

LOGISTICS IN NAMIBIA: ISSUES AND CHALLENGES

CJ SAVAGE¹
L FRANSMAN¹
AK JENKINS²

*csavage@polytechnic.edu.na, lfransman@polytechnic.edu.na,
a.k.jenkins@hud.ac.uk*

*¹The Namibian German Centre for Logistics,
Polytechnic of Namibia, Windhoek, Namibia.*

*²Business Operations, Supply Chain & Transport Research Group,
University of Huddersfield, West Yorkshire, UK.*

ABSTRACT

Logistics is important for Namibia's growth and development but there is currently a lack of information about the industry despite it being addressed in the country's Fourth National Development Plan and the subsequent "Policy Note" from the World Bank.

This article summarises the first phase of a research project that investigated Namibia's logistics sector. The investigation was principally qualitative in nature and used semi-structured interviews which were analysed using data matrices as proposed by (Nadin & Cassell, 2004).

Key findings included universal agreement on the importance of logistics to Namibia, the variety of understanding of the term logistics and the strength of the continuing influence of South Africa. There were contrasting views on the main factors limiting development that included: infrastructure, attitude, government, customs, training, railways, corruption and driver shortage. The findings are discussed drawing conclusions on the state of Namibia's logistics industry and making recommendations for further work.

INTRODUCTION

The purpose of this article is to identify and explore contemporary issues and trends in the Namibian logistics industry. In order to further develop the logistics industry in Namibia it is necessary to identify the trends and issues affecting it. This article attempts to address the research question:

“What is the current state and potential for the development of Logistics in Namibia?”

This was underpinned by four subsidiary questions:

1. What are the stakeholders' views on the current state of the Namibian logistics industry?
2. What are the principal logistical issues in the stakeholder's firm/organisation?
3. What do stakeholders believe are the barriers and key issues affecting the operations and development of the logistics industry in Namibia?
4. What are stakeholders' views on the sustainability of the Namibian logistics sector?

For this research, the stakeholders identified were users, logistics companies, freight forwarders, the state, logistics service providers (LSPs) and transport firms. For context, this article will present an overview of Namibia, including political, economic, socio-cultural and technological developments as well as a discussion of the current transport and logistics industry. It then presents the research methodology.

Namibia is a sparsely populated sub-Saharan country of only approximately 2.3 million souls in a country similar in size to Mozambique ((World Bank, 2009) figures relate to 2010). Namibia is categorised as an upper middle-income country (World Bank, 2012b) with a 2010 Gross National Income per capita PPP (current international US\$) of \$6420 (World Bank, 2009). Unfortunately, with a Gini-coefficient of 0.58 according to the latest (2009/10) household survey, it has one of the highest levels of income inequality of any country in the world (African Development Bank, 2007).

Namibia's economy is closely linked to South Africa's (African Development Bank, 2007) with the Namibian Dollar being pegged at a ratio of 1:1 to the South African Rand (World Bank, 2009). South Africa plays an important role for logistics in neighbouring countries, such as Namibia, because it has the most developed infrastructure and logistics skills in Africa and functions as a gateway for southern Africa (Cilliers & Nagel, 1994). Approximately 80% of Namibia's total imports are from or through South Africa (African Development Bank, 2007) which, because of its wealth and critical mass, exercises a great deal of influence on her (Clerck, 2008).

The Republic of Namibia's (2004) Vision 2030 strategy (framework for the development of the country) recognises the importance of a well-developed

infrastructure to the country's industrialisation. Furthermore, the 3rd National Development Plan (NDP_3) identifies the goal of establishing and sustaining a well-developed and reliable infrastructure in order to improve competitiveness, increase productivity and reduce production costs (National Planning Commission, 2008). The recently published National Development Plan 4 (NDP_4) sets logistics and infrastructure as an important priority (National Planning Commission, 2012a) showing that the government considers them to be important for the development of the country as part of the Southern African Development Community (SADC).

