their business.

For the fresh fish trade, based on discussion with the Kasumbalesa Fish Traders and Exporters Association, it was evident that incomes had declined over the previous five years. There was a specific reason for this, which is that traders used to make around a \$10,000 profit on a container of tilapia imported from China for export into DRC. Chinese traders have now come into the market and are selling directly to Congolese importers. The margin on containers is now around \$2000 per container. Even with some increase in the amount traded, profits have declined for the Zambian traders. This is of course a specific case, and economic theory suggests that others will benefit from the lower rent extracted by Zambian traders; indeed the Chinese traders can be understood to be also contributing to enhanced intra-regional trade³⁰. Nevertheless, it demonstrates that complicated dynamics are at work linking changes in the fish trade with changes in income. For different markets there may be winners and losers. Future project interventions should take this into account.

(2) What changes in the prevalence of hunger can be identified?

For the third sub-question of the evaluation of impact, to identify relevant proxy data for the prevalence of hunger and changes in this during the period, the ET reviewed a number of data sources including: the Global Hunger Index (GHI) as a proxy for changes in the hunger status of fish-dependent communities³¹, and rates of child nutrition (including prevalence of wasting, severe wasting, and low birth weight among new-borns) from UNICEF/WHO/World Bank Joint Child Malnutrition Estimates Expanded Database (March 2019). In the final analysis it was concluded that these data sets did not fit closely enough with the fish-dependent communities targeted by the project and therefore could not be used as proxies for impact.

The sample survey provides the ET with another data point, although care should be taken with interpreting the findings since there was such a small number of informants. In relation to food security and nutrition, most informants did not feel able to comment on levels of malnutrition or spending on food. However, there was a perception that consumption of fish had increased.

During the field visits, the team were able to collect some anecdotal opinions on changes in nutritional status. These were that for Luangwa, child malnutrition had declined, but that for Kasumbalesa prevalence of visibly malnourished children had increased over the previous five years.

More broadly, key informant interviewees felt it was much too short a time period to judge whether project interventions would contribute to changes in food security and nutritional status.

In relation to the theory of change, the general view of informants endorsed the logic of the theory of change, namely that an increase in fish trade has benefits in terms of food security and nutrition. One example that was given by several informants was the importance of the fish trade for transfer of marine capture fish from the west African coastal areas to landlocked countries such as Burkina Faso and Mali, thereby bringing an important source of nutrition to communities in those countries. The fish trade in small pelagics from Malawi to South Africa has brought an affordable source of protein to Malawian diaspora communities.

Notwithstanding these cases some informants mentioned examples that ran counter to the logic of the theory of change. For example, in Lake Mweru-Luapula in northern Zambia, trade in fish bound for southern DRC has increased markedly in recent years, including trade in chisense, a small pelagic fish that would traditionally have been seen as a low value fish³². Fish is often procured by large scale traders directly from fishing camps and does not even enter the local market. The informant commented that prices have gone up in the local area

³⁰ The Evaluation Team were unfortunately not able to schedule a meeting with the Chinese traders

³¹ The GHI provides a composite figure based on the percentage of undernourished people in the population, the percentage of wasting in under-5s, the percentage of stunting in under-5s and under-5 mortality

³² E. Mutanuka, undated. An assessment of socio-economic determinants of profitability of *Microthrissa moerueensis* (Chisense) fish trade and associated constraints among fishers – a case study of Lake Mweru-Luapula, Nchelenge District. Available at : <https://www.worldfishcenter.org/sites/default/files/u24/Annex-51-Profitability-of-Microthrissa-Moerueensis-Fish-Trade-in-Zambia.pdf>

with likely negative impacts for the poorest members of the community if they are not fishers themselves. Another example, is the trade in small fish in west Africa, where fish is procured as an input for fish meal for the aquaculture industry in Asia, thereby meaning that less is available in the local market, notwithstanding that there are economic multipliers from the export of fish.

Another point is that in countries such as Malawi and Zambia informants commented that fish has become more expensive in recent years, particularly locally caught or farmed tilapia. However, this has been mitigated by imports of frozen tilapia fillets from China, which in Zambia have become popular even in remote areas of the country. Some commented that people are eating more frozen fillets than local pelagics as they are cheaper. Given that with pelagics people consume the bones which supply minerals such as calcium and iron, it could be that there is a net decline in the range of nutrients consumed. Further research would be needed to confirm this.

