ASSESSMENT OF THE TYPE, EXTENT AND MODALITIES OF INTRA-REGIONAL FISH TRADE: A CASE OF SOUTH AFRICA AND OTHER SOUTHERN AFRICAN DEVELOPMENT COMMUNITY (SADC) COUNTRIES.

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ABSTRACT

This study assessed the type, extent and modalities of intra-regional fish trade between South Africa and other SADC countries. Cross-border fish trade and its importance in boosting intra-regional fish trade between South Africa and the rest of SADC is poorly documented and as such, little systematic effort has been made to understand its type, extent and modalities in order to address the problems of those engaged in the activity. Regional fish trade continues to be important even though it is not always adequately reflected in official statistics.

The qualitative research methodology formed the basis of this study. Data was collected through semi-structured interviews with fish traders at Park City Central Bus Station in Johannesburg and in-depth interviews with selected key informants from customs, port, health and immigration officials at the Beitbridge and Lebombo border posts. Participants of the study were selected through a combination of purposive and snowball sampling techniques. Geographical Information System (GIS) was used to digitise national boundaries, border posts and the routes used by fish traders from the sources to distribution points in Johannesburg. The study adopted the new regionalism, regional integration and regional trade conceptual frameworks and attempted to apply the pro-fish trade theory as the theoretical framework.

The most common fishery products being imported into South Africa from other SADC countries include, for example, small fish species like *usipa* (from Malawi), and sun dried *kapenta* (from Zimbabwe and Mozambique) because it is easy to store, preserve and transport these fish from SADC countries to South Africa. Other fish products imported into South Africa include smoked dried catfish (from Zambia and Malawi), chisense fish (from DRC and Zambia), fresh chambo (from Malawi), bream (from Zimbabwe), and many others. These species are extremely important for regional trade in the SADC region. Most are unrecorded in official catch statistics. The market for these fish species thrive in South Africa because of migrant and diaspora communities, especially from

Southern and West Africa who prefer these for various reasons including the familiar taste. Most SADC fish traders use buses because they travel with their fish. Park Station is a major distribution centre for cross-border fish trading in the SADC region by virtue of being a major transport interchange for international buses, which links the north-south corridor and the Maputo corridor. South Africa, on the other hand, exports marine fish in the form of canned pilchards to other SADC nations. Horse mackerel, mostly from Namibia, and Chinese farmed tilapia are also being exported to the rest of Africa.

Among other things, the study observed that the fish trade between South Africa and rest of the SADC region goes through informal channels, is undervalued and most of the times unrecorded. Informal cross-border fish trade is largely undertaken by small-scale traders who are mostly women. (Women represented more than 70% of the small-scale fish traders). Most of these women operate as informal traders, and as such experience routine ill treatment by customs officials at border posts, traffic police, metropolitan inspectors and the bureaucracy in general. One of the main challenges is the lack of technical harmonisation of fish and fish product standards and regulations governing these standards, and poor implementation of existing regional trade agreements such as the SADC Protocol on Free Trade. Zimbabwe, for instance, unilaterally banned food imports from other countries in 2016.

Moves to liberalise trade and promote development through trade have largely focused on large-scale formal sector trade and not cross-border fish trade undertaken by small-scale informal entrepreneurs. The findings of this study aimed to provide recommendations for improved intra-regional fish trade. The study recommended the empowerment of small-scale traders, especially women, because informal trade is likely to remain the key way for undertaking economic transactions for the foreseeable future.

DECLARATION

I declare that *Assessment of the type, extent and modalities of intra-regional fish trade. A case of South Africa and other Southern African Development Community (SADC) countries* is my own work. All other sources, used or quoted, have been indicated and acknowledged by means of complete references. This thesis has not been submitted for a degree at another university.

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ACRONYMS AND ABBREVIATIONS

AEC	African Economic Community
AFTA	ASEAN Free Trade Area
AMU	Arab Maghreb Union
ASEAN	Association of South East Asian Nations
ASYCUDA	Automated System for Customs Data
ATV	Added Tax Value
AU	African Union
BIRT	Boosting Intra-regional trade
BLNS	Botswana, Lesotho, Namibia or Swaziland
BRICS	Brazil, Russia, India, China and South Africa.
CAADP	Comprehensive Africa Agriculture Development Program
CBD	Central Business District
CBT	Cross- border trade
CEN-SAD	Community of Sahel-Saharan States
COMESA	Common Marker of Eastern and Southern Africa
CU	Customs Union
DAFF	Department of Agriculture Forestry and Fisheries
DFID	Department for International Development
DOH	Department of Health
DRC	Democratic Republic of Congo
EAC	East African Community
ECOWAS	Economic Community of West African States
ECSC	European Coal and Steel Community (ECSC)
EPA	Economic Partnership Agreements
ETLS	ECOWAS Trade Liberalization Scheme (ETLS)
EU	European Union.
FAO	Food and Agriculture Organisation
FCDA	Foodstuffs, Cosmetics and Disinfectant Act no.54 of 1972

FPA	Fisheries Partnership Agreements
FTA	Free Trade Area
GDP	Gross Domestic Product
GIS	Geographic Information System
ICBT	Informal cross-border trade
ICT	Information and Communication Technology
IGAD	Intergovernmental Authority on Development
IRFT	Intra-regional fish trade.
ISRT	Institute of Statistical Research and Training
KML files	Keyhole Mark-up Language
LVFO	Lake Victoria Fisheries Organisation (LVFO
MDG	Millennium Development Goals
MERCOSUR	Mercado Comun del Cono Sur (Southern Cone Common Market)
MFN	Most Favoured Nation
MS	Member States
NAFTA	North American Free Trade Agreement (NAFTA)
NEPAD	New Economic Partnership for Africa's Development
NGO	Non- Governmental Organisation
NSO	National Statistics office
NTBs	Non-Tariff Barriers
NTTB	Non- Tariff Barriers
OAU	Organization of African Unity
OSBP	One Stop Border Post
PLAAS	Poverty, Land and Agrarian Studies
PTA	Preferential Trade Agreement
REC	Regional Economic Community
REG	Regulation
RI	Regional Integration
RSA	Republic of South Africa
RTA	Regional Trade Agreements

SACU	Southern African Customs Union
SADC	Southern African Development Community
SARS	South African Revenue Services.
SFLP	Sustainable Fisheries Livelihood Programme
SPS	Sanitary and phytosanitary
TBT	Technical barriers to trade.
TFTA	Tripartite Free Trade Agreement
TRALC	Trade Law Centre
Tripartite FTA	COMESA-EAC-SADC Tripartite Free Trade Area
UN	United Nations
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa.
UNEP	United Nations Environment Programme
VAT	Value Added Tax
WTO	World Trade Organisation.
ZIMRA	Zimbabwe Revenue Authority.

CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

Fish and fishery products are among the most traded food commodities worldwide with international trade worth over US$100 billion per annum in 2014 (FAO, 2015; Neiland, 2006). Fish contributes significantly to the employment, income and food security of millions of people and for many countries fishery exports and imports have become essential to their economies (FAO, 2010). Fish trade between Africa and the rest of the world is regulated via a complex overlap of multilateral and bilateral trade and environmental agreements (Ponte, et al. 2007). World Trade Organisation (WTO) provides a framework of regulations for international trade to Regional Economic Communities (RECs).

Although the African economies are characterised by a relatively high degree of openness, trade in general and international trade in particular, has so far not served as an effective tool for the achievement of rapid and sustainable economic growth and development for many of the countries of the continent because of tariffs and non-tariff barriers. Africa has already taken different initiatives to scale up cross- border trade and yet, apart from few success stories, intra-regional African trade stands only at around 12 percent compared to 60 percent, 40 percent, and 30 percent in Europe, North America and ASEAN, respectively (Tall, 2015). Cross border fish trade in the Southern African Development Community (SADC) region is largely informal and dominated by small- scale traders especially women. Informal cross-border trade (ICBT) in fish is a significant feature of regional trade flows in Southern Africa (Peberdy, et al. 2015). However, moves to liberalize trade and promote development through trade have largely focused on large-scale formal sector trade and not cross-border trade undertaken by small-scale informal entrepreneurs. Despite its obvious occurrence at every border post throughout the SADC region, Cross Border Trade (CBT) in fish remains largely invisible to policy-makers. Indeed, CBT is more often associated in official thinking with smuggling, tax evasion and illegality than with innovation, enterprise and job creation. Its overall character and significance is unknown. Structural and institutional weaknesses and inefficiencies at most South African and other SADC member states border posts remain obstacles to intra-regional fish trade despite efforts by SADC to reduce tariffs by 85% on intra-regional exports and imports. (http://www.sadc.int/about-sadc/integration-milestones/free-trade-area). With this and other challenges faced by cross border fish traders in mind, this research investigated the feature of fish traded in the SADC region, identifying the fish trade actors and how they conduct the trade(modalities) from country of origin to South Africa.

1.2 Global context of fish trade

Millions of people around the world and in Africa depend on fish as a vital source of nutrition. Fish and the fish product trade are increasingly important for Africa's food security and economic development. However, trade in fish and fishery products is guided by international agreements and conventions, such as that of the WTO, a body that controls global trade and the Trade blocks (such as COMESA, EAC and SADC), regional fisheries bodies such as Lake Victoria Fisheries Organisation (LVFO, LTA); bilateral arrangements between countries and national regulations of respective countries (Kirema Mukasa, 2011). Global fish trade has been increasing very rapidly in recent decades and an estimated 45% of the world catch is now traded internationally (FAO, 2015; Tall, 2015). Fish is therefore the most valuable agricultural commodity traded internationally and the volume is increasing each year (FAO, 2007; HLPE, 2014; Nieland, 2006). SADC countries exported US$2.8 billion and imported US$1 billion worth of seafood in 2015 (ITC, 2015). For the developing countries, net fish exports had grown from US$ 27.7billion in 2010 to US$35.1 billion in 2012 (HLPE, 2014). (See Table 1 below) which shows the estimated amounts of fish exports and imports in selected SADC countries. Fish trade contributes to a country's Gross Domestic Product (GDP), creates livelihoods and provides food security (FAO, 2014). The increased use of refrigeration, and improved transportation and communications facilitate this vast expansion of trade, which is an important engine of economic growth and development (FAO, 2015).

Table 1: Quantity (tonnes) and value (US$000) of fish exports and imports from selected SADC countries (2013)

	(000) Exports		**(000) Imports**	
Country	**Tonnes**	**USD000**	**Tonnes**	**USD000**
South Africa	135 000	517 873	138 975	364 991
Angola	322*	17 304 *	100 553 *	290 092 *
Mozambique	94.63	43 431	45 671	94 393
Zambia	10.78	860	35 740	55 167
Namibia	404. 000	784 565	24 341	46 184
Zimbabwe	32.58	8 790	18 689	30 658
Botswana	2.54	523	4 450	11 709
Malawi	23	254	1 925	2 241
Total	**1 024 53**	**1 373 600**	**370 344**	**895 435**

* = FAO estimate, updated 2016. Available at:
http://www.fao.org/fishery/statistics/software/fishstatj/en

Africa cannot do without trading with other continental trading blocs but it can reduce its vulnerability to external shocks by boosting intra-regional trade and furthering market integration. This view is shared by the new-regionalism approach, which is the theoretical framework of this study (Schulz, Söderbaum and Öjendal, 2001). Such a promotion of intra-regional trade constitutes an imperative response to challenges facing Africa and will contribute to enhancing the capacity of African countries and getting them ready to compete more effectively on international markets. On the same note, South Africa and SADC cannot do without trading with other regional blocks because of globalisation forces.

However, the participation of Africa in the global fish trade has been limited, providing only about 4.9% of the total value traded (WorldFish, 2015). This might be because of the fact that intra-regional fish trade (IRFT) in Africa has not been recognised as a viable component of the economies of the continent that can generate foreign currency and income. As a result, IRFT is often overlooked and neglected in national and regional policies (WorldFish, 2015). Many African countries have many fish resources in oceans, seas, lakes, rivers, floodplains and fish farms, which generate a range of benefits, including food and nutrition security, livelihoods, exports, and ecological resilience. The value of the fisheries sector as a whole in 2011 was estimated at more than US$24 billion, representing 1.26% of the gross domestic product (GDP) of all African countries (FAO, 2014). It is estimated that the fisheries sector directly employs 12.3 million people as full-time fishers, full-time processors or part-time processors (FAO, 2015). Additionally, the livelihoods of millions more depend on the fisheries sector (WorldFish, 2015).

1.3 RECs and intra-regional trade

IRFT refers to trade which focuses on economic exchange primarily between countries of the same region or economic zone. Many regions of the world, particularly Africa and Asia, have a long history of vibrant cross-border trade in food fish and fish products originating from artisanal and small-scale fisheries. According to Tall (2015), many of the traders are women, and trading activities are characterised by dynamism, vibrancy and competition. Cross-border trade in fish and fish products is often vital both in terms of sustaining fishery-based livelihoods and for meeting food security needs of low-income consumers (Béné, 2008/2010; Neiland, 2006).However, given the nature of this trade, there are no clear estimates of the numbers of people engaged in it. It is likely that the numbers run into tens of thousands because of this lack of information about cross-border trade and its importance, little systematic effort has been made to understand and address the problems of those engaged with it (Tall, 2015). Intra-REC imports also have witnessed a growing trend in value across most Regional Economic Communities (RECs). Between 2000 and 2007, the top five RECs in intra-REC imports were Community of Sahel-Saharan States (CEN-SAD) (34%), Southern African Development Community (SADC) (32%), Economic Community of West African States (ECOWAS) (22%), The Common Market for Eastern and Southern Africa (COMESA) (16%) and Arab Maghreb Union (AMU) (9%).

Fresh and frozen fish is still by far the most common product form in the region, followed by preserved fish, crustaceans and molluscs (Mapfumo, 2015). Fresh/frozen hake fillets are produced mainly in Namibia and South Africa and are generally destined for export to the EU. Tinned small pelagic (pilchard) is also produced in Namibia and South Africa (FAO, 2016). However, the lack of freezing facilities and cold stores in most countries has necessitated the utilization of traditional processing methods such as sun-drying and smoking still being prevalent (FAO, 2015). Thus, about 80% of the fish consumed in SADC regional domestic markets are dried and smoked. The labour-intensive sun drying of small pelagic (dagaa and kapenta respectively) is practiced in Tanzania, Zambia, Zimbabwe, Malawi (usipa) and to a lesser extent in Mozambique (Tall, 2015). However, dried, salted or smoked fish only registers as a small export commodity on the 'formal' export statistics, even though it is known that large quantities of these products are exchanged among Southern African countries "informally" with no export statistics to track quantities (Kaunda, 2015).

1.4 The dominance of South Africa in the region

It is estimated that millions of people from other SADC countries (DRC, Malawi, Mozambique, Zambia and Zimbabwe) and West Africa (Cameroon and Nigeria) , most of whom come from strong fish consuming nations migrate to South Africa to seek greener pastures or refuge from conflicts in their home countries. South Africa is the biggest economy in Africa. South Africa is also in a new emerging market/economic block with emerging world economies including China, Brazil, Russia and India (BRICS) and is as such a gateway to Africa. Economically, South Africa is a relatively advanced country on the Doing Business Index, according to the World Bank (Mapfumo, 2015). Tall (2015) concurred with Mapfumo by arguing that SADC is the richest region in Africa and South Africa is most important country in African economic terms. Thus, South Africa attracts many immigrants and fish traders from countries like DRC, Malawi, Mozambique, Zambia and Zimbabwe, because of its economic opportunities and potential markets. South Africa has many foreign nationals coming from West, East, North and Central Africa, and as such has a large potential market for fish traders. Economically, fish traders in the SADC region are also attracted by the South African Rand, which is one of the strongest currencies in the region.

South Africa is the biggest seafood producer, importer and exporter on the continent with well-established distribution networks (Mapfumo, 2015). In support of this, Peberdy (2002) asserts that Africa is an important export market for South Africa. The significance of this trade lies not only on its quantity but also in the kinds of goods traded as well as the commitment of South Africa to the development of the rest of the region and the continent. However, South Africa enjoys an enormous trading advantage over its African trading partners and as has economic hegemony in the region. South Africa contributes 63% of the aggregate GDP of SADC (Hartzenberg & Kalenga, 2015). South Africa has a well-established fisheries sector and is a net exporter of fishery products. However, most of South African fisheries are considered fully exploited and high-value fisheries such as abalone, prawns and line fish are largely overexploited. In 2013, an average of 500 Metric Tonnes (MT) of tilapia per month landed in South Africa, mainly from China and India. Amongst the biggest import sources for South Africa are India, Thailand and China. This is mainly because South Africa has trade agreements with these countries (Mapfumo, 2015). China also produces a lot of cheap tilapia from aquaculture, which it exports to South Africa and SADC at low cost.

It is against this background that this study focused on intra- regional fish trade between South Africa and its neighbours and assessed the potential for intra-regional fish trade in generating greater food and nutrition security and to help reduce poverty and improve people’s livelihoods. Tall (2015, p. 4) supports the potential of intra-regional trade by arguing that “Promotion of intra-regional trade constitutes an imperative response to challenges facing Africa and could contribute to enhancing a countries’ capacity and getting them ready to compete more effectively on international markets”. Thus, there is need to assess the Feature and modalities of intra-regional fish trade between South Africa and its regional trading partners. So far, little attention has been given to IRFT between South Africa and its neighbouring countries in as much as it can contribute to poverty reduction and food security.

1.5 Problem statement

Fish trade in Africa, in particular in the SADC region, is governed by international trade agreements. These agreements are mainly designed for large sector formal trade at the expense of small- scale informal trade. This resulted in exclusion of small-scale fish traders in regional trade agreements and policy-making. As such, fish trade is not being recognized as a viable strategy for food security and a major source of protein in the livelihoods of people in Southern Africa in general and South Africa in particular. The region is endowed with rich fishery resources yet the livelihoods of local communities have not benefited much from regional trade.

Little is known of the socio-economic contribution of IRFT in the livelihoods of people in South Africa and other regional countries. Although considerable progress has been made towards the establishment of RECs, free trade areas and common markets, intra-regional trade in fish and fish products remains very low. Regional fish trade remains largely undocumented. A true understanding of the potential benefits of regional-level trade is hampered by a dearth of studies and a general lack of statistical data, especially for low-value bulk fish trade. Furthermore, there is lack of information about cross-border fish trade and its importance in intra-regional fish trade between South Africa and the rest of SADC region. Little systematic effort has been made to understand the type, extent and modalities of fish trade in order to address the problems of those engaged in the activity.

1.6 Aim

The overall research objective was to investigate the type, extent and modalities of IRFT between South Africa and other SADC countries.

1.7 Research objectives

The research objectives of this study were to:

1. determine the type and form of fish sold through IRFT between South Africa and other regional countries.

2. investigate the factors affecting the modalities of IRFT between South Africa and other regional countries.
3. investigate gender participation in fish trade
4. analyse the effectiveness of regional agreements in facilitating IRFT.

1.8 Research questions

The research questions for the study were:

1. Who are the traders?
2. What are the types and forms of fish being traded between South Africa and other SADC countries?
3. Where is the fish sold in South Africa coming from?
4. How does the fish get to South Africa?
5. What are the roles of women in IRFT?
6. What factors influence the conduct of cross-border trading between South Africa and other SADC countries?

1.9 Rationale and significance of research

Fish is important for over 400 million Africans. It contributes essential proteins, minerals and micronutrients to their diets, jobs and income (WorldFish, 2009). The challenges and limitations associated with focusing food security issues only on agriculture and agricultural activities have pointed to the increasing need to turn to other activities such as fishing for alternatives, and for enhancing food and nutritional security in Africa. A more effective fish trade regime has the potential of facilitating the realisation of food and nutritional security in the SADC. This study drew attention to the current practices in IRFT, and how fish can be utilised to contribute to food security, livelihoods and poverty reduction.

By focusing on the SADC and South Africa, the study aimed to strengthen the evidence base for coherent policy development at national and regional levels, support the formulation and implementation of appropriate policies, standards and regulatory frameworks to promote IRFT, and strengthen the capacity of private sector associations, in particular of female fish traders and enhance the competitiveness of small- and medium-scale enterprises engaged in this trade (WorldFish, 2009). Gender issues in the fisheries especially their role in IRFT are often overlooked or misunderstood because of an analytical focus that looks at the sector in isolation and is concerned primarily with ecological and economic factors, i.e. maintaining fish stocks to ensure the long-term viability of fisheries as a production sector. Thus, interventions have more commonly been directed at fishers involved in the production process and the aquatic environment, rather than at traders and women engaged in post-harvesting and marketing on-shore, or interconnections between the two sets of actors and processes.

Furthermore, information on the capacity and operation of Free Trade Areas (FTA) and common markets in facilitating IRFT within southern Africa would be useful to the AU Directorates of Trade and Industry, and Rural Economy and Agriculture; and the RECs of Africa which are striving to promote and improve CBT in Africa. This could also benefit regional trade facilitation institutions (WorldFish, 2015). Therefore, the significance of the study was to contribute to fish trade knowledge and how the trade is undertaken between South Africa and other SADC countries. Despite the prominence and seeming importance of informal fish trade activities to regional trade, economic development, poverty reduction, the organisation of regional markets and regional integration this remains an under-acknowledged and under-researched area. The lack of attention paid by policy-makers to the activities of the informal sector cross-border fish traders reflects, in part, the limited amount of information about their activities as well as who they are.

1.9.1 Outline of the thesis

The thesis consists of five chapters.

CHAPTER 1: Introduction and background

In this Chapter the researcher introduces the study. The researcher gives a background and context to global and IRFT and the challenges of CBT. The researcher also outlines the problem statement, the objectives of the study and research questions used for the study as well as the outline of the thesis.

CHAPTER 2: Theoretical framework and Literature review

In this Chapter the researcher provides the main conceptual frameworks for analysing the interrelationships between different RECS by analysing the different dynamics between European regional integration and African regional integration by looking at various attempts employed by SADC to deepen integration approaches and the challenges faced by the region in this regard. The researcher presents the key concepts around which the study was built and how these concepts were interpreted and used in the study.

CHAPTER 3: Methodology and description of study sites

In this Chapter the researcher sets out the methodology and methods used for data collection and analysis, why the methods were chosen, their utility and shortcomings, and challenges faced. This is followed by a detailed description of study sites and why the study sites were selected.

CHAPTER 4: Results and discussion

In this Chapter the researcher analyses the main findings based on data and information collected at the Beitbridge border post, Lebombo border post and Johannesburg Park Station with regards to modalities of movement of fish and traders from DRC, Malawi, Mozambique, Zambia and Zimbabwe, and the challenges they face at border crossing points. This is the key chapter of the study as the researcher also discusses the research findings in terms of fish types and forms, modes of transport, modalities of travel, actors at each node, routes used by traders and challenges faced by traders amongst other factors. The results were analysed and linked to theoretical concepts.

CHAPTER 5: Conclusions and recommendations

In this Chapter, the researcher provides conclusions and recommendations for improving and enhancing IRFT in the SADC based on the findings of the study.

