



Botswana Institute for Development Policy Analysis

# BIDPA POLICY BRIEF No: 6

## TRANSPORT

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### 1. Introduction

Part 1 of the policy brief series on Trade Facilitation and Export Diversification focused on customs procedures and the importance of making these procedures transparent, efficient and predictable in order to reduce trading costs, thereby supporting export growth and diversification.

However, modernizing customs procedures is not the only component of trade facilitation that needs attention, and it is important to focus on all aspects of the trade chain. Customs procedures, transport formalities, other administrative demands and the business environment more generally have to be supportive and well-functioning if the transactions costs associated with trade are to be contained.

This brief reviews the contribution that transportation makes to trade facilitation in Botswana. As a landlocked,

export-driven economy, efficient transport and transit procedures are important to support competitiveness and export growth. Transport costs are particularly important to landlocked countries, where the additional distances to be covered can increase product prices, undermine the competitiveness of exports, and generally make it more difficult to compete in international markets.

The policy brief draws from the findings of the 2005 BIDPA and World Bank study entitled "Diversifying Botswana's Exports: An Overview.", as well as other relevant studies. It is arranged as follows: Section 2 discusses shipping and port efficiency, Section 3 deals with land transportation and its impact on both the export of goods and tourism; Section 4 discusses air transport while Section 5 concludes.

## 2. Shipping Costs, Port Efficiency and Transport to Ports

Shipping costs and the efficiency of port procedures play a vital role in supporting export growth and diversification. Shipping costs can be an important determinant of export products prices, while port efficiency has implications for the speed of delivery of products, which is also an important determinant of competitiveness. Given that transport costs can be substantial for landlocked countries, efficiency in shipping and ports can contribute to lowering total transport costs and contribute towards maintaining the competitiveness of exports in international markets.

UNCTAD has estimated that in Africa, freight costs accounted for 12% of the total value of imports, compared to 8.2% for all developing countries and 4.5% for developed countries. Another study has estimated that, on average,

the contribution of transport costs to the value of exports increased from 11% to 15% during 1970-1990 in sub-Saharan Africa, while in all developing countries, the share of transport costs decreased.

Botswana uses land and sea transport for nearly all of her overseas non-diamond exports. Table 1 shows land and sea transport costs for a refrigerated container (25 metric ton, 12 metre) from Gaborone to Antwerp (Belgium). While the sea trip is 7 times longer than the 1,600 km road trip to Walvis Bay, the road transport cost is 38% of the sea transport cost to Antwerp. On a per kilometre basis, the cost of road transport is, therefore, much higher than of sea transport. Being landlocked, high road transport costs have adverse implications on the competitiveness of Botswana exports as they increase the cost of products and may limit the success of export diversification efforts, particularly for bulky products.

**Table 1: Land and Sea Transport Costs: August 2002**

	Total Cost (Pula)	Total Cost (Euro)	Pula/kg	Euro/kg
Road Transport to Walvis Bay	14,110	2,229	0.56	0.09
Sea Transport to Antwerp	37,240	5889.94	1.45	0.23
Transit and Export Credit Insurance			0.07	0.01
<b>Total Cost Per Kilogram</b>			<b>2.08</b>	<b>0.33</b>

Source: Imani (2004)

Naude (2001) estimated shipping costs from South Africa to be significantly above world prices. He further indicates that despite the general reduction in shipping costs worldwide, costs in South Africa have risen, largely due to seaport inefficiency. For example, the turn around time in South Africa's ports is 5 times longer than that of competitors and port clearance took an average of 2 to 3 days. This has caused delays and led to many complaints about congestion, especially at the port of

Durban. Delays have an adverse impact on timely delivery of supplies and product shelf life and may strain firm-client relationships, possibly putting exporters' supply contracts at risk. This may undermine export growth and thwart export diversification possibilities.

A recent study on the impact of time delays on international trade (Djankov, Freund and Pham, 2006) found that on average, each day of delay in shipping products reduces trade by

1 percent, and is equivalent to an extra 85 km in distance between a producing country and its trading partners. A few days of delay can therefore have a significant negative effect on trade, and reducing or eliminating delays can make an important contribution to boosting trade. Countries that have succeeded in rapidly developing their exports (e.g. Mauritius, Malaysia, China and Chile) have all succeeded in cutting factory-to-ship times to a minimum.