To sum up, in relation to food and nutrition security: perceptions garnered through fieldwork varied significantly. Interviews with key informants on the whole endorse the theory of change, although in some cases questions are raised about whether there are sometimes losers as the trade in fish increases. This latter question would seem to be an important one for WorldFish to think about together with other development partners in future work on the fish trade.

EQ9 In what ways did the project contribute to a change intra-regional fish trade?

This EQ interrogates to what extent the project contributed to a change in intra-regional fish trade. The evaluation sub-questions ask: if there was a change in volume and value of cross-border trade at project sites; a change in volume and value of exports at project sites; and, whether there was an increase in trade competitiveness at project sites (the indicators for this are an increase in the number of traders and a reduction in margins while keeping traders' income the same or better). These outcomes were assessed through focus group discussions at two cross-border project sites in Zambia and through perceptions obtained through KIIs and remote survey of additional stakeholders at project sites.

Secondary data from the ITC International Trade Statistics Trade Map provide some indication of changes in intra-regional fish trade. The table below shows clear changes in fish exports within the RECs over the project lifespan. This could reflect better collection of data on fish exports, and/or more fish exports coming within formal channels and thereby being reflected in official data, or an increase in formal trade. All of these factors could, in theory, have been influenced by project activities, although in practice a relatively small project is unlikely to have made a significant contribution over such a short time frame. The project only ended in 2018 and many actions took place in 2016 and 2017, therefore the time for this kind of impact to be felt has been quite limited. However, the project has made a contribution to improvements in the enabling environment for regional trade, which over the longer term could plausibly result in a contribution to enhanced intra-regional trade.

Table 5: Value (USD Thousands) of Total Fish Exports within Regional Groupings (2016 – 2018)³³

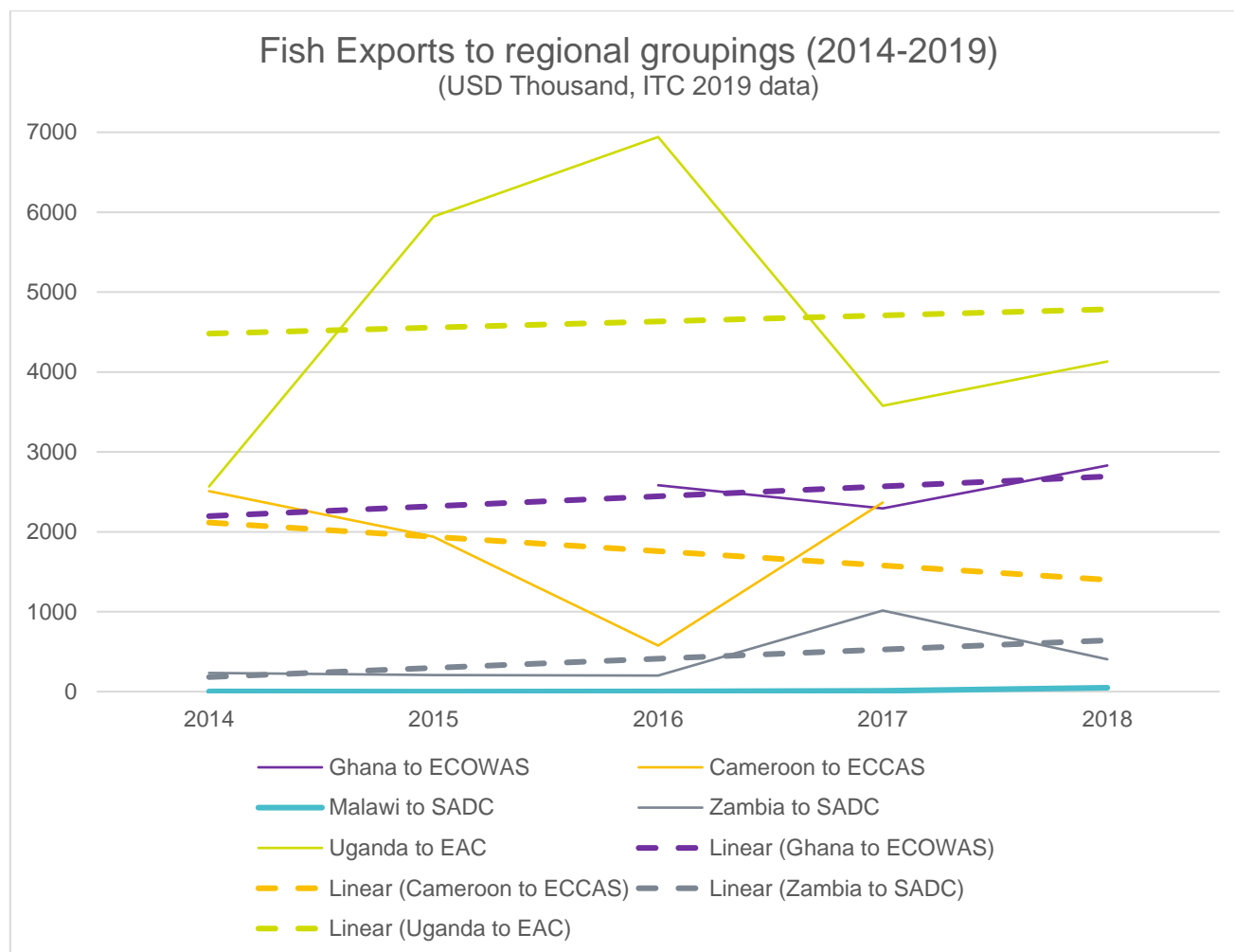
Total Fish Exports	2016	2017	2018	% Change
COMESA to COMESA	29220	32190	40001	36.9%
EAC to EAC	11046	10531	12688	14.9%
ECCAS to ECCAS	2070	3816	3948	90.7%
ECOWAS to ECOWAS	141305	132759	167954	18.9%
SADC to SADC	336408	357021	388856	15.6%