CHAPTER 2: LITERATURE REVIEW/THEORETICAL FRAMEWORK

2.1 Introduction

Regional integration is a topical issue in all corners of the world and many policy makers and economists have advocated for its adoption in order to solve the socio-economic problems of Africa. This section discusses both classical and neo-classical theories to regional integration in order to get a clear insight into the history of integration, tracing it from European integration and narrowing it down to the SADC, which is the focal point of this research.

Classical and neo-classical theories have both strengths and weaknesses in their analysis of regional integration, with some critics arguing that they were mainly designed to explain the European integration context and not the African one. However, in the current study the researcher used new regionalism as the theoretical framework in order to examine the feature and modalities of IRFT between South Africa and its neighbouring SADC countries. Regional integration and fish trade are in a symbiotic relationship because fish trade is governed by the regional trade agreements. However, literature on IRFT is limited and therefore fish trade could be included in the discourse of CBT. IRFT is considered a solution to food security problems (Béné, 2008). Therefore, this study attempts to apply regionalism to fish trade.

2.2 Regional integration

Regional integration was defined by Bischoff as:

> a process by which a group of states voluntarily give each other access to each other's markets and establish mechanisms and techniques that diminish conflicts and make the most of the internal market and external economic, social, political and cultural profits of their cooperation. (Bischoff, 2004, p. 17)

With this definition, Bischoff asserts that regional integration is not only concerned about economic integration but also the socio-political aspect of integration. Economic regional integration has considerable influence on less-developed countries if one or more partners in the integration are better developed than the others (Dari, 2015). Since developing countries regard regionalism as an opportunity for economic integration with the global village, it is important to understand the meaning, advantages and disadvantages of regional integration together with the various theories, which are subscribed to it. A number of studies have been conducted on intra-regional trade, including fish trade. Many of these have identified constraints, barriers and challenges and proposed potential solutions. A variety of theories has been developed to explain the process and outcomes of regional integration. Some of these theories include classical theories and neo-classical theories.

2.2.1 Classical theories

Theories of integration were mainly developed to explain European integration. Regional integration started in Europe in the early 1950s with the European Coal and Steel Community (ECSC) in 1952 (Keane & Kennan, 2010; Laursen, 2008). Ernest Haas theorises this experience in *The Uniting of Europe* (1958). These early theories are often referred to as neo-functionalist theories.

The main theoretical contribution was the concept of spill-over according to which integration would deepen from the economic sphere to the political sphere and the result would be an integrated union of states and their societies, which would acquire the characteristics of 'domestic political systems' (Gilpin & Gilpin, 2001 p. 423; Rosamond, 2000). Another key element was the existence of a high authority (above the nation states) which could give the integration process the right direction. The high authority decides the right direction of the integration process. Such a high authority, if it guides member states in the wrong direction, could be in the view of neo-functionalists the definite element that drives that given union to failure. However, it is worth mentioning that there were some efforts to apply these neo-functionalist theories to integration in other parts of the world, especially in Latin America. When early theories of integration were developed, there was much discussion in the literature on how to define the concept. It was for instance discussed whether integration refers to a process or to an end product. Karl Deutsch, however, defined integration as “the attainment, within a territory, of a ‘sense of community” (Laursen, 2008, p. 4). When the European integration process experienced a crisis of rising nationalist sentiments in the mid-1960s, however, many scholars concluded that Haas' early theory had been too deterministic. The criticism of neo-functionalism is rich and varied. One of the ideas criticised the most is that of the decreased role and authority of the member state. Various critics challenged the idea of spill over, particularly the fact that economic integration could lead to political integration.

Hoffmann (1982) particularly does not agree that economic integration could lead to political integration as he sees economics and politics as relatively independent from each other. Fairly along the same line of argument is (Hansen, 2002). He says that neo-functionalists made three critical errors by not making a high/low politics distinction, not placing the European project in an international context, and refusing to accept that mutual economic gains can exist and can be obtained without a supranational high authority.

An intergovernmental view is put forward as a response to neo-functionalist theories. The frequently referred to vision of intergovernmentalism nowadays is Moravcsik’s liberal inter-governmentalism thesis (Rosamond, 2000). Moravcisk argues that integration goes as far as member states want it to go and European institutions exist due to the deliberate will of member states to satisfy their interests and are instruments for achieving the objectives of member states. According to him, the European level is the location where member states strategically bargain their interests, defined within domestic level negotiations. However, intergovernmentalism, and particularly Moravcsik’s thesis, is criticised for somehow strengthening neofunctionalist beliefs. Lindberg, for example argues that Moravcsik’s approach fails to account for the day-to-day policy-making where bargaining is not the norm and he does not account for interactions among institutions and the impact of membership (Pollack, 2001).

It should be noted that one could observe the richness of perspectives through which the process of integration and the European case in particular, is analysed. However, it is difficult to create an overarching approach because integration is complex. Regional integration appealed as a concept to many economists, politicians and business people because it promised to increase the wealth and well-being not just of one, but of a number of countries at a rate greater than just the sums of the development of the participating countries' economies. Historical evidence, however, seems to indicate that such hopes often led to disappointment. So far, only the European approach to integration, currently culminating in the existence of the European Union (EU) European Commission (EC), 2010 and, with considerable lesser degrees of success, Mercado Comun del Cono Sur (Southern Cone Common Market (MERCOSUR) in Latin America and Association of South East Asian Nations (ASEAN) in Southeast Asia, have fulfilled these expectations (Watson, 2009). However, absent from the short list of success stories is the African continent despite the fact that it has a large number of regional integration schemes (Peters-Berries, 2010). Most economic textbooks describe regional integration (RI) as a suitable concept for developed economies, but are rather silent on developing countries. Before focussing on the various models of RIs, it is useful to understand the variety and complexity of RI models by taking a brief look at some major examples of 'successful' RIs in other parts of the world.

2.2.2 The European integration process

Peters-Berries (2010) asserts that probably the most successful, most influential and most often copied model for RI is the European one. The European integration process started with limited functional cooperation in the coal and steel community, progressed to a free trade area (FTA) and customs union (CU), before approaching the status of a common market and lastly that of a political union with a single currency, diversified political institutions, and developing a common legal system. The EU established several bodies, which include the European Commission and the European Central Bank amongst others (EC, 2010).

The European integration process has led to a number of remarkable achievements. Some of the achievements are free trading within the EU through the establishment of a CU (Alden, 2007), free movement of people among 15 core countries, and the introduction of a single currency, the Euro (€), in in 2002.

Despite all the successes, the regional integration process has slowed down in the last years because of an increasing hesitance in some member states to relinquish more of their national sovereignty to Brussels (EC, 2010). However, despite the evident problems, the EU is still by far the most advanced RI project in the world (de Melo & Tsikata, 2014). Although its members are mostly developed countries, which belong to the richest nations in the world, some of the lessons from the European integration process have universal relevance and should not be overlooked in other parts of the world (Watson, 2009).

2.2.3 Regional integration in Asia: ASEAN

The major RI project in Asia is the (ASEAN), the successor of the Association of Southeast Asia, founded in 1961. ASEAN, with its headquarters in Jakarta/Indonesia, was stablished in 1967 in Bangkok by Indonesia, Malaysia, the Philippines, Thailand and Singapore (Musonda, 2004). Unlike the European Union, the foundation of ASEAN was not ultimately to prepare for gradually surrendering national rights to a regional institution, but to serve nationalist interests (Kalaba, 2008). In 1995, Vietnam joined the organisation, Laos and Myanmar followed in 1997 and Cambodia in 1999 (Hartzenberg, 2011). After few real steps towards integration, the process started to accelerate from the early 1990s onwards, culminating with the signing of the ASEAN Charter and the ASEAN Economic Community Blueprint in 2007. More so, in 1992, the ASEAN Free Trade Area (AFTA) was agreed upon in order to improve the international competitiveness of the region by eliminating tariffs and non-tariff barriers internally (Shayanowako, 2014).

Politically, ASEAN subscribes to an agenda of promoting peace and stability by signing the Southeast Asian Nuclear-Weapon-Free Zone Treaty in December 1995. However, this did not become effective until June 2001, when the Philippines as the last member state finally ratified the treaty, thereby confirming the status according to which none of the member states possesses nuclear weapons (Kalaba, 2009).

2.2.4 Regional integration in Latin America

Until the 1990s, Latin America had a number of mostly failed RI projects to look back on. In 1991 Argentina, Brazil, Paraguay and Uruguay established (MERCOSUR), which has made some remarkable progress and can be regarded as the most successful attempt at RI in Latin America (Peters-Berries, 2010).

2.3 The neo-classical five-stage economic model of regional integration

The proponent of the neo-classical theory is Viner (1950) and it was further refined first by Meade (1955) and later by Balassa (1961). Neo-classical theory developed in response to classical theory of RI. These neo-classical theorists developed a five-stage model of economic RI and each step is regarded as a precondition for reaching the next as it provides the required achievements for further regional integration. The underlying principle is that of market integration. It prescribes the increasing liberalisation of goods, services, labour and capital as the panacea to a fully integrated region (Watson, 2009). Here is a summary of the stages.

2.3.1 The free trade area (FTA)

An FTA is characterised by internal trade liberalisation, that is by means of the abolition of customs tariffs and so-called non-tariff trade barriers (NTTB) between countries, which have chosen to form the FTA (EC, 2010). The positive effects to be expected from abolishing internal trade barriers within the FTA are increased intra-regional trade (within the region) as the volume of goods and services demanded will grow when their prices decrease. More people (customers) are able to afford goods and services generated or available in the other member states of the FTA (Kalaba, 2009). Furthermore, it means increased intra-regional investments (inside the FTA) from within and from outside the FTA. Moreover, the bigger market also calls for additional investments to link the various parts of the FTA through roads, railways, and communication links (Musonda, 2009). However, the establishment of an FTA may also have negative effects such as pressure to lower the remaining external customs tariffs (towards third countries) in order to attract additional investment (SADC, 2008b). Another negative effect is that the existence of protected national industries can be threatened. Most African countries are at the beginning of their industrialisation and thus need to protect their infant industries like food processing sectors from having to compete with international companies (Musonda, 2008). Examples of FTAs are the North American Free Trade Agreement (NAFTA) or the early stage of the European integration process. It should be remembered that the establishment of a full-fledged FTA is the result of intensive negotiations between the participating countries. However, according to the neoclassical theory the weaknesses of the creation of a FTA gave impetus to the transitional stage and to the establishment of a customs union (CU).

The customs union (CU)

If an FTA has achieved its objectives (the abolition of internal tariffs), neo-classical theorists believe that its member states may feel it is time to progress to the stage of a CU. In contrast to an FTA, a CU not only liberalises its internal trade, but also unifies the external customs tariffs of its members. Bechler (1976) maintain that the positive effects to be expected from the establishment of a CU are the efficient allocation of production factors in the most suitable country within the union and trade creation. Establishing a CU amongst developing countries requires the joint planning of infrastructure projects like railway lines and communication links (ECA, 2008b). This in turn fosters deeper regional integration. However, CUs are far from being the ultimate and most efficient stage of regional integration. They also have potential inherent problems like the danger of trade diversion and an unequal distribution of customs revenue, which causes friction between member states according to Musonda (2009). From the neo-classical point of view, a CU only makes economic sense if the effect of trade creation outweighs that of trade diversion, which can only be expected if the founding states have already joined the FTA or CU. However, while the CU offers a much wider range of advantages than the FTA, it is still far from being the optimal state of affairs according to the neoclassical theory. There still exist some imperfections pertaining, for example, to the high probability of trade diversion and concrete problems of determining politically acceptable formulas for sharing the customs revenue amongst member states. In other words, for a CU to function, intensive and often permanent political negotiations are required which would have to address not only economic interests, but also the need for basic political will for integration.

2.3.2 The common market/the economic union

According to the neo-classical theory, the next stage of RI is the formation of a common market followed by an economic union. A common market has the features of a CU coupled with the full liberalisation of the movement of people and capital within the integration area (Watson, 2009). If a common currency, as in the EU, is adopted the next and rather similar stage of an economic union is reached. Both stages are similar in their aims and therefore often mentioned together (Peters-Berries, 2010). Another stage of an economic union is the introduction of a common currency. That has successfully been achieved so far in the European Union with the introduction of the Euro in 2002. The disadvantages emanating from the creation of common markets or economic unions are less pronounced than in previous stages of regional economic integration (Hartzenberg, 2011). However, some disadvantages still exist, for instance tensions between opposite national interests. Regional necessities may also arise in common markets, and economic unions as national states are often unwilling to give up or transfer parts of their sovereignty such as their monetary authority, to the regional authority (Pearson, 2011). It should however, be pointed out that, on the whole, the benefits of creating or joining common markets and economic unions are usually much higher than the costs. Member states of regional integration schemes at these stages are much better placed to assert themselves in the globalising international economy and would gain in terms of employment creation, rising income levels and general wealth (Shayanowako, 2014).

2.3.3 The political or supranational union

The last stage of regional integration according to the neoclassical theory is that of the supranational union. According to Peters-Berries (2010, p. 34), “This stage has so far proved to be rather illusive and has never been reached”. According to the neo-classical approach, a supranational union or regional state would not only encompass all the economic advantages like the establishment of an economic union but also combine them with the formal power of a politically unified entity. However, even without a constitution, the EU has already adopted several of the features of a supranational union without yet reaching it fully.

2.4 An analysis of the neo-classical concept of regional integration

While the history of RI worldwide has a number of FTAs, CUs, a few common markets and one functioning economic union (the EU) to show for, few of these RI bodies have been following the prescribed model to the letter. In fact, in most cases, either major modifications have been made in order to achieve results or the label attached to the RI approach did not accurately describe the content, as has often been the case with RI attempts in the developing world.

This is but one indication that theory and practice often differ when it comes to implementation. In the case of RI, the discrepancies between the neoclassical theoretical approach and reality have been particularly large when applied to RI amongst developing countries. The major criticism of using a neo-classical approach to RI in the developing part of the world focuses on the following points:

- Pure neo-classical approaches tend to overlook developmental requirements of RI outside the industrialised North, as the concept was not developed for developing countries.

- The neo-classical approach to RI does not offer any real strategy for regionally integrated developing countries to react to the challenges of globalisation.

Therefore, this study adopted the new regionalisms approach as its theoretical framework in order to counter the shortcomings of classical approaches to integration mentioned above.

2.5 The new regionalism approach.

Although drawing insights from previous approaches to regional integration, the new regionalism approach, which appeared in the 1980s, is more comprehensive in seeking a balance between the different factors affecting security and development than the neo-classical approach (Nyirabikali, 2005). While the old regionalism aimed at, among other things, protecting regional economies against the negative effects of the free market, the new regionalism is a more comprehensive and multi-dimensional phenomenon. Lawrence, (2003), as presented in the Table 2 below, provides further distinctions between old regionalism and new regionalism.

Table 2: Distinction between old regionalism and new regionalism.

Old regionalism	New regionalism
Import substitution: withdrawal from world economy	Export orientation: integration into world economy
Planned and political allocation of resources; driven by governments	Market allocation of resources: driven by private firms
Mainly industrial products	All goods and services, as well as investment
Deal with border barriers	Aimed at deeper integration
Preferential treatment for less-developed nations	Equal rules (different adjustment periods) for all nations

Although market forces mainly determine the resource allocation, the political will of regional members remains a significant driver in the new regionalism.

Hettne, Inotai and Sunkel (2001, p. 27) one of the prominent figures of the new regionalism approach, define it as:

> a multi-dimensional form of integration, which includes economic, political, social and cultural aspects and thus goes far beyond the goal of creating region-based free trade regimes. Instead, the political ambition of establishing regional coherence and identity seems to be of primary importance.

The political ambition in the African case was very manifest already from the inception of the Organisation of African Unity (OAU), African Union (AU), and New Economic Partnership for Africa's Development (NEPAD), and the different regional economic communities. It should be noted however, that from the 1990s regionalism evolved within a renewed political and economic context (Acharya, 2012). In the new regionalism approach, Farell, Hettne and Van Langenhove (2005) notes that regions are regarded not simply as formal organisations (as was the case in studies of the EU), nor as "given" but rather are understood as constructed and reconstructed in the process of global transformation (Hanson, 2015). Whereas early theoretical debate on regional integration was influenced by the European integration experience (Gomez-Mera, 2008), new regionalism as an approach has captured the intellectual interests and imagination of scholars interested in regionalism outside of the perspective and understanding of integration based on studying the EU (Waarleigh-Lack & Rosamond 2010; Acharya 2012). According to Perrin (2012, p. 461), factors such as economic globalisation, the improvement of information and communication technology (ICT), the growth of individualism and the reduction of the welfare state "changed the deal by breaking the territorial frame for both society and politics". Soko, (2007) concurred with Perrin by arguing that integration projects in what he termed as the 'new regionalism' have been typified by trade strategies oriented towards the world market, rather than towards import substitution as was the case during the first wave of regional integration. Two features characterise new regionalism: it exceeds the framework of the nation state and projects the regions in a competitive mode (Perrin, 2012). Moreover, new regionalism is characterised by increased CBT at a regional level (Kitipov, 2012), as well as cross-border coalitions and multinational firms engaged in the co-construction of an emerging regional governance framework (Kitipov, 2012. Therefore new regionalism approach sits well with this study because the study was confined to regional and cross border fish trading between South Africa and other SADC countries, engaging fish trading as part and parcel of CBT.

For this study, the researcher was looking at modalities of transportation of fish and new regionalisms advocated for the improvement of transportation and communication technologies to facilitate cross border trading. Thus in the new century, regional development may be advanced more by corporate strategies than by state directives (Hanson, 2015). The aim of this study was to strengthen the evidence base for coherent policy development at national and regional levels, support the formulation and implementation of appropriate policies, standards and regulatory frameworks to facilitate IRFT and involve private sector associations in policy implementation. Therefore, new regionalism as a theoretical framework sits well in this context because it promotes intra-regional trade.

The previous experience of regional integration in developing countries has highlighted a need for integration approaches that are sensitive to the unique developmental problems in these countries. Preceding integration approaches have been focusing mainly on the Western European experience. There has been, therefore, a growing recognition among developing countries seeking to integrate their economies at the regional level of the necessity to develop integration strategies that are responsive to their unique circumstances. In short, new regionalism at several levels, whether formal or informal, is expected to serve as the catalyst for the renaissance of both Africa and the global South by advancing their capacity to transcend fragility (Shaw & Fanta, 2013). In this study, the researcher therefore adopted new regionalism as the theoretical framework and applied it to fish trade since the researcher was focusing on the regional trade of fish.

2.6 An overview of African economic communities

The African Economic Community (AEC), which is an integral part of the African Union, sets out the continental framework for economic integration. It recognises that the process of fostering economic integration at the continental, regional and sub-regional levels requires the rationalisation and harmonisation of Regional Economic Communities (RECs) (UNECA, 2014). It should be asserted that through the AEC and RECs frameworks, considerable effort has been made to promote and facilitate intra-regional trade in sub-Saharan Africa. Regional Trade Agreements (RTAs) currently on the African continent are overlapping and complementing each other in some cases, but at times have conflicting objectives. In Figure 1, the researcher shows the memberships of these agreements in 2009.

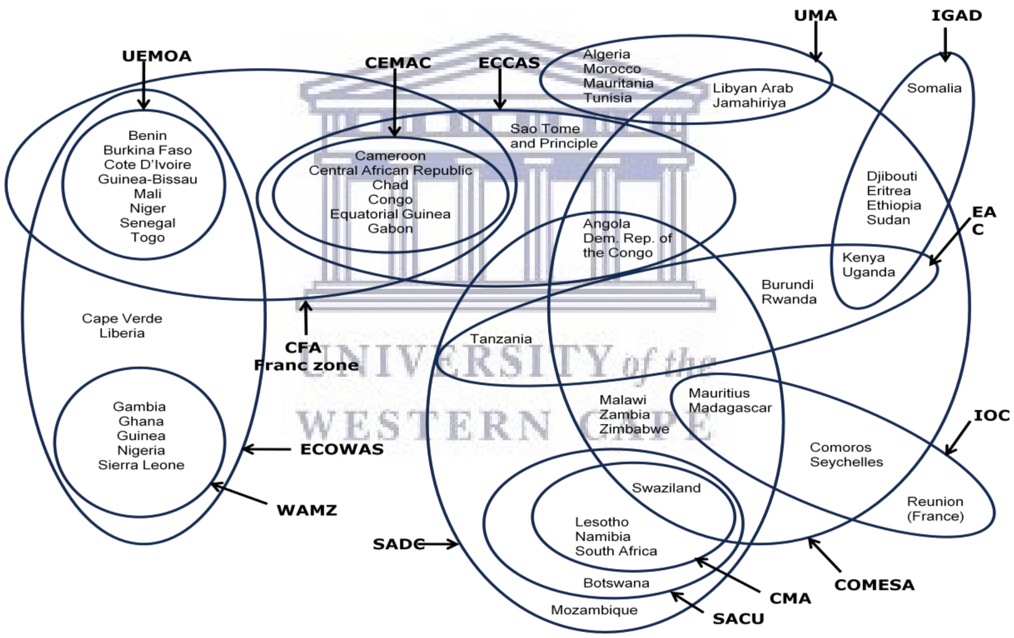

Figure 1: Regional trade agreements in Africa

Source: Adapted from Keane, Cali and Kennan, 2010

A number of FTAs and CUs have been established in all the four AEC sub-regions in sub-Saharan Africa. In the ECOWAS region, an FTA was proclaimed in 2000, building on the ECOWAS Trade Liberalization Scheme (ETLS) launched in 1990 UNECA, 2010; while in Central Africa, the Customs and Economic Union of Central Africa was established by the Brazzaville Treaty as early as 1964 (UNECA, 2014). For southern African countries, the ratification of the Trade Protocol in 2000 and the launch of the SADC FTA in 2008 marked the beginning of a new era in the steadily growing intra-regional trade in the sub-region (Hartzenberg & Kalenga, 2015).

The SADC Protocol on Free Trade, as amended, envisaged the establishment of an FTA in the SADC region by 2008. Its objectives were to liberalise intra-regional trade in goods and services, further to ensure efficient production, to contribute towards the improvement of the climate for domestic, cross-border and foreign investment, and to enhance economic development, diversification and industrialisation of the region (Musonda, 2008). The Eastern Africa, Protocol on the establishment of the East Africa Community (EAC) Common Market (2010) provides for the "four freedoms", i.e. free movement of goods, labour, services and capital (WorldFish Center, 2015), and the Intergovernmental Authority for Development (IGAD) programme provides the framework for intra-regional trade in this sub-region (UNECA, 2014). In the Eastern and Southern African sub-regions, the COMESA FTA was launched in October 2000 for promoting intra-COMESA trade among others things, including the establishment of a customs union and eventual establishment of a monetary union (Hartzenberg & Kalenga, 2015). In order to promote intra-regional trade, three RECs, i.e. COMESA, EAC and SADC are working on a Tripartite-Preferential Trade Agreement (WorldFish, 2015). The proposal for a Tripartite FTA amongst COMESA, SADC and EAC is arguably a catalyst to improve intra-regional trade in the SADC region and South Africa.