In 2010, Namibia had 64,189 km of roadways (5,477 km paved), 2,626 km of railways, 21 airports with paved runways and two ports: Walvis Bay and Luderitz (CIA, 2012). Container port traffic in Namibian ports (TEU: 20 foot equivalent units) amounted to 256,319 units (World Bank, 2012b). Namport is the parastatal authority that manages both ports, which together handle more than 2.5 million metric tonnes of cargo a year (www.namport.com.na). The Port of Walvis Bay is being expanded with the addition of a new container port, planned for completion in 2014, catering for an additional 500,000 TEUs (Namibian Ports Authority Annual Report, 2009/10) with an expectation of reaching a capacity of 1M TEUs in the future. The value of the transport sector has increased by an average of 8.7 percent (of GDP) per annum for the five years between 2005 and 2010; this was attributed to the increase in volumes through the port of Walvis-Bay, cross border trading and the mining sector (NEPRU, 2010).

TransNamib Holdings Ltd., is a wholly owned parastatal of the Republic of Namibia that specialises in the transport of bulk and containerised freight by rail and road whilst also offering some rail passenger services (www.transnamib.com.na). The state airline, Air Namibia, in addition to providing passenger services to domestic and international destinations, offers freight services from Windhoek (the capital of Namibia) to Frankfurt, Cape Town, Johannesburg, Luanda and various destinations within Namibia (www.airnamibia.com.na).

The key findings of the research are discussed in the following section and the article will end with a conclusion and recommendations for further work.

RESEARCH STRATEGY

This study focuses on exploring the contemporary issues and trends in the Namibian logistics industry.

Research Approach: As there is a dearth of published information on this topic, the research design is primarily explorative with the objective of establishing a focus for future work (Blumberg, Cooper, & Schindler, 2011). It utilises a qualitative approach centred on exploring the meanings of situations and events for participants in the research (Clarke, 2003). Semi-structured interviews were used to obtain information from the main stakeholders about key areas. This allowed an exploration of emergent issues in greater depth whilst remaining able to react to individual respondents. Semi-structured interviews were chosen as the principal method to collect primary, qualitative data where the major questions were the same in each interview but where the interviewer was free to alter the sequence of questions and probe for greater detail (Fielding & Thomas, 2003). A guide was developed for the interviewer that addressed general information about the organisation, management and operations, cost and time management, technology and infrastructure and future issues for the organisation and the country (Namibia). Most questions were qualitative in nature, but semi-quantitative questions were used where the topic lent itself to estimation of the company (or country)'s relative position in terms of a particular subject.

Participants / respondents: Organisations were purposefully selected from various directories to reflect the type of stakeholder and geographical diversity, and were asked to nominate an interviewee. The use of such a non-probability sampling design is suitable for exploratory research (Blumberg et al., 2011), as the objectives for this research do not require generalisations and statistical estimations (Saunders et al., 2007). A total of 25 interviews were undertaken in this, the first phase of the research.

Interviews typically lasted between 45 to 60 minutes and were conducted face to face at the interviewee's place of work.

Methods of data gathering and treatment of data: The interviewer took detailed notes which were subsequently transcribed and analysed using the data matrices approach as recommended for cross-site, qualitative data analysis by Nadin and Cassell (2004). The aim of this method is to produce a complete matrix, analysing

similarities or differences by row or column. Once the data had been transcribed and coded, the following steps were undertaken:

1. The transcripts were read and re-read
2. The categories and sub-categories were generated by recording frequently occurring themes and brain-storming the resulting topics to distil meaningful groups / classes.
3. Sections of interview transcripts were allocated to the different categories and sub-categories
4. The data was analysed for each category and sub-category

Once the interviews had been transcribed and the data coded, it was transferred to a large matrix to enable the team of analysts to identify key categories and sub-categories. An advantage of using data matrices is that it provides accessibility to large amounts of qualitative data, although the technique is time consuming and may be too reductionist (Nadin & Cassell, 2004). In this case, although the provisional stakeholder groups were associated with each interview, the data was then examined in its entirety to determine factors that related to categories and sub-categories, irrespective of the source of those data. Subsequently, it was possible to compare the responses by stakeholder group to check for commonality and differences. Further, by creating “cross-category codes”, re-examining the data to give a second tier matrix, it was also possible to see if the data contained other relevant groupings besides those of the initial stakeholders identified by the team. The use of multiple analysts was intended to remove any interviewer bias whilst the combination of data in the second tier matrix gave the opportunity to discard any outlying values and ensure cross-rater reliability as far as possible

