# PART V

# CROSS-BORDER FACILITIES

# Part V Cross-Border Facilities

## Chapter 1 Mozambique-Malawi Border Control and Facilities

### 1.1 Current Condition of Cross-Border Traffic between Mozambique and Malawi

Malawi is a landlocked country that penetrates into northern Mozambique, and both countries are adjacent at several borders. Due to its geographical location, various types of traffic pass though the Malawi-Mozambique border. .

For the importation and exportation between Malawi and overseas countries, Beira Port and Nacala Port in Mozambique and Durban Port are used as the main ports and the transportation routes penetrate the territory of Mozambique. Main imported goods and products to Malawi are fuel, salt and wheat while exported goods are tobacco, sugar, tea, coffee and cotton. Roads dominate transportation but the railway is also a major means of access to Nacala Port.

In addition, the cross-border traffic between the two countries includes not only importation and exportation but also traffic transferring goods to other countries through Mozambique or Malawi, or conveying goods through Malawi for domestic transport of Mozambique, so-called “transit”.

The customs clearance procedure at border posts is pointed to as the source of bottlenecks in international transportation. It is considered that shortening the clearance time at border posts can contribute the strength for the competitiveness of neighboring countries.

In the study for improvement of the border posts as OSBP, the Study Team conducted the survey to understand the current condition of cross-border traffic and border control.

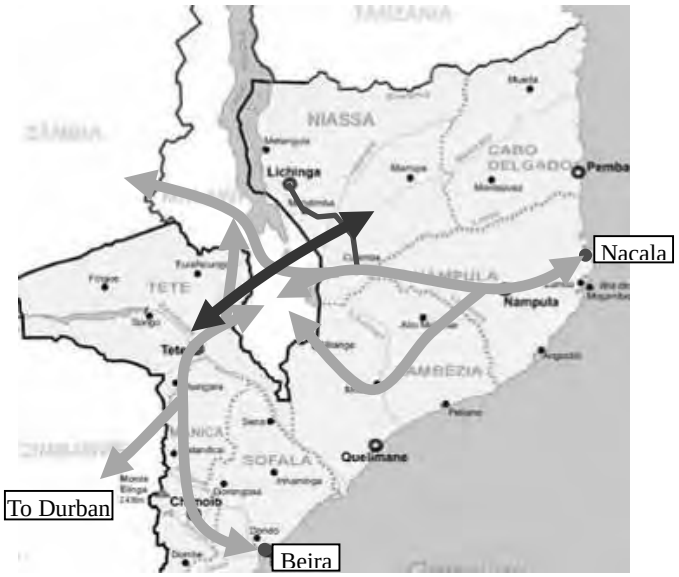



**Figure 1.1.1 Main Transportation Routes on the Mozambique Border**

**Table 1.1.1 Cross-Border Traffic Patterns through Mozambique**

| | Border | Border | Port | |
|---|---|---|---|---|
| | Mozambique | Malawi | Mozambique | Overseas |
| 1 Imports from Malawi | | | | |
| 2 Transit thru Mozambique | | | | |
| 3 Transit thru Malawi | | | | |
| 4 Exports to Malawi | | | | |
| 5 Transit thru Mozambique | | | | |
| 6 Transit thru Malawi | | | | |

**Table 1.1.2 Cross-Border Traffic Patterns through Malawi**

| | Border | Border | Port | |
|---|---|---|---|---|
| | Mozambique | Malawi | Mozambique | Overseas |
| 1 Imports | | | | |
| 2 Transit thru Malawi | | | | |
| 3 Exports | | | | |
| 4 Transit thru Malawi | | | | |

## 1.2 Border Facilities between Mozambique and Malawi

### 1.2.1 Border Facilities in Malawi

There are six main border posts between Malawi and Mozambique including Mandimba border post which is the target border studied for improvement as one-stop border post (OSBP) in this project. Zobue – Mwanza border post, in the southwest of Malawi, is especially busy with the traffic from/to Beira Port in Mozambique and Durban Port in South Africa. On the other hand, the traffic volume at Mandimba border post is less than at other border posts as the road on Mozambique side is in bad condition. Entre Lagos border post is mainly for the railway which connects from Nacala Port and Blantyre, Lilongwe in Malawi.

The Study Team visited five border posts including four border posts with Mozambique (Chiponde, Mwanza, Muloza, Dedza) and one border post with Zambia (Mchinji) which is part of Nacala Development Corridor. The operation time, parking space, facilities and clearance procedure are different at each border post. The biggest border post is the Zobue-Mwanza border facility, southwest of Malawi, while Songue border post with Tanzania and Mchinji border post with Zambia are the second biggest ones. After the road was improved in Tete province three years ago, the traffic volume at Dedza-Calomue border post has increased. Although all roads in Malawi connecting to border posts are paved, the roads to Mandimba and Milange in Mozambique are gravel, which causes less traffic at these border posts.

The location map for border posts and summary of border facilities are as follows.

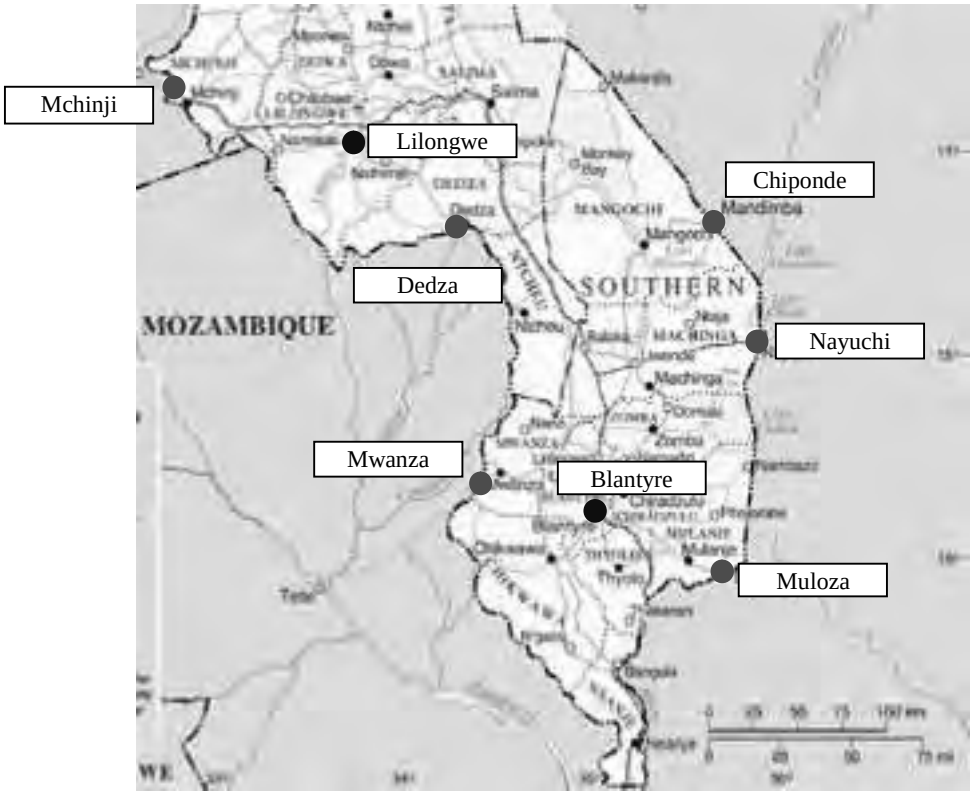



**Figure 1.2.1 Location Map of Malawi Borders**

**Table 1.2.1 Summary of Border Posts in Malawi**

| Name in Malawi | | Chiponde | Mwanza | Mchinji | Muloza | Dedza |
|---|---|---|---|---|---|---|
| Name in Mozambique | | Mandimba | Zobue | (Zambia) | Mulange | Calomue |
| Location | | 60km from Mangochi | 70km form Blantyre | 90km from Lilongwe | 80km form Blantyre | 85km from Lilongwe |
| Facility scale | | Small | Large | Small | Small | Small |
| Distance between borders | | 1km | 3km | 200m | 300m | 150m |
| Opening hours | | 6-18 | 6-21 | 24hours (6-18 Truck) | 6-18 | 6-18 |
| Toll fee collected by | | Custom | RFA | RFA | Custom | RFA |
| Weighbridge | | No | Yes | Yes | Yes | No |
| Inspection equipment | | No | No | No | No | No |
| Parking | | No | Yes (150) | No | No | No |
| Monthly traffic volume | | 1000 | 9000 | 3000 | 2000 | 3000 |
| Number of agents | | 6 | Over 20 | 8 | 4 | - |
| Number of insurance agents | | - | 3 | 2 | 1 | - |
| Nos. of staff | Customs | - | 49 | 11 | 9 | 13 |
| | Immigration | 6 | 18 | 14 | 6 | - |
| Accommodation | Customs | Yes | Yes | Yes | Yes | Yes |
| | Immigration | Yes | Yes | Yes | Yes | Yes |
| Average border pass time | | 30min | 2 hours | 1.0 hours | 30min | 1.5 hours |
| Main traffic type | | Small cargo | Large cargo Passengers | Passengers | Medium cargo | Large cargo |

(1) Chiponde

Chiponde border post with Mozambique is located 60km east of Mangochi, south of Malawi Lake. The border gate is next to the national road, and the border main office and the building for clearing agents and insurance companies are in the grounds of the border facility. As there is no public parking, the vehicles come into Malawi park at the school yard next to the main office and go out from Malawi park along the national road. The opposite side of the border facility is open space, but vendors squat and a market is opened there on every Sunday.

The processing time for customs clearance is generally short due to little traffic volume. It normally takes around one hour for imports with tax payment at the border post and 30 minutes for exports or transit.

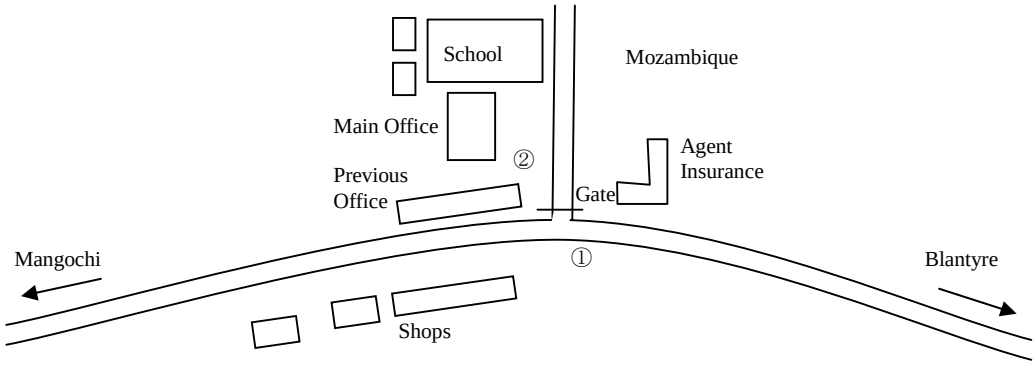



**Photo-1 National road in front of border post**

**Photo-2 Border post main office**

(2) Mwanza

Mwanza border post, 5km away from Mwanza town, is located on the national road about 70km from Blantyre to the west, which connects with Zobue in Tete Province, Mozambique. The border facility, which is much bigger than other borders in Malawi, consists of the two-story main building, parking, the warehouse, inspection facility, clinic, weighbridge, office for Road Authority and Road Fund Administration, bank, DTI (Data Trade Institute) office, office for Ministry of Agriculture and pay toilet. The customs office is divided into five sections according to the roles as shown in the table below. There are two gates on both edges of border facility besides the gate next to the main building. Many container offices for agents and insurance companies are placed in front of gate

on the Malawi side. The length between borders is approximately 3km and the boundary is about 500m from Mozambique border gate. There are houses and shops in the area from Malawi border facility to the boundary. Apart from the large trucks conveying the goods, international buses and a lot of imported cars are included as the cross-border traffic. All goods of international bus passengers are unloaded to declare at customs.

For the customs clearance, the processing time for importing requires at least three hours because of the large traffic volume. In cases where documentation is lacking or goods require inspection, it sometimes takes more than one day.

**Table 1.2.2 Role of Each Section at Mwanza Border Post**

| Section | Role |
|---|---|
| Verification Office | Final confirmation of clearance documents |
| Face Bet Office | Procedure for Export, Temporary Import Permit (TIP), Temporary Export Permit (TEP) |
| Transit Office | Procedure for transit |
| Passenger Office | Procedure for custom clearance for bus passengers |
| Examination Office | Goods inspection |

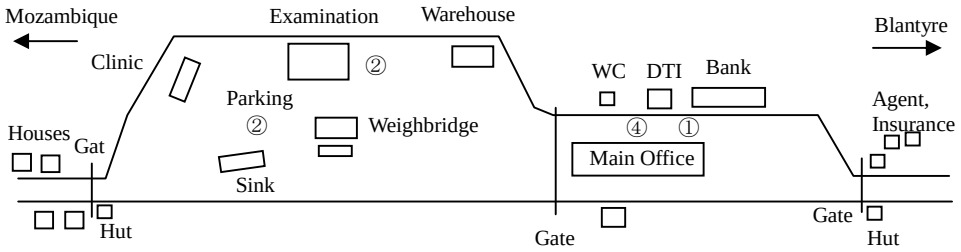



**Photo-1 Main office**

**Photo-2 Inspection facility**

**Photo-3 Parking**

**Photo-4 Unloading for clearance**

(3) Mchinji

Mchinji border post with Zambia is 90km from Lilongwe to west and 12km from Mchinji town. The current border facility was constructed in October 2006 and the previous facility remains 3km from town and is presently used as the accommodation for the customs staff.

The border main office is next to the gate and consists of the customs and immigration. There is parking for 10 passenger cars in front of the main office but there is no parking for large vehicles, so the trucks park along the main road. There are a few containers and small buildings for agents and insurance companies around the border facility. It is only 200m to the border on the Zambia side and the weighbridge for Zambia is located between borders. The weighbridge and the office of Road Authority, which has responsibility to collect the toll fees, are still next to the previous border post.

The processing time for custom clearance is generally short due to little traffic volume. It normally takes more or less one hour for the case of importing with tax payment at the border post and 30 minutes for the export or transit.

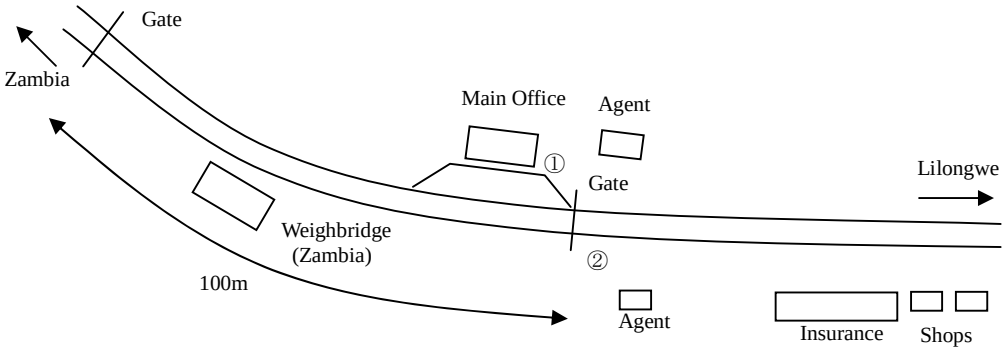



**Photo-1 Border post main office**

**Photo-2 Area around gate**

(4) Muloza

Muloza border post with Mozambique is 80km from Blantyre to the east. The size of the border facility is almost the same as Mchinji border post. There is the village around the border facility, so many residents walk across the border freely with border passes issued by customs. The containers for the agents and insurance companies are also placed in the village. As there is no public parking for large vehicles, the trucks park in wide spaces on the road with mini-buses. The weighbridge is 1km away from the border facility moving inland. The

boundary between the two countries is on the river passing midway along the 300m length of border interval.

The processing time for customs clearance is generally short due to little traffic volume. It takes more or less one hour for importing with tax payment at the border post and 30 minutes for exporting or transit.

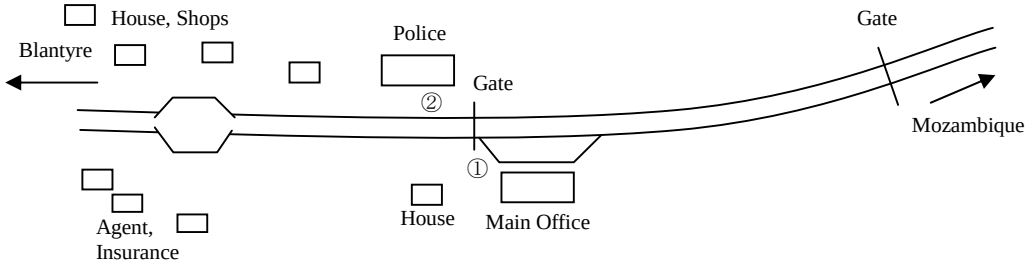



**Photo-1 Border post main office**

**Photo-2 Area around gate**

(5) Dedza

Dedza border post is located 85km south from Lilongwe and 500m from the national road 1. The border facility is smaller than other borders and the main office has a tiny lobby which is able to hold a few people. Instead of the public parking, there is enough open space in front of the main office in which a lot of trucks park for customs clearance. There are about 10 containers around the border post for the agents, insurance companies and office for Road Fund Administration.

Not enough facilities and staff are deployed to deal with the increasing traffic volume. It generally takes around three hours for the case of importing with tax payment at the border post and one hour for exporting or transit.

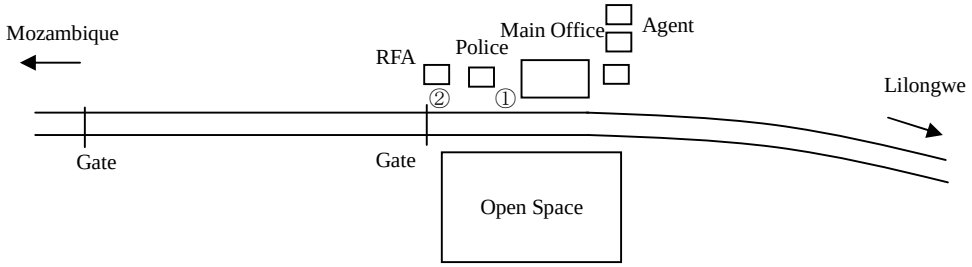


**Photo-1 Border post main office**

**Photo-2 In front of main office**

### 1.2.2 Border facilities in Mozambique

The Study Team visited four border posts (Mandimba, Zobue, Mulange, Entrelagos) in Mozambique. The size of facilities at all border posts is almost the same, even though the traffic volume at each border post is different. The border at Entre Lagos is mainly used for the railway. The location map of border posts in Mozambique and summary of border facilities are as follows.