2.6.1 Tripartite FTA (SADC, COMESA and EAC) as a catalyst to intra-regional trade.

COMESA, EAC and SADC were expected to launch a single FTA by 2014, building on the FTAs that were already in place (Walters, Bohlmann and and Clance, 2016). The Tripartite Free Trade Area (T-FTA) has prioritised programmes addressing trade and transport facilitation challenges with the aim of lowering the cost of doing business and improving the competitiveness of products from the eastern and southern African regions to facilitate cross-border movements of trade (Pearson, 2011). However, the proposed T-FTA has since divided African scholars into two, namely the optimists and the pessimists. The optimists like Othieno and Shinyekwa (2011); Pearson (2011); and Shayanowako (2011) believe that the T-FTA has a lot of prospects and potential benefits, and therefore can overcome its challenges. The pessimists, such as Disenyanai (2009), Fundira (2012); and Woolfrey (2012) think that there are numerous challenges that may confront or even destroy the T-FTA. It is within this context that the researcher in this study contended that the challenges confronting the proposed T-FTA in Africa are capable of overcoming its expected achievements The T-FTA was brought into place to counter issues to do with duplication of membership or multiple memberships, for instance between SADC/SACU. This would mean that countries would not have to choose one trading bloc over another. The T-FTA would, reduce combined memberships of Tripartite EAC-SADC-COMESA from 40 memberships to 26 memberships as well as eliminating 13 duplicative memberships of its members in the three regional organisations (Aniche, 2014). Optimistic analysts believe that the T-FTA agreement will increase intra-regional trade, boost economic growth, and raise development prospects of their members. How this could be achieved is not clear. The new FTA must promote the free and effective movement of goods and services across borders.

The T-FTA is considered as a major step in the implementation of the AEC, and therefore, will strengthen and harmonise intra-RECs and inter-RECs trade through elimination of multiple or overlapping memberships, proliferation of regional economic groups and subgroups. However, challenges that have been met by the RECs individually may be magnified in the larger FTA if not dealt with effectively. Some of these challenges include economic domination of least-developed economies in the regions by more-developed economies such as Kenya, Egypt and South Africa. More-developed economies are in a much better position to market their exports raising a concern over possible economic polarisation and disparity as investment may be attracted towards these economies that can undermine the proposed integration effort (Disenyanai, 2009; Kalaba, 2009; Musonda, 2008). The less-prepared nations are at risk of being swallowed economically by more powerful nations, as their local industries would suffer from the stiff trade competition from rival firms in an open market (Aniche, 2014).

Although Africa has this highest concentration of economic integration and cooperation arrangements, its intra-regional trade still ranks as low. However, Africa can use intra-regional trade to free itself from poverty and provide productive employment. (Sandrey & Fundira, 2012). Enhancing intra-African trade should help promote specialisation amongst African countries and help achieve the desired diversification that allows for competitiveness (Tall, 2015b).As part of their collective development and transformation strategy; African countries need to pursue comprehensive and harmonised regional trade policies aggressively. There is a need to enhance the level of intra-African trade so that it can act as a development tool for regional integration in Africa as it does in regions such as the EU (Dari, 2015).

In the current era of globalisation, regionalism alone is not the solution. For this study the researcher adopted the idea that regional and global integration of African economies should be complementary (UNDP, 2011; World Bank, 2009). SADC and Africa also need to integrate with other continents of the world such as Europe and Asia. Africa and SADC in particular cannot do without trading with other continents of the world because of globalisation, but it can reduce its vulnerability to external shocks by boosting intra-regional trade and furthering market integration. "Such a promotion of intra-regional trade constitutes an imperative response to challenges facing Africa and will contribute to enhancing a countries' capacity and getting them ready to compete more effectively on international markets." (Tall, 2015b) Thus, there is need for South Africa and other SADC countries to engage in some form of intra-regional trade to try to combat issues to do with polarisation and marginalisation by developed countries.

Two fish trade theories evolved in the analysis of whether fish trade policies contribute to food security and economic development in Africa or whether they lead to underdevelopment or depletion of fish resources in the African continent and SADC countries in particular. However, pro-fish trade theories and anti-fish trade theories were mainly developed to explain international trade between Africa and the developed world. For this study the researcher adopted the idea that if some of the pro-fish trade policies are well placed in the African region and the SADC region in particular to boost intra-regional trade, they can contribute to a large degree to food security and economic development. The trade of fish should start at a regional level first, then the continental level and finally the global level. African countries should be treated fairly by European countries concerning fish trade policies and legislation to avoid economic polarisation and domination.

2.7 Fish trade theories.

Two fish trade theories have been propounded concerning the impacts of fish trade on economic development. Béné (2008) identifies two kinds of theories in this discourse, namely the pro-fish trade theories and the anti-fish trade theories. In this study, the researcher gave a brief overview of these two schools of thought in a bid to analyse their strengths and weaknesses and see how best they can be contextualized in the SADC region scenario.

2.7.1 Pro-fish trade theory

The pro-fish trade theory claims that fisheries development and trade are good for poverty alleviation. Fish exports can act as an engine of growth for developing countries endowed with large fish resources. The main argument advanced by those fish trade proponents such as Cunningham (2000) and Schmidt (2003), is that international fish trade, which has experienced exponential growth in the last three decades, can contribute to economic growth in developing countries by providing an important source of hard cash revenue. For many of those developing countries that are often short of revenues, the foreign exchange generated by this trade can be a critical boost for the economy as it can be used to service international debt, pay fast growing import bills and fund the operations of national governments (Bostock, 2004; Schmidt, 2003; Valdimarsson, 2003). Foreign exchange earnings can also be used to import much larger volumes of low-cost food to supply the domestic market, thus contributing to national food security (Béné, 2008).

Additionally, fish trade can indirectly contribute to economic development through the creation of new jobs, the increase of incomes within the sector and secondary flow-on effects such as migrant workers sending money to families and dependents at home (Kurien, 2005). However, the problem with the pro-fish trade theory is that it is mainly focusing on international trade of fish. Looking at fish-trade relations between the north and the south, it does not give solutions or prescriptions to the global south, or rather SADC countries, in this context to promote intra-regional trade in fish between themselves.

Europe and Africa are at different stages of industrial development and as such, African countries deserve the chance to boost trade between themselves, which suits their environment, and setup. Trade of fish should start at a regional level first before going to the global level, thus supporting the ideas of regionalism from below. However, it is difficult to trade at regional level alone because of globalisation. Thus, regional and global integration of African economies should be complementary in support of new regionalism policies. Fish trade generate income for South Africa, and traders from countries such as Malawi, Zambia and Mozambique manage to provide for their families from proceeds that they get from the trade of fish in South Africa.

2.7.2 The anti-fish trade theory.

In contrast, the 'anti-fish trade' group contends that fish trade impacts negatively on food security and the local economy. According to this view, fish trade-oriented policies are harmful for local populations as they lead to a decline in local fish supplies and livelihood options for the poor (Abgrall, 2003). This discourse further argues that experience shows that fishing agreements usually take advantage of the developing coastal states without providing fair returns, citing as evidence the apparent minimal economic benefits that developing states have managed to derive so far from these agreements. This is evident from the little revenue reinvested into the sector and the low usage of local processing facilities and infrastructure by foreign operations (Alder & Sumaila, 2004; Kaczynski & Fluharty, 2002; UNEP, 2002). Proponents of the anti-trade theory such as Abgrall (2003), Abila (2003) and Jansen (1997) also argued that trade-oriented fishery policies lead to losses of local jobs and adversely affects the development of the domestic fishing industry (Béné`, 2008).

One of the core arguments brought forward by the anti-fish trade group is to question the legitimacy of promoting fish export-oriented policies as a pro-poor strategy. In the case of the Lake Victoria fisheries for instance, where the debate about the fish-trade food-security nexus has been particularly heated (Geheb, et al. 2007), many local researchers and activists argue that very little of the massive foreign exchange and tax revenues earned from the exports is ploughed back to finance infrastructural and human development of the fishing communities. The African Centre for Technology Studies for instance, quotes an official Kenyan government official report that shows that the town of Kisumu in Kenya, where 80% of the Nile perch factories are located, had the highest percentage of population suffering from food deficiency and absolute poverty, among all urban areas in the country (Mugabe, Jansen and Ochieng, 2000). In Namibia where the fishery sector is reported to generate a substantial share of the total government revenues, Lange, Hassan and Alfredi (2003) show that the country only recovered a small portion of the resource rent from fisheries and has failed so far to reinvest that rent into social or economic development.

The anti-fish trade group further claims that an export-oriented fishing policy may in some cases work against the poor. Based on their own research, Abila and Jansen (1997) estimate that about 15 000 jobs in the traditional fish processing and marketing sector around Lake Victoria had been lost because of the development of the fish-trade industry. Jansen also refers to what he terms the ‘reverse proprietorship’ claiming that 83% of fishers working in boats no longer own either the vessel or any fishing gear (Abila, 2003). However, despite the shortcomings of the pro-fish trade theories, this study supports the idea that if contextualised in regional integration and intra-regional trade, African countries, and SADC countries in particular, could enjoy the benefits of fish trading. Therefore, given the lack of evidence for the development benefits of the fish trade between Africa and developed countries, fisheries policy could consider support for regional (Africa-to-Africa) and in this case IRFT between South Africa and other SADC countries that meets the growing African demand for lower-value fish (processed, dried, or smoked fish). The debate, therefore, does not lie in whether “fish trade is good or bad” between South Africa and SADC, but rather the type of trade that is appropriate for its population and economic development (Béné et al. 2010).

Fish is today one of the most traded food commodities, and holds a particular position in the current debate about market globalisation and the role that international and regional trade can play in economic development and poverty alleviation. However, while developing countries as a whole are projected to continue to be net fish exporters in the future, recent simulations have shown that the sub-Sahara African current trade deficit (in quantity) is expected to deepen further and reach substantial negative figures by 2020 (Delgado, et al. 2003). The authors further assert that the current fish trade deficit of sub-Sahara Africa is expected to worsen nine-fold, increasing from 54 thousand metric tonnes in 1997 to 492 thousand metric tonnes in 2020 (Delgado, et al. 2003). With regard to this situation, Béné and Heck (2005) assert that in this context, careful analysis is required if current export strategies adopted by some African countries to target markets on other continents (Europe, Asia, North America) are not to undermine local and regional food security.

Béné, et al. (2010) in considering current debates about whether fish trade is good or bad for Africa in the context of economic returns and food security, further suggest that most analytical and policy attention has been directed wrongly at the global level. They argue that greater value could be gained by promoting more trade at the regional level (that is, between African countries), in response to a growing and urbanising population that is accustomed to eating fish (James, et al.

2015).Therefore, there is a need to promote the IRFT between South Africa and other SADC countries in order to enhance food security between these African countries.

In this context, a number of non-government organisations (NGOs) and academics have voiced concerns about the current strategy that consists of promoting export of high-value fish to markets in developed countries. They claim that this export-oriented approach is not generating the benefits that the pro-trade theory predicts and may, on the contrary, be detrimental to the food security and livelihoods of the local population as it is seen to remove fish from African markets and consumers. It also removes policy-makers' attention and donor support from local fisheries. Therefore, the thrust of the current research was to attempt to address the shortcomings of this export-oriented approach of the fish trade from the developing countries to the developed world. The current research was advocating for the promotion of IRFT between South Africa and its neighbouring countries in order to develop southern Africa, promote food security and poverty reduction. Thorpe, et al. (2007) undertake an evaluation of the extent to which fisheries have been mainstreamed into development and poverty reduction approaches. They base their evaluation on a survey of national poverty reduction strategies in Africa. They conclude that trade or consumption and poverty/employment were highly significant in three (Guinea, Ghana and Senegal) out of twelve countries. This shows that the fisheries sector is lagging behind, and its contribution in as far as poverty alleviation is concerned, is not recognised.

Fisheries can be exploited (and traded) as a source of direct economic benefits, for example activity-based benefits such as employment and livelihoods. Fishing is a source of indirect economic benefits, for example, resource rent generated, extracted as taxes and re-invested in the economy (Neiland, 2006). Despite specific regional activities such as the Sustainable Fisheries Livelihoods Programme (SFLP) (1999–2006), which was meant to address poverty reduction and food security issues by applying various fishery development and management approaches in West Africa (Neiland, 2006), most African governments generally do not regard fisheries as one of the sectors that could assist in the achievement of national food security and the reduction of poverty.

The right to food, adequate nutrition, freedom from hunger and malnutrition, and the obligation of states to promote food security among vulnerable groupings is enshrined in a number of international and regional conventions, agreements and protocols. This issue has been on the agendas of numerous meetings and conferences. It was adopted as one of the United Nations (UN) Millennium Development Goals (MDGs) in 2002 in Africa (Sowman & Cardoso, 2010).The achievement of food security is also incorporated in the Comprehensive Africa Agriculture Development Programme (CAADP) of NEPAD (New Partnership for Africa's Development) and in the Food Security Strategy Framework of the SADC (Southern African Development Community SADC 1997).

The SADC Protocol on Fisheries states that parties are required to "seek a rational and equitable balance between social and economic objectives" by providing legal, administrative and enforcement measures that protect the fishing rights, tenure and fishing grounds of artisanal and subsistence fishers, and consider the needs of disadvantaged fishers (Sowman & Cardoso, 2010). Fish, as a source of "rich food for poor people", can play an important role in improving the food security and nutritional status of the people of Africa as more than 200 million Africans eat fish regularly (Béné & Heck, 2005, p. 8). Furthermore, Africans have a relatively high nutritional dependence on fish, and a significant number of African people depend upon small-scale fisheries as a source of full-time, seasonal, part-time, or occasional income.

2.8 Informal regional fish trade

The linkages between economic development and trade and markets are the subject of increasingly sophisticated intellectual debate and analysis, with an emphasis on macro-economic issues and policy. Nevertheless, do the general economic assumptions that underpin this work apply equally well to Africa and other developing regions? There appears to be some gaps. There is a lack of understanding of how markets work in Africa. Important 'informal' economic activities have been undervalued and may contribute more to GDP than formal economic activities in some sectors. The role of regional (within Africa) informal trade, as opposed to international trade, is probably also underestimated.

Njoku, et al. (2014) acknowledge the importance of informal cross-border trading in sub-Saharan Africa. The authors noted that ICBT represents a significant proportion of regional cross-border trade, and has been able to wield much impact in the economies of nations.

IRFT can have different meanings to different people. It should however be understood within the framework of informal regional trade (Chen, 2001; Gerxhani, 2003). For the purposes of this study, the characterisation given by Afrika and Ajumbo (2012) appears to be relevant. They describe informal regional trade as:

> trade in processed or non-processed merchandise which may be legal imports or exports on one side of the border and illicit on the other side and vice-versa, on account of not having been subjected to statutory border formalities such as customs clearance
>
> (Afrika & Ajumbo, 2012, p. 1).

These commodities pass through unofficial routes and avoid customs controls. It also includes those that pass along official routes with border crossing points and customs offices, but which involve illegal practices (UNECA, 2014). Lesser and Leeman (2009) further assert that ICBT can arise due to the obstructed entry or exit of certain commodities, caused by import quotas or export bans (e.g. on some food commodities) or foreign exchange controls. Furthermore, it can also arise from weak law enforcement at the borders, for instance in Ethiopia, where customs officials have deliberately ignored informal flows of foodstuff in order to get bribes (Ward, 2015). While it is difficult to get an accurate overview of the extent of ICBT in sub-Saharan Africa, reviewed surveys suggest that such trade still represents a significant proportion of regional CBT. In Uganda, for example, informal exports flowing to its five neighbouring countries were estimated to account for US$231.7 million in 2006.

Lesser and Leeman (2009), and Neiland and Béné (2004), had done studies within the Lake Chad Basin countries (Cameroon, Central Africa Republic, Chad, Niger and Nigeria). They say that the regional fish trade in dried fish was largely informal. After an SFLP survey conducted by DFID/FAO they note that most of the fish was traded by road to the urban markets of southern Nigeria (a distance of 1500 km) and the trade was mainly informal since it was not recorded in official statistics or fiscal accounts (Neiland & Béné,2004).

2.8.1 Review of women in fish trade

In some developing countries, male traders are actively involved in the value chains for fish of high commercial value (Chiwaula, et al. 2012). In Kenya, men dominate the trading and processing of the Nile perch. This activity is export oriented and of high value (Abila, 2003). Under such circumstances, men occupy all activities along the entire value chain from fishing right through to the trading and processing of the fish. Abila (2003) supports this view by arguing that male actors in Kenya at Lake Victoria dominate the scene as they play roles that women used to play in the past. Another strand of the argument is that in Southern Africa men (Chiwaula, et al. 2012; Mmopelwa & Ngwenya, 2008; Sverdrup Jensen & Nielsen, 1998) predominantly do specifically Botswana, South Africa, Zimbabwe, certain parts of Malawi and Mozambique, for example, small-scale fish trading. In contrast, for most of West Africa (most parts of Central Ghana, Nigeria, Cameroon and Chad) trading in fish is a woman's job (Nieland, 2006; Sverdrup-Jensen & Nielsen, 1998; Udong, et al. 2010; Udong, 2011). However, women are outnumbering men in processing and trading fish across the world, although these 'informal' activities might also not be counted and are invisible in the national statistics. In some societies, women are considered to be more skilled at negotiating than men because they are subservient and refrain from engaging in conflict (Kusakabe, et al. 2006). In societies, women are perceived to be exploiting male fishers who are dependent on the women for credit (Bennett, 2004).

Furthermore, the fisheries sector provides income-generating opportunities for women, who are often considered to be amongst the poorest and most marginalised groups in developing countries (Kusakabe, et al. 2006). For example, in the Congo, 80–90% of fish traders are women (Udong, 2011). In parts of Mozambique women's involvement in the trade of fish has been highly integrated into the culture both as a way to supplement meager household incomes and because the majority of male labourers were increasingly employed in South African mines. In other parts of Mozambique, women are minimally involved (Harper, et al. 2012). Many of the women involved in trading lead single-headed households. For them fish, trading represents the primary and sometimes the only source of income to support their livelihood and their children. In the Western Province of Zambia, for instance, three quarters of the women involved in the fish-trading activities are leading single-headed households (Béné & Hecke, 2005).

2.8.2 Summary

In this Chapter, the researcher presented and reviewed literature on issues regarding regional integration in relation to fish trade, and discussed the various conceptual frameworks used for analysing the results of this study. The neo-classical theory provides a conceptual background for understanding the dichotomy between the European concept of integration and the African context of integration. Different arguments and counter arguments have been reviewed to demonstrate that there is a need for Africa to form its regional economic communities, which are conducive to its environment and context. This originally started with the formation of the OAU. Although attempts have been made to use neo-classical theory for integration to address the problems of classical theories, there still appears to be some gaps. Thus, this study adopted the new regionalism approach, which supports policies to do with intra-regional trade between South Africa and other SADC countries. The approach not only supports the idea of

IRFT between African countries, but it also advocates for complementary partnerships with global partnerships as well, because Africa could not operate on its own because of globalisation. The study used the new regionalism approach in relation to fish trade, adopting some of the ideas of pro-fish trade theories in relation to intra-regional trade. Fish trade between SADC countries could contribute to economic development and food security. However, the governments of SADC countries need to engage with private players to realise the benefits of IRFT as advocated by the new regionalism approach. Livelihood diversification from fish trade was also explored in this Chapter to show that cross border traders are not dedicated fish traders, but they diversify their trade with other agricultural products. Women's participation in the fish trade was also reviewed.

CHAPTER 3: METHODOLOGY AND DESCRIPTION OF STUDY SITES

3.1 Introduction

In this Chapter, the researcher sets out the methodological approach used for the study, as well as descriptions of the study sites, being the Beitbridge border post, Lebombo border post and Johannesburg Park Station in South Africa. The study was part of a broader research project **"**Improving food security and reducing poverty through intra-regional fish trade in sub-Saharan Africa"**.**

The qualitative research methodology was the basis of this study. The bulk of the qualitative data and information presented in this thesis was drawn from a combination of semi-structured, key-informant and in-depth interviews. Secondary data such as policies and fish trade documents were also used.

3.2 Research framework and research methodology

This research mainly used qualitative research methods such as unstructured interviews because of the nature of the research, where fish traders did not want to be disturbed to conduct their fish trading business.

3.2.1 Qualitative research methodology

The researcher used qualitative methods through semi-structured, in-depth and key informant interviews from fish traders in the SADC region to get information about the features and modalities of travel and livelihoods of fish traders in general. Qualitative research is inherently multi-method in focus (Denzin & Lincoln, 2000; Flick, 1998; Nemarundwe, 2003). The use of multiple methods reflects an attempt to secure an in-depth understanding of the phenomenon in question (Sithole, 2011). Objective reality can never be captured; we can know something only through its representations (Denzin & Lincoln, 2000, p. 5).

Data was collected using purposive and snowball sampling techniques. In the purposive sampling technique, the researcher specifies the characteristics of the population of interest and locates individuals with those characteristics (Creswell, et al. 2011). In this context, traders bringing fish into South Africa from Malawi, Zambia, Zimbabwe, and Mozambique, and also taking fish from South Africa to other countries were sought and approached to be interviewed. Similarly, customs, Home Affairs, South African Revenue Service (SARS), DAFF and other officials concerned with food imports and exports were targeted for the interviews. Furthermore, the purposive selecting strategy was used for identifying key informants. Variables taken into consideration in the sampling of key informants were gender and fish trading markets. Key informants were identified from fish traders and transporters from Malawi, Mozambique, Zambia, Zimbabwe and other SADC countries. Other informants were also interviewed from DAFF, DOH and SARS officials. Most key informants were from Malawi since the bulk of fish imports and traders at both Johannesburg Park Station area and the Beitbridge border post were from Malawi. Mozambique had the least number of key informants because of the language barrier, since they speak Portuguese.

In snowball sampling, each research participant is asked to identify other potential research participants (Creswell, et al. 2011). In both cases of fish traders and officials, those that were interviewed at study sites were requested to assist in identifying other traders and officials that could be interviewed for this snowballing effect. This technique was used for this study because it was easier to be referred to other traders by the ones already identified.

3.2.2 Photographs

Photographs of different types of fish, modes of transport and people crossing the Beitbridge border post were captured and used in order to present tangible evidence in terms of images relevant to fish trade. Photographs highlight the textual claims as well as observations and serves to animate the story through its visual reification by recording signs and memories in space. Photographs can also be useful for data analysis, as they are useful in reminding the researcher of the scene.

3.3 Fieldwork and surveys

Fieldwork was undertaken to conduct interviews with fish traders and officials regarding information pertaining to the type, extent and modalities of the fish trade at the three sites. Observations were used to verify and validate information from interviews or secondary documents. The researcher used qualitative methods to gather different but complementary data on various aspects of IRFT between South Africa and its neighbouring countries.