Analysis of individual country fish exports to the relevant region for that country (in MT) show that in most cases exports have increased. Trend lines show an increase in: Ghana's exports to ECOWAS; exports from Uganda

³³ Source: Landell Mills analysis using ITC 2019 data. (Last updated 11th October 2019) Available at: <https://www.trademap.org/tradestat/Index.aspx> (accessed December 2019).

to EAC neighbours; from Zambia's to SADC neighbours, and Malawi to SADC neighbours (albeit from a low base). Cameroon's exports to ECCAS countries showed a decline in the trend line. Limited conclusions can be drawn from this as changes in policies, economic conditions, domestic food security situation and harvests could all be contributory factors explaining the figures for individual countries, alongside any influence from fish trade policy changes. Nevertheless, it suggests that intra-regional fish trade is increasing.

Figure 12: Value of Exports of Fish and crustaceans, molluscs and other aquatic invertebrates from 6 focus countries of the FishTrade project to regional groupings (2014-2019), USD Thousand.³⁴



Survey results indicate that most informants felt that the volume and value of intra-regional fish trade had increased. Views in relation to margins and the competitiveness of trade are less conclusive. Most survey respondents also thought that there had been an increase in the volume and value of fish exports to the region.

Findings from the field indicated that most felt that the volumes and value of trade had increased substantially. In the case of Zambia, trade, particularly linked to demand from DRC, had increased dramatically (although there was some drop between 2017 and 2018 possibly reflecting a downturn in the DRC economy, linked to political instability). Trade had become more competitive, with more traders operating in the large border market at Kasumbalesa on the DRC border, and from a range of nationalities (including Chinese, Tanzanians, Congolese and Batswana). As noted above, traders in the NATMAZ traders' association complained that this was one factor that had contributed to a decline in margins (along with increased transport and levy costs), notwithstanding greater overall volumes of trade.

In Luangwa, those who were part of the organised cooperatives, and who had benefited from training in fish handling, and from use of the covered facility, experienced much lower post-harvest losses, and could sell better quality fish. This together with improvements in aggregation has meant that overall profits have increased, with some increase in margins.

³⁴ Source: Landell Mills analysis using ITC 2019 data

Anecdotal findings from Busia in Uganda, where the project supported the OSBP intervention suggest that participation in a cooperative, which helps with aggregation of fish and negotiation of export procedures, has helped with access to higher value markets in Eldoret and Nairobi in Kenya. In this case volumes and value of trade have increased.