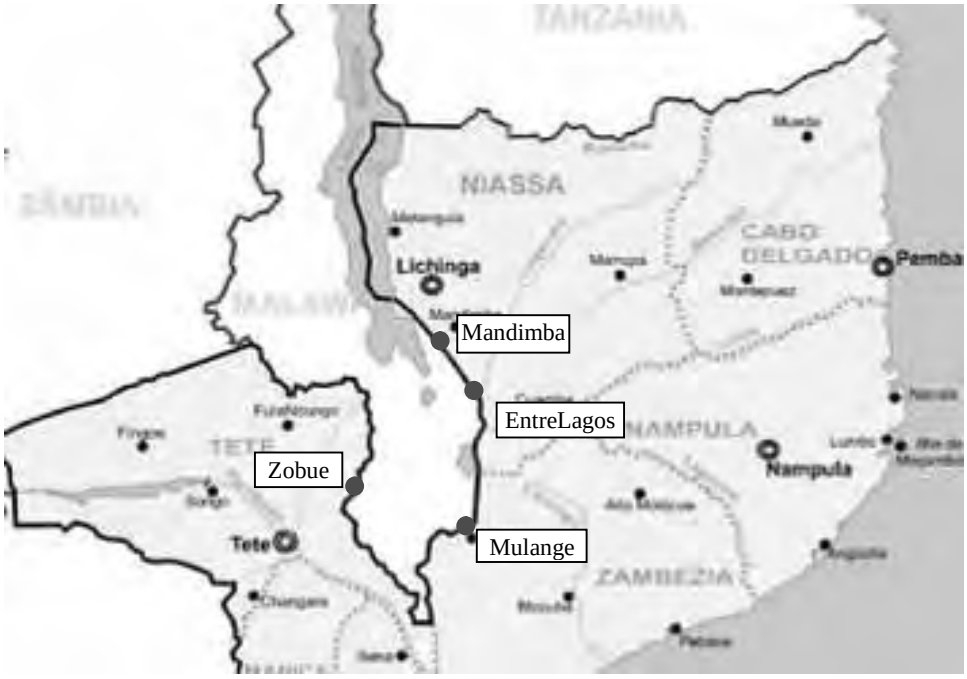



**Figure 1.2.2 Cross-border Pattern on Mozambique Border**

(1) Mandimba

Mandimba border post, which is the object for improvement as OSBP in this Study, is located 4km from Mandimba town in Niassa Province. The border facility opens from 6 a.m. to 6 p.m for 365 days, and five officers work in the customs office. The road from Mandimba town to the border on the Malawi side is still not paved, so the road condition is considerably rough. The border office consists of customs, immigration and an insurance company which sells third-party insurance. The current main office was constructed about 10 years ago and the previous office remains as accommodation next to the town. The houses for the custom officers are behind the main office, but no public parking for visitors

is available. The boundary is in the river in the middle of no-man's land between the two borders.

As the traffic volume is very small due to the road condition, it does not take a long time to pass the border. In cases of importing, it takes a maximum of half an hour.

**Photo-1 Border post main office**

**Photo-2 Inside the main office**

(2) Zobue

Zobue border post is located 120km away from Tete town in Tete Province, Mozambique. The traffic volume is over 300 vehicles per day. Comparing with Mwanza border post on the Malawi side, the border facility of Zobue is much smaller. There are the main office, some containers for ANE, insurance companies and houses around the border post but no public parking space. As goods inspections are conducted for goods valued over 1500US$ at the provincial office in Tete, they are hardly carried out at the border. The boundary is 500m from the Zobue border.

In the weighbridge station 5km inland, the axle load of vehicles is measured.

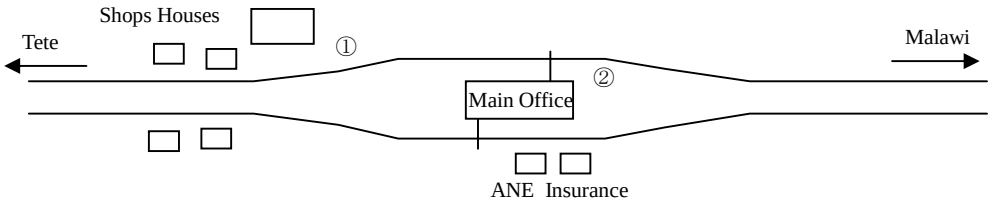



**Photo-1 Border post main office**

**Photo-2 Around the gate**

(3) Mulange

Mulange border post is located 1km from Mulange town to the west. The border facility has only a main office, two containers for insurance companies and parking for small vehicles. A weighbridge is not installed and the officer from ANE collects the toll fee, 100US$, from the drivers of large vehicles which weigh over 3.5 tons. As the road from Mulange town to Mocuba is unpaved, the traffic volume is small.

**Photo-1 Border main office**

(4) Entre Lagos

Entre Lagos border post is located 50km (30min.) from Mecanhelas along R721, which is unpaved but comparably well developed, to the north. This border is mainly intended for railway use and the station is located on both sides in both countries. One train contains about 20 wagons and takes almost one hour for customs declaration. Regularly, one train is operated per day.

The number of wagons passing the border is 390 from Mozambique to Malawi and 102 from Malawi to Mozambique (25 of them to Nampula) for the month of April 2009. Note that since only wagons conveying freights are counted, there is a gap in the figures.

The imported goods are mainly fertilizer salt, diesel and general cargo while the exported goods are sugar, soya and timbers. A few wagons carrying potatoes and timber go to Nampula. Due to the lack of locomotives in Malawi, the wagons that arrived the previous day are detained for at least one day.

The number of vehicles passing is quite few like 10 – 20 per day (Jan: 18, Feb: 12, Mar: 24, Apr: 35) and some bikes also pass sometimes. The freight vehicles and trailers have not crossed so far this year.

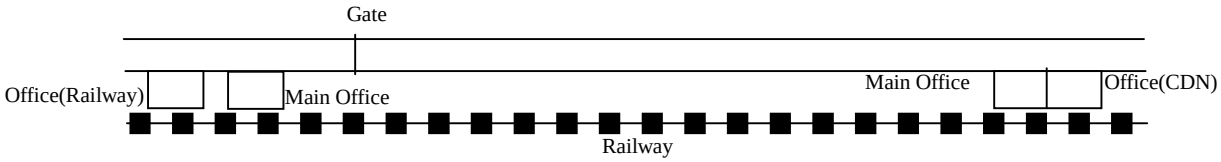



**Photo-1 Border facility**

**Photo-2 Border gate**

## 1.3 Border Control System and Border Facilities

### 1.3.1 Border Control System in Malawi

(1) Customs control

Malawi Revenue Authority (MRA) administers the customs control under the Customs & Excise Act and the officers of MRA are deployed to deal with the customs clearance work at each border post. The size of border facilities and procedures are different at each border post. The basic procedure for customs clearance is shown below.

- Procedure of customs clearance

Generally, the clearing agents handle the customs procedures on behalf of the importers and exporters. Note that it is mandatory to declare goods imported worth over 2,000US$ to the clearing agent under the Customs Act. The flows of clearing procedure for importing, exporting and transit are as follows.

**Table 1.3.1 Flow of Importing Procedure**

| |
|---|
| After arrival at the border post, drivers ask the clearing agent to prepare the customs clearance documents. |
| ⇩ |
| The customs clearance document data are captured into "ACYCUDA++" and its output is submitted to the customs window. Drivers are informed about whether to pay the tax at the border post or the inland bond warehouse. |
| ⇩ |
| Payment of processing fee and Temporary Import Permit (TIP) for foreign registered car |

| | |
|---|---|
| ⇩ | ⇩ |
| In case of the payment of tax at border post<br>After confirmation of required documents, pay the tax.<br>Conduct the goods inspection for the cargo which has suspicious documents.<br>Report order is issued and driver leaves the border post. | In case of the payment of tax at inland bond warehouse<br>Confirmation of required documents<br>Report order or ATP is issued and driver leaves the border post. |

**Table 1.3.2 Flow of Exporting Procedure**

| |
|---|
| After arrival at the border post, drivers ask the clearing agent to prepare the customs clearance documents. |
| ⇩ |
| The customs clearance document data is captured into "ACYCUDA++" and its output is submitted to the customs window. |
| ⇩ |
| Payment of the processing fee and issue of Temporary Export Permit (TEP) for Malawi registered cars |
| ⇩ |
| After confirmation of required documents, report order is issued and driver leaves the border post. |

**Table 1.3.3 Flow of Transit Procedure**

| |
|---|
| After arrival at the border post, drivers ask the clearing agent to prepare the customs clearance documents. |
| ⇩ |
| Payment of the processing fee and issue of Temporary Import Permit (TIP) for foreign registered cars |
| ⇩ |
| After confirmation of required documents, driver leaves the border post.<br><br>The payment of deposit or escort by customs officer is required depending on the contents of goods.<br><br>The cost for deposit is equivalent to the tax for importation. After leaving the country, the money is refunded on request.<br><br>The cost for escort is 7,000KW/day. Total cost is calculated based on the estimated period of stay in country. |

- Goods inspection

The goods inspection is not carried out for all freights. The inspected freights are selected by the customs officer based on their contents. Only visual inspection is conducted as no equipment like X-ray scanner is available at border posts. The inspection is conducted in the open space in front of the main office except at Mwanza where the inspection yard is constructed in the border facility.

- Data capture

MRA installed "ACYCUDA++" as a data capture program in October 2007. The clearance information for importing and exporting submitted by agents is captured in DTI room which is located next to the main office. MRA has a plan to improve ACYCUDA++ to capture the transit data which is not captured for now. All captured data are shared on the network base with the head office and

other border posts.

- Tax

Import tax includes Duty, Excise and Surtax which is calculated based on the rates stipulated in Customs & Excise Act. Some goods such as the fresh meat, vegetable, maize, rice and fuel are tax free.

It is possible to pay the tax at the border or inland. In case of payment inland, after the issue of "Report Order" or "Authorization to Proceed (ATP)" at the border post the freight is brought directly to the designated agent property, called "bond warehouse" in the city where the custom officer carries out the inspection and the tax is paid. If the freight is unloaded or missed before the clearance, the payment of tax is guaranteed by the bond of clearing agent.

(2) Immigration

It takes only a few minutes for the passport control which requires filling out of the form. Assistance is provided for immigrants who cannot understand English. Immigrants need to go to the immigration office in Lilongwe or Blantyre directly to acquire the visa unless they have it at the border post.

(3) Quarantine

As of now, quarantine is not carried out at any border posts. The Ministry of Agriculture confirms the clearing documents for agricultural goods such as rice, maize and wheat and issues a "Phytosanitary Certificate".

(4) Toll fee

Under the operation by Road Fund Authorization (RFA), the toll fee is collected from foreign registered vehicles which weigh over three tons. The toll fee is decided by the distance to the destination based on the table below. At border posts where staff of RFA are not resident, the MRA collects the toll fees instead of the RFA.

**Table 1.3.4 Rate for toll fee**

Unit: US$/100km

| | COMESA | Mozambique | Tanzania |
|---|---|---|---|
| Multiple Axles | 15 | 28 | 16 |
| Up to 3 Axles | 8 | 28 | 8 |
| Buses | 6 | 28 | 6 |

(5) Axle load limitation

The Road Authority is in charge of the axle load control. Weighbridges are installed at four border posts (Mwanza, Dedza, Muloza, Mchinji) and at Balaka. The overloaded vehicles are required to distribute freights or pay an overload charge. As it is acceptable to pay the overload charge only at the RA head office in Blantyre, the trucks are detained at border posts on the weekend.

Attempts to regulate axle load limitation are in progress in neighboring countries. But as the difference of the axle load limitation is marginal, it is not a significant issue. For trucks passing Tete Province, it is necessary to consider the axle load limitation of the suspension bridge in Tete which is in the process of rehabilitation.

(6) Third Party Insurance

It is obligatory for all foreign registered vehicles to obtain third party insurance for Malawi. The third party insurance can be purchased at insurance company branches at the border.

Yellow Card Insurance is the kind of third party insurance which is effective in COMESA countries. If the vehicle has Yellow Card Insurance, it can enter into the country stipulated on the insurance card without additional insurance. But despite the agreement for the protocol of Yellow Card Agreement, Mozambique does not accept the effect of Yellow Card Insurance. Thus, the Yellow Card is not so effective for Malawi registered vehicles which often pass in Mozambique.

The validity of third party insurance is from one month to one year. Although the insurance with longer validity is generally more cost effective, many transporters purchase the shorter validity of insurance as they operate their vehicles to several countries.

### 1.3.2 Border Control System in Mozambique

(1) Customs Regimes

- Customs Regimes for Clearance

Several customs regimes, that is, types of cross-border trading, are in place for customs clearance and these include:

- Importation for home use (subject to payment of customs duties and taxes)
- Exportation
- Temporary importation (for exhibitions, repairs, pending for re-export)
- Temporary exportation (for re-import)
- Transit
- Customs warehousing for temporary storage

- Clearance Regimes and Processes for Importation

Goods imported into Mozambique can be cleared under three clearance regimes.

- Normal regime
- Abbreviated regime
- Simplified regime.

The abbreviated and the simplified regimes are applied at the border posts.

Goods that are cleared under the abbreviated regime are aligned with the principles governing customs declaration, i.e. they are commercial goods with customs value that does not exceed 1,500 USD.

The simplified regime is to be used for clearance for those goods of value which does not exceed 500 USD. The normal regime is used for clearance of the remaining goods at terminals.

Import declarations are made on i) a Simplified Unique Document (DUS) for the simplified regime, ii) Abbreviated Unique Document (DUA) for the abbreviated regime, and iii) Certified Unique Document (DUC) for the normal regime.

(2) Customs Clearance Process

- Import Customs Process under the Normal Regime

For goods coming via road, the clearing process starts at the entry border. The transporter declares the goods at the customs point at the border and a memorandum is issued covering the transportation of goods, under internal transit regime, up to the clearing terminal.

Upon arrival of goods at the terminal, the clearing agent, who acts on behalf of the importer, lodges to the customs the import declaration in the form of Unique Document (DU) or Certified Unique Document (DUC) for those goods subject to pre-shipment inspection. According to the legislation currently in force, declarations are expected to be issued within 48 hours from arrival of goods.

The declaration is checked as to find out whether it meets the minimum requirements with necessary supporting documents. If the customs are satisfied, the declaration is “Accepted” and logged into the computer system, assigned a number and moved on to the subsequent process of clearing.

Then a payment advice is issued via computer system, by which the clearing agent will perform the payment at the treasury. After acceptance of the declaration, it is sent to the subsequent process where reconciliation against the memorandum of cargo manifest takes place. In case of the pre-clearance declaration, it is then retained pending arrival of the cargo.

When the reconciliation is completed, the declaration is sent to the verification section and if it conforms to the requirements, it is cleared in the system which issues “Release Note”. From this stage, the importer is able to collect the goods imported.

- Import Customs Process under the Abbreviated and Simplified Regime

Clearance at the border applies to the abbreviated regime and simplified regime. All duties and taxes for goods under 500 USD of DUS are subject to levy at the border.

Goods valued greater than 1,500 USD are issued a memorandum. The cargoes are placed under seal and must be presented to the customs provincial offices and stations at the inland clearance terminals. Payments of dues and taxes are collected at the inland truck terminal and cleared there.

(3) ICT capabilities

Mozambican customs uses an information system called Trade Information Management System (TIMS). TIMS is coded in programming language called Delphi and uses the Oracle database. TIMS is employed at the Customs Headquarters at Maputo and at 28 sites in the country (registered in 2007). Each provincial customs office and border post hosts a copy of the software and database, which is usually in a server of stand-alone PC.

The functions of TIMS include declaration capturing, printing of payment advice, updating of payment received, release of cargo, tariff database, importer/exporter database, truck database and risk management database, and valuation database.

However, there is no module for capturing transit cargo. Road transit DU are filled in manually and not keyed into TIMS. There is no compilation of transit cargo statistics from the system. Further, it is important to highlight that the clearing process in Mozambique, although IT supported, is also backed by manual records.

(4) Customs Agents

Customs brokerage is prevalent in the country for transactions with customs. At the border crossings, customs agents are stationed to undertake import requirements and procedures. The majority of all trade processing transactions are performed by the customs agents.

In the current system, the customs agent prepares the customs declaration documents and forms. This is normally carried out using a front-end software developed for this purpose, which is not compatible with the current customs IT system TIMS.

The end result is that data captured by the customs agents in Du will be re-entered when the declaration is submitted to the customs, despite the fact that there have been attempts to initiate pilot testing for electronic data interchange between two types of software.

**Table 1.3.5 Custom Procedure at Malawi Border**

| | | Importation (Moz - Mw) | Exportation (Mw - Moz) | Transit (Moz - Mw - Moz) |
|---|---|---|---|---|
| Required Document | | - Declaration Form<br>- Import License<br>- Commercial Invoice<br>- Bill of Lading<br>- Packing List<br>- Certificate of Origin<br>- Phytosanitary Certificate | - Declaration Form<br>- Export License<br>- Commercial Invoice<br>- Packing List<br>- Certificate of Origin<br>- Phytosanitary Certificate<br>- Exchange Control | - Declaration Form<br>- Import License<br>- Commercial Invoice<br>- Bill of Lading<br>- Packing List<br>- Certificate of Origin<br>- Phytosanitary Certificate<br>- Transit gear |
| Date capture | | ACYCUDA++ (declare at border)<br>ATP or Manual (declare inland) | ACYCUDA++ | Manual |
| Payment | Processing Fee | 1200KW<br>(+500KW on weekend) | 1200KW<br>(+500KW on weekend) | 1200KW<br>(+500KW on weekend) |
| | TIP/TEP | 1200KW (TIP)<br>(Foreign registered car) | 1200KW (TEP)<br>(Malawi registered car) | 1200KW (TIP)<br>(Foreign registered car) |
| | Tax | - Duty, Excise, Surtax<br>- Goods valued over 2,000USD must be declared by agent<br>- choose to pay at border or inland | - | - deposit or escort depend on case<br>- deposit cost is equivalent to tax<br>- escort cost is 7,000KW/day |
| | Toll Fee | Foreign registered car | - | Foreign registered car |
| | Agent Fee | 10,000KW (tax)<br>7,000KW (tax-free) | 2,000KW<br>- | 9,000KW |
| Insurance | | Foreign registered car | - | Foreign registered car |

# Chapter 2 Mandimba Border Control and Facilities

## 2.1 Characteristics of Mandimba Border Area

### 2.1.1 Geographical Features

Two border posts, i.e. Mandmiba border post (Mozambique) and Chiponde border post (Malawi), form border areas together with 6.0 km of unpaved road which crosses the no-man's land (restricted area for land use) and connects two small border districts.

Mandimba border post is situated 4.0km away from the center of Mandimba district in the southwest of Niassa Province, which is one of the lowest populated provinces with poor infrastructure, services and market access, whereas Chiponde border post is located in Mangochi district in the southern region of Malawi.It is 1.8km from Mandimba post. There is still unused land along the access road between the two border posts including no-man's land.