Data and information on the modalities of travel and transportation of fish, problems that traders encounter and how they overcome these in different trade channels and also on livelihoods in general in IRFT between South Africa and other SADC countries was obtained through in-depth and semi-structured interviews. In the semi-structured interviews, the researcher used an open-ended approach with a number of guide questions, but gave the interviewee the opportunity to answer the question broadly regarding the aspect under discussion, while also giving the researcher the chance to probe context-specific issues that arise during the interview. The approach allowed the researcher to adjust the questions according to the responses of the traders. This method was effective since some questions were sensitive to traders. Some traders would not easily divulge their trade secrets. The question guide for the semi-structured interviews was also used to get information on types, forms and sources of fish. Face-to-face interviews and observation on modalities on cross border fish trading at both Beitbridge and Lebombo were used to collect primary data from various role players, which included fish traders and other informants, namely employees of DAFF, DOH and transporters. Interviews were also carried out at selling points and street markets where traders stored and sold their fish.

Interviews and observations were also done at the Park Station store room/warehouse, St. John Ambulance Centre around Park Station where most Malawian traders operate, and at Discount Shop at the corner of Kerk and Polly Streets in Johannesburg where most traders from Mozambique operate. Likewise, interviews were also conducted at Musina taxi rank where most Zimbabwean traders were selling different products including fish. Messina was also pivotal in gathering information on informal trading routes, such as Manocha and Maroi, through interviewing transporters and porters.

Observations regarding declaring fish and modalities at border crossings were also key at formal border crossing points like Beitbridge border post and Lebombo border post since traders were busy declaring their fish consignments to SARS, DAFF and Department of Health. Border entry points were convenient since they housed DAFF, DOH, and SARS offices. Therefore, it was convenient to conduct interviews with officials from DAFF, SARS and DOH both at Lebombo and Beitbridge border post. On average, each interview lasted 15 to 20 minutes. Focus group discussions were used in some cases, for instance while interviewing traders from Malawi at Johannesburg Park Station warehouse where all would take part in the interview and would consult and complement each other.

A total number of about one hundred and five (105) traders were interviewed as follows: thirty-five (35) at Beitbridge border post and 10 at Lebombo border post (38 women and 7 men) and sixty (60) at Park Station (51 women and 9 men). Nineteen (19) officials from DOH, DAFF, SARS and Immigration were interviewed at both border posts. A total of 10 transporters, porters and middlemen (popularly known as runners) were also interviewed including nine truck and bus drivers. The numbers and categories of interviewees are shown in Table 3 below.

Table 3: Number of stakeholders interviewed

Period	**Categories of people interviewed**	**Number interviewed**
2 to 25 June 2016	Department of Forestry and Fisheries	4
	Department of Health	4
	South Africa Revenue Service	3
	Fish traders	26
	Transporters, porters and runners	4
	Truck and bus drivers	4
	Total	45
Sept to November 2016	Department of Forestry and Fisheries	3
	Department of Health	2
	South Africa Revenue Service	3
	Fish traders	79
	Transporters, porters and runners	6
	Truck and bus drivers	5
	Total	98
Research (Phases 1 and 2)	**Grand total**	143

The nationalities of the interviewees were as follows:

Table 4: The distribution of fish traders interviewed according to nationality**.**

Nationality	Number of fish traders interviewed
Malawians	36
Mozambicans	21
Zambians	16
Zimbabweans	14
Namibians	8
Congolese (DRC)	6
Other nationalities	4
Total	**105**

3.4 Secondary data collection

Secondary data, such as data from SARS, which falls under the customs tariff schedule, was also consulted to get the maximum weight (in kilograms) of fish, which falls, under the duty-free classification. SARS documents on the external directive valuation of imports of Customs were also used to get the formula for calculating Value Added Tax (VAT) for imports, including bulk fish. Policies administered by DAFF, like the Foodstuffs, Cosmetics and Disinfectant Act (Act 54 of 1972) which governs the importation of food, including fish, was consulted. SARS declaration forms from fish traders were also captured to get the number of kilograms each trader can carry per trip.

3.4.1 Identification and location of the study sites: Beitbridge border post, Lebombo border post and Park Station, Johannesburg (South Africa).

The study was carried out at Beitbridge border post, Lebombo border post and Park Station in Johannesburg. Beitbridge is the border between South Africa and Zimbabwe and is the largest inland border post in southern Africa, which countries like Zimbabwe, Zambia and Malawi use to trade different products, including fish, with South Africa. It was therefore a suitable location for this study. Lebombo border post, which is the border between Mozambique and South Africa, was also used as a study site. Johannesburg Park Station, is the main bus station for buses and passengers arriving into South Africa from other southern African countries.

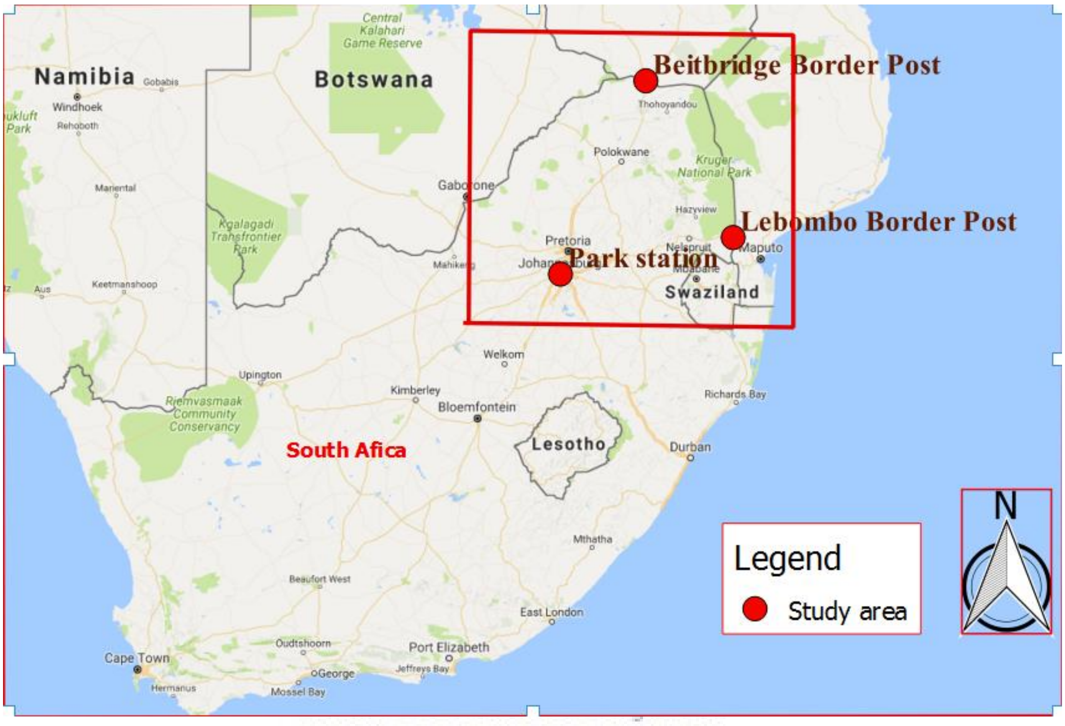

Figure 2: Study area map: Beitbridge border post, Lebombo border post and Johannesburg Park Station area**.**

3.4.2 Beitbridge border post.

South Africa has an extensive land borderline, which it shares with six neighboring countries: Namibia, Botswana, Zimbabwe, Mozambique, Lesotho and Swaziland. Beitbridge is a border post between Zimbabwe and South Africa. According to Kwanisai, et al. (2014, p. 4), “this is an open border as the movement of goods and people between the two countries is allowed”. The two countries signed a memorandum of understanding to remove the visitors’ visa completely in November 2012 as part of regional integration within the SADC region (Kwanisai, et al. 2014). The abolishment of visa requirements between the two countries made it much easier for citizens to move between the two countries as only a passport is now required for one to cross the border. Fish traders and travellers from other countries in the SADC region, such as Malawi and Zambia, are also benefiting from visa-free initiative by South Africa. The Beitbridge border post is strategic for both South Africa and Zimbabwe (and countries to the north of Zimbabwe such as Malawi, Zambia and DRC that use road routes through Zimbabwe to get to South Africa). Buses and trucks carrying fish traders and fish consignments from the above-mentioned countries pass through the Beitbridge border post and as such, the border post was a suitable site for this study to conduct interviews and make observations. Furthermore, Malawian and Zambian traders use the Zimbabwean route through the Beitbridge border post because it is shorter and cheaper compared to Lebombo border post and preferred by many buses and trucks.

It is not only the busiest border on the North-South Corridor, within the SADC region, but it is also arguably the busiest on the African continent (Khumalo, 2014). The border post handles more than 3 500 vehicles and 9 000 people crossing daily with the figures soaring to 20 000 travellers during Easter Holidays and the festive seasons (Newsday, 2014). Poor facilitation for travellers and goods in general at the Beitbridge border post has been a topical issue for so many years now (Christie & Cropton, 2001; Mills, 2012; Trade Mark Southern Africa, 2011; UNECA, 2010). The Beitbridge border post is known for delays in clearing travellers. The question arose: what causes these delays and do only fish traders experience these delays at the border? Thus, the Beitbridge border post was a suitable site to assess the modalities of fish traders who travelled from different SADC countries through the Beitbridge border post.

Most products, including fish, that are exported from Zimbabwe, Zambia and Malawi to South Africa and imports from South Africa to other SADC countries pass through this port of entry. Most of the northbound freight movements along this corridor originate from South African ports and industrial hubs. Northbound movements entail movements originating from South Africa, crossing through the Beitbridge border post into Zimbabwe and beyond. Through Beitbridge, South

Africa is able to export goods and services to a great many countries along the North-South Corridor and to link with the rest of the African continent (Khumalo, 2014). Therefore, the study was conducted at the Beitbridge border post.

3.4.3 Lebombo border post

Lebombo border post, also known as Komatipoort, is the busiest border between Mozambique (Ressano Garcia) and South Africa (Lebombo). The border usually operates from 06:00 to 24:00. It operates 24 hours per day during peak periods and holiday seasons. The Lebombo/Ressano Garcia border post is situated on the N4 national road which links the Maputo corridor and Johannesburg, a route used by most Mozambican cross-border traders. The border post is the main entry and exit point for buses and trucks to and from Mozambique. The border is a gateway for trade between the two countries, specifically for the movement of cargo and freight, and migrant labour from Mozambique to the South Africa. Therefore, the Lebombo border post was a useful site for this research.

3.4.4 Johannesburg Park Station

Johannesburg Park Station is the main bus station for international buses and passengers arriving in South Africa from other southern African countries. Buses and taxis (mini buses) carrying fish traders as passengers from Malawi, Mozambique, Zambia and Zimbabwe use Park Station as their destination and departure point. Therefore, Park Station was an ideal site for this research since most travelers and fish traders from different SADC countries sell their stocks and produce at markets surrounding the area, like St. John's Ambulance Centre and the corner of Kerk and Polly Streets (the Mozambique Discount Shop).

Johannesburg Park station has long been a place of new beginnings for travellers from across southern Africa. Every year thousands of people enter the city for the first time using trains, buses, and taxis. Park Station is the busiest transport interchange in Johannesburg, and most fish traders who would be travelling to Durban and Cape Town change their buses there. Therefore, the role played by Park Station as a transport interchange for international buses carrying SADC fish traders and as a major fish trade distribution centre made it suitable for this research as a study site since it was convenient to interview fish traders from different countries.

3.5 Qualitative data analysis

The qualitative data generated by the study was analysed using a thematic approach. This thematic approach entailed collecting data from in-depth interviews, semi-structured interviews and group interviews with fish traders according to emerging themes. Ryan and Bernard (2003) argue that theme identification is one of the most fundamental tasks in qualitative research. The focus is in analysing field data based on identifying themes and sub-themes in texts and other qualitative data (McLellan, et al. 2003). Ryan and Bernard (2003, pp. 85–86) underscore that "... Identifying themes is the basis of much social science research. Without thematic categories, investigators have nothing to describe, nothing to compare, and nothing to explain" (Sithole, 2011, p. 83).

Themes in this thesis came from both the findings (an inductive approach) and from the researcher's prior theoretical understanding of the phenomenon under study. The act of discovering themes is what grounded theorists call 'open coding' and what classic content analysts call 'qualitative analysis' (Berelson, 1952), or 'latent coding' (Shapiro & Markoff, 1997). Themes are abstracts and often constructs that the researcher identifies before, during and after data collection. Themes were developed based on both relevant literature reviewed for the study and from text recorded during interviews.

During the process of identifying key emerging themes, the preliminary analysis involved looking for evidence addressing the main objectives and questions of the study assessing the types and modalities of intra-regional fish trade. Theme identification involves judgement on the part of the investigator (Sithole, 2011). If these judgements are made explicit and clear, then readers can argue with the researcher's conclusions (Agar, 1980). Direct quotations, tables and pictures were also used to present some of the information emerging from the study.

3.6 Mapping analysis

Google Earth and Quantum GIS (QGIS)

Fish sources, routes (formal and informal), crossing points/control points (border posts), legal and illegal trading points and consumption markets used by fish traders in the SADC region have little literature written about them and in most cases are undocumented. The lack of such data calls for the digital presentation of aquatic resources from which they come and the routes used by traders from the sources to the distribution points in Johannesburg. Henceforth a cost effective mechanism was designed. Freeware (Google Earth and Quantum GIS) were downloaded and installed on the researcher's computer. Digitising of the National boundaries, roads/routes, border posts, bulk water sources, and major rivers, sources of fish and consumption markets was analysed on Google earth. The digitised layers were saved as kml files (key mark-up language) that are compatible with QGIS. Reading the kml files in QGIS, editing the polygons, points and routes in QGIS were also done.

3.7 Methodological challenges and issues faced during field work

It was challenging to conduct interviews with fish traders from Malawi and Zimbabwe at the Beitbridge border post, and from Mozambique at the Lebombo border post since most of them were busy declaring their fish consignments and other agricultural products to SARS, DOH and DAFF. Most traders at formal border crossing points like the Beitbridge border post did not want to be disturbed and felt uncomfortable being interviewed as they saw it as wasting their time. On the other hand, traders who were operating on informal trading routes such as Maroi and Manocha, suspected that the researcher was a government spy on a mission to get information, which was bound to be used to close their trading routes. In order to get enough time to interview the fish traders the researcher visited the traders at their fish markets, especially Malawian traders at Johannesburg Park Station and surrounding areas like St. John Ambulance Centre and the Park Station storeroom. The researcher interviewed Mozambique traders at the corner of Kerk and Polly Streets in Johannesburg Central Business District

CBD whilst following Zimbabwean cross-border traders to Musina taxi rank and Marabastad in Pretoria.

Some traders and border control officials from SARS mistrusted the researcher even though I had introduced myself and presented them with the ethical clearance document and introductory letter from the University. Traders feared that I might have been a state agent collecting information for taxation purposes, while, on the other hand, SARS officials felt that I was an investigator for border corruption activities. They insisted that they were not allowed to divulge government information and were bound by the declaration of secrecy clause and by so doing denied me access to information concerning volumes of fish and income generated on fish imports and exports. However, realising this major setback, I relied on observations to try to unravel the corrupt activities, under-invoicing of fish consignments, and harassment perpetrated by border control officials against fish traders as non-tariff barriers to IRFT. Another setback was that most buses, especially from Malawi and Zimbabwe, were arriving at the Beitbridge border post in the early hours of the morning, from 01:00 to around 05:00. Therefore, I sometimes had to sleep at the border post.

Language was also a barrier during the exploratory field visits to the Lebombo border post and the Mozambique Discount Shop, which is a market place for traders from Mozambique. Most Mozambican traders speak Portuguese and Tsonga. The researcher had to rely a lot on translations for interactions with the traders and it was challenging to get an interpreter. Although I tried my best to address these challenges, I feel compelled to share them as they might still colour parts of the work in ways that I might not have been able to control fully. Nevertheless, overall fish traders cooperated fully with the research that was conducted.

3.8 Summary

In this Chapter, the researcher described the three study sites, which were the Beitbridge border post, the Lebombo border post and Johannesburg Park Station, and justified their convenience for the study. Park Station, for instance, is a major transport interchange for international passengers and buses coming to South Africa from different SADC countries. The researcher further discussed the qualitative methodology adopted for the study, drawn from a combination of semi-structured interviews with fish traders and in-depth interviews with selected key persons from border control officials and fish traders. Semi-structured interviews were suitable for this study because fish traders did not want to be disturbed from conducting their selling business. Data was also collected using purposive and snowball-sampling techniques to target fish traders at border posts and selling points. Targeted fish traders referred the researcher to other selling points using the snowball-sampling technique. Secondary data such as fish trade documents were also analysed. Google Earth and Quantum GIS (QGIS) was utilised for digital presentations of aquatic resources from which the fish come and the routes used by traders from the source to the Johannesburg distribution points. The researcher also documented the number of stakeholders interviewed in the study and highlighted the major challenges encountered in the data collection process.

CHAPTER 4: RESULTS AND DISCUSSION

4.1 Introduction

In this Chapter, the researcher reports the findings of the study, and discusses and synthesises the findings in a thematic manner, allowing for reflection on the key issues relating to the research objectives and aims. The findings on the type, extent and modalities of transportation of fish, the problems that traders encounter and how they overcome these problems, and fish trade related livelihoods in general are presented and discussed. Gender roles in fish trade are also presented and analysed.

4.1.1 Actors in IRFT

The fish trading partners of South Africa are its neighbours, other SADC region members and some West African countries. In Figure 3 below the researcher shows the proportion of nationalities involved in the fish trade to South Africa. Most of the fish traders came from Malawi (34%). Traders from Mozambique made up 20% of those interviewed, with Zambians constituting 15%, Zimbabweans 13%, Namibians 8% and Congolese nationals from the DRC 6%. Other nationals constituted only a paltry 4%, suggesting that most of the fish traders in South Africa come from within the SADC region. Most of these SADC nationalities sold their fish consignments in South Africa for economic reasons, which include the strength of the rand and the thriving diaspora market for fish in South Africa. There was lack of South Africans participation in CBT, because South Africans lack knowledge of the products being imported.

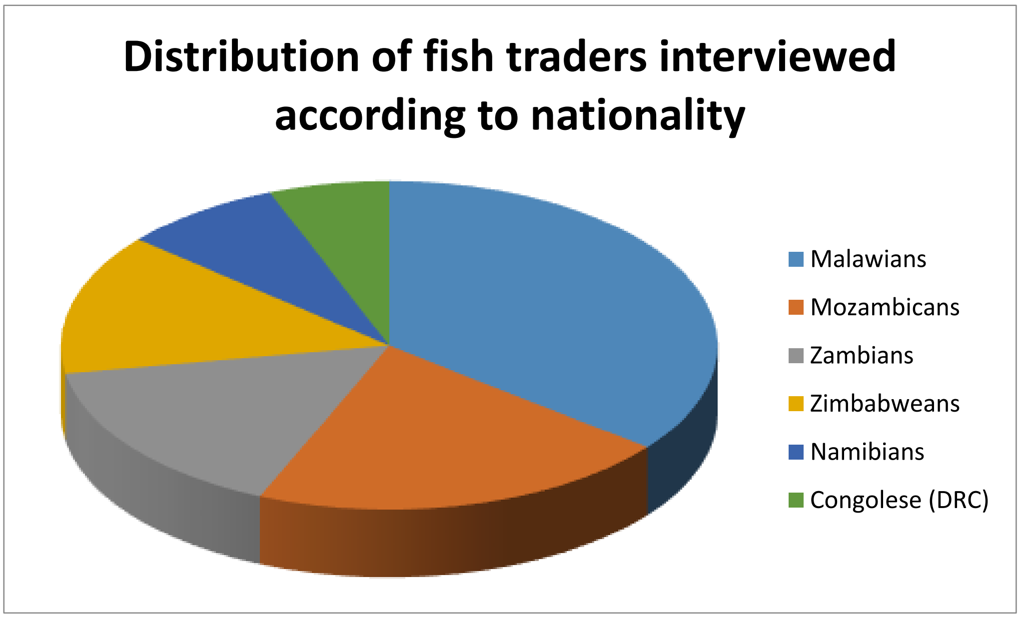

Figure 3: Nationality of fish traders who bring fish to South Africa

The age groups of the respondents ranged from 18 years to more than 60 years. Approximately 31% of the respondents were aged between 18 and 30 years. Those aged between 31 and 40 made up 40% of those interviewed, whilst 19% were aged between 41 and 50, and 10% were more than 51 years old. Over all, this suggests that more than 70% of traders were between the ages of 18 to 40, because CBT requires young and energetic people who are capable of travelling to and from their home countries and South Africa and can endure the considerable time spent waiting at border posts. Another reason was that unemployment levels in the countries of origin were high in the working age group (18 to 40). Therefore, the young engaged in fish trade to supplement other economic activities. This further suggests that whilst young adults were the dominant group, fish trading is a serious business taken up by all age groups.

The level of education of the fish traders varied. The majority were found to have attained primary education. In addition, the level of education differed from one country to another. In this regard, the most educated fish traders came from Zimbabwe, with about 40% of the Zimbabweans having attained a form of tertiary education, including bachelor degrees. The most educated people were from Zimbabwe because of severe economic hardships, which had seen the collapse of most industries that used to offer formal employment to professionals. Thus, professionals had to engage in other livelihood activities such as fish trade to make ends meet. For example, some Zimbabwean teachers travelled to Musina at weekends to sell fish and buy goods such as groceries and clothes to sell back home to supplement their meagre salaries. Most fish traders across the SADC were also involved in two-way[1] trading, that is buying goods in South Africa for resale in their home countries after selling their fish. Other highly educated traders were Zambians, with the majority having attained at least a secondary level education. However, this was not the case for Malawians and Mozambicans. About 70% of Malawian traders interviewed pointed out that they had only attained a primary school education and that importing and selling fish was a safety net for them. Most of the Mozambican traders interviewed stressed that they had never gone to school and therefore had little or no formal education.

Only a paltry 15% of the respondents indicated that they had ever received any formal fish- trading training course. The rest had found themselves in fish trading because of different circumstances. A few Malawians pointed out that they had undertaken a fish trade-training course that was conducted by SMART FISH, a regional fisheries programme managed by the Indian Ocean Commission where they were taught how to import and export fish. Furthermore, those who had formal fish-trading education indicated that they had been taught such skills as cleaning, preserving and packing the fish. Those with such formal training did not necessarily have an advantage over those who did not, as the essentials of fish trading were easily learnt informally, either through observation, interacting with experienced traders or through trial and error.

The study found out that there are various players, ranging from drivers, army officials, police, transporters, porters, runners/intermediaries, border control officials like SARS and Port Health officials who take active roles in the fish trade. Bus drivers were involved in the fish trading businesses with most of their

1 Two-way trading involved traders who sold fish and other agricultural commodities in South Africa and bought other goods such as groceries and electrical gadgets in South Africa to sell back in their home countries.

clients being restaurant owners and foreign-owned food shops around the Johannesburg CBD. Bus drivers imported large consignments of fish from SADC countries, especially from Malawi, to South Africa. According to interviewees, drivers could carry approximately 500 kg to 650 kg on a single trip. The advantage is that bus drivers do not incur passenger and goods costs for fish and agricultural commodities by virtue of being members of staff of the bus companies.