Most of Botswana's exports that require shipping by sea are sent via the port of Durban in South Africa, due to a mixture of proximity, shipping frequency and established practice. Nevertheless, Durban is seen by many traders as expensive and inefficient. An alternative route is offered by Walvis Bay in Namibia, despite its distance from Gaborone (1600 km, compared to 1100 km to Durban). Relative to Durban, Walvis Bay offers exporters, particularly those destined to Europe and the East Coast of the United States a potential reduction in shipping time of about a week. In addition, Walvis Bay Port has spare capacity and is considered to be more efficient. Furthermore, although the road distance is longer, the quality of the Trans Kalahari Corridor route between Botswana and Namibia, the lack of road congestion and the extension of border opening hours between the two countries provide added advantages of using Walvis Bay as an alternative port.

Despite the potential advantages offered by Walvis Bay route, uptake by Botswana exporters has been slow. This is due to;

- Reluctance by shipping companies to extend services e.g. direct shipping to the US, because of inadequate export volumes.
- Lack of back-haul freight, meaning that trucks taking export products to Walvis Bay return empty. This raises transport costs.
- The US Customs Service has not designated Walvis Bay a safe port, therefore direct

sailings to the US have to go through designated safe ports such as Durban and Cape Town;

- Lack of market knowledge and conservativeness on the part of transporters limits their willingness to take full advantage of the Trans Kalahari Corridor.

In order to fully exploit the potential offered by Walvis Bay as an alternative port for Botswana exports:

- Government should, together with the Walvis Bay Corridor Group and other authorities, continuously and aggressively market Walvis Bay to encourage its use.
- Government should develop an index of Cost, Insurance and Freight (CIF) and Free on Board (FOB) values for Botswana to enable monitoring of shipping costs.

In light of its dependence on South African ports for shipping exports, Botswana is, relative to many other developing countries and the rest of the world, faced with high shipping costs, due to both distance from seaports and inefficiencies in port operations. High shipping costs have adverse implications for the competitiveness of existing exports as well as the possibility of venturing into new ones. Opportunities exist to reduce shipping costs through the use of Walvis Bay port, but the vicious circle of high costs, leading to low usage, leading to continued high costs, needs to be broken.

### **3. Land Transportation (Road and Rail)**

#### **(i) Road Transport**

Road transport infrastructure in Botswana is, in relative terms in the region, quite well developed and maintained. Amongst landlocked SADC countries, road transport costs in Botswana are substantially lower than in Zambia and Zimbabwe but are still relatively high (Table 3).

**Table 3: Transport Costs for Landlocked SADC Countries: 20 Foot Container**

	Cost to Port (US\$)
Botswana	1149
Swaziland	486
Zambia	3200
Zimbabwe	2400

Source: BIDPA/World Bank

With the exception of passenger transport, there are no restrictions on entry into the road transport sector in Botswana. However, as it is the case with other SADC countries, there are restrictive cabotage laws which contribute to high transport costs. The cabotage laws restrict loading at delivery destinations except those destined for the carrier's originating country and prevent trucks from making deliveries to intermediate destinations<sup>1</sup>. Such restrictions are one reason for high transport costs in the region.

A more coordinated approach on transport issues within SACU and SADC is necessary to address the high transport costs. Besides unnecessarily restrictive cabotage laws, the current practice of SACU members increasing road user fees or introducing new ones without adequate consultation with other members has potential to frustrate efforts to reduce transport costs. It is crucial that road user fees and charges facilitate rather than frustrate the free flow of goods and services; are based on actual service provided by the Government and are not designed to meet other objectives.

### **(ii) Rail Transport**

As it is the case with other modes of transport, efficient rail transport systems form part of an efficient transport system. Rail transport can

<sup>1</sup> E.g., a South African truck delivering to Walvis Bay would not be able to bring a cargo back for delivery in Botswana, or pick up a Botswana cargo for delivery to Durban.

be a cheap means of land transportation but this potential can easily be undermined by inefficiencies.