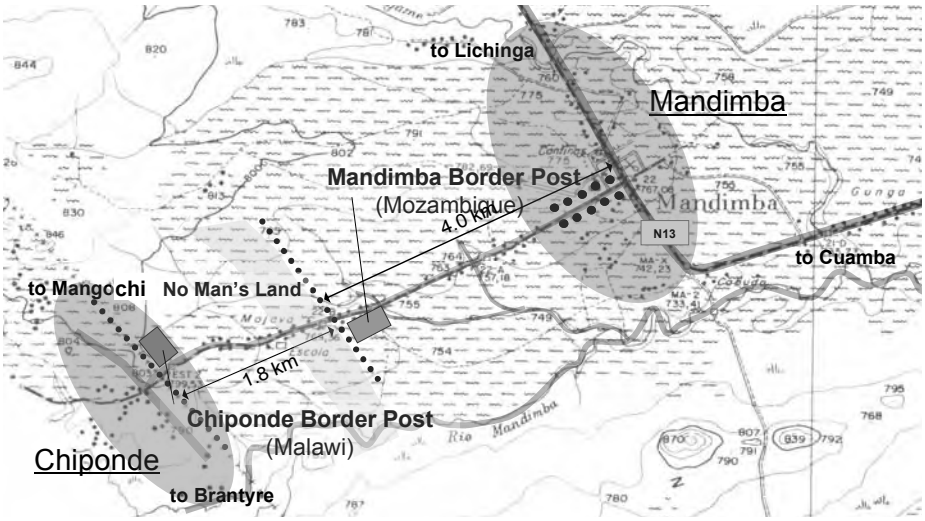



**Figure 2.1.1 Geographic Features of the Border Areas**

### 2.1.2 Commercial Features

Southern Malawi provides viable market for agricultural products from northern Mozambique. This is because southern Malawi is the most populous and the largest consumption area and agriculturally a poor productive region, while northern Mozambique has fertile land and crops and is far from the major consumption areas in southern Mozambique.

As a result, border crossing movement of goods by large-scale trading tends to be mostly from Mozambique to Malawi. It is particularly noted that maize, tobacco and other cash crops are major commodities crossing the border with land transports, and that there is also a dynamic market in Entre Lagos (see Chapter1) which is served by railway transports from Nacala and Nampula to Malawi and vice-versa.

The border area is remote from the main consumer centers such as Lichinga and Cuamba in Mozambique and Lilongwe and Blantyre in Malawi. However, population density is often higher than other rural communities and the level of

cross-border interaction is also high. Border communities benefit from easy marketing, usage of services and small-scale trading of agricultural commodities and consumer goods through Mandimba-Chiponde border post.

The abovementioned conditions have been promoting cross-border activities not only for formal trading but also informal small-scale trading at Mandimba-Chiponde border post.

### 2.1.3 Interactions and Communities in the Border Areas

Livelihoods in the border communities are heavily dependent on cross-border interactions comprising informal small-scale trading of cash crops and daily goods, cross-border cultivation, usage of public services, natural resources and laboring.

In the area, informal small-scale trading overcomes the lack of market inside Mozambique and provides an important outlet to local farmers. Consumer goods (and services) can be bought directly in Malawi or from local cross-border small-scale traders who also work on cross-border porterage between the two border posts. Agricultural products tend to be sold to traders who undertake land transport by trucks to Malawi or farmers/agents who arrange bicycles which are the main means of transport to ferry commodities across the border.

Transportation of informally traded commodities is mostly done by using bicycles. Cyclists are locally hired by the agents. Three or four bags of crops are the maximum per trip and are regarded as small-scale trade or for personal consumption in order to be exempt from formal export procedures and levies in Mozambique. This is an important source of livelihood for both cyclists and agents who reside and form local communities in the area.

Open-air markets are permanently and temporarily held alongside the access road as well as inside the premises of Chiponde border post. These vital commercial activities observed in the area demonstrate that the market system for informal trade is well-developed and coordinated with large numbers of participants.

### 2.1.4 Strategic Importance on Regional Corridor Development

In addition to serving those interactions in the border areas, Mandimba-Chiponde border post is also expected to form a node on the Nacala Road Corridor to play an important role as an international gate for formal cross-border trading linking Niassa province and Nampula province, which form the hinterland of Nacala Port, to landlocked countries such as Malawi and Zambia.

Nacala Road Corridor Project is one of the highest priorities of the Southern African Development Community (SADC) region's strategy for multinational building infrastructure to support economic growth and foster regional integration. The Project forms part of the SADC Regional Trunk Road Network (RTRN) Route Number 20.

The first phase of the Project, which comprises Nampula-Cuamba Road upgrading (350 km) in Mozambique as well as Lilongwe bypass construction

(9.2 km) in Malawi, was approved in June 2009 to be co-financed by AfDB and JICA, while Cuamba-Mandimba Road upgrading (160km), which will complete linkage between the Nacala Port and the border areas in Mozambique, is listed in the third phase of the Project.

Anticipating that traffic demand might increase, and that delays at border posts might become more evident due to the improving road transport services and multinational linkage, it is widely recognized that Mandimba-Chiponde border post will rank as a point of strategic importance on the corridor in terms of handling cross-border traffic to reduce transport costs, and to mitigate illegal activities such as smuggling.

Construction or upgrading of cross-border facilities such as Mandimba - Chiponde border post and Mchinji-Chipata border post (Malawi-Zambia) are also to be listed in the third phase of the Project, accordingly.

### 2.1.4 No-Man's Land

The no-man's land lies along the border line between two border posts and entirely restricts land use and occupancy inside of the zone.

Interview surveys with border control officers revealed that no-man's land implies buffer areas extending both sides of the border line, not the whole land cover between two border control lines. It says that the border line is positioned several hundred meters away from the Mozambican border control line. This does not appear to mark the physical boundary line for both the border itself and the no-man's land, however. According to the same, all households inside of border control lines reside out of the no-man's land and they are all from Malawi, not Mozambique.

Jurisdiction of administrative details and law in terms of area measured, land use, occupancy is prescribed under the "Instituto du Mares y Fronteiras". Further information shall be collected from the Institute to find and confirm real conditions of land use in the no-man's land.

## 2.2 Cross-Border Traffic and Cargo

### 2.2.1 Goods Flow (Commercial Vehicles Flow) at Mandimba Border Post

Goods flow of formal trading is categorized in threes modalities of customs control i.e. i) imports, ii) exports, and iii) transit. At Mandimba border post, transit cargo currently shows the most frequent trips of the three categories and mainly uses trailer trucks. Recent trends at Mandimba border post are summarized as follows:

- Exports from Mozambique to Malawi are greater than imports and have increased in the past three years. Goods mainly comprise: maize, beans and cotton seed

- Imports of low value goods (less than 500 USD) are the main. Goods mainly comprise daily consumer goods

- Transit cargo between Niassa, Nampula province and Tete province through Malawi is notably frequent and has increased in the past three years. Goods mainly comprise tobacco, beer, cooking oil, fertilizer, maize, beans and cotton seed.

The following indicates customs records in past three years of three categories which are provided by the Niassa Provincial Office of Revenue Authority and supposedly vice-versa at Chiponde border post. As described earlier, small-scale informal trading by bicycles is notably frequent but not officially registered in customs records due to the nature of the trade.

(1) Imports

Based on the value of goods, imports are categorized into two modalities for customs clearance procedures, i.e. those worth under 500 USD and those worth 500 USD or more.
The flow of goods has been even in past three years. Statistical data for 2008 show that:

- Year total: 405 trucks
- Monthly average: 30 trucks equivalent to one truck per day on average
- Monthly peak: 56 trucks equivalent to two trucks or less per day peak

1) Import of goods worth more than 500 USD

Imported goods mainly comprise daily consumer goods (plastic products, clothing, spare parts for bicycles, etc.)

**Table 2.2.1 Numbers of Imported Goods Worth More than 500 USD**

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2006 | 3 | 5 | 10 | 12 | 34 | 1 | 8 | 10 | 12 | 16 | 3 | 11 | 125 |
| 2007 | 5 | 10 | 10 | 6 | 14 | 8 | 9 | 5 | 1 | 15 | 3 | 2 | 88 |
| 2008 | 4 | 18 | 6 | 9 | 14 | 8 | 12 | 8 | 5 | 20 | 10 | 21 | 135 |
| 2009 | 13 | 34 | 18 | 10 | 17 | - | - | - | - | - | - | - | 92 |

Source: Niassa Provincial Office of Revenue Authority

2) Importation of Goods less than 500 USD

Importing goods mainly comprise Food (fresh eggs, rice), Plastic products, Clothing. 85% of goods are destined for Lichinga, 7% for Nampula and 5% for Cuamba.

**Table 2.2.2 Numbers of Imported Goods Worth Less than 500 USD**

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2006 | 38 | 56 | 47 | 43 | 58 | 38 | 52 | 64 | 58 | 46 | 36 | 53 | 589 |
| 2007 | 52 | 23 | 25 | 15 | 10 | 15 | 18 | 15 | 30 | 15 | 40 | 40 | 298 |
| 2008 | 25 | 10 | 18 | 23 | 7 | 35 | 40 | 10 | 20 | 18 | 29 | 35 | 270 |
| 2009 | 72 | 44 | 54 | - | - | - | - | - | - | - | - | - | 170 |

Source: Niassa Provincial Office of Revenue Authority

(2) Exportation

The flow of goods in the export category has steadily increased over the last three years. Exported goods mainly comprise Maize, Beans and Cotton seed. Statistical data for 2008 show that:

- Year total: 954 trucks
- Monthly average: 80 trucks equivalent to three trucks or less per day on average
- Monthly peak: 120 trucks equivalent to four trucks per day peak
-

**Table 2.2.3 Numbers of Exports**

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2006 | 44 | 20 | 50 | 20 | 26 | 90 | 30 | 50 | 35 | 45 | 80 | 30 | 520 |
| 2007 | 69 | 85 | 80 | 53 | 169 | 85 | 53 | 79 | 57 | 44 | 45 | 48 | 867 |
| 2008 | 63 | 70 | 73 | 81 | 114 | 120 | 90 | 99 | 77 | 67 | 50 | 50 | 954 |
| 2009 | 46 | 48 | 45 | 90 | 167 | 4 | | | | | | | 400 |

Source: Niassa Provincial Office of Revenue Authority

(3) Transit

There are three different patterns of transit traffic at border posts, i.e. domestic transit-sending, domestic transit-receiving and international transit. Domestic transit hereby stands for flows between Mozambique-Malawi-Mozambique, whereas international transit denotes flows between Mozambique-Malawi-Other countries. Inland movement with “Memorandum”, that is, from border posts to inland truck terminals at the provincial offices, is not counted as “transit”.

At Mandimba border post, domestic transit is predominant to international transit due to the fact that almost all international transit takes advantage of railway transport through Entre-Lagos border post. Domestic transit-receiving is not registered at the border post due to the customs procedures as stated in Chapter 1.

Goods flow in transit-sending category, which is solely registered at the border post, has been notably increasing over the last three years. Goods mainly comprise tobacco, beer or empty bottles, cooking oil, fertilizer, maize, beans and cotton seed

Statistical data for 2008 show that:
- Year total: 998 trucks
- Monthly average: 85 trucks equivalent to three trucks or less per day average
- Monthly peak: 177 trucks equivalent to six trucks or less per day peak

**Table 2.2.4 Numbers of Transit Out (Mandimba to Other Border Posts)**

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2006 | 3 | 0 | 4 | 17 | 51 | 123 | 38 | 56 | 78 | 79 | 120 | 28 | 597 |
| 2007 | 17 | 16 | 14 | 52 | 112 | 295 | 122 | 55 | 27 | 17 | 18 | 17 | 762 |
| 2008 | 9 | 14 | 123 | 99 | 96 | 82 | 177 | 145 | 23 | 52 | 170 | 8 | 998 |
| 2009 | 15 | 22 | 14 | 6 | 10 | - | - | - | - | - | - | - | 67 |

Source: Niassa Provincial Office of Revenue Authority

2.2.2 Pedestrian and Passenger Flow at Mandimba Border Post

(1) Pedestrians, Passengers

Incoming/outgoing pedestrians including bicycles and passengers of vehicles are 430 people in terms of daily average and 615 in terms of daily peak according to

statistical data for 2008. This is equivalent to 36 people or less per hour on average, and 50 people or more per hour peak, respectively. There is no remarkable difference between numbers incoming and outgoing.

It is noted that frequent cross-border travelers and/or local residents such as cyclists for the small-scale informal trading, cross-border laborers and those who are temporarily permitted with a transit pass issued by the immigration office, are not subject to repeated counts,

**Table 2.2.5 Numbers of Pedestrians and Passengers of Vehicle**

[Thousand]

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2008 In | 3.70 | 4.19 | 4.17 | 5.50 | 6.80 | 8.47 | 6.45 | 6.96 | 9.95 | 6.35 | 6.63 | 8.03 | 77.25 |
| Out | 5.46 | 5.10 | 4.55 | 5.54 | 6.95 | 8.02 | 6.59 | 7.18 | 8.46 | 6.52 | 6.97 | 7.46 | 78.84 |
| 2009 In | 5.23 | 5.23 | 3.31 | 5.64 | 4.46 | - | - | - | - | - | - | - | 23.89 |
| Out | 5.58 | 5.43 | 4.24 | 5.25 | 4.80 | - | - | - | - | - | - | - | 49.12 |

Source: National Directorate of Immigration, Ministry of Interior

(2) Passengers Vehicles

Passenger vehicles are counted in customs clearance when they are registered for provisional licenses of both imports namely Temporary Imports Permit (TIP) and exports namely Temporary Exports Permit (TEP) of vehicles as stated in Chapter 1.

**Table 2.2.6 Number of Temporary Import Licenses (TIP: Vehicles Incoming)**

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2006 | 180 | 113 | 62 | 72 | 148 | 164 | 219 | 67 | 136 | 266 | 149 | 95 | 1,671 |
| 2007 | 100 | 81 | 60 | 76 | 70 | 85 | 68 | 82 | 86 | 84 | 85 | 115 | 992 |
| 2008 | 97 | 54 | 64 | 60 | 75 | 149 | 183 | 256 | 213 | 219 | 176 | 118 | 1,664 |
| 2009 | 50 | 29 | 46 | 33 | 21 | - | - | - | - | - | - | - | 179 |

Source: Niassa Provincial Office of Revenue Authority

**Table 2.2.7 Number of Temporary Export Licenses (TEP: Vehicles Outgoing)**

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2006 | 187 | 108 | 128 | 135 | 132 | 107 | 140 | 157 | 174 | 183 | 154 | 186 | 1,791 |
| 2007 | 177 | 89 | 114 | 206 | 294 | 395 | 221 | 230 | 135 | 137 | 136 | 149 | 2,283 |
| 2008 | 147 | 159 | 158 | 265 | 325 | 263 | 305 | 375 | 307 | 181 | 192 | 235 | 2,912 |
| 2009 | 165 | 143 | 146 | 187 | 183 | | | | | | | | 824 |

Source: Niassa Provincial Office of Revenue Authority

Passenger vehicles are 4,576 units in terms of annual total, 380 units in terms of monthly average and 631 as the monthly peak according to statistical data for 2008. This is equivalent to 13 units or less per day on average, and 20 units or more per day peak, respectively. The number exports, that is, passenger vehicles outgoing to Malawi, is predominant to vehicles incoming from Malawi, and has notably increased in the last three years.

## 2.3 Mandimba Border Post and Facilities

### 2.3.1 General

Mandimba border facilities comprise one office building, which is designated for customs services and immigration services, two lodges for customs officers, vacant natural terrain utilized as temporary parking space and border security's watch house. Findings from baseline study on land cover and existing border facilities are summarized as follows:

- Relatively sound building structure both for the office and the lodges
- No surplus working space, unable to increase of number of staff in the office
- Undeveloped and no designated parking space for commercial and/or passenger vehicles
- Sufficient land area for renovation of the facilities

### 2.3.2 Land Use and Land Cover

The following is present land use and land cover of the border facilities.

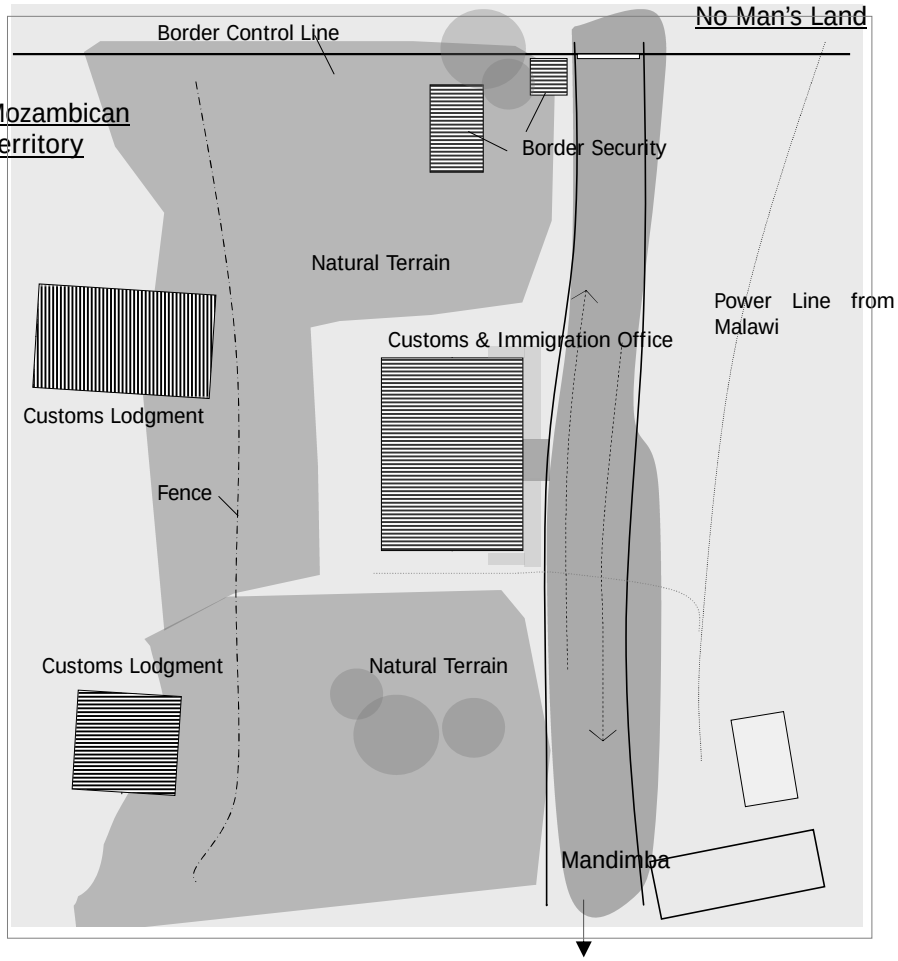



**Figure 2.3.1 Land Use and Land Cover of Mandimba Border Post**

| | |
|---|---|
| Customs/Immigration Office | Approx. 135 m2 |
| Customs Agents Office | No agent office installed. |
| Border Security | Approx. 40 m2 Border police reside in a tent house. |
| Parking | |
| ・Commercial traffic | No particular space allotted. All vehicles park along the access road and natural terrain. |
| ・Light/Passenger traffic | No particular space allotted. All vehicles park along the access road and natural terrain. |
| Lodgment | Two buildings are furnished for customs staff only. Immigration staff stay at the former customs & immigration office in Mandimba town. |
| Public toilet | n/a |
| Retail shop | n/a |
| Restaurant/ Cafeteria | n/a |
| Market place | n/a |

### 2.3.3 Existing Border Post

The following is present block layout of the border control office both for customs and for immigration.