The provisional stakeholder groups identified included:

- Users – organizations that depend on logistics to support their core activities (& have a major influence on supply chains) e.g. retailers.
- LSP (logistics service providers) – this group ranged from organizations offering transport & warehousing to full 3rd or 4th party logistics services (3 or 4PLs). The latter organisations, which take an higher level view of operational logistics systems may or may not own some or all of the assets used to provide the service).

- Freight forwarders – companies specializing in facilitating the movement of goods across international borders.
- General facilitators – organisations dedicated to promoting trade that has, or is supported by, some logistics content.
- Government – representatives of the relevant ministries, the Roads Authority, etc.
- Parastatals - an organization or industry, especially in some African countries, having some political authority and serving the state indirectly.
(oxforddictionaries, 2012)
- Transport operators – companies whose core business is transport rather than logistics service provision (NB some may offer limited warehousing or other services, but their focus is on transport and they generally only move goods under the direction of other parties).

For Phase I analysis these were aggregated into four groups as illustrated by Table1, which also shows the number of interviews conducted with each stakeholder group:

[Place Table 1 here]

DISCUSSION

The findings are based on the comments made by interviewees all of whom were Namibian or Namibian residents and have a stake in her logistics industry. The interviews were explorative in nature and the interviewees, or rather their organisations, were selected on a purposeful basis to try to cover a range of stakeholder views. The breadth of coverage was considered to be equally important as its depth in order to allow the researchers to build up a comprehensive overview of the perceptions of Namibian logistics. Despite the wide range covered, the research revealed significant themes and trends as well as exposing similarities and differences in the views held both across and within the stakeholder groups. Where possible, similarities and differences were examined to try to determine their probable causes, identify areas where further work is required and establish foci for future work.

During the interviews, as well as commenting on the state of logistics and its sustainability, respondents were asked to look forward to identify and prioritise actions that they believe would overcome the barriers and take Namibian logistics

successfully forward into the 21st century. This section will review the findings and the respondents' suggestions.

Importance of logistics to Namibia: There was general agreement on the high importance of logistics to Namibia. Most people seem to be quite optimistic believing that Namibia has the potential to act as the main supply channel for imports to itself and other countries in the region through the port of Walvis-bay supported by the corridor routes that give access to southern Africa, see Figure 1. Some people, however, were very concerned about the lack of government knowledge about the role and importance of logistics.

[Place figure 1 about here]

Geography: As always, logistics is influenced by geography and the history of the country. The most frequently occurring issues related to the continuing influence of South Africa, although some people were more concerned with technical ones such as IT & accounting systems. Apart from the South Africa influence, other geographical factors affecting Namibian logistics include issues related to borders, e.g. customs delays, cumbersome control paperwork and charges. There are signs of potential improvement e.g. a system that shares data such as border control issues and another that will enable the use of KPIs for traffic volumes and border delays".

Barriers- although opinions on the key issues affecting the operations and development of the logistics industry in Namibia varied, those that reoccurred frequently are summarized in Table 2.

Table 2 – Stakeholder view of the barriers & issues affecting operations

[Place table 2 here]

The above figures show the number of times a particular barrier was cited by a stakeholder during the interviews. As the research was qualitative rather than quantitative, the numbers cannot be regarded as a reliable indication of the importance of a barrier, but they do give an indication of their "popularity". Part of the ongoing work is to rank them in terms of importance as well as determining their relative impact and practicality of dealing with them. The "other" category covers all barriers that were mentioned 4 times or less; they include: lack of innovation, small

population / lack of critical mass, government attitude and awareness of logistics issues, H.I.V., airline related issues, co-operation, safety and work permits for skilled non-Namibians.