To sum up this section, the project can claim a limited contribution to increases in trade volumes and values project intervention sites. More general impacts on trade will take time to be felt, and the FishTrade project will only be one factor contributing to an increase in fish trade, along with other interventions, policy changes and patterns of economic growth.

In terms of the theory of change, the specific project interventions are interesting but are likely to have only had limited local impacts in the short term, although they are useful as pilot examples that might influence change at wider scales with the right support. In addition to this, FishTrade has made a contribution to raising awareness of fish trade among fisheries stakeholders, where fish trade is seen as essential to the fisheries sector, alongside more mainstream concerns of productivity and resource conservation. This discursive shift can be seen in the language of some policies which FishTrade has been able to inform the design of, and is likely over time to result in greater support for and investment in intra-regional fish trade as policymakers realise the contribution it makes to economies and livelihoods.

5.7. Sustainability

EQ10 To what extent are project results likely to be sustained?

This EQ has two sub-questions: How sustainable were positive results? Are project results likely to stimulate further action in the same field?

The project has produced a range of positive results. How sustainable these are is a mixed picture. The momentum the project built up on fish trade as an issue needing policy attention will continue, both through initiatives by project partners, or by those who have been energised by the project findings and interactions with the project team. At the same time the project does not seem to have planned well for sustainability and many of the actions that it supported have no clear mechanism for ongoing support or scale out. The project MEL framework required that an Exit and Sustainability Plan be produced, this did not happen. Conversations about sustainability were carried out in the process of securing the no-cost extension and in final year Steering Committee meetings, nevertheless there would have been benefits from clear articulation of a formal plan and strategy.

Benefits sustained

The project built up a lot of momentum around understanding and supporting intra-regional fish trade. It showed that there is still a long way to go in terms of harmonising and implementing policies and regulations to support cross-border fish trade, and to make sure that the sector is aligned with the push from the AU for enhanced trade liberalisation. A range of projects or strategies are underway on fish trade and led by partners of the FishTrade project, which can be understood as indirect sustainability actions, where the project has had an influence. AU-IBAR, a FishTrade project implementation partner, will continue to work with African continental, regional organisations and Member States through the EU funded FishGov2 project, which is due to begin in 2020. The ET understands that this project has a component on fish trade. WorldFish could suggest ways in which the new project could consolidate and develop the achievements of the FishTrade project.

Informants from NEPAD, another FishTrade project implementation partner, also noted that advocacy for fish trade has been continued through support for the African Regional Group to input to the 32nd Session of the FAO Committee of Fisheries and by successful lobbying for the President of Guinea to chair the FAO Committee of Fisheries between 2018-2020. These activities build on the momentum created by FishTrade, helping to ensure that fish trade in Africa is discussed at high level fora. The African Regional Group of Ambassadors to the Rome based agencies have also been engaged in drawing attention to African fish trade issues, according to an informant from NEPAD.

Policy work in West Africa has continued through the FCWC (who were a partner for activities in West Africa). FCWC expressed appreciation for the project research, and on the basis of this employed one of the students

who had worked on the FishTrade project to work with the six member states to promote integration of fish trade into trade policy. Insights from the project were also used to inform the development of the ECOWAS Comprehensive Strategic Framework for Sustainable Fisheries and Aquaculture, which has one pillar addressing fish trade. This strategy is linked to the ECOWAP (the regional equivalent of CAADP). Related to this, the EU funded West Africa Fisheries Governance Improvement Project (PESCAO; budget €15 m) involves 16 countries in west Africa and has components that address intra-regional fish trade. The project is implemented by FCWC. This project is led by a consultant who worked on West Africa research for FishTrade, and also has a fish trade focus.

In relation to the knowledge production component of the FishTrade project, FishTrade partner, AU-IBAR has funded a consultancy to harmonise methodologies for corridor mapping and to address gaps in current knowledge. Through this work five papers have been produced based on the four corridors covered by the project with the addition of North Africa, additional GIS based maps have also been created, which utilise the research funded by the project. An overview paper was produced which is available online³⁵. This adds significantly to the usability, messaging and comparability of the research produced by the FishTrade project.