Porters operate at formal and informal routes at the Beitbridge border post. They use bicycles to ferry goods for traders and travelers, including groceries from the South African side to the Zimbabwean side of the border. Of the male porters/runners 90% were using bicycles to ferry the goods in boxes and sacks, whilst 90% of the female runners/porters were carrying the goods on their heads. One of the interviewed porters pointed out that,

> *We earn a living from assisting people in exchange for money … traders prefer to work with us, because most of the times we would be carrying banned stuff like tinned fish … policemen would not be searching us because they know us and sometimes we bribe them.* (Woman intermediary, interviewed at Beitbridge border post on 25/10/2016).

The porter stressed that they are not searched most of the times on the pretext of carrying grocery luggage for personal consumption.

> *You will be surprised that it doesn't take a whole day to smuggle, say Pilchards, from a fully loaded haulage truck using bicycles…But it's not like officials don't know what is happening, sometimes they facilitate this.*
>
> (One of the cyclists at Beitbridge border post on 27/10/2016).

There were also intermediaries at the Beitbridge control point who specialised in the facilitation of the movement of immigrants without proper documentation into South Africa. Intermediaries work with the border control officials to allow travelers without passports or with un-stamped passports to enter South Africa.

Transporters, especially at informal crossing routes, took part in the transportation of traders and different goods, including fish. One trader at Musina town reiterates that,

> *I have been charged a total cost of R200, including transport and logistics, by the transporters from the river to Messina … my first journey from Zimbabwe*.
>
> (Interview with a cross-border trader at Musina town, 19/06/2016).

Figure 4: Porters smuggling different products, including canned fish (pilchards), from RSA to Zimbabwe at Beitbridge border post **(Source:** Jimu).

4.1.2 Gender roles in IRFT

The results in Figure 5 below shows that both males and females are involved in the fish trade, but women constituted the larger percentage compared to men.

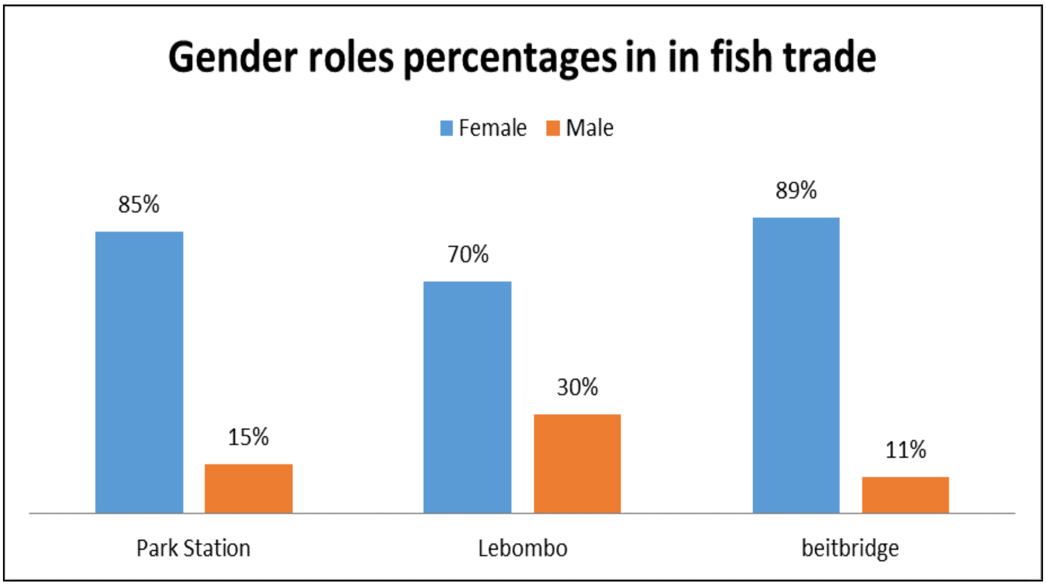

Figure 5: Gender roles in fish trade (**Source:** Jimu).

The research study results as depicted in Figure 5 above shows that at Park Station, 85% (n = 51) of the fish traders were female, whilst 15% (n = 7) were male. At Lebombo 70% (n = 7) were female and 30% (n = 3) were male. At Beitbridge 89% of the fish traders (n = 31) were female and 11% (n = 4) were male. Despite the uneven distribution of the respondents across the study areas the results reflect that female fish traders were dominant at all the study sites.

A visit to Park Station warehouse revealed that most wholesalers from Malawi operated as families (husband and wife). This also highlights the importance of the distribution of roles and duties between genders. Women would often double their roles as wholesalers and retailers, either bringing their family's catch to Johannesburg or retailing it to various selling points.

In total, 84% of the participants in the fish trade were women. This is because historically women dominated CBT as similar studies in Southern Africa have demonstrated (Chikanda & Tawodzera, 2017; Mutopo, 2010; Muzvidziwa, 2001; Peberdy, et al. 2015).These studies demonstrated that more than 70% of small-scale CBT is dominated by women. Southern African women from Malawi, Mozambique and Zimbabwe have been doing CBT to South Africa for many years selling products ranging from artefacts, curios, agricultural produce and fish. They also buy different products ranging from cooking oil, canned sardines and electrical gadgets in South Africa to sell back in their home countries.

Another reason was that most women were unemployed in various countries and therefore they engaged in cross-border fish trade as an alternative livelihood. Women are also considered to be more skilled at negotiating than men (Kusakabe, et al. 2006). In parts of Mozambique, women's involvement in the trade of fish has been highly integrated into the culture, both as a way to supplement meager household incomes and because the majority of male labourers were increasingly employed in South African mines (Harper, et al. 2012).

The dominance of women and the young age group in fish trade as a source of job creation and income generation concur significantly with the theoretical framework of the study as a pro-fish trade narrative. According to the pro-fish trade theorists such as Cunningham (2000), Schmidt (2003), Valdimarsson, (2003) and Bostock, et al. (2004), fish trade can indirectly contribute to economic development through the creation of new jobs, the increase of incomes and food security. Thus, pro-fish trade theory coincides with the new regionalism as the conceptual framework of this study. New regionalism proponents such as Kitipov (2012) and Kitipov (2012) call for export orientation and increased CBT at a regional level.

4.2 Types and forms of fish traded in intra-regional trade

Many fish species find space in the South African market from across the SADC region. These come in all forms, including fresh, frozen, sun-dried, smoke-dried and salted-dried, and canned. These are tabulated in Table 5 below.

Table 5: Fish species and forms imported into South Africa from other SADC countries

Country of origin	Fish species	Common/local names	Forms of fish being imported into RSA
Malawi	*Engraulicypris Sardella*	Usipa	Fresh (in ice blocks), sundried, parboiled
Malawi	*Oreochromis Spp*	Chambo	Smoked dried/fresh(in ice blocks)
Malawi/ Mozambique	*Clarias Spp*	Mlamba	Smoke dried
Malawi	*Tilapia spp*	Chambo, makumba, makakana or mphende	Smoke dried
Malawi	*Bagrus meridionalis*	Kampango	Smoke dried
Malawi	*Diplotaxodon*	Jameson/ Ndunduma	Smoke dried
Malawi	*Copadichromis species*	Utaka	Smoke dried
Zimbabwe/Zambia	*Limnothrissa miodin*	Kapenta	Salted dried/sun dried
Malawi	*Barbus paludinosus*	Matemba	Sun dried
Mozambique	crustaceans		Fresh / frozen
Mozambique	Prawns		Sun dried, frozen
Malawi	*Rhamphochromis spp*	MCheni	Fresh in ice blocks/smoked dried
Zimbabwe	*Tilapia spp*	Bream	smoked and frozen
Mozambique	*Scomber Spp*	Carapau	Frozen and dried

South Africa, however, remains one of the major consumers of imported fish in the region. A fish trade study between Malawi and South Africa in 2013/14 show that Malawi exported about 20 000 tons of different fish species to South Africa (Malawi National Statistics Office NSO). This figure represents the recorded data for fish declared for permits/certification. However, most fish species from Malawi passed through the borders to South Africa informally and unrecorded.

Conversely, South Africa is also a major exporter of fish to other countries in the region as shown in Table 6 below.

Table 6: A list of main fish species being exported to other countries from South Africa.

SPECIES	FORMS BEING EXPORTED
Sardinops sagax (Sardines)	Canned
Merluccius spp (Hake)	Frozen
Scomber Scrombus (Horse mackerel)	Frozen
Tilapia spp	Frozen

Source of data: (Infofish, 2015; Smart Fish, 2015)

All the figures below from Figure 6 to Figure 13 show the common fish species being imported into South Africa from other SADC countries, mostly through small-scale informal CBT.

Figure 6: Dried *Clarias spp* (mlamba) and smoke-dried *Oreochromis spp* from Malawi (**Source:** Jimu).

Figure 7: Fresh *Labeo cylindricus* (sanjika) and *Clarias spp* from Mozambique (**Source:** Jimu).

Figure 8: Parboiled *Engraulicypris (usipa) and smoke-dried Diplotaxodon (Ndunduma)* from Malawi (**Source**: Jimu)

Figure 9: Fresh *Rhamphochromis spp* (Ncheni) from Malawi **(Source:** Jimu).

Figure 10: Fresh *Oreochromis spp* (chambo) from Malawi (**Source**: Jimu).

Figure 11: *Limnothrissa miodin* (kapenta)) from Zambia and Zimbabwe (**Source**: Jimu).

Figure 12: Smoke-dried *Bagrus meridionalis* (Kampango) from Malawi

Figure 13: Dried prawns from Mozambique **(Source:** Jimu).

South Africa exports canned sardines and on a smaller scale *Merluccius spp* (hake) to the rest of Africa, mainly by using formal channels through large supermarket chains such as Shoprite, Pick and Pay and Game stores. The growth of these South African supermarkets into the rest of Africa and SADC strengthens economic hegemony of South Africa in the SADC region in as far as regional trade is concerned, because South Africa can export its fish products to the rest of the region through these shops. These outlets enjoy economies of scale as they buy goods in bulk from suppliers at low prices and are able to price their goods competitively in other SADC countries. Namibian *Scomber scrombus* (horse mackerel) has markets in Southern and Central Africa as well and is widely distributed through formal shops. South Africa also imports cheap aquaculture *tilapia* from China and re-exports it to the rest of Africa through formal channels.

Small-scale traders move most fish species informally. Most fish species, approximately 90% that were on the market, were sun-dried, smoke-dried or salted-dried. Traders prefer to carry sun-dried and smoke-dried fish compared to fresh fish, because these forms are easier to preserve, store and transport into South Africa from within the region because these forms do not spoil quickly. Most traders can only afford cheap modes of transport including buses, lorries and non-refrigerated trucks. Unfortunately these modes of transport take longer hours for traders to reach their selling points, by which time fresh fish as a perishable product would have gone bad. Dried fish is therefore more convenient. Diaspora communities in South Africa prefer fresh-water fish, compared to marine fish, even though the unit cost of fresh-water fish was much higher than that of the local marine fish.

This does not mean that only dried fish is imported into South Africa. Some respondents indicated that they also sold fresh fish, especially *Tilapia* and *Oreochromis spp*, which they ferried as frozen fish, either using trucks or cooler boxes, from neighboring countries such as Zimbabwe. Fresh fish from as far as the DRC and Zambia came in trucks, with the traders taking advantage of cross-border haulage trucks that travel to and from South Africa within their routes.

A large number of the fish traders interviewed were selling *Engraulicypris sardella (usipa), Limnothrissa miodin (*kapenta*)* and *Oreochromis*, smoked-dried African catfish, as the dominant fish species being imported from Malawi, Zambia, Mozambique and Zimbabwe. According to interviewees, most consumers preferred usipa and kapenta because it was cheap and affordable compared to other fish species, whilst on the other hand fish traders preferred them because they were easy to transport and preserve. These forms could go for months without getting spoiled. Small fish species like usipa and kapenta were also preferred because post harvesting and preservation is easier and fuel conserving because these species are simply sundried in a few days, in contrast to larger fish that need gutting, salting or smoking for preservation. The simple preservation techniques and ease of storage and transportation make the small fish species preferred for the IRFT in the SADC region. The findings of the current study on the preference for small fish species in the SADC region concurs with the findings of Longley, et al. (2014) in their study in Sub-Saharan Africa. Amongst other factors, small fish is preferred by consumers, because the fish are sundried whole with heads, bones and internal organs intact. Such fish are a concentrated source of multiple essential nutrients, in contrast to large fish which are usually not eaten whole and therefore do not contribute as much to micronutrient intake.

Heaps of small fish were found on informal markets and street pavements around Johannesburg Park Station and Marabastad Pretoria. Lake Mweru *Chisense* and Lake Kariba kapenta and Lake Malawi *usipa* were found at Johannesburg Park Station, Marabastad, Pretoria and some as far away as Cape Town and Durban. 80% of kapenta, mostly from Lake Kariba in Zimbabwe and Zambia, was found in Marabastad, Pretoria whilst *usipa* was dominant in Johannesburg. Other fish species were also sold in the market to cater for the diverse consumer market as shown in Tables 5 and 6 above. These include smoked dried catfish (from Zambia and Malawi), fresh chambo, smoke dried kampango (from Malawi), prawns (from Mozambique) and bream (from Zimbabwe). One interviewed Zimbabwean trader at the Musina taxi rank, which is a South African town at the Beitbridge border post, gave an account of Zimbabweans who sell fresh bream (tilapia) from Lake Chivero in Harare. Some traders also sell tilapia from Lake Mutirikwi in Masvingo and the Manyuchi dam in the Mwenezi district all across Gauteng.

Interviewed traders said that the bulk of their consumers were not South Africans, but migrants living in the country. South Africans are said to prefer pilchards or chicken to smoke or dried fish. Of all the imported fish, South Africans are said to dislike whole tilapia for a number of reasons, including finding it too bony. This is despite the fact that imported tilapia from China, usually sells at prices below locally produced freshwater and/or aquaculture tilapia species. (Hara, et al. 2017).

4.2.1 Source districts of fish for CBT

A large number of interviewed Malawian traders at Park Station and the Beitbridge border post, (about 80%) pointed out that the source districts of fish are mainly those on Lake Malawi such as Nkhta-Bay, Karonga, Rumphi, Salima, and Mangochi. On Lake Chirwa, these were Mulanje, Machinga and Zomba. Districts on the Lower Shire River were Nsanje and Chikhwawa. Mozambican traders said that their sources included Zimpeto, Xipamanine, Xiquelene, Fajardo and Malanga. These were closer to Maputo and to the South African N4 highway, which is commonly referred to as the Maputo Corridor. According to respondents, Maputo is closer to the Lebombo border post, linking Mozambique directly with South Africa. Fish markets within this proximity were convenient for the traders in terms of transporting their fish consignments to Johannesburg Park Station. The link between the fish sources and routes in the Maputo corridor highlights the importance of the Maputo corridor in facilitating regional fish trade in the SADC region. Large volumes of fish species from Mozambique were also coming from Lake Cahora basa. Therefore, the fish imported into South Africa comes from multiple sources, depending on the area from which the traders involved came and where they could easily and conveniently access the fish.

4.2.2 Fish prices

The study sought to investigate the different prices that fish traders charged for their products in order to determine the range of prices for the different fish, and the factors that could explain this difference. In Table 7 below the researcher gives an illustration of the various prices that different fish products fetched at the different vending sites.

Table 7: Prices of different fish species

Place	Product (scientific names)	Wholesale price per kg (In Rands)	Retail price per kg (In Rands)	Mark up %
Park Station, Johannesburg	*Copadichromis species*	28	40	70
	Engraulicypris Sardella	84	120	70
	Oreochromis Spp	60	90	66
Marabastad, Pretoria	*Limnothrissa miodin*	105	150	70
	Bagrus meridionalis	60	95	63
	Clarias gariepinus	80	120	66
Musina	*Oreochromis niloticus*	90	150	60

Extensive observations made at various selling points found that most traders were not using a standardised weight for selling their fish. The different types of fish species such as parboiled usipa and sundried usipa were sold by volume. The measurement was made either using a cup, satisfaction of the eye (estimation through looking) or by simply counting the number of fish per packet. This was a common trend among all traders, regardless of nationality. Wholesalers at Park

Station warehouse sold their fish species in bulk at wholesale prices to fish traders (retailers) who in turn sold the fish to consumers per piece or per packet at various market places around the Johannesburg CBD, Hillbrow and Park Station areas. Some traders also sell their fish species in residential areas such as Randburg, Benoni, Diepsloot and Kempton Park, whilst other wholesalers and traders sold to African shop owners who specialise in food products. In Figures 14 and 15 below the researcher shows wholesalers selling fish to retailers and sun drying fish at Johannesburg Park Station warehouse.

Figure 14: Fish wholesalers at Park Statation warehouse (**Source**: Jimu).

Figure 15: Fish drying at Park Station warehouse(**Source**: Jimu)

The prices differed slightly from area to area depending on a number of factors: the trader's need and urgency for cash, the level of competition at the particular market, whether the traders had brought the fish from the source themselves or had bought from wholesalers, whether the marketing place was upmarket or not, the price of fish at the source, and the amount of extra costs incurred, including bribes, transport and accommodation.

Fish traders sometimes preferred to sell on credit as a way of disposing of their stock quickly to avoid spoilage and as a way of cutting costs for storage at Park Station warehouse. Fast disposal of fish stocks also meant that traders could import more fish for sale. The prices of fish therefore largely depended on who was selling, where they got their produce and the place at which they sold their fish. The issue of pricing also exposed the many actors involved in the fish trade in South Africa. The market chain signified the plurality of actors involved in value chain. As actors within the IRFT, it would be unimaginable that fish traders were not without challenges. Fish traders incurred a number of costs ranging from transport costs and rent.

4.2.3 Average costs incurred by fish traders

Cross-border bus operators from other SADC countries to South Africa, such as Munorurama and Nyamende, charge an average passenger fare of ZAR950 as shown in Table 8 below. Fares depend on the distance between the different SADC countries and South Africa, and seasonal prices (prices are higher during holidays and festive seasons). Cross-border buses from Zimbabwe to South Africa, for instance, are cheaper than buses from Malawi, because Zimbabwe is closer to South Africa the DRC or Malawi. Munorurama Bus Company, for example, charged ZAR500 from Harare to Johannesburg Park Station and ZAR950 from Blantyre to Johannesburg Park Station. In Table 8 below the researcher presented the average costs incurred by fish traders including bus fares, luggage costs, bribes, rent, storage costs, customs duty, and Sanitary and Phytosanitary (SPS) costs from their source to Johannesburg Park Station.

Table 8: Average costs for cross-border trading

Cost categories	**Highest cost (ZAR)**	**Lowest cost (ZAR)**	**Average cost (ZAR)**
Transport fares	1500	500	950
Goods (fish)	3600	100	200
Bribes	1400	50	300
Rent	2000	1500	1500
Storage costs	900	600	600
Duty	1500	100	250
SPS permits	200	100	100
Total	**11100**	**2950**	**3900**

Source: Research data

The findings of this study highlighted that the highest costs were incurred by wholesalers who carried an average of 750 kg of fish per trip. This category of wholesalers get an average expected revenue of ZAR20 000 per month. If the highest total costs of ZAR11 100, as shown in Table 8 above, are subtracted from the revenue, the wholesalers get an average profit of ZAR8 900 per month. Thus, traders with high sales turnover generally reported higher monthly profits. However, it should be noted that they were few wholesalers and they constituted about 30% of the fish traders. Some of the wholesalers doubled their roles as retailers as well in backward-forward linkages and they owned small businesses like grocery shops in their home countries. They make profits by retailing their own products. A large percentage of about 70% of fish retailers received an average expected revenue of about ZAR4 000 per month and falls within the range of average to lowest costs of ZAR2 950 per month, as shown in the table above. If the average costs of ZAR2 950 were deducted from the expected revenue of ZAR4 000 per month, the retailers were left with a profit margin of about ZAR1 050. Most small-scale fish traders did not factor in their time/wages in costs. A large number of fish retailers struggled to make ends meet and survived from hand to mouth. Their costs were low because they did not carry large consignments of fish from their home countries and by so doing their goods costs and other related costs were less. This category of traders carried an average of 90 kg of fish per trip and most of them stayed for more than one month in South Africa before returning to their countries of residence. Some traders tried to negotiate for longer stays (extend their visa days) in South Africa in order to retail their fish.

The study identified high transport costs as a major challenge in facilitating the smooth movement of fish from its sources to their destination markets. One Mozambican fish trader interviewed at the corner of Polly and Kerk Streets stressed that she paid a passenger fare of about ZAR1 800 for a return journey between Maputo and Johannesburg, with an additional ZAR800 for luggage. Although most buses offered 30 kg luggage free for each traveler or trader and charged ZAR5/kg for any extra weight, this did not seem to help traders much. As many pointed out, for them to make profit, they have to carry the fish in bulk.

Table 9: Different bus and truck companies and their luggage price per kg between Mozambique and South Africa

Bus and truck company	**Free luggage consumption (Rand/kg)**	**Bus luggage price (Rand/kg)**	**Truck luggage price (Rand/kg)**
Business Time	20	6	
Intercape	30	6.50	
Munorurama	30	5	3
Chipozani	30	5	
Nyamende	30	5	
Luqray	20	6	4
Atlantic Intercity	30	5	

According to interviewees, Nyamende and Chipozani sometimes do not use the weight of the parcel as the basis for how much to charge for the luggage. These two companies rather use two other criteria: the physical size and the type of goods (dried fish, clothes or groceries) to come up with how much one would be required to pay. Interviewees indicated that the luggage fee differs according to what the bag/parcel contains. For example, groceries and dried fish parcels of the same sizes are charged differently since the former is heavier than the latter. Therefore, heavier goods are charged more. Fish traders operate in groups as a way of cutting costs. Some Malawian traders interviewed indicated that they contribute and send one trader to collect fish stock in Malawi in a bid to reduce duty and transportation costs. They pointed out that their groups were comprised of friends or family members as well. Traders' transport and goods costs are compounded by currency conversion costs.

4.2.4 Multiple and different national currencies

It should be remembered that multiple and different national currencies (most of which are nonconvertible) adds on to trading costs as fish traders are confronted with the extra cost of currency conversion and related market uncertainties. Malawian traders used Kwacha, Mozambique traders used Meticais, whilst Zimbabweans used a multi-currency system, which is mostly dominated by US$. Zimbabwe has recently introduced the bond notes 'to ease out cash shortages'. Traders from the above-mentioned countries were selling their fish species together with agricultural products in South Africa and in South African rand. However, when buying their fish stocks in their respective countries they had to convert the Rand into Kwacha, Meticais or US$ respectively, because most SADC countries are not keen to use the rand because it is strong. Thus, multiple and different national currencies used by SADC countries acted as impediments to IRFT as traders bear the burden of incurring currency conversion costs and related market uncertainties since the currencies of most SADC countries are volatile.

4.3 Routes and modes of transportation

4.3.1 Buses and taxis

Fish traders used a variety of modes of transport to travel to and from border posts, ranging from buses, mini-bus taxis and trucks. The distances travelled the location of border towns, the volume of goods being transported and the charges levied by the transport carrier influence the choice of mode. The most common form of transport used by fish traders to cross borders are passenger buses and mini-bus taxis. The study that was undertaken at Park station, the Lebombo and the Beitbridge border posts revealed that more than 50% of the fish traders used buses as their mode of transportation. Buses like Munorurama, Nyamende, Intercape and Chipozani are established cross-border bus operators used by the traders. One Malawian female fish trader interviewed explained their choice.