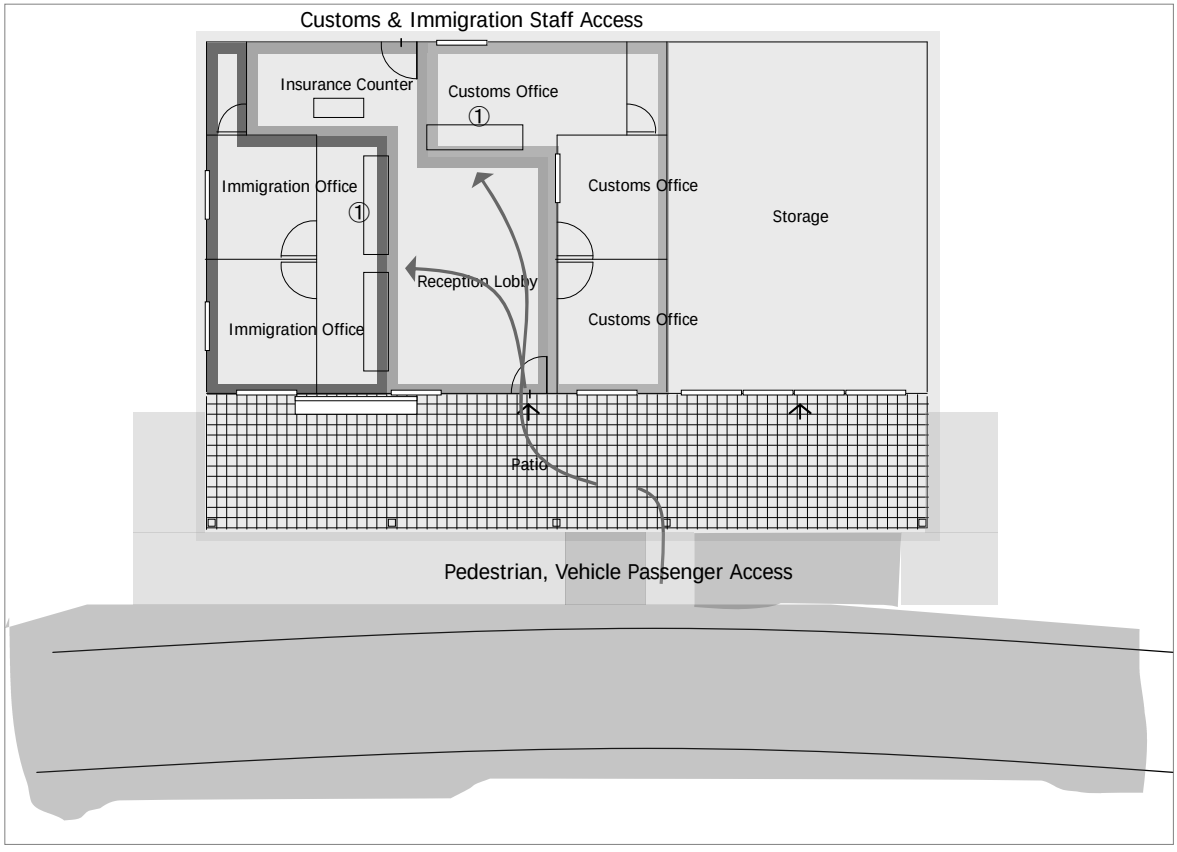



**Figure 2.3.2 Block Layout of Office Building at Mandimba Border Post**

| Area | | | Utility Supply | | |
|---|---|---|---|---|---|
| Customs | Apprx.30 | m2 | Electricity | ○ | |
| Immigration | Apprx.25 | m2 | Water | ○ | Water wagon delivery |
| Common space | Apprx.35 | m2 | Sewer | × | Septic Tank |
| Storage | Apprx.50 | m2 | | | |
| | | | Communication Infrastructure | | |
| Number of Staff | | | Telephone line (Land) | × | |
| Customs | 5 | | Radio communication | ○ | |
| Immigration | 4 | | Computer communication | × | |

## 2.4 Chiponde Border Post and Facilities

### 2.4.1 General

Chiponde border facilities comprise one office building, which is designated for customs services and immigration services and built by EU assistance in 2005, seven lodges for customs and immigration officers, customs agency office, vacant natural terrain, former school ground utilized as temporary parking space, and small retail shops.

There is a vacant building in front of the customs and immigration office which was formerly occupied as a school. Small retail shops invade and form a market place in the area alongside the access road but outside of the border control where is formerly designated for parking space for border crossing vehicles.

Findings from the baseline study on land cover and existing border facilities are summarized as follows:

- Very sound building structure both for the office and the lodges
- Surplus working space, able to increase of number of staff in the office
- Undeveloped and no designated parking space for commercial and/or passenger vehicles
- Inadequate approach and inconvenient flow for commercial vehicles
- Sufficient land area for renovation of the facilities

### 2.4.2 Land Use and Land Cover

The following is present land use and land cover of the border facilities.

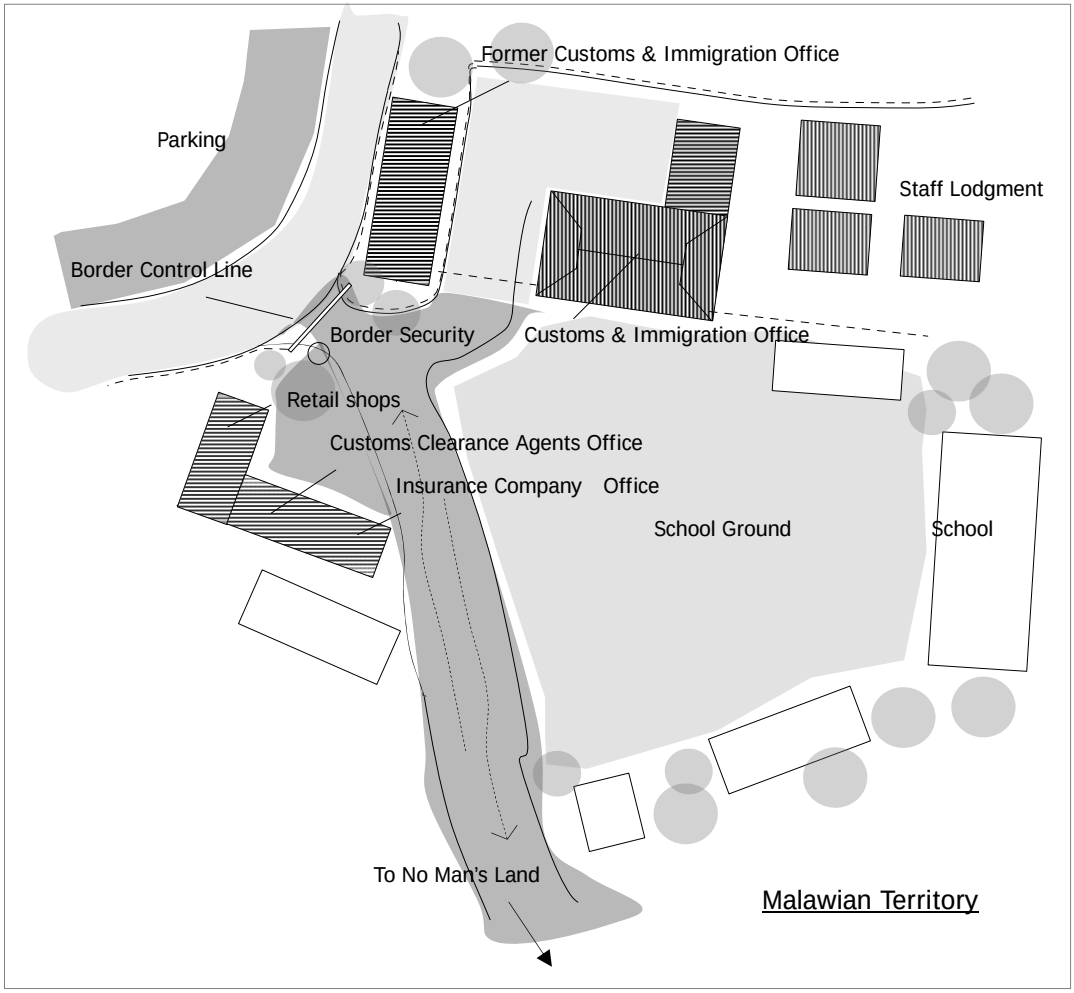



**Figure 2.4.1 Land use and Land Cover of Mandimba Border Post**

| | |
|---|---|
| Customs & Immigration Office | Approx. 250 m2 |
| Customs agents office | Seven company offices are housed |
| Border security | Under procedure to reside at the former Customs Office. |
| Parking | |
| ・Commercial traffic<br>Light/Passenger traffic | From Mozambique: No particular space allotted. All vehicles park along the access road or at the ground of the school which is currently vacant.<br>From Malawi: Parking space (30m x 200m approx) allotted at the front road which is currently fully occupied with numerous retail shoppers. |
| Lodgment | Seven buildings are furnished for customs and immigration staff. Immigration staff stay at the former customs & immigration office in Mandimba town. |
| Public toilet | n/a |
| Retail Shop | Kiosks are furnished inside, and numerous retail shops are scattered permanently outside of the border control line. |
| Restaurant/ Cafeteria | n/a |
| Market place | Numerous retail shops outside of the border control line form a sprawling market place. |

## 2.4.3 Existing Border Post

The following is present block layout of the border control office both for customs and for immigration.

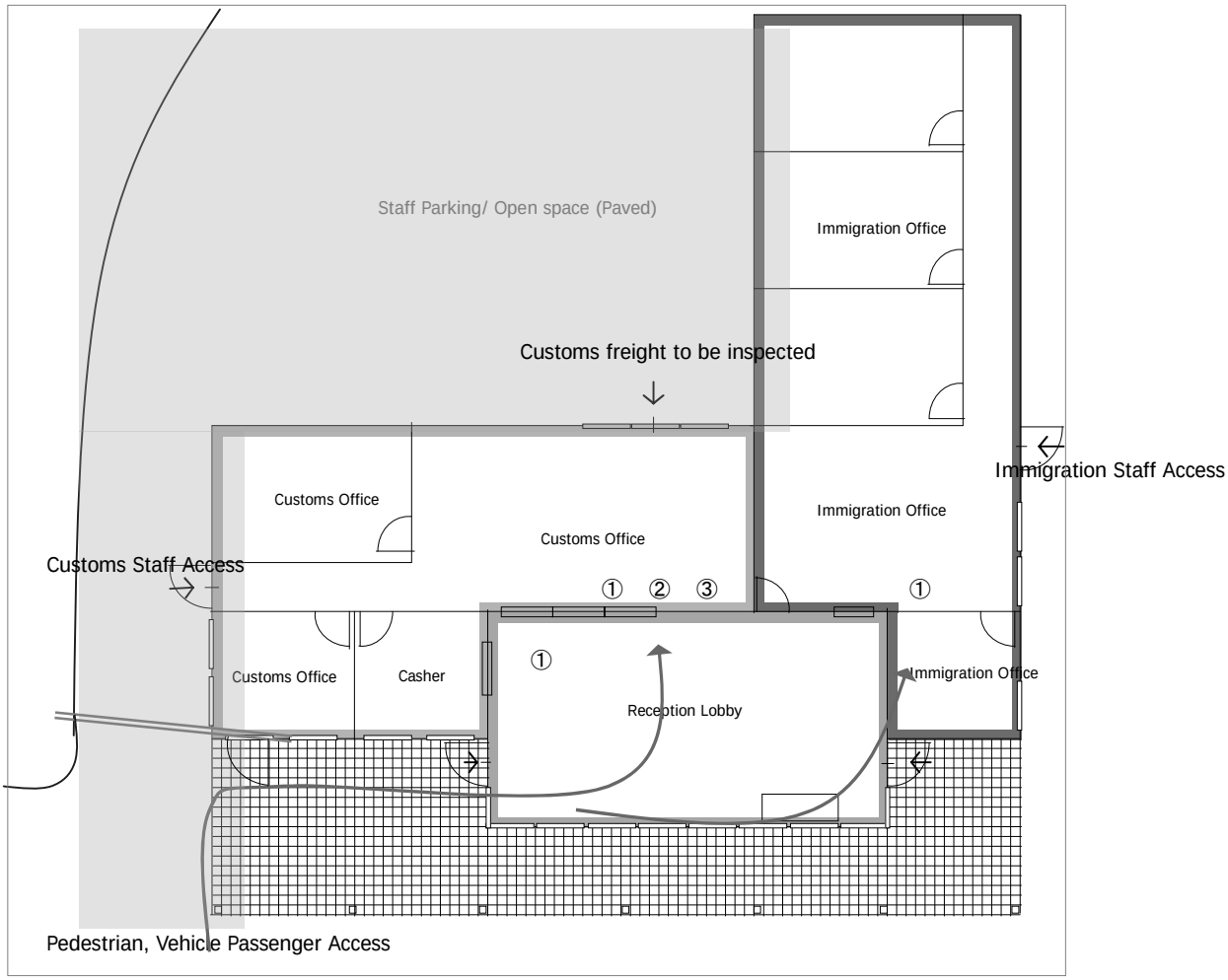



**Figure 2.4.2 Block Layout of Office Building at Mandimba Border Post**

| Area | | | Utility Supply | | |
|---|---|---|---|---|---|
| Customs | Apprx.90 | m2 | Electricity | ○ | |
| Immigration | Apprx.90 | m2 | Water | ○ | Water wagon delivery |
| Casher | Apprx.10 | m2 | Sewer line | × | Septic tank |
| Common space | Apprx.60 | m2 | | | |
| | | | Communication Infrastructure | | |
| Number of Staff | | | Telephone line (Land) | × | |
| Customs | 9 | | Radio communication | ○ | |
| Immigration | 5 | | Computer communication | ○ | |

# Chapter 3 Strategy for Upgrading Border Control and Facilities

## 3.1 SADC-COMESA Regional Strategy

### 3.1.1 Regional Strategic Plan and Trade Facilitation

As stated in Chapter 1, the Southern African Development Community (SADC), in its endeavors to achieve economic integration and smooth trade in the region, has developed a protocol on finance and investment that member states have agreed to.

To facilitate increased trading in Southern Africa for the benefit of the poor is a commitment of SADC member states, which is made through the SADC Treaty and the Regional Indicative Strategic Development Plan (RISDP).

Trade facilitation is one of the project objectives of the Strategic Plan to promote economic development and to foster regional integration. Various projects related to trade facilitation are underway in accordance with the SADC Program of Action delivered by the RISDP for the elimination of non-tariff barriers, which is summarized as, i) to liberalize regional transport markets, ii) to harmonize transport rules and standards, iii) to remove avoidable hindrances and impediments of cross-border trading and traffic. This lies at the heart of the SADC integration process

### 3.1.2 The Regional Indicative Strategic Development Plan (RISDP)

(1) General

RISDP is an implementation instrument of the SADC priority agenda formulated in 2003 in order to provide the SADC member states with a comprehensive integration and therefore, development agenda on social and economic policy for the next 15 years. The plan is designed to provide strategic guidance and/or direction in implementing the SADC programs, projects and activities.

In terms of the scope, RISDP links up strategies, objectives and priorities with policies and strategies that ought to be implemented for realization of specified integration and development goals. In addition, RISDP has presented a financing mechanism where various sources of funding are also discussed.

Most of the past SADC policies, strategies and programs were not properly coordinated because of designs by the individual sector coordinating units. RISDP has subsequently identified and strengthened the sectoral linkages with a view to improving efficiency and delivery of the SADC program of Action. SADC has adopted RISDP to strategically provide direction in designing and formulating the SADC programs, projects and related activities.

(2) RISDP for Trade, Economic Liberalization and Development

RISDP considers trade and economic liberalization for deeper integration and poverty eradication as one of its key catalytic intervention areas.

The overall goal of this intervention is to facilitate trade and financial

liberalization, competitive and diversified economic development for deeper regional integration and poverty eradication through the establishment of a SADC Common Market. This intervention will also be addressed through targeted cross-border investment and corridor development, which will spread development across the region. The following are principal strategies for this intervention:

- Fast-tracking the implementation of the Protocol on Trade to achieve the FTA;
- Negotiations on the establishment of a SADC Customs Union;
- Preparation for the establishment of a Monetary Union;
- Negotiations on the establishment of a SADC Common Market; and
- Harmonization of policies, legal and regulatory frameworks that address the business environment and the free movement of all factors of production.

(3) RISDP for Infrastructure for Regional Integration, Poverty Eradication

Strategic regional infrastructure interventions are keys to attracting investment into the region.

The overall goals of this intervention are to ensure the availability of a sufficient, integrated, efficient and cost effective infrastructure system and provision of sustainable services that will attain and sustain regional economic development, trade, investment, and agriculture contributing towards poverty eradication.

The following are principal strategies for this intervention. There is emphasis on the removal of avoidable hindrances and impediments to the cross-border movement of persons, goods and service by year 2015.

- Increase efficiency and reduce the costs of operation.
- Ensure appropriate levels of accessibility and mobility in rural areas.
- Liberalize markets in road transport, air transport services, coastal shipping, and railway services to ensure competitiveness and efficiency
- Promote harmonization of policies, rules and regulations to improve the level of safety and facilitate the cross-border transportation of people, goods and information

### 3.1.3 OSBP Introduction for Trade Facilitation

(1) OSBP Introduction under the Strategic Plan

It is widely recognized that traffic bottlenecks are positioned at points of importance on international trading routes such as ports, inland truck terminals and border posts and that elimination or prevention of those bottlenecks is highly beneficial. Long waits at border posts delay trucks, cost money and make goods less competitive.

Consequently, upgrading of border facilities as well as border control systems is to be considered as one of the keys amongst multinational prioritized infrastructure improvements in the Strategic Plan to achieve trade facilitation and to eliminate administrative non-tariff barriers.

The introduction of One Stop Border Posts (OSBP) is ranked under the RISDP for transport sector as an effective countermeasure against current challenges in cross-border trading, i.e. border congestion, delays and insecurity of transit traffic, which further affect transport cost and time for delivery.

(2) The Regional Trade Facilitation Program (RTFP)

The RTFP for Southern Africa financed and administrated by the DFID, of which SADC and COMESA jointly constitute major project components, is a supporting program for the RISDP aimed at reducing regional non-tariff barriers and streamlining customs, border procedures and transit systems through introduction of One Stop Border Posts.

The RTFP has been implemented over a five-year period, which commenced in 2004 and will conclude in October 2009 with its Phase 2 of the Program covering the following five disciplines, while the Tripartite Task Force among SADC, COMESA and EAC has worked on designing common regional customs documents, regional transit bond guarantee, harmonized rules and customs best practices:

- ✓ Streamlined Customs/Border Procedures and Common Regional Transit System;
- ✓ Pro-Poor Trade agreements negotiated at WTO and as part of EPAs;
- ✓ Improved Functioning of Regional Trade Agreements (SADC, EAC, COMESA);
- ✓ Increased Participation by Local Communities in the Production and Export of Selected Pro-poor commodities; and
- ✓ Improved Trade Policy Capacity.