Botswana railway system consists of a 641 km main line linking the country with South Africa and Zimbabwe, with three short branch lines. The system is operated by Botswana Railways, which is 100% government-owned, and is primarily dependent upon freight traffic, particularly transit freight. In recent years transit freight traffic has been in decline, due to increasing competition from road traffic and the construction of the Beit Bridge rail line which links Bulawayo in Zimbabwe with South Africa; this provides a shorter North-South route between some destinations than the alternative route through Botswana.

Domestically, soda ash and raw materials for the apparel sector rely on rail transport. With regard to soda ash, concerns have been raised about the pricing of rail services provided by Spoornet, the South African monopoly and parastatal provider of rail services. Furthermore, the textile and apparel sector has expressed concern that relative to road transport, rail transport is not reliable and delivery schedules can vary by up to 2 days. In addition, rail trips to Durban take between 4 to 7 days compared to 1-2 days by road. Timely and reliable delivery is a key factor in the non-price competitiveness of products. Delays in delivery of raw materials not only disrupt production but have a negative impact on exporter-customer relations and may lead to, in some cases, loss of market share. The modern business environment emphasizes "just-in-time" production techniques and makes fast and predictable delivery of raw materials extremely important. The phasing out of quotas under the Multi-Fibre Agreement has further intensified competition in the textile and apparel sector. In order to maintain their competitive edge and venture into new products, exporters require efficient and predictable delivery of

raw materials. It is necessary to improve rail delivery systems in Botswana to facilitate the timely movement of goods. While rail is used for import of inputs to the apparel industry, road transport is used for exports, which are more time critical.

### **(iii) Transport and Access to Tourist Areas**

The transport sector forms part of the backbone of the economy not only because as a service, it has the potential to be exported and contributes to export diversification but also as an input in the production of goods and other services such as tourism. Efficient transport systems can contribute to the expansion of tourism exports.

Access to a significant part of the main tourist attractions in Botswana is by gravel roads. While conservation and the need to maintain flora and fauna in some areas could be valid reasons to limit access to some tourist areas, it has also limited the potential of the tourism sector to diversify its product range and market opportunity (e.g. self-drive tourists). As a result, tourism exports growth and diversification potential may not have been fully realised.

Transport infrastructure in the form of good road networks can not only contribute to efficiency in the transport system, but may in turn stimulate growth in sectors such as tourism and contribute towards export growth and diversification.

Continued reform and efficiency improvements in land transportation are a key component to enjoying benefits associated with trade facilitation. To improve efficiency on land transportation, policy intervention should focus on;

- (i) A review on the impact of restrictive cabotage laws in SADC with a view to initiating a coordinated effort to

liberalise these restrictions.

- (ii) Government of Botswana should, in consultation with other SACU members, consider reviewing road user charges introduced in 2004, with a view of reversing them.
- (iii) Government should encourage greater consultation and intra-SACU dialogue on transport issues, through, among others, establishment of a transport desk within SACU.
- (iv) Botswana should take up Spoornet pricing issue with SACU and based on the provisions of South Africa competition laws consider lodging a complaint on Spoornet's pricing on soda ash.
- (v) Government should investigate the possibility of upgrading some gravel roads as a measure to accommodate increased tourist flows, improvements in infrastructure in selected high density areas.

## **4. Air Transport**

Despite a high proportion of Botswana's exports being transported either by sea or land, air transport is important particularly for perishable exports. Air transport is also important because it facilitates exports of services such as tourism, education and health, where the consumer of the service moves to consume the service in the source country. This section discusses goods and services exports and air transport as well as tourism and air transport.

### **(i) Goods and Services and Air Transport**

The BIDPA/World Bank study indicates that air travel costs to and from Botswana are high, having increased by 36% between 1996 and 2000 and 46% between 2000 and 2004. The study argues that high and increasing air transport costs are likely to have a negative impact on tourism, business and financial



services exports.