> *We choose Munorurama passenger bus company simply because we know that we are guaranteed of reaching our destination because we have been using this bus for years.* (Malawian woman fish trader, interviewed on 03/06/2016).

Pictures below show some of the buses and trailers used to carry fish traders and their luggage at Beitbridge.

Figure 16: Goods trailer used by minibuses in SADC (Source: Jimu).

Figure 17: 10-ton goods trailers used by buses in SADC **(Source:** Jimu**).**

Most traders preferred to use the same buses all the time, for the reason that sometimes they pay less for the luggage by virtue of being regular passengers. The study established that several bus operators, including those mentioned above, use 8-ton to 10-ton bus trailers for the sole purpose of transporting heavy goods, including large consignments of fish. Bus operators such as Business Time, Nyamende and Munorurama also indicated that they have 30-ton to 40-ton trucks dedicated for carrying goods (including fish) between South Africa and Malawi or Zimbabwe. Trucks were even cheaper to carry luggage. For instance, Munorurama trucks charged ZAR3/kg compared to ZAR5/kg that was charged by the bus.

Given the difference in charges, it would be expected that traders would prefer the use of trucks to ferry their merchandise into South Africa, but the study revealed that it is not the case. Many fish traders preferred to use buses because they take a comparatively shorter time to get to their destinations and the traders prefer to take their fish with them. Buses are more convenient than trucks. Fish can easily be spoiled. Hence, fish traders opted for buses because some of them carried cooler boxes with frozen fish. Thus, large volumes of the fish are transported into South Africa using passenger buses as part of passenger-accompanied goods.

Park Station is used as a major transport interchange centre for buses and taxis en route to other South African cities and towns, such as Durban and Cape Town. Thus, Park Station is crucial in the fish trade both as a transport interchange and as a major distribution centre for fish trade wholesalers, retailers and consumers. It is a major highlight in the supply chain from source to consumer in the regional fish trade. Some traders were selling their consignments at Park Station whilst others were only changing buses on their way to other places all over South Africa. According to some respondents, some Bangladeshi and Indian shop owners from all over South Africa travelled to Park Station to buy fish at wholesale prices, for resale in their shops.

The centrality of Park Station in fish trade is further magnified by the link it provides to the entire SADC region itself. Park Station links the Maputo corridor (N4 highway) and N1 (North- South corridor) which stretches from the Beitbridge border post, through Polokwane and Pretoria to facilitate the SADC fish trade. Fish traders from the DRC, Malawi, Zambia, Mozambique and Zimbabwe use Park Station as a major convergence centre.

However, the study revealed that it is not in all the cases that traders rely on buses and Park Station as the courier for and distribution centre of fish. There are some notable exceptions. For instance, some fish traders at the Lebombo border post use taxis to carry crustaceans and frozen shrimps or prawns from Mozambique to South Africa. Therefore, taxis play a significant role in transporting fish from the sources to the markets, especially over comparatively shorter distances and where fresh fish is concerned.

About 50% of the Mozambican traders interviewed pointed out that they use mini-bus taxis to import their dried fish such as crayfish and *matemba* into South Africa, because it is easier to smuggle fish using taxis. They can smuggle the fish species in sacks or plastic bags mixed with other agricultural products. They could also smuggle fish in satchels placed under taxi seats as a way of avoiding duty payment according to interviews with Port Health officials, 12/06/2016 at the Lebombo border post. Taxis are also used to smuggle large consignments of live crustaceans. Although smuggling is more often associated with tax evasion and illegality in government circles than with innovation, enterprise and job creation, it is a strategy common in informal cross-border fish trading, which plays a critical role in poverty reduction and food security in southern Africa. Thus, most fish traders preferred taxis because they were faster and most of the times were not searched by border control officials, especially at the Lebombo border post. Fish traders without large consignments of fish preferred this mode of transportation. Thus, fast transportation of fish using taxis, for instance from Zimpeto, Fajardo and Malanga fish markets in Mozambique to Johannesburg Park Station, facilitated the regional fish trade.

When using taxis, traders use different sizes of cooler boxes for carrying and storage of fresh and frozen fish. The use of different types of sacks and khaki cardboard boxes to carry sun dried, salted and smoked fish is also common. Cardboard boxes work much better in terms of storage because they act as moisture absorbents. After travelling for a day or two traders dry, the fish outside Park Station warehouse to avoid spoilage. Sacks were mostly used to carry small fish species like *usipa* and *kapenta* because of the size of the fish. Cooler boxes were used to carry and store fresh fish with the aid of ice blocks. In Table 10 below the researcher shows the types of containers and their estimated weights, used to ferry fish from the country of origin to South Africa, using buses and taxis.

Table 10: Types of containers or packages used to carry fish for the regional fish trade

Packaging types	**Approximate weight (small)**	**Approximate weight (medium)**	**Approximate weight (large)**
Card board box	20 kg	40 kg	55 kg
Sack	20 kg	50 kg	65 kg
Cooler box	10 kg	20 kg	50 kg

Figure 18: An example of a bag (sack) used to carry fish in SADC **(Source:** Jimu).

Figure 19: Cardboard box used to carry fish in SADC **(Source:** Jimu)

4.3.2 Haulage trucks (hired), cars, small trucks (bakkies) and air/aeroplanes

Officials at the various ports of entry into South Africa acknowledged that some traders hire refrigerated trucks to ferry fresh fish, for instance frozen horse mackerel, from Namibia through the Lebombo border post. Such fish is not only destined for South African markets, but also other SADC countries. Advances in technology, specifically the use of refrigerated trucks has facilitated the convenient transportation of fish. Some of the fish comes into the country on trucks coming to collect other goods at the Durban and Cape Town ports. Respondents at the Beitbridge border post admitted that some trucks carrying flowers and other perishables are used to smuggle frozen bream from the Manyuchi dam in Mwenezi district to South Africa. Besides maintaining temperatures favourable for fresh fish, such trucks are mainly used because they are also hardly searched for illegal cargo, thus they provide a convenient type of transportation for smuggling fresh fish. Trucks carrying perishables are not unnecessarily delayed at ports of entry.

According to one interviewee, a clerk with Business Time Bus Services, trucks carrying beer from South Africa to Malawi were also used to smuggle fish and agricultural commodities on their way back to South Africa. These trucks are not usually searched or delayed at the Beitbridge border post, because they are regarded as legitimate commercial companies and their border clearance at the Beitbridge border post and the Lebombo border post is mostly done by clearing agents such as Manica. Therefore, traders preferred such trucks because they are not delayed at border entry points since clearance could be done in advance by clearing agents.

Pick-up trucks with a capacity of 1 tonne, popularly known in South Africa as bakkies, are also used by traders to transport their fish in and out of South Africa. The study learnt that those who did not wish to ferry their fish directly through ports of entry used these trucks mostly on informal routes. One such example is the area near the Beitbridge border post, where traders used bakkies to transport their fish along informal routes.

Cars were also predominantly used in transporting fish using informal routes. Some respondents in Musina pointed out that they preferred to use those informal routes because most of them did not have valid passports to stay in South Africa. They also reiterated that they used the cars as a mode of transport to smuggle different products in a bid to evade taxes. Pick-ups (bakkies) were used so as not to raise suspicion amongst police officers and soldiers operating along the border area, who might not be expecting illegal consignments in small, luxury vehicles. Most cross border fish traders would not use the same car or truck to carry their consignment all the way, but would meet at delivery points after crossing Limpopo River to avoid easy detection by officials at various checkpoints. Therefore, pick-ups and cars are largely used along informal routes compared to formal routes.

Fish traders also used airplanes to transport fresh fish around the region. Examples include the South African Airways, which is used to import fresh *chambo* fish from Malawi to South Africa, according to interviews with aviation authorities on 10/06/2017 at O.R Tambo international airport. An aeroplane is the fastest mode of transport and as such a conducive mode of transport to ferry fresh fish to reduce chances of the fish getting spoilt. The South Africa Airways permits 46 kg as free luggage per traveler and most traders imported fish into South Africa in small quantities such as 46 kg per traveler to supply to restaurants and retail shops. Most airlines allow 2 boxes or cases of 23 kg each as luggage. Some travelers take advantage of this to import fish. This also signifies the importance of air transport for the fish trade, although the quantities imported through this mode could be low compared to the volumes imported by buses.

4.3.3 Formal routes and crossing points used by fish traders.

Different channels were used for the importation of fish from Malawi, Zambia, Zimbabwe and Mozambique. A large percentage of dried fish, and to a lesser extent frozen and fresh fish, pass through the formal border control channels. Malawian traders had to pass about six official borders and multiple roadblocks from Malawi through Mozambique and Zimbabwe into South Africa according to interviews with fish traders on 03/06/2016 at Park Station). These borders include Zobwe/Mwanza, which is between Mozambique and Malawi from Blantyre. If they are from Lilongwe they pass through Dedza inMalawi and Kalomo in Mozambique), and Cochemane/Nyamapanda which is between Mozambique and Zimbabwe, and the Beitbridge border post which is between South Africa and Zimbabwe.

On average, the border processing times faced by southbound traffic for movement originating from Zimbabwe and countries to the north of Zimbabwe, crossing through the Beitbridge border post into South Africa, are more hassle free and less time consuming than using the Maputo corridor. The researcher showed the average processing times at various border posts in Table 11 below.

Table 11: **Average number of hours spent to cross the border**

Border points	**DRC**	**Malawi**		**Mozambique**		**Zambia**	**Zimbabwe**
Mwanza/Zobwe			4				
Dedza/Kalomo		3					
Cochemane/ Nyamapanda		4	4				
Forbes/Machipanda				4			
Kasumbalesa	9						
Chirundu	2					2	
Lebombo/Ressano Garcia					3		
Beitbridge	6	6	6	6		6	6
Total	17	13	14	10	3	8	6

Cross-border traders from different countries take different average processing times depending on the border posts that were used to get to South Africa. Cross-border traders from the DRC had taken the most border processing times to get to South Africa. They spend an average of 17 hours to South Africa because the DRC is the furthest of the countries represented in Table 11. Malawian cross border traders who used the Mwanza/Zobwe border post to South Africa had spent an average of 14 hours processing time at various borders to get to South Africa, whilst traders who used the Dedza/Kalomo border post used an average of 13 hours. Mozambican cross-border traders who used the Forbes/Machipanda border post spent about 10 hours at borders because they used two borders to South Africa (Forbes and the Beitbridge border posts). Those traders who used the Lebombo border post spent an average of three hours at the border because they crossed only one border to South Africa. Zambians spent about 8 hours because they used two borders to South Africa, one of which is a one-stop border post. Thus, Chirundu border post has the lowest processing time because it is a one-stop border post. Zimbabwean cross-border traders to South Africa spent an average of six hours during off-peak periods.

However, average processing times increase during festive seasons and public holidays because of increased numbers of travelers during those periods. Travelers can take up to 36 hours at the Beitbridge border post during the festive season and public holidays. Thus most Malawian, Zambian, and to a lesser extent Congolese traders from DRC, preferred to use the south-bound Zimbabwean route because it was shorter and more convenient for them compared to the Maputo corridor through the Lebombo border post. Only about 10% of Malawian fish traders used the Maputo corridor. Furthermore, most Malawian traders have possibly been avoiding the Maputo corridor through the Lebombo border post because of low-level civil war between the main opposition Renamo supporters and the government of Mozambique, especially in the Tete province where the disturbances were said to be intensive.

Mozambique traders who import fish into South Africa mostly use the Ressano Garcia (Mozambique)/Lebombo (South Africa) border post, which is the border between Mozambique and South Africa. However, those who live and work along the Beira Corridor pass through Machipanda (Mozambique)/Forbes (Mutare) which is the border between Mozambique and Zimbabwe and crossed the Beitbridge border post on their way to South Africa. The Beira Corridor, just like the Maputo Corridor, is one of the important routes in facilitating SADC regional fish trade, especially for Mozambican fish traders. One important determining factor amongst Mozambican traders for which corridor to use, is the proximity of their source to their target market in South Africa. Only those traders who were coming from the region close to Maputo and buy their fish for export from fish markets close to Maputo used the Maputo Corridor by virtue of its close proximity to Lebombo and Johannesburg Park Station.

Zambian fish traders have to pass through the Chirundu border post, which is the border between Zambia and Zimbabwe on their way to South Africa through the Beitbridge border post. Interviewees mentioned that some Congolese fish traders carried dried fish from the DRC to South Africa and had to pass about three borders from Lubumbashi to South Africa. Fish traders pass through the Kasumbalesa border, which is the border between Zambia and the DRC and had to travel from Zambia to Zimbabwe, through the Chirundu border post and finally the Beitbridge border post, which is the border between Zimbabwe and South Africa along the N1 road. Thus, north-south corridor route through Beitbridge is used by many SADC fish traders from countries such as Malawi, Mozambique, the DRC, Zambia and Zimbabwe on their way to South Africa, and as such is one of the largest and most prominent corridors in the SADC region and Africa. Regional trade between South Africa and other SADC countries is thriving because of an improvement in infrastructure in road distribution networks and transport systems. The good road network systems in South Africa strengthened its position as a major exporter and importer of fish in the region.

The study also revealed that one of the primary import/export conduits for both Angola and the DRC is now the north-south corridor to South Africa via Namibia, with Katima Mulilo becoming a transport node. According to interviewees, Namibian traders could take loads of 30 to 40-kg of fish in sacks by bicycle to Katima Mulilo for sale or to Satau in nearby Botswana, where fish would be packed with ice and transported by truck to Livingstone in Zambia or Bulawayo in Zimbabwe. There is a good chance that from Bulawayo in Zimbabwe the fish could end up in South Africa. Therefore, the north-south corridor is influential in the regional fish trade. Most trucks carrying different products ranging from minerals and fish products from northern countries use this corridor. In Figure 20 below the researcher showed the digital presentations of aquatic sources of the fish, borders and the routes used by fish traders from source to the Johannesburg distribution point. The major routes are shown in green on the map.

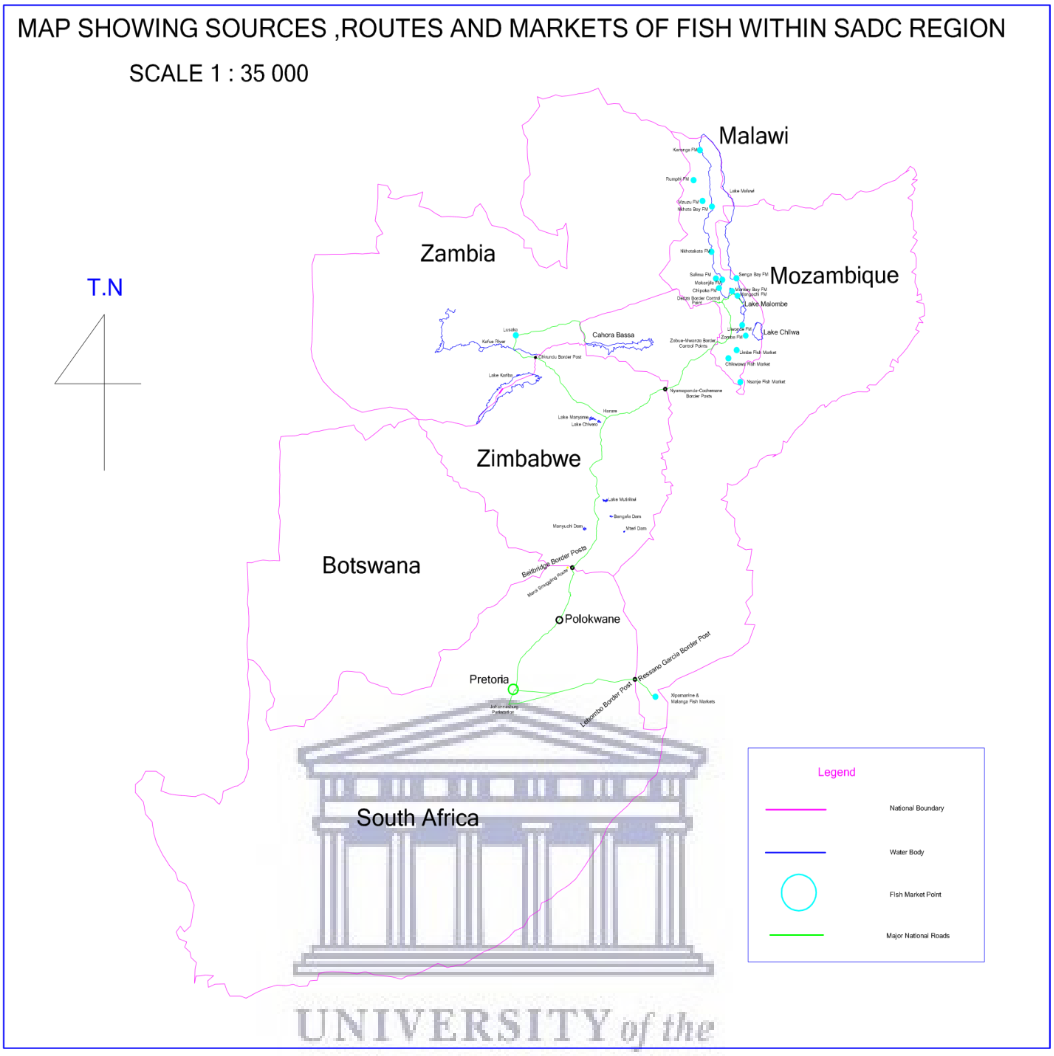

Figure 20: Digital presentations of aquatic resources, routes and border points used by traders to South Africa (**Source:** Jimu).

4.3.4 Barriers to trade found along the routes

There are non-tariff barriers along the routes that act as impediments to fish trade such as numerous checkpoints, border posts and police roadblocks. For instance, some buses were instructed by the police to offload about five km away from the Beitbridge border post for abrupt passport checks and luggage searches, which resulted in delays for fish traders carrying perishable fish stocks. To avoid the delays on these multiple roadblocks and check points, traders resorted to bribing the traffic police with the help of bus drivers. Drivers had to pass through more than 30 roadblocks from Malawi to South Africa, parting with an average of ZAR20 per roadblock. Zimbabwe customs officials from the Zimbabwe Revenue Authority (ZIMRA) are also involved in abrupt checks and roadblocks for both local and regional buses along roads leading to South Africa and other regional destinations, including the Harare–Beitbridge road. Although officially the instantaneous checks are meant to be for compliance checks, they subsequently lead to unscrupulous demands by customs officials to fish traders and most importantly to delays that in some instances lead to fish spoilage. Haulage truck drivers said that where possible, many hauliers were now avoiding Zimbabwe, preferring to go through Botswana, through the Lebatse border post, owing to numerous roadblocks and unending demands for cash by police in Zimbabwe. Roadblocks delay buses and trucks carrying fish, which can easily get spoiled. One truck driver explained.

> *People love this route, but are forced to go via Botswana to avoid numerous police roadblocks in Zimbabwe.* (Source: truck driver at Beit bridge border post 29/09/2016).

The continuous mounting of checks and roadblocks by SADC member states is in contravention of the SADC Protocol on Trade, Article 2, where it is stated that: "Member States shall grant all transit traffic freedom to traverse their respective territories by any means of transport … coming from member states or any other third countries member states" (http://www.sadc.int/about-sadc/integration-milestones/free-trade-area).

These continuous checks are presumably meant to protect domestic industries from imports and reduce competition from member states. The contravention of the Protocol also shows weaknesses in regional agreements and mistrust among member states that fear subjugation from economically powerful countries like South Africa. Thus factors such as corruption and multiple road-blocks from Malawi, Zimbabwe and Zambia through the Beitbridge border post to South Africa and from Mozambique to South Africa through the Lebombo border post constitute additional impediments to IRFT. In addition, multiple checkpoints and roadblocks, especially along the north-south corridor, are ostensibly a result of a lack of harmonisation of road traffic acts, which are uniform for the SADC region. SADC member states ratified the SADC Protocol on Transport communications and Meteorology in 1996. Article 6.2 of the document on road traffic policy refers to the harmonisation of relevant road traffic and safety legislation, but to date Member States (MS) are still using their national traffic legislations, which are not harmonized throughout the region. This brings into question the level of enforcement between SADC MS when it comes to implementation. They agree to policies in principle, but member states drag their feet when it comes to implementation, leaving SADC agreements and policies ineffective. Fish trade has thus been affected by such a lack of implementation of regional agreements.

Traffic police take advantage of different road traffic acts. For instance between Malawi and Zimbabwe, or between Zimbabwe and South Africa, to demand bribes from bus drivers and truck drivers. Roadblocks act as impediments to regional fish trade by delaying fish traders. The findings of this research also confirms the conclusions of Tall (2015) in the East African Community, where traders/trucks have to negotiate 47 roadblocks and weighing stations between Kigali (Rwanda) and Mombasa (Kenya), so that profitable formal trade is almost impossible. The large number of border posts and roadblocks along the various trade corridors and the inefficiency of the procedures applied when dealing with intra-regional traders are overwhelmingly costly for traders and businesses in the region.

Another impediment traders face is the lack of up-to-date material for the purposes of processing their fish through the border. Traders that import fish into South Africa also pointed out that one of the problems at the borders was that the South African customs declaration form does not have the product codes for most of the specific species and types/forms of fish products that are increasingly being imported into the country, as these were not import items when the form was designed. This was stated as one of the main reasons why some of these products are not recorded or are recorded under the wrong codes. At times customs officials used this lack of corresponding codes for fish as an excuse for not allowing fish to pass through the border, at times even confiscating the fish.

4.3.5 Advantages enjoyed by fish traders along the routes

The study also revealed that there are certain unintended benefits enjoyed by fish traders along the various routes mentioned. One such advantage is the shortage of staff at border control points, which is utilised to fish traders' advantage. The study observed that DAFF officials, DOH officials and Customs officials sometimes do not conduct a thorough search on imported consignments, or at times did not even search consignments in buses or trucks. Both Port Health officials and DAFF officials interviewed at the Lebombo border post and the Beitbridge border post sited exhaustion and long working hours as the reason for failing to conduct some thorough searches. One DAFF official mentioned that:

> *I would be exhausted if I search each and every car, bus, truck and taxis from morning ... there is a problem of shortage of staff ... sometimes I do not even go there to conduct searches or I would just make an appearance without even conducting proper searching.* Source, (DAFF official at Lebombo border post 08/06/2016).

Therefore, the shortage of staff at both the Beitbridge and the Lebombo border posts acted as enablers for small-scale fish traders in the region, whilst at the same time South Africa lost revenue from taxes since large consignments of fish, most of which exceed the duty free limit, passed through the two border posts. However, fish traders largely benefited from the shortage of staff because the presence of customs officials at border posts act as impediments to IRFT. The essence of free trade as advocated by new regionalism means free movement of people and goods at border posts. Thus, traders enjoyed unintended benefits from the shortage of staff.