Sustainability - was perceived from two angles: commercial continuance (the ability of the organisation to continue trading successfully) and environmental preservation. Whilst the importance of both was acknowledged the attitude was markedly different, with business sustainability felt to be essential but environmental action often regarded as a “luxury”. Awareness of the need for business viability manifested itself in various ways including:

- Ongoing commercial viability where concern was sometimes apparent, e.g. because of the distances involved and the escalating price of fuel.
- Interdependence & supply chain integration is seen as a desirable trait, but many companies are forced to operate on two distinct levels with transactional / adversarial tending to dominate more integrated relationships.
- Information technology was recognised as important to operate a logistics business successfully as the commercial world becomes more “e-business orientated”. Unfortunately, uptake although covering a broad spectrum from a standalone PC to some form of integrated enterprise system, was generally rather limited. Very few specialist logistics systems were in evidence, which may constrain long-term sustainability.
- Costs and management were also understood to be important, but operated at various levels from “gut feel / experience” to formal management accounting systems. Whilst the former approach may give tactical success, it cannot guarantee long term commercial sustainability.

Although most respondents were aware of environmental issues, their attitude was extremely variable and usually showed a low commitment to action. Some interviewees did show interest in recycling and in-house green practices where there was an immediate cost saving.

CONCLUSION

This paper seeks to address the overall research question: “What is the current state and potential for the development of Logistics in Namibia?”. The following section gives key conclusions based on the research within the limitations stated. NB

Additional details are available in a full report entitled “Logistics in Namibia: Issues and challenges”, (Savage et al, 2012).

Limitations: This article represents the output from an exploratory study into the current state of logistics in Namibia. As with all research it is subject to limitations, which in this case includes the number of interviews carried out prior to its writing. As noted above, the interviews were targeted in a “purposeful” manner to try to capture the views of a broad cross-section of the stakeholder groups rather than targeting a specific sector. Whilst it is not possible to ascertain the success of this tactic in statistical terms, there is considerable correlation with the findings of a contemporaneous report produced by the World Bank (World Bank, 2012), it has enabled the researchers to put together an overall picture of Namibian logistics with its strengths and weaknesses that, as well as being informative in its own right, can direct further investigations and serve as a “benchmark” for future comparison as the nation, and her logistics, develop.

A further key limitation is implied by the nature of the data collected, which is qualitative rather than quantitative and is essentially opinion based. As mentioned already, findings have been validated by internal comparison using the analysed matrices and, where possible / appropriate, with available quantitative data.

State of Logistics: The opinions and data gathered by this research appears to confirm beyond reasonable doubt that logistics is not only vital to the future development of Namibia but that the majority of stakeholders recognise its importance, a fact that is reinforced by the emphasis placed on logistics by the Namibian government in its latest National Development Plan (National Planning Commission, 2012a). The degree of importance ascribed to logistics varies across the stakeholder groups, as does the understanding of its concepts. In general, the greater the understanding of logistics, the greater is the appreciation of its importance. Further, the higher up the logistics “food chain” the individual sits, the more likely they are to view the importance of logistics from the altruistic point of view of national development rather than that of self-interest and short term profit. For example; senior managers, especially those in parastatals, users of logistics service providers were more likely to say the logistics is essential for Namibia to develop as a trading nation, whereas owner-drivers are chiefly concerned with “the next load” and “putting a meal on the family’s plates”.

Views of the state of logistics varied, but there was consistency across the groups of stakeholders. Almost all respondents recognised that the current system works and delivers goods across the country as well as to and from its neighbours. The difference becomes apparent in the assessment of the efficiency and effectiveness of that system, its potential for development and, importantly, whether it has the capability to be an enabler of or a barrier to Namibia's future development. In many cases such differences appeared to align either with the stakeholder category or with the size of the organisation; confirmation of the extent and significance of the latter will require further investigation (Savage et al, 2012).

In a quantitative sense the current (2012) World Bank logistics indicators rank Namibia in 69th place overall (out of 155), which places it above the other SADC countries with the exception of South Africa (19th), (World Bank, 2012b). This also suggests that she is “doing well”, but has plenty of scope for improvement.