The RTFP has led the introduction of three OSBP in Sothern Africa as follows,

- ✓ Chirundu between Zambia and Zimbabwe:

  It is the second busiest border post along the North-South Corridor. Chirundu, on the river Zambezi, has long been a major hold-up for regional traffic travelling to Zambia as well as to countries north and east.

  These long delays have impeded trade and added heavily to the cost of freight. Two governments, working with COMESA Secretariat, have agreed to establish a juxtaposed OSBP at Chirundu. On 27th August, 2007, they signed a bilateral agreement. The date of 1st September, 2009 has been set for the official launch.

- ✓ Lebombo-Ressano Garcia between South Africa and Mozambique:

  The border post located along the Maputo Corridor (details in section 3.2.3)

- ✓ Forbes-Machipanda between Mozambique and Zimbabwe:

  The border post located along the Beira Corridor (details in section 3.2.3).

## 3.2 One Stop Border Posts

### 3.2.1 Concept of OSBP

The OSBP concept was first experimented during World War I in France. Full-scale implementation began in the late 1940s in Europe and US.

A One Stop Border Post (OSBP) is the facility where persons, vehicles and goods make a single stop to exit one country and enter another, whereas an ordinary border post requires two stops to exit-entry at each of the juxtaposed countries. To enable clearing procedures with a single stop, the Common Control Area is to be established inside the facility, where bilateral customs and immigration officers sit side by side and jointly work.

It is generally understood that OSBP introduction implies simplification of customs documents and procedures and greater ICT application.

OSBP firstly aims to reduce border crossing time both by physically renovating border facilities together with relevant infrastructures and by streamlining customs procedures, transit system rules and standards. As well as reducing time, levying of customs duties, border security and risk management are expected to be improved.

OSBP thirdly benefits increased cooperation and information sharing between border agencies, improves transparency, and reduces opportunities for non-compliant conduct and irregularities.

### 3.2.2 Models of OSBP

There are broadly three different models of OSBP which become applicable depending on criteria to be taken, i.e. i) geographical location, ii) condition of the existing facility, iii) level of bilateral integration, iv) resources available, and v) political decisions, etc.

Traffic volumes and their projections, traffic pattern, type of passengers and cargo are also keys for the facility design as well as selection of the models.

The following explains and illustrates three models, namely the juxtaposed facility and the straddle facility and the common one-country facility.

(1) Juxtaposed Facility

When existing border posts are in good condition or where the border is a river, mountain or other natural obstacle, the juxtaposed facility is the optimum model. Vehicles bypass the facility in the exit country and go directly to the entry country to carry out both exit and entry procedures.

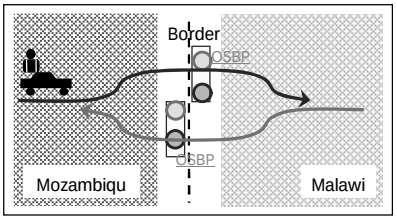



**Figure 3.2.1 Juxtaposed**

(2) Straddle Facility

Where the geography permits, a facility can be built straddling the border thereby allowing a single facility where border officials operate on their own territory. Since joint inspections are often held as the nature of OSBP, the law allowing officers to operate in the territory of the adjoining country may be required.

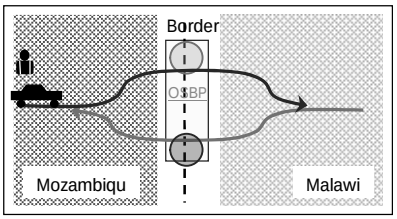



**Figure 3.2.2 Straddle**

(3) Common One-Country Facility

Where the geography permits, a facility can be built straddling the border thereby allowing a single facility where border officials operate on their own territory. Since joint inspections are often held as the nature of OSBP, law allowing officers to operate on the territory of the adjoining country may be required.

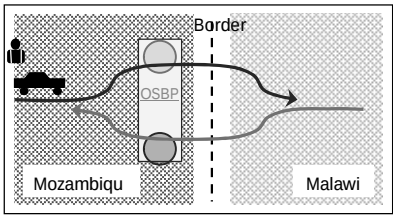


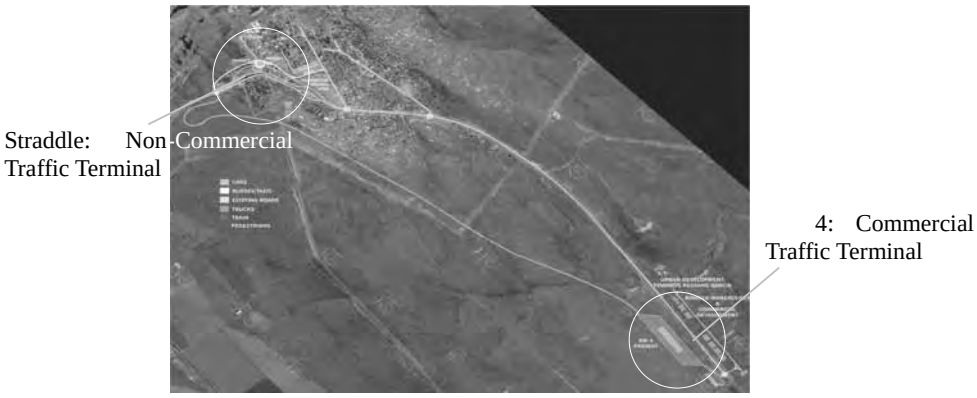

**Figure 3.2.3 Common One**

### 3.2.3 OSBP Projects Underway in Mozambique

#### (1) Lebombo-Ressano Garcia Border Post

RTFP has undertaken work to assist the Governments of Mozambique and South Africa through the South African Revenue Service (SARS) to plan for the establishment of an OSBP at Lebombo-Ressano Garcia which is the main border post on the Maputo corridor). Border post congestions and delays currently last 40 minutes for passengers and five hours in maximum for commercial vehicles processing. The facility will be the first OSBP in the region and is expected to commence operation by year 2010.

For facility planning and design, the option retained is that OSBP will comprise three independent terminals per traffic mode and pattern. It broadly separates commercial traffic from non-commercial traffic as well as road traffic from rail traffic.




Source: ANE

Commercial traffic will be processed at the Km4 point in Mozambican territory, whereas non-commercial activities will be managed at the current location, with new joint infrastructure spanning the border line. That is, the common one-country model will be applied for the commercial terminal and the straddle model will be applied for the non-commercial terminal. Rail traffic will be dealt with at a station to be newly built on the railway.

Features of the facility are summarized as follows:

- ✓ Passenger traffic will be processed at the non-commercial terminal which will be a new facility and straddle the border;
- ✓ Merchandise traffic will be processed at a site four kilometers inside Mozambique (known as Km4), where various border authorities of South Africa and Mozambique will be present; and
- ✓ A new secured approach road will connect the Km4 site with the border.

#### (2) Forbes-Machipanda Border Post

RTFP has undertaken work to assist the Governments of Mozambique and Zimbabwe. Forbes-Machipanda one-stop border post, which was part of the initiative to establish an OSBP between Zimbabwe and Mozambique along the

Beira Development Corridor and was the second OSBP in the region, has been upgraded with the establishment of working groups, which include customs and trade facilitation, security, immigration and law enforcement and information and information technology.

The groups comprising officials from Zimbabwe and Mozambique will continue to meet in Zimbabwe and Mozambique till August 2009 to come up with a document that will be used to harmonize operations under the OSBP concept at Forbes-Machipanda border post just outside Mutare.

It is SADC's intention that introduction of OSBP will be rolled out to other border posts in the region. The border post has been nominated as the pilot project since there was an already existing memorandum of understanding between Zimbabwe and Mozambique on the Beira corridor, which was signed in December 2007. And the two countries signed the bilateral agreement to strengthen ties between them in line with economic integration under SADC.

(3) Unity Bridge Border Post

Introduction of OSBP has been planned at the Unity Bridge that is under construction to cross over Rovuma River, which is the border river between Mozambique and Tanzania. The bridge construction is expected to be completed by late 2009.

Mozambique government has just begun the project in earnest from February 2009 with preparation for formulating the OSBP committee which may involve five government agencies. Prior to official formulation of the committee, preliminary discussion has been simultaneously held on border infrastructure issues, and use of the existing facilities under non-OSBP at the place of joint technical committee formed by two countries for the bridge construction. Currently, the Ministry of Foreign Affairs and Ministry of Home Affairs are jointly working on drafting of the bilateral agreement.

(4) Calomue Border Post

The Mozambican and Malawian Tax Authorities signed in Maputo in February 2009 a commitment to establish an OSBP at the Calomue border post in Tete, which is budgeted at 10 million USD, half of which will be paid by each country.

Calomue is justifiably selected for OSBP introduction amongst other border posts in Tete due to the fact that recent traffic demand at Calomue has been intensively increasing in comparison with Zobue and Kuchamano. Further, there is a report that Calomue has also been used by smugglers and illegal immigrants. In 2008, the Mozambican authorities detected a truck transporting 155 illegal immigrants about 20 kilometers from Tete, which had entered through the Calomue border post.

It is planned for the existing infrastructures to be used rather than construct a new OSBP purpose-built facility to minimize initial costs for introducing OSBP.

**Table 3.2.1 OSBP Underway in Mozambique**

| Items | Ressano Garcia | Forbes-Machipanda | Unity Bridge | Calomue |
|---|---|---|---|---|
| Adjacent country | South Africa | Zimbabwe | Tanzania | Malawi |
| Budget | 130 mill US | unknown | unknown | 10 mill US |
| MoU | Signed | Signed | - | Signed |
| Bilateral agreement | Signed | Signed | Drafting | - |
| Year started | 1998-2006 | Dec.2007 | Feb.2009 | Feb.2009 |
| Year of introduction | 2010 | - | - | - |
| OSBP model | Straddle | Unknown | Juxtaposed | Unknown |

Source: Study Team

## 3.3 Mozambique-Malawi Bilateral Strategy

### 3.3.1 Bilateral Strategy for Upgrading the Border Posts along the Nacala Corridor

It is a common understanding and policy between the Mozambican and Malawian governments that OSBP concept will be employed for upgrading Mandimba-Chiponde border post of the Nacala Road Corridor in compliance with the SADC regional strategy and programs for the trade facilitation and elimination of non-tariff barriers, taking maximum advantage of experiences and lessons learnt from two OSBP projects underway in Mozambique.

It is also a common intention that introduction of OSBP to Mandimba-Chiponde will be a pilot OSBP and will help rolling out OSBP to other border posts such as Zobue-Mwanza, which is currently well-known as the most congested border post between the two countries.

As the first OSBP in Malawi, this occasion will provide significant momentum for Malawi to prepare the OSBP environment such as harmonization of legalities, customs procedures, ICT and facilities.

### 3.3.2 Bilateral Discussions for OSBP Introduction

In accordance with the common intention mentioned above, the bilateral meeting has been held three times since November 2008 as follows. The Study Team participated in the third meeting as observer.

- 1st Bilateral Meeting : November 6, 2008 at Maputo, Mozambique
- 2nd Bilateral Meeting: March 25, 2009 at Mandimba, Mozambique
- 3rd Bilateral Meeting: May 13, 2009 at Mangochi, Malawi

The Mozambican delegation comprises ANE, Ministry of Public Works, Mozambique Revenue Authority, Ministry of Home Affairs, whereas the Malawian delegation comprises the Ministry of Transport & Public Works, Road Authority, Customs Office, Malawian Revenue Authority, Immigration, Police and Ministry of Foreign Affairs. ANE and the Ministry of Transport & Public Works are the lead agencies of the two delegations respectively.

In the bilateral meetings, the legal frameworks such as the Memorandum of

Understanding (MoU) and the Bilateral Agreement have been subjects for discussions. Draft documents of MoU and/or the agreement will be prepared by the Mozambique delegation based on the experience of Lebombo-Ressano Garcia OSBP project and will be further examined in the fourth meeting or the following.

At the third meetings, both delegations agreed to carry out a study tour to the OSBP border for fact-finding. It scheduled for August at the Chirundo Border Post or any other site proposed.

In addition, implementation approach for upgrading the border facility has also been discussed in the past meetings. Facility planning, how to deal with the existing facilities, how to plan and design OSBP in terms of models, magnitude and timing of the facility, have been main topics and concerns for both delegations.

The Study Team will assist in examining these planning issues throughout the study period at further meetings and/or workshops.

### 3.3.3 Technical Committee and Working Groups

#### (1) Technical Committee

Both delegations have agreed to officially formulate in each state the Technical Committee (T/C) which will function as a policy-making-unit organized on the inter-ministerial level in the implementation hierarchy. T/C will identify all issues and establish implementation policy in order for OSBP to be properly designed and to be effectively introduced and operated.

The Mozambique delegation led by ANE has initiated to pick and summon official members of T/C from the relevant governmental agencies other than the agencies that participated in the delegation, such as Institute de Mares Fronteiras, Ministry of Development & Planning, Ministry of Foreign Affairs and/or other necessary organs. Those members selected shall be subject to authorization by top of the hierarchy prior to the official call for commencement.

#### (2) Working Groups

Working groups (W/Gs) are implementation units to deal with issues and requirements identified. W/Gs will develop a concrete action plan based on the implementation policy in which all activities and time schedules are specified.

The Mozambique delegation has extra-officially formed three preliminary W/Gs i.e. i) “Legality W/G” which will take care of drafting the bilateral agreement, ii) “Border Control Services W/G” which will take care of identifying issues and gap assessment on customs procedures and systems, and iii) “Infrastructure and Facility W/G” which will be in charge of identification of issues and examination of facility requirements. ANE will perform as the general coordinator of W/Gs beside the lead agency of the delegation

It is the Mozambique delegations’ plan that, based on practices experimented for the Lebombo-Ressano Garcia OSBP, the “Information Communication

Technology" W/G and "Human Resource Development" W/G will be organized in addition to those three preliminary W/Gs, and that a coordinating consultant will facilitate, guide and monitor the W/Gs' activities.

The following illustrates the WG structure in Lebombo-Ressano Garicia OSBP Project, which was implemented with broad support provided by DFID consultants for its conduct and facilitation.

# Chapter 4 Implementation Approach for Upgrading Mandimba Border Facilities

## 4.1 Needs Assessment and Proposed Approach for Implementation

### 4.1.1 Fact Finding and Needs Assessment

(1) Fact Finding for the Strategic Frame and Plan

Facts found from the baseline study regarding the background of OSBP introduction are summarized as follows:

- The region's strategic framework for upgrading the border posts has been established.
- Mandimba- Chiponde border post is a point of strategic importance for the corridor development.
- Under the SADC regional strategy, trade facilitation programs and infrastructure projects which represent RISDP, RTFP and RTRN, have been widely prompted and OSBP introduction ranks as one of the effective measures for trade facilitation as well as streamlined customs procedures and systems.
- Both Mozambique and Malawi have a common intention that Mandimba-Chiponde OSBP ranks as a pilot project to disseminate to Zobue, Chipata and other border posts.
- In accordance with above regional strategy and bilateral intention, bilateral discussions have been held for introduction of OSBP since late 2008 and the bilateral agreement is about to be signed.
- Experiences and lessons learnt from the OSBP projects underway in Mozambique are to be fully taken advantage of and fed back to the operation of the technical committee as well as working groups which must be organized for further examination and discussion of OSBP introduction.

(2) Fact Finding for the Cross-Border Traffic

Facts found from the baseline study regarding the cross-border traffic and the facilities are summarized are as follows:

- Currently small volumes of cargo, vehicles and people crossing the border are observed within the limits of the current border capacity.
- Release times of customs clearance and passport control are tolerable against current traffic volume.
- Formal trading and small-scale informal trading are observed and informal trading is predominant.
- Exports (Mozambique to Malawi) are predominant and increasing.

- Imports of goods worth less than 500USD are predominant to goods worth more than 500USD, which are subject to transfer to the inland truck terminal and the provincial customs office for levy.

- Domestic transit of cargo is remarkable movement amongst the cross-border formal trading and predominant to international transit.

- No critical interferences and congestions are observed for current cross-border traffic.

- Customs procedures are to be upgraded with the ICT system of customs clearance which is under processing for governmental approval.

(3) Fact Finding for the Cross-Border Facilities

Baseline study suggests that existing facilities are to be expandable and adaptable for operation under OSBP environment.

Facts found from the baseline study regarding the facilities both at Mandimba border post and Chiponde border post are summarized respectively;

Mandimba border post

- Relatively sound building structure for both the office and the lodges
- No surplus working space, unable to increase of number of staff in the office
- Undeveloped and no designated parking space for commercial and/or passenger vehicles
- Sufficient land area for renovation of the facilities

Chiponde border post

- Very sound building structure for both the office and the lodges
- Surplus working space, able to increase of number of staff in the office
- Undeveloped and no designated parking space for commercial and/or passenger vehicles
- Inadequate approach and inconvenient flow for commercial vehicles
- Sufficient land area for renovation of the facilities

(4) Needs Assessment

Based on facts mentioned above, despite no urgency confirmed by the current traffic volume and pattern, OSBP introduction will be justifiable and viable for upgrading Mandimba-Chiponde border post in terms of attaining and maintaining competitiveness of the Nacala Road Corridor as well as moving the trade facilitation ahead, which is a multinational commitment for economic development and regional integration in South Africa.

Cross-border security, safety and hygiene are subsequently expected to be

enhanced as well through upgrading of the customs procedures which shall be incorporated into the OSBP environment.

Furthermore, it will be another significant benefit that dissemination of OSBP environment to other critical border posts of higher traffic demand will gain momentum and provide a stimulus to the elimination of non-tariff barriers between the two countries when Mandimba- Chiponde OSBP is expected to become an ideal pilot.

4.1.2 Proposed Approach for Upgrading Mandimba-Chiponde

Based on the fact finding and needs assessment, the proposed approach for ideal OSBP at Mandimba-Chiponde is as follows;

- Phased introduction shall be employed,
- Existing facilities shall be practically adapted and utilized under the environment of OSBP operation,
- Phased introduction shall be examined in line with i) magnitude of future demands of cross-border traffic and year forecasted, ii) time schedule of the bilateral discussion and the agreement, and iii) time schedule to introduce OSBP environment to other border posts.

## 4.2 Methodology for OSBP Phased Introduction

4.2.1 Methodology

Applicable models of OSBP, such as juxtaposed, straddle and/or common one-country stated in section 3.2.2., will be examined and identified. Remodeling and renovation of the existing facilities shall be considered as well when models are identified.

Scenarios for phased introduction of OSBP will be written, which indicate optional phases and flow of upgrading from the current capacity up to reaching the full-scale capacity required by future traffic demands. Scenarios shall be designed with the applicable OSBP models identified earlier.

After having results of traffic demand forecast, optimum scenarios will be selected in accordance with current capacity of the existing facilities and traffic trends (traffic demand, intensity of increase, timing, duration).

Selected scenario(s) and applicable OSBP model(s), then, will allow facility planning to be further examined and detailed, that is, sizing, area layout and flow design of the facilities based on required capacity and year of introduction.

4.2.2 Applicable models of OSBP

The existing facility is a non-OSBP model namely “Existing non-OSBP”. Current capacity of the existing facility is to be hereby named “C0” capacity.

Three models are proposed for the applicable model of OSBP. The following

illustrates the models.