Buses and taxis were sometimes allowed to pass the two border posts without being properly searched and this worked to the traders' advantage, because it fast tracked the border clearance procedure. Fast tracking of border clearance was advantageous to fish traders who would not want to be delayed since they were carrying fish, a product that can spoil easily. More so, some traders target late night shifts to smuggle their consignments as a strategy to avoid duty payment, knowing that the officials would be exhausted. The Lebombo border post closes at 24:00 and some traders target late hours when the border is about to close, knowing that they might be lucky and avoid being searched thoroughly. In Figure 21 below the researcher showed a bus and travelers waiting to be searched by border control officials at the Beitbridge border post.

Figure 21: Cross-border bus waiting for physical searches at the Beitbridge border post. **(Source:** Jimu).

4.3.6 Informal crossing points and routes

The recent ban of imports of basic commodities by Zimbabwe through Statutory Instrument (SI 64 of 2016)[2] has resulted in the establishment of informal and unofficial border crossing points for both imports and exports between Zimbabwe

2 statutory Instrument 64 of 2016 is a regulation by Zimbabwean government which forbids the importation of foodstuffs such as backed beans, canned fruits and vegetables, coffee creamers and other products such as body creams, plastic pipes and builders ware products (Government Gazette, 2016)

and its neighbours. Small-scale SADC fish traders and business owners turn to the informal sector and make use of informal routes to avoid the complex regulations and high duties (for import and export) that go with formal trade, cumbersome customs procedures, and the high degree of corruption at checkpoints and border posts. Around the Beitbridge area, there are more than 20 known illegal crossing points. However, the most popular ones are on the north-western side of the Beitbridge border post (Maroi) and the south-eastern side of the Beitbridge border post (Manocha farm) which are the informal routes that are close to the Beitbridge border post. At illegal entry points along the Limpopo River, the illicit movement of goods has become so rampant that some villagers have set up businesses such as shebeens and tuckshops to serve the smugglers according to interviews with traders on 18/06/2016 at the Musina taxi rank).

Maroi is a farm that produces citrus, melons, tomatoes and other crops, and is situated in the Limpopo valley in South Africa on the banks of Limpopo River, which is the river border between South Africa and Zimbabwe. The farm is situated about 20 km outside Beitbridge. When cross-border traders cross the dry areas of the Limpopo River through Maroi, they reach Makakavure and Masisi villages on the Zimbabwean side of the Limpopo River. It is worth noting that Makakavure and Masisi villagers are most of the times allowed to immigrate to South Africa because historically it used to be the same village and they used to trade amongst themselves before the creation of artificial boundaries by the colonial legacy according to interviews with cross border traders on 18/06/2016 at the Musina taxi rank). Thus, border control officials, including the army, find it difficult to control these movements and informal trade because people have a cultural bond: they are Venda-speaking people on both sides. Intermarriages also play a major role in strengthening the bond. Hence army officials operating in the informal crossing areas like Maroi usually allow people from Masisi village to cross to Messina by producing only a Zimbabwean ID, even without a passport. Sometimes they do not even ask for any documentation. Several transporters and travelers who were interviewed pointed out that many traders and people seeking for greener pastures would use the Maroi passage disguised as Makakavure and Masisi villagers going to Musina just to buy a few groceries.

Manocha farm is closer to Dite and Z.Z farm. About 40% of cross border traders who were interviewed pointed out that they used the Manocha farm informal route until they reach the Lutumba shopping centre along the Beitbridge-Masvingo highway. These informal routes are used by immigrants without proper documentation from Zimbabwe to South Africa who would be looking for greener pastures and work opportunities in South Africa. This study found that cross-border traders also use informal routes to smuggle opaque beer (*chibataimunhu/chibuku)*, and cigarettes (especially Remington) from Zimbabwe to South Africa, whilst on the other hand they smuggle tinned fish products (such as pilchards), petrol, electrical gadgets like plasma televisions, beds, kitchen units, building materials and groceries including fresh drinks (Dragon, Cola and Iron Brew) from South Africa to Zimbabwe. One trader said they used illegal crossing points to avoid paying taxes.

> *It's easy to smuggle things from South Africa. We pay police from both sides of the border so that we pass through uninterrupted. The money we pay as bribes cannot be compared to the amount we pay to ZIMRA. We don't have to waste time at the border, but most importantly, we maximise on profits."*
> (A trader at Beitbridge border post, 20/10/2016)

For those who do not want to go through all the smuggling processes from South Africa, there are organised syndicates who can buy the goods on their behalf and then wait for delivery at the illegal crossing points. Across the Limpopo River on the Zimbabwean side, local police officers patrol the border with motorcycles hunting for smugglers. Once they encounter the gangs, police officers simply ask for bribes before leaving the smugglers to continue with their nefarious activities. Army and police officials were also involved in the smuggling syndicates, especially of cigarettes. The finding on informal routes coincides with the study by Jubilee-Zambia (2008) on cross-border trade where respondents mentioned that they used bush paths in order to evade unnecessary charges from customs offices. Informal routes also facilitated informal cross- border fish trade between South Africa and other SADC countries. Informal cross-border fish trading was also practiced through formal border posts using various strategies such as under-invoicing.

4.3.7 Informal trade through document forgery and misrepresentation of goods

Tied to the issue of informal trading routes and crossing points is the prominence of informal cross-border fish trading. The term informal sector cross-border trade describe the activities of entrepreneurs who are involved in buying and selling across the national borders outside of government regulations.

Regional fish trade was largely informal and fish trading activities were characterised by under-invoicing and evading of customs formalities amongst other factors. Fish trade was largely informal since it was not recorded in official statistics or fiscal accounts. The lack of official data on small-scale fish trading between South Africa and other SADC countries could also be a result of the lack of recognition, which hides the relatively significant role these entrepreneurs play in regional trade. Furthermore, some fish consignments pass through the formal routes (at the Beitbridge and Lebombo border posts) informally. Some traders who were interviewed asserted that they were involved in false classification of their fish through secret deals that involved bus drivers, Port Health officials and Customs officials. Traders contribute some funds ranging from R30 to R50 each depending on the quantity of their consignments for logistics purposes. The contributed funds would be handed over to the driver who bribes Customs officials and Port Health officials so that the buses would not be searched or their consignments be under invoiced or falsely classifying the fish species. Fish traders also paid bribes at the Zobwe and Kalomo border post officials. They sometimes paid an amount ranging from ZAR50 to ZAR200 as bribery depending on the quantity of their consignments. One informant from Malawi affirmed that officials from three departments, Agriculture (Plant quarantine), Health and Fisheries demand bribes at the Nyamapanda border post for stamping/authorising declaration forms for the travelers. Most fish traders pointed out that they bribe each official from the three departments an amount ranging from ZAR50 to ZAR100 to avoid border delays. One key fish trader explained.

> *Border control officials take advantage of lack of knowledge of fish traders on rules and regulations that govern the import and export of fish."*
>
> (Source: Key Malawian trader at Johannesburg, 12/08/2016).

Thus, border control officials take advantage of the lack of knowledge of traders to demand bribes. Small-scale fish traders also paid bribes to metropolitan police around various fish market points in Johannesburg, because it was illegal to sell fish since the traders do not have retail permits.

Small-scale fish traders are involved in smuggling as a tax evasion strategy. Some dried fish is smuggled in satchels as noted by one Port Health official at the Lebombo border post. This is because officials do not normally do routine searching of bags and satchels, as they only sample a few. Smuggling also happens during late night shifts when officials are tired and are about to change shifts. One notable incident sited by a Port Health official at the Lebombo border post happened when they confiscated a taxi, which carried 12 bags of 80 kg of live crustaceans each, which were covered in dried cassava leaves in a trailer. The consignment was from Mozambique to South Africa. The incident showed a possibility of more smuggling syndicates at border posts, especially when one takes into consideration the fact that there is shortage of staff or officials to do inspections at a port of entry. Some Zimbabwean fish traders also liaise with truck drivers to smuggle dried fish. Truck drivers operate in a syndicate with some customs officials and the police.

Smuggling should be understood within the context of informal cross border trade, which symbolises innovation and enterprise and not tax evasion and illegality. Most cross-border fish traders, especially women, thrive on CBT for their household livelihoods and incomes as postulated by the pro-fish trade theory, which informed this study. A small section of fish traders were dedicated fish traders whilst a larger percentage constituted fish traders who were involved in this diversified form of trading with other agricultural commodities like beans, rice, sweet potatoes, round nuts, ground nuts and cassava. Diversification was important for fish traders to cater for the wide consumer market and to cover other related costs like transport and rent. In Figures 22 and 23 below the researcher showed diversified products sold by small-scale cross-border traders in Johannesburg.

Figure 22: Diversified products: groundnuts, fish, sweet potatoes, paprika and juice **(Source:**Jimu).

Figure 23: Agricultural products: beans, cassava and fish (**Source:** Jimu).

ICBT therefore forms a complex web of entrepreneurial interactions, which extends across the region encompassing rural and urban areas. ICBT also straddles and links the formal and informal economies of the region (Peberdy, et al. 2015). The scale and scope of trade observed suggests that it makes a significant contribution to regional trade and the retail economies of the region and is consistent with the stated aims of both the SADC and COMESA to promote intra-regional trade. The promotion of intra-regional trade is one of the stated aims of new regionalism theorists such as Kobena and Hansen (2015), and Perrin (2012). This study aligns with new regionalism as its conceptual framework. The participation of small-scale traders suggests that ICBT could, if promoted further, provide a route to the development of pro-poor trade policies that could have a direct impact at the household level. The study shows that small-scale cross-border trade comprises a significant component of regional economic activity for most countries in Southern Africa. It is clear from this study at Beitbridge and Lebombo, and to the officials that staff these posts that small-scale fish trade within the region has a significant role to play in regional economic development, and enhancing the lives of SADC inhabitants, only if it is enhanced and promoted. It is a well-established entrepreneurial activity throughout the SADC. Seemingly, ICBT remain largely invisible to policy-makers and governments.

4.4 SADC regional trade agreements, tariffs and protectionism

One of the drivers of increased trade within the SADC region is the regional agreements on tariff reductions or removals, for example under the Southern Africa Customs Union (SACU) and the SADC protocol on free trade. An analysis of the available SADC tariff schedules shows that all SADC countries have tariff-free access into South Africa/SACU except for HS 6309 (used clothing) and the imports in HS 98 (selected vehicles and vehicle parts) (Sandrey,2013). Free trade as pronounced in the SADC Protocol, Free Trade Area 2008 stipulates that there should not be a limit on quantities, but at borders, traders were limited to 500 kg for all goods, including agricultural products.

The Customs and Excise Act No. 32 of 2014, which amended the Customs and Excise Act 91, 1964, impose SARS Customs duties. They are levied on imported goods with the aim of raising revenue and protecting the local market (www.sars.gov.za). They are usually calculated as a percentage of the value of the goods (set in the schedules to the Customs and Excise Act).The Act also regulates the export of goods from South Africa. The Act therefore regulates the way in which goods imported and exported are dealt with for customs and excise purposes. However, most dried fish species, which are increasingly imported into South Africa from other SADC countries, are not specified under the Customs and Excise Act and as such, they should not be barred at border posts, because they are not listed. Port Health officials sometimes confiscate the fish at border posts. Fish products from SADC countries to South Africa have tariff free access (Customs and Excise Tariff, Schedule 1/Part 1/Section 1, Chapter 3), limited to a certain number of kilograms regarded as used for personal consumption. Fish traders were allowed a maximum of 8 kg of fish as duty free and they were supposed to pay for the rest. These exclude species such as abalone, oysters and mussels, which are listed under the Convention on International Trade in Endangered Species of wild Fauna and Flora (CITES), Appendix I). The SARS tariff schedule stipulates that if a traveler has more than 8 kg of fish he/she is liable to pay ZAR2.75 for each extra kilogram (Customs and Excise Tariff, 2016/10/2) (www.sars.gov.za). According to SARS officials, the SARS system automatically detects if a person is a frequent traveler or a frequent importer of fish. For instance, if a person is a frequent traveler and carries fish for his/her own consumption in a single month the system automatically labelled the traveler as a commercial importer and is therefore compelled to have a retail license.

According to officials, one has to have a registered company in South Africa, a tax clearance certificate, proof of residence in South Africa and a bank account in South Africa for one to be registered as a commercial importer or exporter. Most fish traders did not meet those specified requirements and thus engaged in informal cross-border trading through, for instance, under-invoicing of their goods. The SARS official pointed out that for large goods (for example, fish products and food) with invoices mostly for formal trade they would charge 10% of the value/amount on the invoice. The system also charges 14% VAT, which is charged separately.

The SARS duty payment calculation method stipulates that the VAT rate is currently 14%. To calculate VAT on imported goods, the ATV (added tax value) needs to be determined first. The method of calculation is:

[(Customs Value + 10% thereof) + (any non-rebated duties levied on the goods)] x 14% = [ATV] x 14% = VAT payable (www.sars.gov.za).

Therefore, the duty free stipulation for SADC goods brought into South Africa is not being implemented and duty payment remains as one of the tariff barriers to intra-regional trade. The SADC region agreed to have tariff reductions or removals, for example under the SADC Protocol on Free Trade, as one of the drivers of increased trade within the SADC region. South Africa and other countries have agreed in principle, but in practice, the progress of implementation is slow. The slow progress could be caused by SADC members' overlapping membership in regional arrangements such as SACU, COMESA, and the East African Community (EAC). South Africa, for instance, is a member of SADC and

SACU. Implementation challenges arise because of overlapping membership, as a country cannot implement two sets of different or conflicting rules. The 10% mark-up on the customs value in this calculation is applicable when goods are imported from a country outside the Customs Union. Thus, if goods have their origin in any of the BLNS countries (Botswana, Lesotho, Namibia or Swaziland), the 10% will not be added to the calculation (www.sars.gov.za).

Removal of tariffs in the SADC region is crucial since it makes it cheaper and easier for South African companies to export processed fish like pilchards to countries within the SACU and MS that are signatories to the SADC Protocol on Free Trade as a result of non-tariffs or reduced tariffs. Correspondingly, it should be easier for other SADC Free Trade Area Member States and fish traders to export to South Africa.

Most SADC countries have failed to fulfill their obligations according to the SADC Protocol since they rely mainly on tariffs for revenue. An example is the case of Mozambique and Zimbabwe where customs officials demanded transit fees for goods in transit. A review of the SADC Protocol on Trade as embodied in Annex IV concerning transit trade and transit facilities, Article 8: Exemption from customs examinations and charges revealed that goods carried in approved sealed means of transport, sealed packages or accepted by customs office of commencement shall not be subjected to the payment of import or export duties at a customs office en route (http://www.sadc.int/about-sadc/integration-milestones/free-trade-area). Thus demanding of transit fees and export duty is in contravention of the SADC Protocol on Trade, which advocates free passage of goods in transit. This also shows different levels of commitments amongst MS to abide by their regional trade agreements and the difference of being a signatory and a ratified member state. Member states are not monitoring that provisions of free trade are adhered to. A lack of compliance amongst member states is presumably a result of weak implementation policies where sections of border control officials manipulate the regulation to their own advantage in contravention to national policy.

The imposition of the Statutory Instrument 64 of 2016 by Zimbabwe negatively impacted on cross border trading in foodstuffs. This is because fish traders were engaged in two-way trading and the import ban on goods including foodstuffs by Zimbabwean government posed a danger to food security and livelihoods of small-scale traders. Most Zimbabwean entrepreneurs survived on small-scale cross-border trading in food and fish products since the formal sector in the country has collapsed due to the indigenisation economic policies of the government. By so doing, the introduction of an import ban resulted in removing food from the plates of cross-border traders who thrive on informal cross-border trading for their livelihoods. The unilateral decision made by Zimbabwe call into question whether trade agreements such as the SADC Protocol on Free Trade and the resultant Free Trade Agreement can be strictly enforced among MS or whether they are taken as being voluntary by individual MS (Hara, et al. 2017). Generally, the failure by MS to comply with their regional obligations does not appear to have consequences.

The establishment of a FTA has its own challenges, which include the diverse levels of economic development among members, for instance in the case of South Africa, which is more developed compared to other SADC countries. Other countries fear economic domination by South Africa. For example, the GDP of South Africa had increased by 1% compared to other regional countries in 2016 after the Tripartite Free Trade Agreement (TFTA) (Walters, et al. 2016).

4.4.1 South Africa regulations for food imports.

Fish is regarded as a foodstuff under the Foodstuffs, Cosmetics and Disinfectants Act (Act No. 54 of 1972) in South Africa. Thus, it is regulated from the food safety point of view. Fish traders were tasked to produce SPS documents from their countries of origin at the Beitbridge and Lebombo border posts on the South African side for inspection for compliance with import regulations according to interviews with DAFF officials on June 2016, at the Beitbridge and Lebombo border posts. Thus, the SPS restriction is one of the common non-tariff measures in the SADC region.

Most fish traders were involved in a diversified form of trading with other agricultural commodities like rice, beans and groundnuts and thus were required to produce permits issued in Pretoria by DAFF for the importation of controlled goods at the border post. The permit for the importation of controlled goods was issued in terms of the provisions of Section 3(1) of the Agricultural Pests Act, 1983 (Act 36 of 1983) which stipulates that the importation of plants, plant products and other controlled goods is subject to a permit (www.daff.gov.za/). The SPS laws applied to all South African ports of entry. According to interviewees, the enforcing authorities will inspect the goods and relevant import/export documentation to ensure compliance and decide whether the goods may enter the country. In cases where non-compliance is found, the goods may require further treatment prior to entering the country or they may be rejected and ordered to be destroyed or disposed of outside South Africa.

Port Health officials at the Beitbridge and Lebombo border posts pointed out that when they are inspecting a truck they would be looking at the conditions of the truck. For instance, is the truck properly refrigerated, that the product is not in contact with corrosive material and is properly packaged. More so, part of the physical inspections is to check the label and labeling of the products, as well as the composition of products in some instances. Due to the lack of conformity assessment procedures, official quality certificates tend to report on visual characteristics, and therefore be regarded as subjective. Fish quality in the SADC region is negatively affected by a lack of conformity assessment procedures. However, adherence to quality characteristics demanded by export markets is crucial for the penetration of SADC member states into regional and international markets.

The testing regulation on Foodstuffs, Cosmetics and Disinfectant Act no.54 of 1972 (FCDA) stipulates that the Port Health Authority may detain goods at customs or issue an extended health detention to assist the food industry and other associated industries to take samples and conduct one or more of the following tests: sensory, microbiological and chemical (www.health.gov.za/). The Act further stipulates that chilled or frozen fish should be kept at a maximum temperature of 7 °C in the case of refrigerated trucks carrying frozen fish. For instance, this applies to trucks which carry frozen horse mackerel from Namibia to Mozambique through the Lebombo border post.

Although DOH officials delayed fish traders at the border posts when they are inspecting the fish, both dried and fresh, as per the stipulations of FCDA, this procedure is hampered by a lack of laboratory and proper testing facilities both at the Lebombo and at Beitbridge border posts. The inspection procedure is crucial in monitoring the quality of the fish, that they do not contain bacteria and are fit for human consumption. The policy of the FCDA stipulates that food (including fish) should be tested at ports of entry before entering South Africa. Nevertheless, because of lack of facilities at border posts, fish is imported into South Africa based on physical checks or sometimes without even being inspected. According to officials, the functional laboratory was in Kempton Park, Johannesburg. It was difficult to collect fish samples at border posts and send them to Johannesburg that is far from both border posts. The process would delay buses and trucks carrying fish and subsequently lead to fish spoilage. According to the amended Foodstuffs, Cosmetics and Disinfectant Act (2008), a sample is supposed to be divided and packed separately into three sealed and labeled containers to indicate its nature and to identify it as from the original sample. One of the packages is given to the person responsible for the commodity, and the other package is sent for testing, while the third package remains with the inspector. For further analysis, the sample is derived from the remaining two packages (www.health.gov.za/). Thus, shortage of testing facilities posed a health hazard to fish consumers.

South Africa is flooded with fish from SADC, mostly from ICBT. Whether tested or not tested, the flourishing of cross border fish trade shows that its market is thriving in South Africa, especially for smoke-, sun- and salt-dried fish. The thriving of cross border fish trade, especially smoked dried fish, within the migrant community in South Africa shows that it also goes with affordability and taste, apart from micronutrient and protein quality. Most people of the migrant community in South Africa prefer fresh water fish in terms of taste, compared to sea fish.

4.4.2 Visa requirements

Passport holders of SADC countries, including Zimbabwe, Malawi, Zambia and Mozambique, were exempted from holding visas to enter South Africa. According to the Immigration Act, Act 13 of 2002 (as amended in 2004**),** the citizen who is a holder of a national passport (diplomatic, official or ordinary) of the SADC countries mentioned above is not required to "hold a visa in respect of purposes for which a port of entry visa may be issued or by virtue of being a person contemplated in section 31(3)(b) [accredited in SA] for an intended stay of 90 days or less and when in transit". They would get 90 days (www.homeaffairs.gov.za).

The South African government scrapped visa requirements for Zimbabwean visitors to the country in May 2009 (www.homeaffairs.gov.za). The scrapping of visa requirements for SADC travellers was commendable for the facilitation of cross-border movements of trade. However, immigration officials sometimes take the law into their own hands and give traders less than 30 days per visit. As a result, traders complained that the number of visa days they got at border posts were not enough for them to sell their fish in South Africa.

Many interviewees were given fewer than 30 days, ranging from two weeks to one week at the Beitbridge border post. It could be due to the fact that many traders were frequent travellers because of their fish trading business and by so doing, they got only a few days from the immigration officials. Some interviewees maintained that they sometimes use the Botswana border as an exit point because of its close proximity to Park Station to get more days to sell fish. Although an immigration official pointed out that, the issuing of visa free days depends on the interviews, which could be undertaken between a home affairs official, and travelers of all SADC regions and that the ZAR3 000 self-sustenance declaration was universal for all countries. Observations and interviews for this study, however, revealed that most of the times Home Affairs officials did not even interview travelers and fish traders concerning the number of days. Approximately of 80% of the interviewees who were tasked to declare ZAR3 000 at home affairs were Malawian traders which showed that the declaration of ZAR3 000 was biased and not universal to all SADC countries, as was maintained by the immigration official.

4.4.3 Duplication of procedures at border posts

The customs procedures are characterised by a lack of coordination among the multiple government agencies on either side of the borders. The SARS department at Beitbridge border post runs the South African customs department, whilst the Zimbabwean customs department at Beitbridge border post is under ZIMRA. The lack of coordination between the two authorities raises the challenge of the duplication of procedures on each side of the border. While some countries in the sub-region have entered into agreements to standardise customs procedures and coordinate government agencies, limited progress has been achieved in the integration of processes and cooperation between South Africa and Zimbabwe at the Beitbridge border, and South Africa and Mozambique at the Lebombo border post administrations.

Furthermore, lack of harmonised customs procedures between SARS and ZIMRA results in lengthy and inefficient operations for clearing through traders by the two agencies at the Beitbridge border post. Both the South African and Zimbabwean customs agencies have installed and implemented computerised systems such as Automated System for Customs Data ASYCUDA especially for assessment and the payment of duties, but the customs procedure is still largely manual in terms of goods searches, especially on the Zimbabwean side of the Beitbridge border post. The lack of implementation of the ASYCUDA system on both sides of borders, especially on Zimbabwe side, is still causing bottlenecks despite improved systems.