More broadly, WorldFish should think about how it can continue to support the network of researchers with fish trade specialisms nurtured by the project, to ensure utilisation, maintenance and growth of the capacity created. It is understood that a fisheries and aquaculture research network has been created with Malawian leadership; there is also a network of university Centres of Excellence in Fisheries and Aquaculture. These may be possible entry points. WorldFish has a role to play as a global research organisation able to bring in perspectives and experience from outside the African continent, and in a mentoring role helping to raise the quality and utility of research work.

At the country level, there is some evidence of sustainability, including implementation of follow up activities. In Malawi, for instance, some actions are underway that will support development of cross-border trade and build on the work of FishTrade. These include the upgrading of border posts, and installation of capacity for inspection of fish, removing a major obstacle to formal trade (this is discussed in the EQ6 section above). The \$14.5 million African Development Bank funded Sustainable, Fisheries, Aquaculture Development and Watershed Management project will support implementation of the Fisheries and Aquaculture Policy (parts of which were influenced by FishTrade) and will work with fish processors and vendors.

Project work to support the inclusion of fish within the range of commodities that can be processed at the OSBP at Busia has, according to former Fish Trade project staff, contributed to the decision of the World Bank to make a loan for investment in a fish warehouse facility at Busia to allow for cold storage and inspection of fish. It is not clear, however, that any initiatives are currently underway to support lesson learning or replication of the Busia experience.

The facility at Luangwa was not fully operational at the time of the field work visit for this evaluation, in that equipment for inspection and cold storage had not yet been procured. It is understood that COMESA will continue this work and procurement should be completed in 2020. This should allow for operationalisation of the Green Pass initiative.

Sustainability limitations

Notwithstanding these successes, some FishTrade project activities lacked a sustainability strategy or exit plan: for example, work to create a geo-coded trade portal for fish producers and traders with WAFICOS and Lake Victoria Fisheries Organization (LVFO) was welcomed by fish farmers with internet connectivity. However, the evaluation found that the database is not now operational. It appears that there was no clear plan for financing and management once the project grant ended, even though there was evidently demand for the service.

The project supported research on Uganda on cyprinid disease without a clear strategy to share the findings with the community (or SPS stakeholders) or to build capacity on the techniques developed by researchers to reduce afloxacin contamination. This was a missed opportunity.

³⁵ AU-IBAR, 2019. Linkages and inter-connectedness between cross-border fish trade corridors in Africa.

For capacity building actions, organisations may need on-going support to consolidate and build on what has been achieved through the project. There are no plans for follow up with groups who have been trained through the project; or to systematically learn from training, and to seek to replicate it with other groups. The NATMAZ traders in Kasumbalesa market felt that training provided by the project had been valuable but regretted that there were no plans for ongoing engagement. Government of Zambia stakeholders at district and national level made a wider point about capacity building trainings, namely that trainings were somewhat standalone and lacking in formal engagement and handover to institutions in the country with a mandate to continue work with trader groups.

The project helped to establish the African Women Fish Processors and Traders Network (AWFishNET) following on from the trainings coordinated by AU-IBAR. This is a good output of the project and the network now has some funding from SwedeBio, to implement its plans to develop national networks. However, it does not seem that the network is linked to the women's cooperative supported by the project in Luangwa. It would be good for WorldFish to broker a connection to help consolidate the work of the project with the group in Luangwa.

Overall, the fish trade project has generated some results that are sustainable in that there are now many actors and initiatives supporting different aspects of fish trade development through work on policies and development of new strategies in the four corridors; many of the relevant organisations are fish trade partners or were influenced through engagement with the project. However, for some of the specific pilot capacity interventions the picture is less clear, some activities have come to an end with the end of the project, as expected, but in some cases there was a lack of exit planning to equip relevant institutions with a mandates and capacity to obtain resources to take the next steps to ensure the sustainability of the output. This absence of planning for the future suggests that the project did not pay enough attention to thinking through issues of sustainability in the design and implementation of the project.

6. Lessons learned and success stories

The FishTrade project has generated a range of useful lessons and several success stories. These are discussed below:

6.1. Lessons learned

One of the key lessons from the project is that there is great interest among policy-makers and trade and fisheries stakeholders in understanding the importance of fish as a traded commodity on the African continent, and the contribution it makes to economies, livelihoods and food and nutrition security. Policymakers valued rigorous research that provided new information on the levels of informal trade, the diversity of trade routes and the challenges faced by informal traders, together with suggestions for action. The project showed that while there are many policy commitments to facilitate trade these are often not being implemented on the ground. WorldFish was able to play a key role in helping to maintain the quality, relevance and utility of this research.