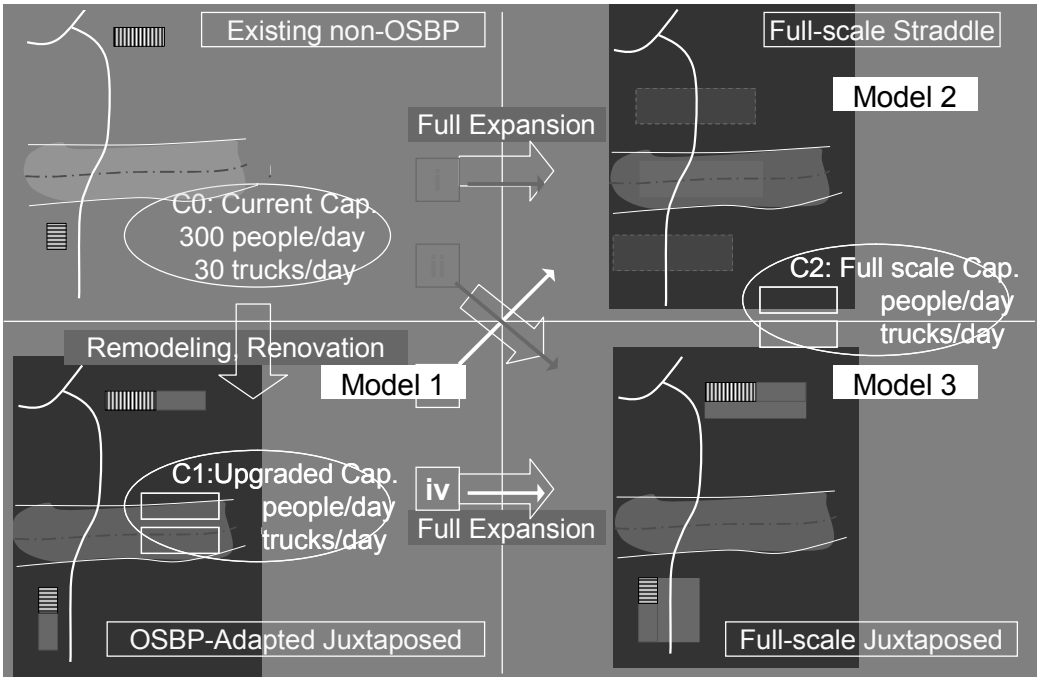



**Figure 4.2.1 Applicable Models for Mandimba OSBP**

Model 1 is an adapted model for remodeling and/or renovation of the existing facilities. "C0" capacity will be upgraded but not expanded up to full scale with certain limitations.

Upgraded capacity of this model is to be named "C1" capacity. Due to utilization of the existing facility, the model shall naturally take the juxtaposed style and be namely "OSBP adapted juxtaposed".

Model 2 is a full-scale expanded model with one common building. Either "Straddle" or "Common one-country" style will be applicable. It is thus named "Full-scale straddle". Full-scale capacity of this model is to be hereby named "C2" capacity and it is greater than "C1".

Model 3 is a full-scale expanded model with juxtaposed buildings. It is namely "Full-scale Juxtaposed". Full-scaled capacity of this model is to be hereby named "C2" capacity and it is greater than "C1".

### 4.2.3 Scenarios for Phased Introduction

Four scenarios are to be herewith proposed. The following illustrates the scenarios.

Scenario 1 is one-step expansion -with straddle and/or common one-country style, namely from "Existing non- OSBP" to "Full-scale OSBP".

Scenario 2 is one-step expansion - with juxtaposed style, namely from "Existing non- OSBP" to "Full-scale OSBP".

Scenario 3 is two-step expansion basis considering remodeling and/or renovation of the existing facility, namely from "Existing non- OSBP" to "Full-

scale straddle OSBP" through "Adapted juxtaposed".

Scenario 4 is two-step expansion considering remodeling and/or renovation of the existing facility, namely from "Existing non-OSBP" to "Full-scale juxtaposed OSBP" through "Adapted juxtaposed".

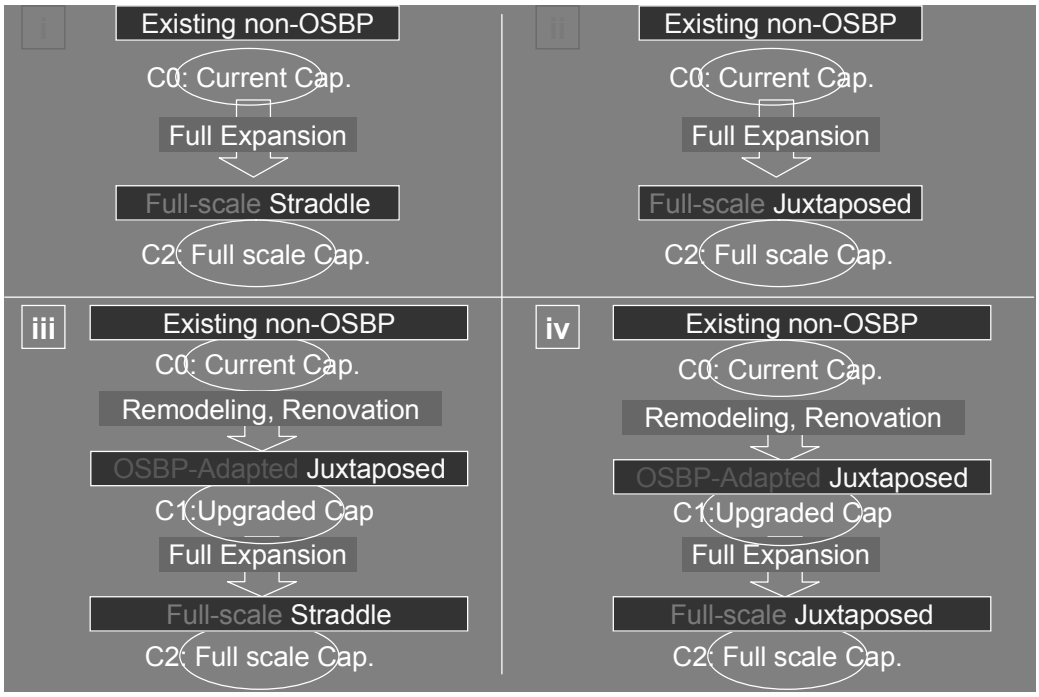



**Figure 4.2.2 Scenarios for Phased Introduction**

## 4.2.4 Selection of Scenario and Model

Four scenarios are to be examined and the optimum one will be selected in accordance with traffic demand forecast which provides traffic trends as mentioned earlier in this section. The following illustrates an image of the traffic trends.

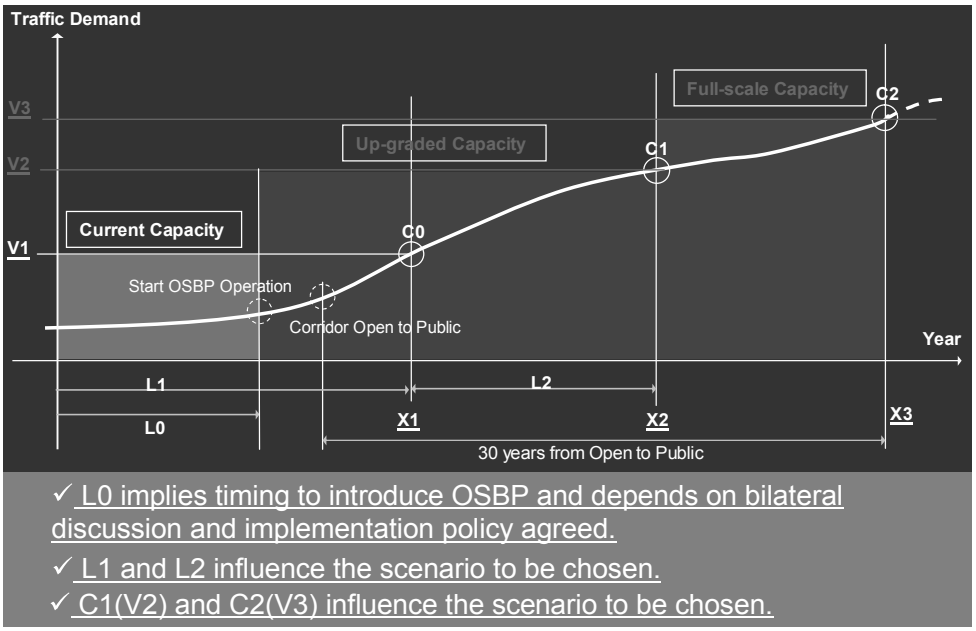



**Figure 4.2.3 Image of Traffic Trend and Demand Curve**

Based on factors and criteria indicated by the traffic trend, the optimum scenario will be selected. The following illustrates a selection matrix and sample flow of selection.

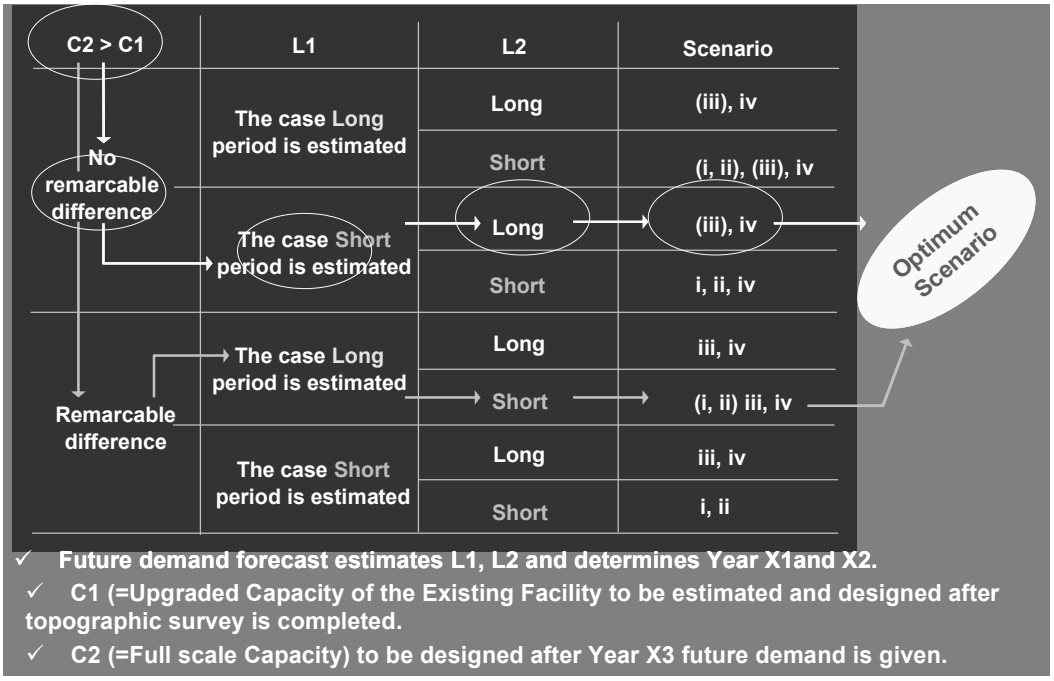



**Figure 4.2.4 Image of Scenario Selection Matrix and Flow**

Selection of one OSBP model among two candidates will be examined under constraints i.e. i) Legislative implication, ii) Natural, geographical conditions, iii) Present condition and availability of Infrastructure, iv) Adaptability to traffic demand pattern v) Effectiveness of operation under OSBP environment, vi) Construction period, vii) Initial costs, and viii) Political Decision. The following illustrates an image of the constraints to be examined.

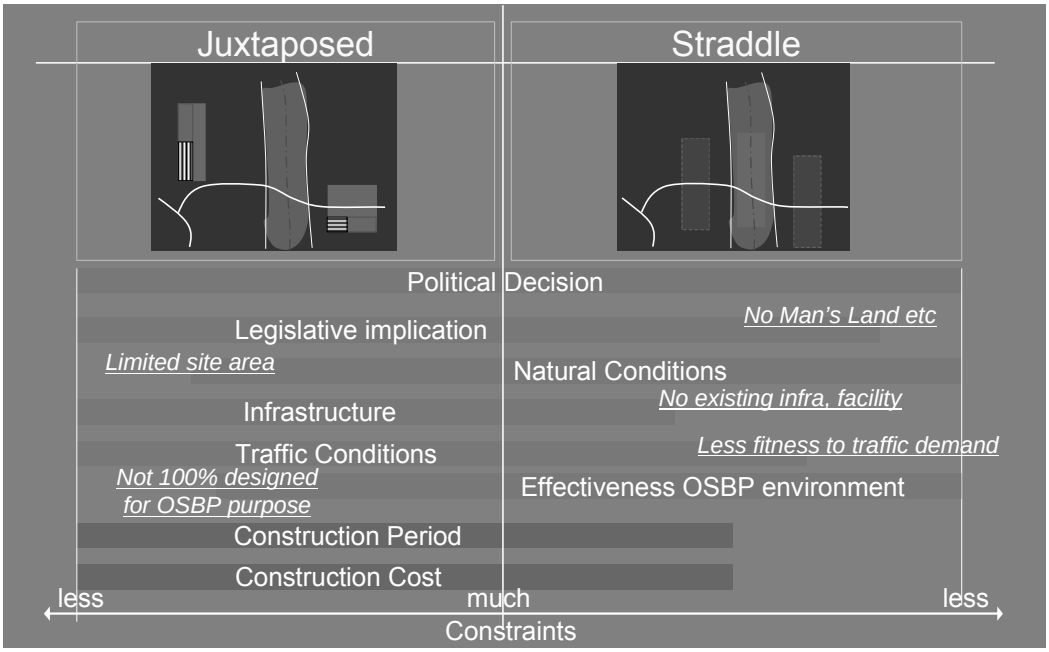



**Figure 4.2.5 Image of Constraints for Selection of Model**

## 4.3 Challenges to OSBP Introduction

Certain unknown factors and issues have been identified throughout fact finding from the baseline study. These are challenges to OSBP introduction and will be further discussed in the T/C and the W/Gs of the two countries.

### 4.3.1 Challenges on Undertaking Facility Planning

The following unknown factors are to be clarified and/or examined by the technical committee and "Infrastructure W/G" together with the Study Team in order for facility planning to be deeply developed after future traffic demand is estimated.

- ✓ Target release time for border crossing procedures under OSBP environment. This shall particularly imply customs procedures for commercial traffic.
- ✓ Designed processing flow and unit processing time under OSBP environment. This shall imply time consumed by one group or team of officers for customs clearance, customs inspection, passport control and others, and shall be a pre-condition for the target release time.
- ✓ Human resources available for OSBP operation. This shall be a prerequisite to determine target release time and unit processing time.
- ✓ Facility standards and design criteria to follow.

### 4.3.2 Challenges on Border Crossing Procedures and Systems

The following issues are to be discussed by the technical committee and "Border Control Services W/G", subject to mutual consent between the two countries. Border crossing procedures and systems to be employed under OSBP environment shall be clarified and determined in detail. This shall imply simplification and harmonization of customs procedures, forms and ICT system to employ.

According to the interviews with custom officers and border post users such as the transporters and importers/exporters, it sometimes takes four or five hours for the customs clearance at border posts due to the traffic congestion or the delay of procedure. Besides, there are some cases where vehicles are detained for a few days at the border post for some reason.

To mitigate the congestion and shorten the clearance time at border posts, it is expected to improve the border posts to OSBP. On the other hand, it is necessary for the procedures and regulations between the two countries to be adjusted as there are a lot of differences.

The factors causing delay and difference of procedures and regulations between two countries are as follows.

(1) Factors causing delay at border posts

The main procedures which are required at border posts are the preparation of documents, data capture, confirmation of required documents, tax payment and

goods inspection. One of the reasons for delays of clearance is the lack of the number of customs officers for visually checking the clearing documents, which takes a long time. Besides, as the border post is not open 24 hours, the vehicles which arrive at the border post after closing time have to wait until the next morning. In that case, the drivers park around the border post and sleep in their vehicles to save money and avoid any trouble such as the robbery of their goods.

However, there are vehicles detained for reasons unrelated to the border facilities. According to the interviews with drivers who have stayed at border post for a few days, the following reasons are given.

**Table 4.3.1 Reasons for Delay at Border Posts**

| |
|---|
| Waiting for the required documents, which the driver has not brought, to be sent or delivered from the client |
| Waiting for agents to handle the custom clearance instead of drivers (in cases where there is no office of agent) |
| Repair or maintenance of the vehicles |
| Waiting for other trucks to declare the goods all together |
| Waiting for confirmation of payment for overload as payment is accepted only on weekdays |

(2) Difference of clearing procedure between two countries

As for now, the bilateral agreement for customs clearance has not been concluded between Mozambique and Malawi. Besides, there are many differences in the procedure for custom clearance. For the analysis for improvement of OSBP, the customs clearance procedure under the each procedure between two countries is compared in the table below.

**Table 4.3.2 Comparison of Custom Clearance Procedures**

| | Malawi | Mozambique |
|---|---|---|
| Import | Select to pay the tax at the border post or inland | Pay the tax for the goods over 1500US$ at provincial office only |
| Export | Declare at the border post | Declare at provincial office in advance |
| Date capture | ACYCUDA++ | TIMS (current)<br>Single Electronic Window (under processing) |
| Clearing agent | Agent at the border post handles the declaration | Agent handles the declaration at provincial office. No agent at the border post |
| Goods inspection | Inspection is carried out for only some goods. There is no equipment. | Inspection is carried out for only some goods. There is no equipment. |
| Quarantine | No operation | No operation |
| Parking | Large parking space is required as it takes time for custom clearance. | Large parking space is not required as the clearance work is dealt with in the provincial office. |
| Insurance | Yellow card is available | Yellow card is not available |
| Toll fee | Fee varies depending on the mileage driven | Fee is fixed |

# Chapter 5 Border Development Strategy for Upgrading Mandimba Border Facilities

## 5.1 Traffic Demand Forecast at Mandimba-Chiponde Border

### 5.1.1 Traffic Demand Forecast

Based on results of traffic demand forecasting for 2009-2033, volumes of cross-border traffic are estimated and sorted per traffic type. Traffic types classified into three categories, i.e. Commercial traffic, Non-commercial traffic, Pedestrian and bicycles, are closely connected with customs regimes as well as relevant border crossing procedures such as passport control, insurance and quarantine, etc.

The following table indicates summary of traffic volume forecast in the three categories of traffic types.

(1) Commercial Traffic

Commercial traffic mainly comprises trailers and trucks (both pick-up and bulk trucks), which are subject to certain customs clearance at the border post and passport control as well as relevant border crossing procedures.

Related to customs clearance for the commercial traffic, four different regimes are incorporated into the volume forecasting, such as export traffic, import traffic, transit traffic for both domestic and international flow.

It shall be a key to perceive those categorized traffic volumes per regime and direction when estimating total processing time at the border post, which is highly influential in the border facility planning.