Opportunities and issues: Namibia has a key position on the west coast of southern Africa between Angola and South Africa, which are the biggest economic powers in the region. It also has the potential to service land-locked SADC countries such as Botswana and Zambia. Figure 2 shows the position of Namibia and its proximity to the other SADC countries [Place figure 2 about here]. This geographical positioning also imposes difficulties, because of the distances involved, which make the haulage costs and times significant. The vast size of the country, combined with the low population and very limited industrialisation, also poses problems in terms of the cost of maintaining the infrastructure. This is amplified by the high road density per head of the population and represents a significant funding problem that is reflected in the stagnation in road maintenance – Table 3 shows road density compared to head of population of SADC countries. Lack of, or slow, maintenance is a difficult issue; for example: The Ministry of Works and Transport embarked on the complete rehabilitation of the Okahandja-Karibib road after finding that the road surface had deteriorated to such an extent that simpler patch-up jobs were no longer sufficient (Isaacs, 2009). Over a year later, in 2009, Roads Authority spokesperson Audrin Mathe stated that “The construction progress is behind the programmed schedule” (Isaacs, 2009). The low critical mass in terms of trade volumes also reduces opportunities to benefit from economies of scale (Savage et al, 2012)

[Place table 3 about here]

One way of ameliorating these problems is to boost volumes and potential revenue by increasing the through trade to the landlocked countries as well as to / from South Africa and Angola. Facilitating such trade is one of the key functions of the Walvis Bay Corridor Group. The success of their endeavours can be seen from the fact that the volume of goods moved along the corridors has grown by 33% between 2005 and 2009, despite a dip in 2010 (World Bank, 2012b). The bulk of this increase has come from the Trans Cunene and Trans Caprivi corridors as the Trans Kalahari volumes are fairly flat. It is also interesting to note that a great deal of increase has occurred in the outbound rather than inbound volumes, despite the perceived unidirectional nature of general trade. These figures are extremely encouraging and support the views of some respondents who affirmed that the attraction of Walvis Bay comes not just from its location, but from the ease of doing business there and the fact that, until recently, there was little port congestion.

To exploit this positional opportunity further will require considerable development. The immediate restriction concerns the limitations of the existing port, road & rail infrastructure, which are now being placed under strain as the recent congestion suggests. The bigger prize can only be obtained by exploiting the regional location by establishing a network of logistics hubs at the port, at key Namibian locations and in the other SADC countries. This would have the potential to attract increased international shipping as well as trade, which in turn could help change the economy of scale and provide an opportunity to address productivity issues. To be successful would require massive, coordinated infrastructure development, international cooperation and, importantly, a significant change of attitude / culture within the industry. Infrastructure here includes the development of terminals with intermodal capability which would need major capital investment in port equipment, road and, especially, rail development as well as associated systems that should incorporate port management, customs and load scheduling (Savage et al, 2012). The detail of this is beyond the immediate scope of this article and would require considerable further investigation, sizing, modelling and cost analysis. The effort and costs involved would almost certainly require international investment and Public / Private Partnerships. Timing is also key; even if the perfect system were to be created, there is no guarantee that the resulting connectivity would produce sufficient international traffic to ensure a payback in a viable time – but, it is certain that the longer such a development is delayed, the greater the risk of the alternative ports taking and monopolising the business.

This option seems to represent the greatest potential for the development of Namibia through its logistics industry. Whether the challenge it represents is accepted by the nation's logisticians or not, it is clear that there a number of issues that need to be addressed for that industry to grow. The existing system works, but it lacks efficiency and does not seem to have the capacity to absorb a great deal of additional volume or to successfully compete with aggressive international competitors, whether at home or abroad. "It is good, but not good enough" was a frequent comment and the research underpinning this article tends to support that view.