Compared to road transport, there are more market access restrictions in air transport in both scheduled domestic and international flights. Air Botswana, the state-owned airline, is the only designated scheduled airline in Botswana. Botswana has bilateral agreements with other countries on air access. The agreement with South Africa has a significant influence on access, frequency and prices of air transport in Botswana. Historically the agreement has been quite restrictive, leading to the busy Gaborone-Johannesburg route being one of the most expensive air passenger routes (on a per kilometre basis) in the region (ComMark, 2005). However, the current agreement, adapted in 2004, entails a progressive liberalization, as follows:

- A 3 year phased approach to open skies and multi-designated aviation regime;
- Each country is allowed three entry points. This has enabled Air Botswana to introduce, in addition to the existing Johannesburg-Gaborone route, a new route linking Cape Town and Maun;
- New routes to any destination in Botswana could be introduced from any point in South Africa other than Cape Town and Johannesburg; and,
- All restrictions on seat capacity and cargo to be lifted.

The above developments, particularly on open skies, are expected to introduce greater competition on passenger air transport in Botswana and are likely to improve service levels, flight frequencies and reduce prices. This is important to ensure successful expansion of the tourism and financial industries. Research has identified clear positive links between liberalization of air transport and reductions in the cost of air transport, leading to benefits in the expansion of tourism (ComMark, 2006).

Unlike passenger services, cargo prices for international routes are determined by market forces. Air Botswana has a dedicated cargo service. The BIDPA/World Bank study made the following observations on air cargo;

- Cargo, most of which was imports, increased from 259,910 to 529,979 kilograms between 1995 and 2000.
- Demand for export of air cargo was low largely due to the close proximity of the Johannesburg airport (a bigger and busier airport) to the Botswana border with South Africa.
- The lack of cold room facilities in South African airports was not considered an impediment to Botswana exports.

Despite the low usage of air cargo to date, there is considerable potential for the development of a regional air cargo hub in Botswana.

#### **(ii) Tourism and Air Transport**

Based on the findings of a background study on tourism, the BIDPA/World Bank study highlighted that:

- Hospitality, communication, entertainment and entrance costs are set by the market, but the transport cost share in total holiday cost in Botswana is significant. Relative to long distance internal flight costs in South Africa, for example Cape Town to Johannesburg, air transport costs between South Africa and Botswana are, on average, excessively high.
- Almost all tourist industry participants interviewed considered the Air Botswana monopoly a major factor in high air fares and limited availability of air service and as such, a constraint to tourism development. Diversification of tourism to less frequently utilized tourist areas of the Central Kalahari, Western Delta, the

Pans, etc could be greatly enhanced by affordable and easy air access.

- Private charter flight facilities from Maun to remote tourist facilities which usually form part of fully inclusive tourist packages but still occur on a small and uncoordinated scale. Scope exists to increase these facilities and therefore the number of tourists, through among others, a coordinated approach between Air Botswana, National Parks, Tourism Department, etc.
- Improvements in airports infrastructure are vital in the tourism value chain. However their success depends on its links with other elements. Expansion of airport facilities should be accompanied by commensurate improvements in national parks and other tourist areas infrastructure.
- The scope and location of airport expansions should be preceded by detailed environmental impact assessments to determine among other major environmental concerns, possibilities of noise and air pollution.

To ensure efficiency improvements in air transport, the BIDPA/World Bank study recommends intervention in the following areas;

- Close monitoring of agreement on open skies to ensure implementation within planned timeframes.
- Pursuing the privatisation of Air Botswana.

## 6. Conclusion

Botswana is faced with high transportation costs in all the modes of transport. These are likely to undermine the competitiveness of exports and limit the potential of export growth and diversification. There is scope to

lower shipping costs, through diverting sea freight to Walvis Bay port, which is, relative to South African ports, more efficient. Road transport costs can be reduced through a more coordinated and harmonized regional approach. There is lack of competition in the rail service for soda ash exports, which may affect efficient service delivery. Reliability of delivery is a major issue in rail transport, particularly for textile and apparel exports. This should be looked into to improve timely and reliable delivery. Transport and transport infrastructure have to be improved to increase efficiency in transport services, especially in major tourist attractions. Efficiency in air transport could be improved, through among other measures, increased competition.

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