**Table 5.1.1 Commercial Traffic Demand Forecast -Traffic Volume per Customs Regime**
**Unit [vehicles/day]**

| Customs Regime | 2009 | 2014 | 2019 | 2024 | 2029 | 2033 |
|---|---|---|---|---|---|---|
| Export | 3 | 4 | 6 | 6 | 7 | 7 |
| Import | 16 | 49 | 127 | 324 | 851 | 1,860 |
| -Simplified/Abbreviated | 15 | 46 | 120 | 313 | 832 | 1,831 |
| - Normal regime | 1 | 3 | 7 | 11 | 19 | 29 |
| Transit Domestic | 8 | 14 | 24 | 38 | 62 | 91 |
| - Inbound | 5 | 10 | 18 | 30 | 50 | 75 |
| - Outbound | 3 | 4 | 6 | 8 | 12 | 16 |
| Transit International | 0 | 71 | 87 | 91 | 92 | 92 |
| - Malawi Import | 0 | 39 | 49 | 51 | 52 | 52 |
| - Malawi Export | 0 | 32 | 38 | 40 | 40 | 40 |
| Total | 27 | 138 | 244 | 459 | 1,012 | 2,050 |

Source: Study Team

(2) Non-Commercial Traffic

Non-commercial traffic comprises Passenger's vehicles, Buses and Motor bicycles, which are not subject to customs clearance under above mentioned customs regimes for all commercial vehicles but other procedural regimes, i.e. temporal export (TEP), temporal import (TIP) processing and passport control as well as 3rd party insurance and road transit charges.

**Table 5.1.2 Non-Commercial Traffic Demand Forecast**

**Unit [vehicles/day]**

| Vehicle Type | 2009 | 2014 | 2019 | 2024 | 2029 | 2033 |
|---|---|---|---|---|---|---|
| Passenger vehicle | 6 | 9 | 16 | 25 | 40 | 59 |
| - Inbound | 3 | 3 | 6 | 9 | 14 | 21 |
| - Outbound | 3 | 6 | 10 | 16 | 26 | 38 |
| Bus | 0 | 1 | 2 | 3 | 4 | 7 |
| - Inbound | 0 | 1 | 2 | 3 | 4 | 7 |
| - Outbound | 0 | 0 | 0 | 0 | 0 | 0 |
| Motor bicycle | 6 | 11 | 18 | 32 | 56 | 88 |
| Total | 12 | 21 | 36 | 60 | 100 | 154 |

Source: Study Team

(3) Pedestrian and Bicycle Traffic

Pedestrian and bicycle traffic is only subject to passport control unless engaging in informal small-scale trading that will be processed under the simplified import regime.

**Table 5.1.3 Pedestrian and Bicycle Traffic**

**Unit [vehicles/day]**

| Vehicle Type | 2009 | 2014 | 2019 | 2024 | 2029 | 2033 |
|---|---|---|---|---|---|---|
| Pedestrian, bicycle | 6 | 9 | 16 | 25 | 40 | 59 |

Source: Study Team

The following figure illustrates traffic volume forecasted per traffic type. It is evidently observed that commercial traffic will double every five years, whereas Non-commercial and Pedestrian & bicycle traffic will increase steadily.

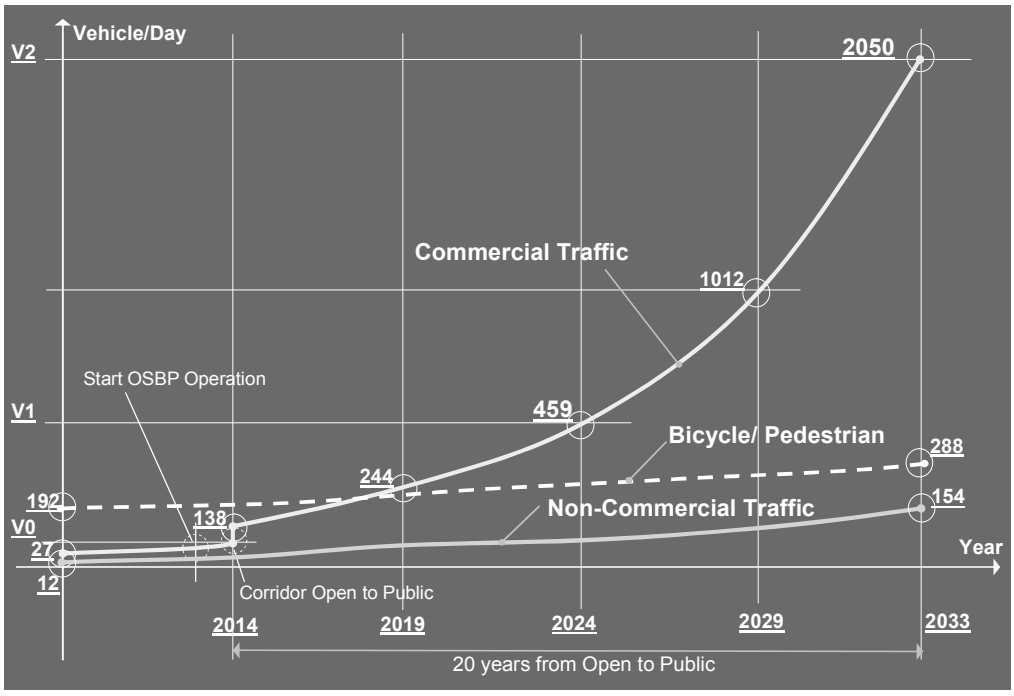



**Figure 5.1.1 Traffic Demand Forecast per Traffic Type**

5.1.2 Pattern and Trend of Border Crossing Traffic

In conformity with traffic volume forecasted, traffic patterns and trends are examined and considered in the border development strategy.

The following bar graph illustrates a breakdown of traffic volume per traffic type classifying customs regimes for commercial traffic as well as vehicle type for non-commercial traffic.

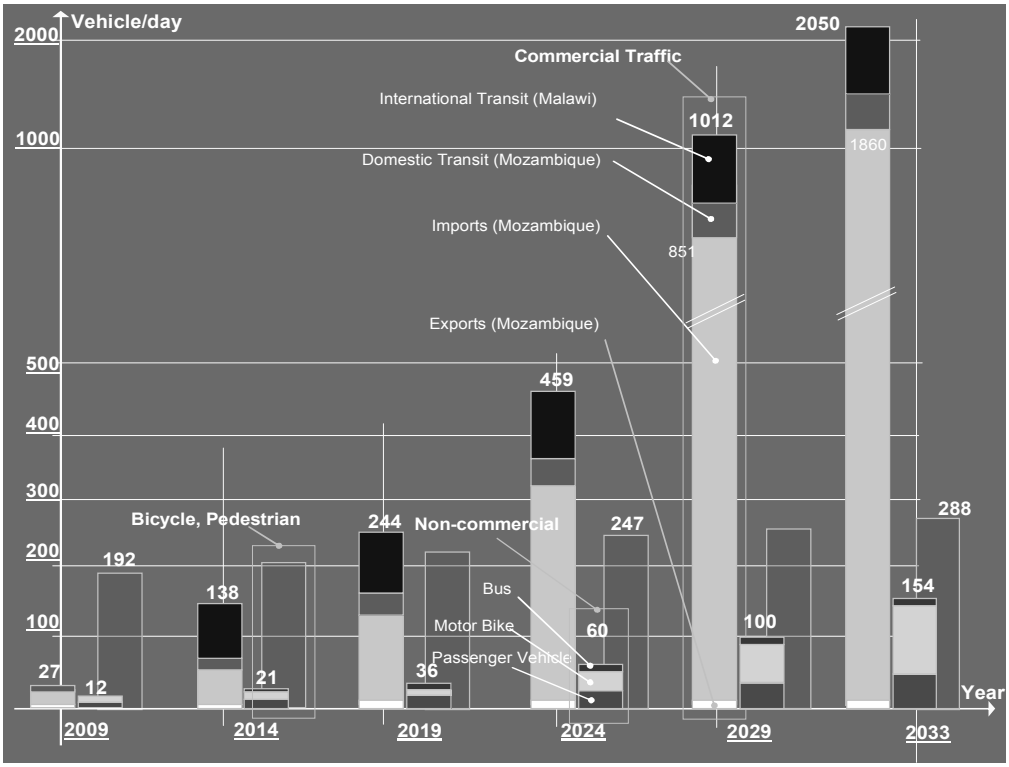



**Figure 5.1.2 Traffic Demand Forecast Classified by Customs Regimes and Vehicle Type**

Those breakdowns state characteristics of cross-border traffic at Mandimba-Chiponde. Specific traffic patterns and trends, which are identified by the demand forecast, shall be summarized as follows under three categories of traffic types:

(1) Commercial Traffic Trends

- It is estimated that, from 2009 to 2033, commercial traffic demand will double every five years.
- It is observed that main cross-border trading will be importation (goods moving from Malawi to Mozambique) and from 2019 importation starts showing intensive growth accounting for 60% of border trading activities, then amounts to more than 90% of total in 2033.
- Importation predominantly comprises goods of small value which are subject to processing at the border post under the simplified and/or abbreviated customs regime (see section 1.3.2), and small value imports account for 95% of the total importation.
- It is estimated that exportation (goods moving Mozambique to Malawi) will be very small and will increase evenly.
- It is a remarkable variation that international transit originating in Malawi will be generated after 2014, which is the target year for the Nacala Corridor's (Cuamba-Mandimba Section) opening to the public. This is due to the demand forecast that diverted transit traffic from the Beira Corridor

will be expected.

- International transit will account for over 50% of border trading in 2014. However, it will not show intensive growth for the next 20 years.
- 60% of international transit will be outbound traffic flow for Mozambique which is subject to importation processing in Malawi, while 40% of inbound flow will be processed under exportation regime in Malawi
- Domestic transit will show steady growth but its demand will remain low after 2019. 80% of domestic transit will be inbound traffic flow for Mozambique, with most coming from Tete through the Zobue-Mwanza border post.
- According to results of interview survey with Mozambican customs officers, commercial traffic demand in 2024 of 459 [vehicles/day] is equivalent to current demand at the Ressano Garcia border post with South Africa.

(2) Non-Commercial Traffic Trends

- It is estimated that bus traffic will be newly generated after 2014 but traffic growth will be quite gentle.
- Passenger vehicle and motor bicycle traffic will increase steadily for next 25 years and traffic volume of both vehicle types will be proportionally shared fifty-fifty.
- Inbound traffic will be the predominant flow for passenger vehicles and will account for 60%.
- According to results of interview survey with Mozambican customs officers, non-commercial traffic demand in 2033 of 154 [vehicles/day] stands equivalent to current demand at the Ressano Garcia border post with South Africa.

(3) Pedestrian and Bicycle Traffic Trends

- Pedestrian and bicycle traffic will gently increase for the next 25 years. Most of the traffic is generated for border crossing interactions between border communities such as informal small-scale trading, open-air market and cross-border laboring (see section 2.1).

- Consequently, pedestrian and bicycle traffic are most likely to be a daily repetitive flow, in spite of showing high demand. Furthermore, residents in those communities shall be normally granted special permits for border crossing rather than regular passport checks so that no critical resistance will be caused for cross-border processing at the border posts.

## 5.2 Proposed Implementation Policy

### 5.2.1 Scenario Selected for Phased Introduction

According to the methodology mentioned earlier in Section 4.2, four proposed scenarios (Figure 4.2.2 Scenarios for Phased Introduction) are to be examined and screened out for the optimum scenario(s) by using key factors and the

matrix (Figure 4.2.4 Image of Scenario Selection Matrix and Flow).

(1) Key Factors and Criteria for Scenario Selection

Key factors are indicated in Figure 4.2.3 such as, i) Current capacity of the border facility "C0", ii) OSBP adapted (upgraded) capacity at intermediate period of the F/S target period "C1", iii) OSBP full-scale capacity at the end of the F/S target period "C2", iv) Duration of current capacity "L1" and year forecasted "X1", v) Duration of OSBP adapted capacity "L2" and year forecasted "X2".

These factors can be estimated and determined as follows:

C0: Current Capacity of the border facility (Mandimba)

C0=58 [vehicles/day] for the commercial traffic processing and 25 [vehicles/day] for the non-commercial traffic processing are estimated based on traffic demand forecast 2009 and total processing time.

Total processing time is calculated in conformity to current time release and workforce (working hours, number of staff). Immigration might account for 360 [cases/day] of the processing capacity.

**Table 5.2.1 Estimation Sample for Current Capacity of the Border Facility**

| | Commercial Traffic | | | | | | | | Non-Commercial Traffic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger Vehicles | Pedestrian & Bicycle | |
| | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | | | |
| Traffic Demand Forecast [Vehicle/day] | 1 | 15 | 0.75 | 3 | 5 | 3 | 0.00 | 0.00 | 12 | 192 | |
| Total Processing Time [min/day] | | | | | | | | | | | |
| Customs | 20 | 375 | 41.25 | 45 | 25 | 60 | 0.00 | 0.00 | 120 | 0.00 | 686.25 |
| Passport Contorl | 5 | 75 | 3.75 | 15 | 25 | 15 | 0.00 | 0.00 | 60 | 960 | 1158.75 |
| | Current | | | Increased | | | | | | | |
| Customs Officer Team number | 3 = Officer (1+1+2)+ Cash | | | n/a due to workable space | | | | | | | |
| Working Hours [hr] | 12 | | | | | | | | | | |
| Peak Racio (=8hours/12hours) | 0.66666667 | | | | | | | | | | |
| Total limit Processing Time [min] | 1440 | | | | | | | | | | |
| Capacity Ratio | 2.09836066 | | | | | | | | | | |
| Receivable traffic demand | 2.10 | 31.48 | 1.57 | 6.30 | 10.49 | 6.30 | 0.00 | 0.00 | 25.18 | n/a | 83.41 |
| Commecial | 2.10 | 31.48 | 1.57 | 6.30 | 10.49 | 6.30 | 0.00 | 0.00 | 0.00 | 0.00 | 58.23 |
| Non-Commercial | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 25.18 | n/a | 25.18 |
| Immigration Officer Team number | 3 = Officer (1+1+2) | | | n/a due to workable space | | | | | | | |
| Working Hours [hr] | 12 | | | | | | | | | | |
| Peak racio (=10hours/12hours) | 0.83333333 | | | | | | | | | | |
| Total limit Processing Time [min] | 1800 | | | | | | | | | | |
| Capacity Ratio | 1.55339806 | | | | | | | | | | |
| Receivable traffic demand | 1.55 | 23.30 | 1.17 | 4.66 | 7.77 | 4.66 | 0.00 | 0.00 | 18.64 | 298.25 | 360.00 |

Source: Study Team

C1: OSBP Adapted Capacity

C1=459 [vehicles/day] for the commercial traffic processing is estimated based on traffic demand forecast in 2024.

C2: OSBP Full-Scale Capacity

C2=2,050 [vehicles/day] for the commercial traffic processing is estimated based on traffic demand forecast in 2033.

L1: Duration of C0 and X1

L1=5 years and X1=Year 2014, when the Nacala Corridor (Cuamba-Mandimba Section) is open to public, are projected based on "C0" and traffic demand forecast 2014. It would say that the current facility might suffer from limited capacity for border processing in 2014 when diverted commercial traffic begins to be generated.

L2: Duration of C1 and X2

L2=10 years and X2=Year 2024 are projected based on traffic demand forecast Year 2024.

The following graph indicates traffic demand curve incorporated with those key factors.

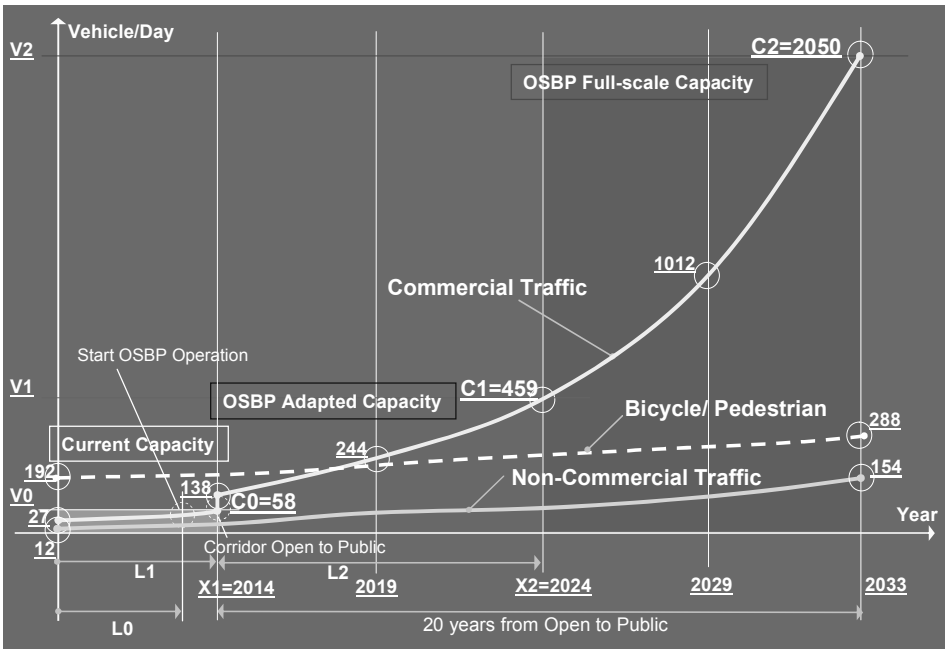



**Figure 5.2.1 Key Factors and Traffic Demand Curve**

(2) Scenario Selection

By using both the abovementioned key factors and matrix, two scenarios are selected, i.e. i) Scenario 3: Two-Phased Straddle/Common One Country, and ii) Scenario 4: Two-Phased Juxtaposed (see Section 4.2). Selection flow is shown in Figure 5.2.3.

Both scenarios are composed of the "two-step upgrade concept" for phased introduction of OSBP environment and summarized as follows:

1st Step of Facility Upgrading

Targeting 2014, OSBP environment will be phased in or partially introduced through giving the current facility a capacity of "C1" which shall satisfy 459 [vehicles/day] of commercial traffic processing.

On this stage, certain renovation or remodeling of the existing facility shall be required in order for adaption and utilization under the environment of OSBP operation. This OSBP adapted facility will operate during next 10 years until 2024.

It is an expectation that all necessary probation and feedback in terms of OSBP environment is to be employed through this stage before full-scale upgrade is required.

Feedbacks that might be considered are: i) outcomes from any of Trade Facilitation Programs conducted by WTO and RECs, ii) outcomes from Customs

Harmonization and Enhancement Programs conducted by WCO .

2nd Step Facility Upgrading

Targeting 2024, above OSBP adapted facility will be expanded to its full-scale capacity which shall satisfy 2,050 [vehicles/day] of commercial traffic processing.

It is essential that, however, the timing of full-scale expansion shall be determined by monitoring traffic trends. Particularly, the tendency of importing commercial traffic shall be key to monitor.

This OSBP full-scale facility will operate during next 10 years or more until 2033.