There are lessons too in relation to the implementation of this type of project:

6.1.1. Breadth versus depth of implementation

The project was ambitious in that it worked across four corridors, and worked on knowledge generation and communication, policy reform, capacity building and support for policy implementation. There were undoubtedly trade-offs in covering such a wide geographical area and using several different approaches to implementation.

While there were excellent results for some components, there were challenges in relation to sequencing, successful completion, sustainability, lesson learning and communication for key pilot initiatives. The project did not plan well enough for making sure that there was a strategy for future replication or scale out of successful interventions such as integration of fish within the OSBP, or the investments and capacity building at Luangwa. Future projects should make sure that future sustainability and pathways to impact are clearly specified in the design of interventions.

Some activities were also pursued that were tangential to the main thrust of the project. Future projects should reflect on this at the design stage and should also be designed so that robust monitoring makes limitations clear at a sufficiently early stage to allow for course correction.

6.1.2. Project MEL System

WorldFish should reflect on the Monitoring, Evaluation and Learning (MEL) lessons from this project for the design of future project. The MEL framework produced for the project is comprehensive and well-designed, but there did not appear to be any organisational mechanism to ensure that it was followed. A baseline assessment of fish trade policies was carried out but there were no further baselines undertaken in relation to impact indicators. If it was understood from an early stage that this would not be done, or it did not make sense to do this given the difficulty of determining project intervention sites in advance, and the broad geographical scope, then it should have been reflected in the design. Annual reporting also made no attempt to comment on higher level indicators. Future interventions should include monitoring and reporting mechanisms to cover this dimension.

There is also an absence of technical reporting from the two AU partners. Even if Implementing Partners are unable to report, then their work should be reported on fully by the Lead Partner. This facilitates learning and project evaluation. However, it would be preferable that all partners endorse the MEL system and commit to meeting reporting requirements. Possibly the level of semi-autonomy in project arrangements for the main subsidiary partners meant that there was limited leverage for World Fish to request MEL reporting from these partners.

The project design (and ToC) emphasise working with the AU partners to influence policies and implementation of policies related to fish trade. It would be good for future projects similar to FishTrade to explicitly track what is being influenced and through which mechanisms and consider how to monitor progress. Likewise, there

could be more explicit articulation and tracking of recommendations from research, and how these have been used in policy.

In relation to this specific evaluation, the team learned that it was difficult to secure a good response rate to a remote survey, even one that was short (it took no more than ten minutes to complete). It could be that people were unwilling to fill in the survey because it has been some time since the project ended, or it may be that connectivity was an issue for some informants. Future evaluations might want to consider under what conditions this will be a useful tool, and which other tools might generate higher response rates, and budget accordingly. The case study approach, supplemented by remote interviews worked well, and was a good and cost-effective approach to providing both breadth and depth to evaluation of a project involving several regions and multiple countries and intervention. Clearly more insights would have been generated if it had been possible to carry out case studies in each corridor.

6.2. Success stories

The project can claim several success stories. These can be related to the outcome areas in the ToC and include the following achievements:

6.2.1. Shift in attitudes

- The production of a body of quality research that has contributed to a shift in understandings of the scale, importance and challenges of cross-border fish trade among key stakeholders in many governments and regional organisations.

6.2.2. Change in capacity

- Successful establishment of a sustainable knowledge network of researchers and university partners across Africa with capacity to carry out high-quality research and provide technical advice on different aspects of intra-regional fish trade.
- Successful integration of fish as a commodity that can be cleared through the OSBP at Busia on the Kenya/Uganda border was an achievement of the project. Project capacity building activities have helped fish traders to engage with formal trade routes and reach higher value markets in Kenya. Following on from the project intervention, the World Bank has invested in a warehouse facility at Busia with cold storage and inspection facilities.
- Capacity building at Luangwa through construction of a facility for traders, and support for two cooperatives. The groups the project worked with were able to substantially reduce post-harvest losses and improve the quality of their fish. The facility and new organizational skills have contributed to enhanced and more profitable trade by the cooperatives using them.
- Agreement on a Green Pass for fish to be implemented between Luangwa and Kasumbalesa in Zambia. This will mean that fish only need to go through one SPS inspection, rather than facing inspections on import and before export from Zambia. This will save time (important as fish is perishable) and money.
- Harmonisation of eleven fish and fish product standards within the SADC region, providing a framework to facilitate trade in fish at the continental level.