Increased volumes could help a move towards greater efficiency but will not be attracted unless some basic issues are addressed. These include the attitude to service where operators and, in some cases users, do not appreciate the concept of service, especially that expected in international markets. Since "the whole purpose of logistics is to provide customers with the level and quality of service that they require and to do so at less cost to the total supply chain", (Christopher, 1998, pp.35-68), it is essential to identify, and supply, the necessary service level. "Globally, the successful output of customer service considerations will be a satisfied customer, which should lead to increased profitability", (Grant, 2007, pp.147-60). If Namibia wishes to compete, this challenge must be faced. To support this there is a need for education and training; both involve the process of learning, with education focusing on the knowledge and skills related to all aspects of life and training focusing on a planned process to modify attitude knowledge and skills (Bloisi, 2007). Training is needed at all levels to enable drivers, warehousemen and other operators to work as effectively and efficiently as possible, whilst protecting the goods, vehicles and equipment for which they are responsible. Education is needed to allow supervisors and managers to develop sound systems for those operators and help their organisations evolve beyond their present level. To facilitate this training and provide interim management, many organisations make use of qualified overseas staff; this is good practice but the government should endeavour to reduce the bureaucracy associated with such recruitment.

Connectivity, whether at a local, national or international level is essential as is interaction between stakeholders. This requires strong communication and IT systems, but these cannot be designed and will not be used effectively unless there is a better level of understanding of what is possible and needed. This again

requires education and training. Systems must interact with other stakeholders and related service providers such as customs and the parastatals.

Parastatals and similar bodies must be integrated into all project plans. It is easy to criticize their apparent recalcitrance, slowness and siloism, but unless they and private companies are made jointly responsible, projects will always fail or arrive at sub-optimal solutions. It is also essential that projects are implemented, rather than simply mooted. Further, their output must be subject to evaluation, monitoring and review. Without a well thought out monitoring and evaluation plan, one cannot tell whether the project has achieved its objectives. Further, without feedback, none of the parties concerned with project outcomes could make appropriate, informed decisions about whether and how to adjust the design or implementation arrangements to better achieve the intended objectives (Mosse & Sontheimer, 1996). This will require education and may necessitate changes in management appointment and practise in both the public and private sectors, but again, unless such measures are taken, success will be limited.

There is a need for specialist systems, some of which can be owned and bring benefits on an individual basis but others will only be effective if they are shared, ideally nationally or by groups of operators or companies with an overarching view such as 3 or 4PLs. Such “community” systems can be costly to initiate and require open cooperation, but have great potential to address national issues, such as improving vehicle usage. Some issues however can only be addressed at the national or international level, but they are essential to facilitate regional and international trade and so must be tackled in parallel with the “pure logistics” issues.

Perhaps the final piece of the jigsaw is the green agenda. As Mangan et al, (2008, pp. 268-280) suggest, one must consider the question; “How can a firm survive and grow in a sustainable manner without having adverse impacts on future generations, and specifically; what is the role of logistics and SCM in this context?”. As revealed in the findings, there is a tendency to postpone addressing environmental issues in favour of projects with a more immediate financial benefit. This is a very short-sighted approach because: firstly green thinking often brings financial benefits, secondly legislation from neighbouring countries may force the issue, thirdly international requirements may make non-compliant companies non-competitive and lastly much of Namibia’s attraction as a tourist venue is its flora, fauna and lack of pollution (National Planning Commission, 2012a). Logisticians, like everyone else

have a duty to improve efficiency and effectiveness without jeopardising the future of the country and ultimately, the planet.

Overall, one can conclude that Namibia's logistics industry serves its purpose at the moment but cannot afford to stand still and must address the issues identified in this article. If it does, it has a good opportunity to become a gateway to southern Africa and reap the rewards in terms of both trade and inbound investment. If it fails to do so, does so half-heartedly or too late it will simply stagnate.

Future work. This article represents the findings of the first phase of a study. The next stage will include further interviews to increase the sample size give more depth to some stakeholder groups and allow the division of these into further sub-categories if justified. The additional data should allow the researchers to determine whether factors such as company size are indeed significant.

In addition to this, phase I results have suggested a number of areas for dedicated research projects, including: rail transport & intermodal transport, "green logistics" and the environment, "hubs" and supply chain linkages, logistics related information technology (including customs & border systems) and brokerage systems. These would require carefully focussed projects with more quantitative data. There may also be scope for some "soft skills" type work in areas such as attitude assessment, change management, education or cultural issues and their impact.