4.5 Summary

In this Chapter the researcher gave a detailed understanding of the type, extent and modalities of the IRFT in the SADC region. The researcher gave a full description of various actors involved, how they go about their business, the challenges they meet and the potential for growth that this business has.

The fish trading partners of South Africa are SADC member states and some West African countries. CBT between South Africa and other SADC member states is comprised of formal and informal actors.

Formal trading was mainly practised by large supermarket chains such as Shoprite, Pick and Pay and Game Stores. These shops were exporting mostly *Sardinops sagax* (canned sardines) and on a smaller scale *Merluccius spp* (hake) from South Africa to the rest of Africa. Namibia was also exporting *Scomber Scrombus* (horse mackerel) to other regional countries. The growth of South African supermarkets into the rest of Africa strengthens the economic hegemony of South Africa in the region. Most regional countries, including South Africa, import frozen Chinese aquaculture *tilapia spp* from China because it sells at prices below locally produced freshwater and/or aquaculture *tilapia* species. Cheap aquaculture *tilapia* from China is beneficial to consumers, both in terms of increased availability and also affordability of the product.

CBT in the region was largely informal. More than 70% of small-scale traders were engaged in CBT. These people were from different SADC countries as well as West African countries. Most cross border fish traders came from Malawi (34%), followed by Mozambique (20%), Zambia (15%), Zimbabwe (13%), Namibia (8%) and the DRC (6%). Other nationalities constituted only 4% of the total. There was lack of South Africans participating in CBT, because South Africans lack knowledge of the products being imported.

Malawi comprised the largest percentage of the cross border traders, because most fish species in the Johannesburg markets came from Malawi. Women dominated the population of small-scale cross border traders, with 84% of all fish traders being women. Most women engaged in fish trade because they were unemployed and engaged in fish trade as an alternative to earn a living. Most of the women traders were between the ages of 18 and 40, because fish trading is hard physical work. The physical nature of fish trading requires young and energetic people who can endure the considerable time spent waiting at border posts and travelling between their home countries and South Africa. Furthermore, unemployment levels were very high in the working age group of 18 to 40 years of age. Thus, the young engaged in fish trading to supplement other economic activities. However, some professionals also engage in fish trading to make ends meet. For example, some Zimbabwean teachers travelled to Musina at weekends to sell fish and buy goods such as groceries and clothes to sell back home to supplement their meagre salaries.

The most common fishery products being imported by small-scale cross border traders into South Africa from other SADC countries included small fish species like usipa (from Malawi) and sun-dried kapenta (from Zimbabwe and Mozambique). Other fish products imported into South Africa included smoke-dried catfish (from Zambia and Malawi) and chisense fish (from the DRC and Zambia), fresh chambo (from Malawi), smoke-dried kampango (from Malawi) and fresh bream (from Zimbabwe). This list are just examples. There are many other species. Cross-border traders also exported *Sardinops sagax* (canned sardines) from South Africa to other regional countries informally. Traders preferred to carry sun-dried and smoke-dried fish, rather than fresh fish, because these dried, forms were easier to preserve, store and transport into South Africa from within the region because they do not spoil quickly. These fish species were mainly from fresh water sources such as Lake Malawi, Lake Kariba, Lake Mweru and Lake Cahora Bassa. The market for these forms was thriving in South Africa because of a diaspora population living in South Africa, which preferred fresh water fish to marine fish because of the taste.

Cross-border traders used various modes of transport ranging from cross-border buses, mini-buses (taxis), and haulage trucks. The most common mode of transportation used by cross border traders was passenger buses. Some of these buses pulled 10-ton trailers to carry goods for passengers. Traders preferred buses because they wanted to travel with their fish to South Africa. Many fish traders also preferred to use buses because they take a less time to get to their destinations compared to trucks. Transportation of fish was also made easy because of good road distribution networks in the region, for instance the N1 road, which links the north–south corridor, and the N4 road, which links Maputo corridor.

Formal and informal trade routes were used for regional fish trade. The north–south corridor, which links countries to the north of South Africa, such as the DRC, Malawi, Zambia and Zimbabwe, was the busiest formal route in the region. Among these routes were cumbersome border crossing points. For instance, Malawian cross border traders passed six borders to get to South Africa and they could spent an average of 13 to 14 hours just on border processing time to get to South Africa. The busiest border post along the north–south corridor was the Beitbridge border post between Zimbabwe and South Africa. The Maputo corridor was mainly used by cross border traders who were close to the Lebombo border post between Mozambique and South Africa. Johannesburg Park Station linked the two trade corridors. The Park Station warehouse was a major distribution centre for fish traders to other selling points such as Benoni and Diepsloot. Some fish was also distributed from Park Station to other cities like Cape Town. The role of the Park Station warehouse as a wholesale facility for fish retailers signifies the value chains in cross border trading.

Informal routes have developed because of poor implementation of trade policies by some SADC MS. For instance, Zimbabwe in 2016 unilaterally banned food imports from other countries. South Africa also limits goods imports to 500 kg of agricultural commodities and fish. The SARS customs department also limits the quantity of duty free fish to 8 kg and charged the rest at ZAR2.75/kg. This was in contravention of the SADC Protocol on Free Trade (2008) which calls for free trade without limitations. Thus, cross border traders resorted to informal routes close to Beitbridge, such as Maroi, to evade duties and restrictions on volumes of imports. Cross border, traders from Malawi were also charged transit fees at the Nyamapanda border post and the Dedza border post. Charging of transit fees is in contravention of the transit rules, which call for the free passage of goods in transport to third-part countries.

Tariff barriers such as duty payments, non-tariff barriers such as cumbersome border processing procedures, and bureaucracy in general also resulted in encouraging informal trading. Many goods passed through the borders informally, for instance by under invoicing the consignments. Thus, a lot of cross border traders imported their goods to South Africa informally. Another reason that they did not want to be delayed at border posts was that they carried fish, which is a perishable product. Informal trading made it difficult to get official statistics of fish imports to South Africa since most fish species crossed the borders informally.

Cross-border traders face many challenges. They face costs ranging from transport, rent for accommodation, import duty, and SPS documentation. This study highlighted that a lot of cross border fish traders survived on retailing fish and other commodities for a living. After deducting of all costs, the majority of the traders were getting an average profit of ZAR1 050 per month, while only a few get an average as high as ZAR8 900 per month.

Most cross border traders were not dedicated fish traders as they were also involved in selling other agricultural products such as rice and beans. Diversification was important for fish traders to cater for a wide consumer market and to cover other related costs such as transport and rent. After selling their goods in South Africa, cross border traders did not go back to their home countries empty handed. They sustain their businesses by buying other goods such as groceries in South Africa to sell back to their home countries. Cross border traders also tried to extend their visa days to get more days to retail their goods in South Africa. Some fish wholesalers retailed their own fish to get higher profits. Fish passed the South African borders at Beitbridge and Lebombo untested, because of a lack of laboratory testing facilities.

CHAPTER 5: CONCLUSIONS AND RECCOMMENDATIONS.

5.1 CONCLUSIONS

Formal and informal actors were involved in CBT. Formal, large supermarkets such as Shoprite, Pick and Pay and Game were involved in exporting canned pilchards from South Africa to other SADC MS and the rest of Africa. Namibian horse mackerel was also exported to other regional countries through these supermarket chains. More than 70% of people involved in informal cross border fish trade in the SADC region were women. Women constituted a larger percentage in cross border fish traders compared to men because historically women were engaged in this form of trade and have vast experience in cross border fish trading. Similar studies by Chikanda and Tawodzera (2017), and Peberdy, et al. (2015) demonstrated that women have always dominated this sector. Fish trade in the SADC region is largely informal and dominated by small-scale traders aged between 18 and 40 years, because unemployment levels were very high in this age group. The young become engaged in fish trade since it is a sector that creates jobs and they can supplement their other economic activities. The dominance of women and the young in fish trade as a source of job creation and income generation concur with the theoretical framework of the study as a pro-fish trade narrative. According to the pro-fish trade theorists such as Schmidt (2003) and Bostock (2004) fish trade can indirectly contribute to economic development through the creation of new jobs, the increased incomes and food security.

The dominant fish species imported into South Africa were usipa (*Engraulicypris sardella),* followed by kapenta (*Limnothrissa miodin), and* then tilapia and mlamba (*Clarias gariepinus)*, to mention just a few. These species come in all forms, including fresh, frozen, sun-dried, smoke-dried and salted-dried, as well as canned. Most go unrecorded and unvalued in official statistics, because they pass the borders informally. These fish species have lucrative markets among the diaspora community living in South Africa. Migrant communities in South Africa preferred these types and forms of fish for various reasons, including taste preferences when compared to the South African marine fish. The rand as a strong currency in the region also attracts fish traders. Most fish traders used buses because they prefer to travel with their fish to Park Station. Park Station is a major distribution centre for cross border fish trading in the SADC region by virtue of being a major transport interchange for international buses, which links the north–south corridor and the Maputo corridor. The thriving of regional fish trade in the SADC region is also a result of improvements in infrastructure and good road transport networks.

Most cross border fish traders incurred many costs ranging from transport to rent, and hidden costs (such as bribes) and food. To cover such costs fish traders were involved in diversified trading in other agricultural products such as rice, beans and groundnuts. Many small-scale cross border traders did not go back to their home countries empty handed, but instead they buy other goods such as groceries (for example cooking oil, washing powder, etc.) to sell back in their home countries as a business strategy to make ends meet. Despite the challenges faced by small- scale traders there is no doubt that small-scale fish trading is a thriving business, because most fish traders' livelihoods depend on this sector. The thriving of informal small-scale fish trading shows that small-scale fish trading is gaining a comparative advantage in areas where large supermarkets cannot penetrate.

Cross border fish traders used both formal and informal routes and submit to long processing times at border posts. The border delays at border posts influenced traders to engage in informal CBT through secret deals with bus drivers and bribing Port Health and Customs officials. Bribes and smuggling are meant to reduce the processing times for cross-border traders who would not want to be delayed since they were carrying fish, which is a perishable product. Informal routes such as Maroi close to the Beitbridge border post were also created and used by fish traders to avoid the bureaucracy at border posts and to avoid the confiscation of fish products. The costs incurred for transit fees and duty payments drive small-scale fish traders into informal trading and the use of informal routes. Traders also incurred transport, goods and accommodation costs in South Africa. Furthermore, they bear the burden of currency conversion costs because of the use of multiple currencies by different SADC countries. Although ICBT is often associated in official thinking with smuggling, tax evasion and illegality, it should be understood as being innovative, enterprising and a sector that creates jobs.

Regional integration, regional trade and new regionalism conceptual frameworks were utilised to analyse regional trade agreements such as the SADC Protocol on Free trade. New regionalism theorists such as Kipitov (2012) and Soko (2007) advocate for increased intra-regional and cross border trade through free trade. The SADC Protocol for Free Trade (2008) calls for free trade without limitations as per the New Regionalism Conceptual Framework. SADC countries participating in the free trade area have made substantial progress towards the reduction of intra-regional tariffs. Cross-border fish trading in SADC, especially of small-scale entrepreneurs is thriving because of tariff reduction and as per the SADC Protocol on Free Trade (2008). Scrapping of visa requirements from other SADC countries by South Africa also allows free movement of cross border traders. However, meaningful market integration in the region is more than simply eliminating intra-regional tariffs. In fact, tariffs are being replaced by rising non-tariff barriers that continue to hinder intra-regional trade growth. The reality is that most of the Non-Tariff Barriers (NTBs) are not merely administrative in nature, but are a result of policy and regulatory measures aimed at protecting domestic industries from regional competition, whose resolution requires appropriate regulatory reform at regional level.

One of the main challenges faced at border posts is the lack of technical harmonisation of fish and fish product standards and the regulations governing these standards, as well as the poor implementation of existing regional trade agreements such as the SADC Protocol on Free Trade. Zimbabwe, for instance, unilaterally ban food imports from other countries in 2016. Traders are limited to carry 500 kg of fish across South African borders. It is therefore evident that the

SADC objective progressively to eliminate barriers to the free movement of goods, services, capital, and labour across borders is far from being achieved. On the contrary, evidence suggests the existence of restrictive national policies that continue to frustrate progress towards regional integration. This poses an analytical question as to whether the current SADC approach to regional integration is appropriate to facilitate greater policy and regulatory convergence among member states. The fact is that, regional institutions in the SADC have not been effective in making member states comply with their regional obligations.

Another setback in the SADC is that national and regional trade policies are not tailored for fish trade, but for trade in general. There is no specific regulation in South Africa to govern the types and forms of fish, which are increasingly imported from other SADC countries. The SARS tariff schedule does not have specific codes for many of the different fish species imported into the country.

Fish is being imported into and exported from South Africa without being tested because of a lack of laboratory testing facilities at border posts. Fish traders also lacked proper retail stalls in Johannesburg and sold their fish illegally on street pavements, without retail licences. Another challenge was that fish traders lacked good storage facilities to store their fish consignments. The Park Station warehouse, which was used as a storeroom, is an illegal storage and selling point and most fish traders run the risk of being mugged and overcharged for storage of their fish consignments.

5.2 RECOMMENDATIONS

From the above conclusions, the researcher made these following recommendations.

Free trade

South Africa, Zimbabwe and other MS have ratified the SADC Protocol on Free Trade, but there are still limits as to what can be brought to South Africa. Goods were limited to 500 kg at South African border posts, which is in contravention to the SADC Protocol on Free Trade. SADC therefore needs to implement existing free trade policies fully by allowing unlimited passage of goods through borders as stipulated by the SADC Protocol on Free Trade of 2008.

Cross-border traders, especially from Malawi, were obliged to pay transit fees at the Dedza and the Nyamapanda border posts in contravention of the SADC transit rules which ratified the free transit of goods to a third party member state.

SADC countries need to implement the SADC Protocol provisions that stipulate that member states shall allow free passage of goods and people, other than charges for services rendered. In addition, SADC could look into implementing a system similar to the ECOWAS Interstate Road Transit (ISRT) or the COMESA yellow card system, which help to ensure that goods in transit flow easily without paying duties or other fees.

The use of the same currency

All SADC countries use different currencies, most of which are highly volatile. Therefore, most cross-border traders complained about currency conversion costs from the currencies of their own countries to the Rand.

SADC MS declared 2017 as the year for monetary union. Monetary union advocated for the use of the same currency across the region. The use of one currency could assist fish traders by removing currency conversion costs since the region would be using the same currency (as is the case in most of Francophone West Africa). However, this is unlikely to happen any time soon, because the different SADC countries are at different stages of development.

Harmonization of fish standards

There is lack of harmonised technical standards that can govern regional fish trade. SADC and its member states should harmonise technical standards that can govern regional trade policies. The South African Customs department also needs to design a tariff schedule, which accommodates the various fish species, which are increasingly imported into South Africa. Furthermore, SARS needs also to design a declaration form with product codes for most of the specific species and types/forms of fish products that are increasingly being imported into the country.

Empowerment of small-scale fish traders

Most trade policies were formulated with the formal sector in mind, but in reality the informal sector dominate economies and cross-border trade in southern Africa. Therefore, there is a need for pro-poor fish-trade policies that support the empowerment of small-scale traders.

Regional and global trade agreements need to empower women and small-scale fish traders economically, for instance by exempting them from paying customs duties at border posts. By so doing, this would align with the new regionalism approach, which is the conceptual framework of this study and the SADC Protocol on Free Trade, which advocated for free movement of goods and people, increased cross border trade at a regional level, as well as cross border coalitions.

Public-private partnerships

Most cross border traders lack training and capacity utilisation in fish-trade related matters. Therefore, South Africa and other SADC countries need to engage with other public and private partnerships such as WorldFish and NEPAD in policy making to assist cross-border fish traders in training and capacity building in fish-trade related matters. Private-sector players could also assist with capital injection or subsidies (beneficial or capacity-enhancing subsidies) for setting up such small-scale businesses and assist fish traders, especially women, who are the main actors in the fish trade. Regionally, platforms to engage with the private sector should be put in place and open up more space for the private sector to play an active role in the integration process created. Although governments sign trade agreements, it is the private sector, which does the trade, that understands the constraints facing enterprises, and is in a position to take advantage of the opportunities created by regional trade initiatives.

Construction of a fish warehouse and legal selling stalls

There is lack of infrastructure for fish storage and proper selling stalls in Johannesburg. Therefore, the Gauteng Department of Agriculture and Rural Development or the Department of Trade and Industry should consider constructing a proper warehouse at Park Station or in the Johannesburg CBD with good storage facilities, such as refrigerators for fresh fish, dried, salted and smoked fish to cater for cross-border traders. This proposed warehouse could be crucial for regional fish trading, because it would act as a distribution centre in South Africa, and a crucial fish supply chain point by virtue of its location close to a major transport interchange for international buses. The South African government should consider building proper stalls for selling fish around the Johannesburg CBD area and Park Station. The government should issue permits to traders to conduct their fish trading business legally.

Harmonisation of border procedures (One-stop border post (OSBP)):

Lack of harmonisation of border procedures at formal border crossing points resulted in cross-border delays and duplication of procedures on each side of the borders, for instance at the Beitbridge border post. Therefore, South Africa and other SADC countries need to adopt improved and speedy border processing systems, such as OSBP systems, at the Beitbridge border post and the Lebombo border post to harmonise customs procedures. Harmonisation could reduce processing times at border posts and minimise cross border delays for fish traders and other travelers. The north–south corridor, which links Zimbabwe and South Africa through the Beitbridge border post, is the busiest in southern Africa and should be prioritised for a one-stop border post system to improve fish trade and trade in general. One-stop border posts arrangements are crucial in trade facilitation, and a good example in the SADC region is the recently introduced arrangement at the Chirundu border post between Zambia and Zimbabwe. Mozambique and South Africa have signed a one-stop border post agreement for the Lebombo border post and are working towards implementation. The establishment of one-stop border posts provides states with the opportunity to reduce the costs of doing business and improve enforcement at shared borders.

Creation of a Border Management Agency

Each department (SARS, DOH, DAFF and Immigration) is operating as a separate entity at South African border posts. Therefore, the South African Department of Home Affairs needs to create a Border Management Agency (comprised of the Department of Customs, Immigration Department, Police and Department of Agriculture) which will be an integrated agency working at all borders around regulation and control of food imports. Although this was said to be the plan in the future, the speedy implementation of this plan could greatly facilitate cross-border trade into and out of South Africa, including the trade in fish.

Harmonisation of food quality and standards

There is lack of harmonisation of food quality and standards in the region. For instance, there was lack of laboratory testing facilities at South African border posts at Beitbridge and Lebombo. South Africa and other SADC countries need to set up harmonised standards for testing procedures for food and fish samples. This could be done by setting up laboratory testing facilities at border posts and agreeing to the minimum standards across the various product types and forms. Laboratories could be used to test fish samples from different countries.

Regional financial systems: payment systems

Most cross-border traders did not have bank accounts in South Africa, because they lacked proper documentation, such as proof of residence. Therefore, they ran the risk of being mugged by robbers since they moved around with cash. Another issue is that there are limits as to how much cash one can carry when crossing borders.

SADC MS therefore need to initiate and implement branchless regional financial systems, and enlighten and train fish traders on how to use the branchless banking services. These are designed to enable users to complete basic banking transactions even amongst unbanked rural populations. Customers can deposit and withdraw money from a network of agents that includes airtime resellers and retail outlets acting as banking agents. Mukuru.com is a good example of a regional branchless banking system between South Africa and other SADC countries such as Zimbabwe, Malawi, Mozambique and Zambia. Mukuru.com only requires a passport to receive or send money. It is therefore a good option for fish traders to send money to their home countries after selling fish.

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APPENDIX 1: INTERVIEW GUIDE USED IN THE STUDY.

Interview Guide (Intra-regional fish trade survey between SA and other SADC countries).

Code:

Place of Interview:

Name of Enumerator:

Date of interview:

1) Respondent Name……………………………………………………………

2) Country………………………………………………………………………

3) Province…………………………………….………….…………………….

4) Location of respondent………………………..…………..…………………

5) Type of respondent's activity/ occupation……………..……………………...

6) Respondent gender (male/female) and age …………..…...……………………

7) Please indicate fish species traded in the region

S/N	Country of origin	Species	Source (Capture/Aquaculture)	Product	Country of destination

8) Why are these fish species preferred in Intra regional trade?

S/N	Species	Reasons for preference

Channels and actors at each node

9) List the actors and types of activities at each channel in intra-regional fish trade.

i. ………………………………….

ii. ………………………………….

iii. ………………………………….

iv. …………………………

10) What do women do mostly in intra-regional fish trade?

…………………………………………………..

Origin of the fish (ask at border post)/ fish market sources.

11) Name the fishing water body from which fish species formally and informally crossing the border come from

12) Which fish species crosses the border in large quantities? ....

The intra-regional fish trade channels

13) Which trade channels frequently used for each fish species traded in the corridor?

S/N	Fish species	Routes	Means of transport

14) Which transportation means among the mentioned above is most efficient and cheap?

Fish products traded and how they are processed

15) What fish products are in higher demand (list according to demand level)

S/N	Fish product	Rank according to demand	Used for/as….

16) What are the processing stages for the fish products that are in high demand?

Fish species	How processed

Number of people involved in informal regional fish trade

17) *Quantify number of people involved in the informal regional fish trade*

Fish chain	Number of people involved	Gender

Volumes of fish species and fish products going through trade channels at different times

18) What quantity of fish species do you transport through trade channels per trip?

Fish species	Fish product	Quantity	Period	Value (Monetary)

Costs and incomes of operation

19) What are the estimated costs and incomes of operation for taking fish through the different trade channels?

S/N	Fish species	Mode of transport (bus, truck)	Estimated costs

Costs and incomes of operation

20) What are the estimated costs and incomes of operation for taking fish through the different trade channels?

S/N	**Fish species**	**Mode of transport (bus, truck)**	**Estimated costs**

Seasonal and long term trends of value, supply and demand

21) What is the fish species seasonal trend?

S/N	Fish species	Favorable season Value, supply, demand	Unfavorable season Value, supply, demand

What is the fish product seasonal trend?

S/N	Fish product	Favorable season Value, supply, demand	Unfavorable season Value, supply, demand

Main markets and location of high consumption

22) What are the main fish market and location of high demand?

S/N	**Fish species**	**Main market**	**Location of high demand**	**Volume**	**Costs**

Gender roles and responsibilities at key locations associated with the main activities

23) Gender roles at key locations

S/N	Gender	Main activity	Roles and Responsibilities at key location

Policies and regulations influencing informal fish trade

24)

i. Are policy makers aware of the actual situation of the informal fish trade?
ii. Do informal fish trades adhere to this policies and regulations?
iii. Why do traders use informal channels?
iv. Do political dynamics influence informal trade? How?
v. What policies regulate the import and export of fish?
vi. What are the customs legislations concerning fish exports?
vii. What challenges do you face at border crossing points?