6.2.3. Improved base of support

- Successfully raising the profile of fish trade with continental and regional level stakeholders, including influencing the design of the ECOWAS Comprehensive Strategic Framework for Sustainable Fisheries and Aquaculture Development in West Africa. At a national level evaluation evidence demonstrates that the respective fisheries and fisheries and aquaculture policies of the Governments of Malawi and Uganda have been informed by the project.

7. Conclusions and recommendations

7.1. Conclusions

Based on the above findings, the evaluation concludes:

1. The FishTrade project achieved significant results in three years with a relatively modest budget. **The primary contribution of the project is the knowledge generated and shared from the research it supported.** The project **also made important contributions in developing standards for fish trade in SADC, and piloting the integration of fish into a OSBP.** Several policy processes were also influenced (in Malawi, Uganda and Zambia, and to some extent at a regional level in ECOWAS), and the project contributed to capacity building of female fish processors and traders in several countries and across the continent through the development of the African Women Fish Traders and Processors Network.
2. Fish is often described as a neglected commodity, which is overlooked in GDP statistics, and as a contributor to growth, livelihoods and food security. The project helped to redress this, **showing the importance of fish and how trade in fish contributes to meeting the 2014 Malabo Declaration target of tripling intra-regional trade by 2025.** In many instances the project was able to move beyond engagement with familiar fisheries stakeholders to engage ministries of trade and finance, customs and statistical agencies and regional economic communities.
3. The FishTrade project generated a substantial amount of research on different aspects of intra-regional fish trade for each of the four corridors. **Overall the research was of high quality, and some of the findings were important in that they contained new information, which may be contributing to a shift in discourse on fish trade on the continent.** The research was effectively communicated and, in some cases, contributed to changes in policy or implementation of policies. Notwithstanding this conclusion, **more could be made of the research that has been produced. For example, some of the technical papers and theses could be made into briefings.** More comparative and synthetic work could also be done with the findings. There should be briefings documenting what was done in the key interventions, why it matters and what should happen next. There should also have been more systematic tracking of the influence of research on policy. (*See Recommendation 1*).
4. The research process was also important in that it helped built the capacity of a network of fish trade researchers across the continent, some of whom are now located in government. WorldFish was appreciated for its ability to provide support and ensure the quality of research and to bring evidence into policy processes. Partnership with AU-IBAR allowed the project to connect with high level stakeholders from AU Member States, Regional Economic Communities and Regional Fisheries Bodies (*see Recommendation 5*).
5. **The project made a decision to go for breadth rather than depth – working in four corridors, rather than concentrating on one or two corridors.** For the research, this was arguably a strength as evidence and comparisons were generated across a range of countries and for the different corridors making it possible to make more persuasive arguments at a continental level. There were important interventions in two of the corridors, but **possibly more would have been achieved if trade facilitation interventions had been concentrated in one corridor, working with the relevant REC and a limited number of focal countries.**
6. The project focused on the continental and regional levels. There were no formal partnerships with particular countries. This had advantages in that the project could be relatively light touch, not incurring the transactional costs that come with partnerships with line ministries, for example. However, for some project components the absence of institutional arrangements meant that fisheries departments or directorates felt a lack of ownership and were not well placed to continue to scale out capacity building trainings, to give one example.