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Figure1

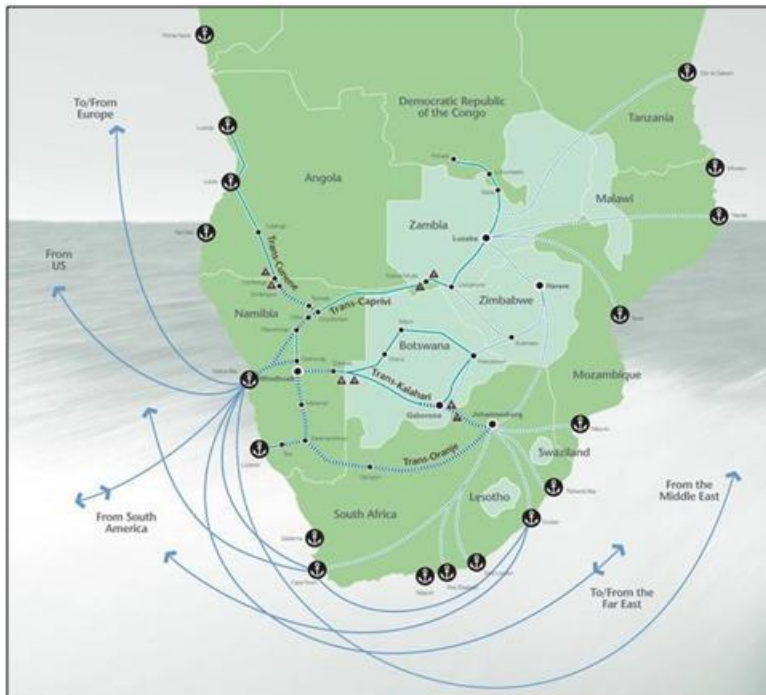


Figure 1 – Map of southern Africa showing the main corridor routes

Source: www.wbcg.com.na

Figure 2

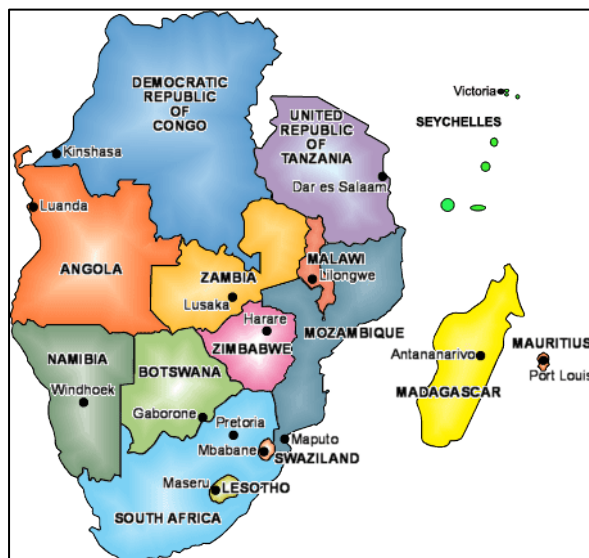


Figure 2 Map of Namibia with other SADC countries

Source: <http://www.whycos.org/cms/content/sadc-hycos-phase-1>

Table 1. Number of interviews per stakeholder group.

Stakeholder group:	Number:
Users	9
LSPs and freight forwarders	5
Transport operators	6
Government, parastatals and others	5
Total	25

Table 2 – Stakeholder view of the barriers & issues affecting operations

Barrier	No. of Comments
The absence of an effective rail network.	12
Road capacity and conditions	10
Limited harbour capacity	5
Lack of qualified staff, education & training	16
Racial issues, legislation and corruption	7
Attitude, service and culture	8
Cross-border issues & Customs	9
Costs (e.g. transport rates)	8
Other	>20

Table 3 – Road density compared to population of SADC countries

	Lesotho	Malawi	Mozambique	Namibia	S.A.	Tanzania	Zambia
Road density (km/1000 people)	3.0	1.0	1.5	22.0	4.3	1.2	1.5
Adapted from AIDC Database							

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