7. **Project interventions were too geographically dispersed and somewhat fragmented. There would have been benefits from clear identification and planning of core interventions.** The research, one-stop border post, Green Card and SADC standards interventions had a clear coherence. Some of the other activities such as the work on certification of aquaculture farms, and pre-assessment of shrimp fisheries for certification, and equipment upgrading to meet inspection requirements in one country, while undoubtedly useful, were tangential to the core activities of the project (the relevant reports are not even included on the WorldFish FishTrade project page). Some activities were also not able to complete due to lack of time or were not sufficiently well-embedded to continue beyond the end of the project (for example, work on geo-coded trade portal databases). While there is a certain justification for an approach of trying different options to see what works, there was also an opportunity cost to this wide-ranging and at times incoherent mix of activities. One key project activity: the COMESA Green Card pilot, was not implemented within the life of the project. The project successfully supported harmonisation of fish trade standards in SADC, but there was not enough time to fully support implementation processes. It is possible that with more resources and effort focused on these initiatives more could have been achieved, lessons could have been documented, and shared to support scale out elsewhere. (See *Recommendations 2, 3 and 4*).
8. It is not possible to measure the contribution of the project to the outcome of increased fish trade or the impacts related to food security and livelihood indicators across all four corridors, or the outcome indicators specified in the WorldFish CRP. However, increases in volumes and value of trade and levels of formal trade were reported at project intervention sites. The expectation that the results of the project will contribute to enhanced fish trade as set out in the project ToC is plausible.
9. Changes in food security and nutrition are a function of many variables and over a short time period it is unlikely that changes at scale will be observed that can be attributed to the project. Nevertheless, it is plausible that enhanced fish trade will lead to improvements in food and nutrition security and in incomes and assets of fish trade stakeholders in aggregate over time. In specific instances, this was reported at project intervention sites. However, there are also caveats to this, in that in some cases an increase in competition and the volume of trade had been linked to squeezed margins (and thereby incomes) for some fish traders that was not compensated for by increased volumes traded. Likewise demand for fish products and an increase in trade in some specific cases may have made fish less available as a protein source for some poorer groups. This aspect of fish trade development would warrant further research (see *Recommendation 6*).
10. Finally, there is (at times) a tension in the project findings in relation to informal trade. The briefings rightly emphasise the importance of informal trade for livelihoods and food security, and that such trade is a form of entrepreneurial activity that often takes place in the face of harassment and exploitation. At the same time, a lot of policy discussion is about how to formalise trade in order to gain revenue from it and capture accurate statistics as a basis for policy investment decisions. When this discussion leads to action against the illegality of informal trade, it risks making life much more difficult for vulnerable groups. The challenge is to identify ways gain the benefits of formalisation – increased revenue, accurate statistics to guide policy, quality fish that is safe to eat, access to higher-value markets without over burdening small-scale traders whose livelihoods depend on trade and where the fish that they trade is important for food security.

7.2. Recommendations

Based on the evaluation findings, the Evaluation Team makes the following recommendations:

1. WorldFish should consider producing additional briefings and other knowledge products from the research that has been produced, as soon as possible. This would maximise the impact from the investments already made. Priorities briefings should include: documentation of the process of supporting integration of fish into the OSBP at Busia and what the impacts have been; documentation of the harmonisation of SADC fish standards. There are many other technical papers where a briefing would add value to the research already funded: for example, work on fish diseases and trade; work on

food safety and SPS issues; briefings could also be produced for each of the regional fish trade policy research and framework papers.

2. WorldFish should liaise now with COMESA on the implementation of the Green Pass pilot, to ensure that the lessons from this initiative are well captured and disseminated. It would be good to carry out a robust baseline survey at this point in order to be able to measure outcomes and impact.
3. WorldFish should support further research on the process of integrating fish into the OSBP. This should be started this year. This could include evaluation of the impact of the work in Busia and sharing of lessons. This would help to maximise sharing of evidence and lessons from this intervention and contribute to the case for scale out.
4. For the work on harmonisation of standards, WorldFish should carry out research analysing the process of implementation in SADC Member States, researching progress and solutions to barriers to successful implementation. It would be good to do this in the next one to two years to build on the momentum that was established.
5. WorldFish could consider working with AWFishNET to support action research partnership. WorldFish could build capacity in action research tools to allow networks of women processors and traders to document their concerns and priorities in relation to fish trade. Researchers could be trained in how to go and ask questions, collect and analyse data, and how to make short films, and how to work with professional researchers to produce useful research outputs. This could link to the groups that have been supported by the FishTrade project in Busia, Luangwa, Kasumbulesa and Tema, and would increase the impact of the investments already made there.
6. In order to minimise negative impacts from expansion of fish trade, WorldFish should undertake research exploring the links between increases in intra-regional fish trade and food security and nutrition, and how to minimise negative impacts from fish becoming a more valuable and increasingly traded commodity on the continent, also ensuring that fish trade policy reform supports inclusive growth. There could be value in exploring this issue with IFPRI. This is something that could be integrated into research strategy over the medium term.



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