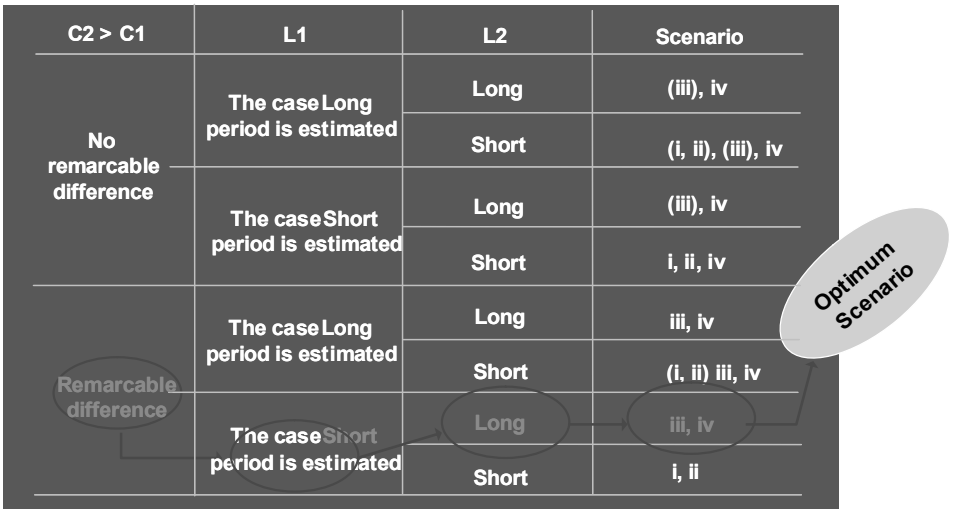



**Figure 5.2.2 Selection Flow for Optimum Scenario**

5.2.2 OSBP Model Selected for Phased Introduction

Selected scenarios differ from applicable OSBP model for its full-scale facility. Scenario 3 is composed of one common building namely “Straddle” or “Common One-Country”, while Scenario 4 is composed of two separate buildings namely “Juxtaposed” (see Section 3.2).

Taking into account two-steps upgrading concept of the current facilities, optimum OSBP model is to be assessed under eight criteria as mentioned earlier in Section 4.2.3.

Result of assessment is that “Juxtaposed facility” model i.e. Scenario 4 will be technically more explicable and justifiable than the other.

Remarkable advantages that Scenario 4 can prove are that the existing utility and facility will be fully utilized in terms of infrastructure, and that fitness and flexibility against traffic pattern and demand growth are quite superior. Project period and costs might also be shorter and smaller. The following figure indicates pros and cons between two OSBP models.

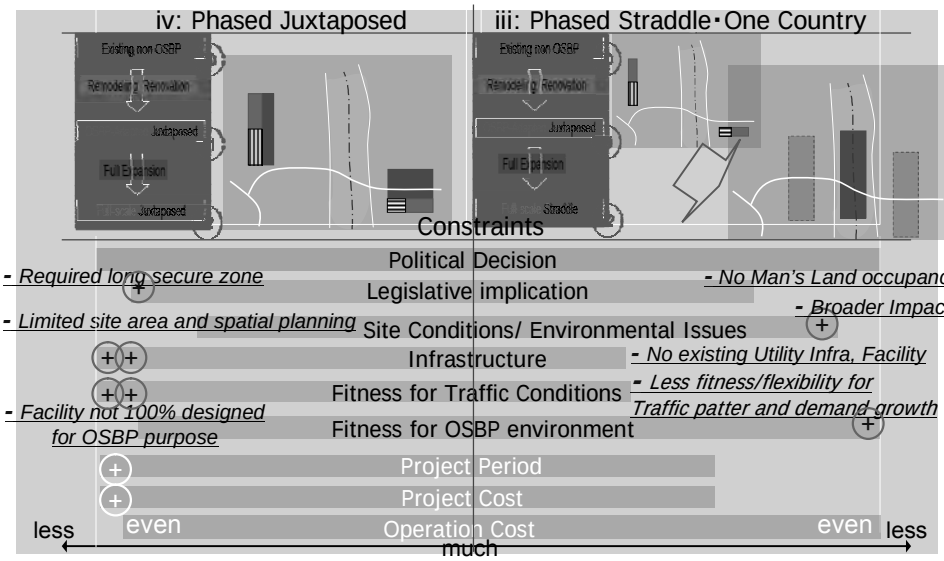



**Figure 5.2.3 Key Factors and Traffic Demand Curve**

## 5.2.3 Border Crossing Procedures and System

### (1) Current Procedures and Systems

Border crossing procedures and systems, which mainly represent customs clearance and passport control, are currently established as earlier mentioned in Chapter 1.

Similar processes and work flow are applied in Mozambique and Malawi for current operation under non-OSBP environment, in spite of existing certain differences upon systems employed for customs brokerage, data capture and third party insurance (see Section 4.3.2).

### (2) Procedures and Systems for application to OSBP Operation

Border crossing procedures and systems shall be examined to employ under OSBP environment in conformity with the following issues.

Examination shall be jointly undertaken by two countries in collaboration with joint technical committee and relevant working groups such as "Border Services and Procedure W/G", "Information and Communication Technology W/G", and "Legal W/G".

Defining Scope of Border Control

- What surveillances and controls other than regular customs clearance and passport check must be additionally administrated at the border post?

  e.g.:
  - Quarantine control that is not currently considered.
  - Border security police / Traffic police, which do not currently reside beside military.
  - Axle load regulation that is not currently performed.

- What of regular customs clearance and passport checks must be

strengthened or lightened and newly considered?

e.g.:

- Inspection of freights regarding frequency and methods for commercial traffic
  - Import/Export/Transit traffic
  - Inbound/Outbound traffic
- Customs procedures for Malawi's international transit cargo that are not currently required.
- Customs brokerage at border posts

Feedback from Trade Facilitation Outcome

- What outcomes from trade protocol, trade facilitation programs and projects, which the World Trade Organization and RECs, SADC, COMESA have conducted, must be additionally considered?

  e.g.:

  - Elimination of tariff barriers:
    - Customs Union which is scheduled for Year 2010.
    - Free Trade Agreement which is scheduled for Year 2015.
  - Elimination of non-tariff barriers / Standardization for cross-border traffic
    - Third Party Insurance (Yellow Card in SADC)
    - Toll/Transit Charge
    - Axle Load Regulation

Feedback from Customs Harmonization Outcome

- What outcomes from customs harmonization and standardization programs and projects, which the World Customs Organization and SADC have initiatively conducted, must be additionally considered?

  e.g.:

  - Customs form and flow simplification
  - New ICT system for customs clearance:
    - Single Electronic Window System for which ratification is in progress.
    - Transit Cargo Monitoring System for which ratification is in progress.
  - Time Release Study which concluded in 2008.

(3) Procedures and Systems to consider for Implementation Policy

As mentioned above, so far, border crossing procedures and systems to employ under the OSBP environment have not been discussed or defined yet between the two countries.

This is due to both countries standing yet at the earlier stage for a mutual recognition of OSBP introduction. Now that there appears to be certain progress on bilateral agreement and establishment of implementing formation, it needs

further consideration.

Consequently, implementation policy and the facility planning shall be hereby formulated based on the current procedures and system of border crossing control, and shall be proposed as tentative strategy in order to facilitate further examination and technical discussion between T/Cs and W/Gs of the two countries.

The following figure illustrates current work flow of procedures classifying customs regimes.

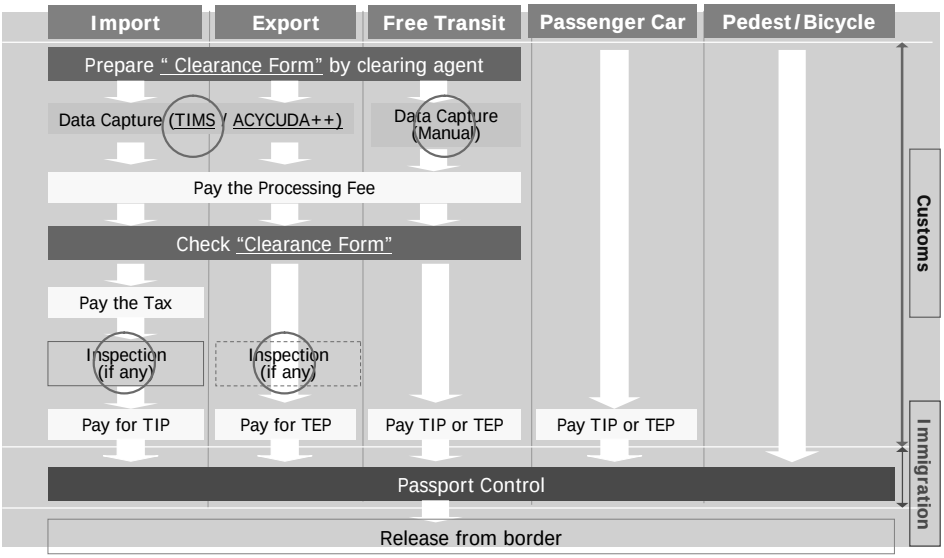



**Figure 5.2.4 Current Border Procedures to Incorporate into Implementation Policy**

## 5.2.4 Performance Benchmarks

It is necessary to establish performance benchmarks such as Unit Processing Time and Target Time Release at the border posts. These measurements form a part of the implementation policy in order for facility planning to be further formulated based on selected model of OSBP.

Target Time Release (TTR):

TTR is a benchmark which sums total required time for a vehicle or a person to cross the border under necessary customs and immigration regimes applied for the operation under OSBP environment. TTR might be established per customs regime and/or traffic direction, which are influential factors affecting time for border crossing procedures.

Unit Processing Time (UPT):

UPT is a component of the TTR and comprises unit time consumption for relevant process of border crossing procedures such as customs clearance, passport control and others.

As mentioned earlier in this section, the implementation policy will be tentatively formulated employing current procedures and systems of customs and immigration regimes, thus, TTR shall be based on the same manner and referred to current release time. The following specifically explains the current time release and the target time release.

(1) Current Time Release and Unit Processing Time

In accordance with interview and site survey, it summarizes that cross-border processing shall actually require time at both Mandimba and Chiponde borders as follows.

**Table 5.2.2 Mandimba Border Post (Mozambique) Current Time Release**

**Unit [minutes]**

| Regimes / Process | Commercial Traffic | | | | | | | | Non-Commercial Traffic | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger Vehicles | Pedestrian & Bicycle |
| | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | | |
| Current Time Release [min | 25 | 30 | 60 | 20 | 10 | 25 | n/a | n/a | 15 | 5 |
| Idle Time (Entry) | 0 | 0 | 0 | 0 | 0 | 0 | n/a | n/a | 0 | 0 |
| Custums Clearance | 20 | 25 | 55 | 15 | 5 | 20 | 0 | 0 | 10 | 0 |
| Processing Time | 10 | 15 | 15 | 5 | 5 | 10 | n/a | n/a | - | - |
| Inspection (Random) | - | - | 30 | - | - | - | - | - | - | - |
| TIP | | | | | | | | | | |
| Idle time | 5 | 5 | 5 | - | - | - | n/a | - | 5 | - |
| Processing time | 5 | 5 | 5 | - | - | - | n/a | - | 5 | - |
| TEP | | | | | | | | | | |
| Idle time | - | - | - | 5 | - | 5 | - | n/a | - | - |
| Processing time | - | - | - | 5 | - | 5 | - | n/a | - | - |
| Passport Control | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 0 | 5 | 5 |
| Idle time | 0 | 0 | 0 | 0 | 0 | 0 | n/a | n/a | 0 | 0 |
| Processing time | 5 | 5 | 5 | 5 | 5 | 5 | n/a | n/a | 5 | 5 |
| Idle Time (Exist) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Source: Study Team

**Table 5.2.3 Chiponde Border Post (Malawi) Current Time Release**

**Unit [minutes]**

| Regimes / Process | Commercial Traffic | | | | | | | | Non-Commercial Traffic | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger Vehicles | Pedestrian & Bicycle |
| | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | | |
| Current Time Release [min | 30 | 50 | 80 | 45 | 40 | 45 | n/a | n/a | 15 | 5 |
| Idle Time (Entry) | 0 | 0 | 0 | 0 | 0 | 0 | n/a | n/a | 0 | 0 |
| Custums Clearance | 25 | 45 | 75 | 40 | 35 | 40 | 0 | 0 | 10 | 0 |
| Processing Time | 20 | 40 | 40 | 35 | 35 | 35 | n/a | n/a | - | - |
| Inspection (Random) | - | - | 30 | - | - | - | - | - | - | - |
| TIP | | | | | | | | | | |
| Idle time | 0 | 0 | 0 | - | - | - | n/a | - | 5 | - |
| Processing time | 5 | 5 | 5 | - | - | - | n/a | - | 5 | - |
| TEP | | | | | | | | | | |
| Idle time | - | - | - | 0 | - | 0 | - | n/a | - | - |
| Processing time | - | - | - | 5 | - | 5 | - | n/a | - | - |
| Passport Control | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 0 | 5 | 5 |
| Idle time | 0 | 0 | 0 | 0 | 0 | 0 | n/a | n/a | 0 | 0 |
| Processing time | 5 | 5 | 5 | 5 | 5 | 5 | n/a | n/a | 5 | 5 |
| Idle Time (Exist) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Source: Study Team

Generally speaking, time release registered is so sound and tolerable that there will be no resistance caused at both border posts.

For example, time release for importing simplified and abbreviated regime at Mandimba, which will be subject to processing at the border, accounts for 30 [min] as well as 60 [min] in case of inspection and this is quite ideal crossing time.

This is obviously because the border posts currently face only small traffic volume not exceeding the processing capacity, not because of efficiency of the border processing. There is no idle time, which includes time loss waiting in queue or for entry to and exit from the border facility.

It confirms that there is a tendency of time release which shows that the importing regime is most time-consuming compared with exporting and transit regimes equally at both border posts. It is also observed that time release by Malawi customs is more time-consuming for commercial traffic than by Mozambique customs, even though it is not very significant, whereas no difference is confirmed for non-commercial traffic.

(2) Target Time Release and Unit Processing Time

Based on the current time release above mentioned, TTR and UPT for tentative implementation policy might be proposed for both Mandimba and Chiponde border posts as follows.

**Table 5.2.4 Mandimba Border Post (Mozambique) Target Time Release**

**Unit [minutes]**

| Regimes / Process | Commercial Traffic | | | | | | | | Non-Commercial Traffic | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger Vehicles | Pedestrian & Bicycle |
| | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | | |
| Target Time Release [min] | 40 | 45 | 75 | 40 | 25 | 40 | 45 | 35 | 15 | 5 |
| Idle Time (Entry) | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 0 |
| Custums Clearance | 20 | 25 | 55 | 20 | 5 | 20 | 25 | 15 | 10 | 0 |
| Processing Time | 10 | 15 | 15 | 10 | 5 | 10 | 15 | 5 | - | - |
| Inspection (Random) | - | - | 30 | - | - | - | - | - | - | - |
| TIP | | | | | | | | | | |
| Idle time | 5 | 5 | 5 | - | - | - | 5 | - | 5 | - |
| Processing time | 5 | 5 | 5 | - | - | - | 5 | - | 5 | - |
| TEP | | | | | | | | | | |
| Idle time | - | - | - | 5 | - | 5 | - | 5 | - | - |
| Processing time | - | - | - | 5 | - | 5 | - | 5 | - | - |
| Passport Control | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 5 | 5 |
| Idle time | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 0 |
| Processing time | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Idle Time (Exit) | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 0 |

Source: Study Team

**Table 5.2.5 Chiponde Border Post (Malawi) Target Time Release**

**Unit [minutes]**

| Regimes / Process | Commercial Traffic | | | | | | | | Non-Commercial Traffic | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger Vehicles | Pedestrian & Bicycle |
| | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | | |
| Target Time Release [min] | 40 | 45 | 75 | 45 | 35 | 45 | 40 | 45 | 15 | 5 |
| Idle Time (Entry) | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 0 |
| Custums Clearance | 20 | 25 | 55 | 25 | 15 | 25 | 20 | 25 | 10 | 0 |
| Processing Time | 10 | 15 | 15 | 15 | 15 | 15 | 10 | 15 | - | - |
| Inspection (Random) | - | - | 30 | - | - | - | - | - | - | - |
| TIP | | | | | | | | | | |
| Idle time | 5 | 5 | 5 | - | - | - | 5 | - | 5 | - |
| Processing time | 5 | 5 | 5 | - | - | - | 5 | - | 5 | - |
| TEP | | | | | | | | | | |
| Idle time | - | - | - | 5 | - | 5 | - | 5 | - | - |
| Processing time | - | - | - | 5 | - | 5 | - | 5 | - | - |
| Passport Control | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 5 | 5 |
| Idle time | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 0 |
| Processing time | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Idle Time (Exit) | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 0 |

Source: Study Team

In proposition of TTR and UTP, the following criteria are applied for:

- It repeats that processes considered here are assumptions which conform to current border procedures and are tentative until agreeable process is to be established by the two countries.
- Target time is assumed to be as 2014-2023 and 2024-2033 for

implementation policy and facility planning, and same tendency as current time release will be considered.

- Idle time (entry and exit) as well as each process at customs and passport control is to be considered.

  This is due to the fact that it is easily predictable that certain but minimum time loss by waiting, queuing and moving, shall be generated and accepted when border crossing resistance becomes intensive under higher traffic volume.

- International transit is to be assumed, which is not generated in current commercial traffic, and to count TEP and TIP for both outbound and inbound directions respectively.

- Free transit in the inbound direction will not be counted in the TIP process like in the current procedures.

### 5.2.5 Resource Deployment

Implementation policy shall propose a tentative plan of human resource deployment. It is an ordinary way for spatial requirements, e.g. office working space, car parking space for the facility, shall be determined based on resource deployment.

All assumptions, i.e. i) Border procedures to employ, ii) Target time release, iii) Total processing time, iv) Unit workforce are to be taken into account to conclude resource deployment. Assumptions i) and ii) are already stated earlier. The following explains assumptions iii) and iv).

(1) Total Processing Time and Unit Workforce

Total processing time is the sum of processing time based on TTR and traffic volume forecasted.

As was earlier mentioned, the TTR is set up upon classifying the customs regime so that total processing time is summed up in the same manner, and it shall be established for 2024 which is the 1st step of the OSBP introduction, and 2033 which is the 2nd step of introduction.

The following tables indicate total processing time in 2024 as well as 2033 in accordance with TTR assumed as earlier mentioned in Tables 5.2.4 and 5.2.5 as well as traffic volume forecasted and mentioned in Tables 5.1.1 and 5.1.2.

Mandimba Border Post (Mozambique):

In 2024, total processing time required for customs clearance at Mandimba border post is 11,701 [min/day] and for passport control 6,282 [min/day]. And in 2033, total processing time is 55,545 [min/day] and 23,626 [min/day] respectively.

**Table 5.2.6 Mandimba Border Post (Mozambique) Total Processing Time Year 2024 and 2033**

| | Commercial Traffic | | | | | | | | Non-Commercial Traffic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger Vehicles | Pedestrian & Bicycle | |
| Year 2024 | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | | | |
| Traffic Demand Forecast [Vehicle/d | 11 | 313 | 15.65 | 6 | 30 | 8 | 40 | 51 | 60 | 247 | |
| Total Processing Time [min/day] | | | | | | | | | | | |
| Customs | 220 | 7825 | 860.75 | 120 | 150 | 160 | 1000 | 765 | 600 | 0 | 11,701 |
| Passport Contorl | 110 | 3130 | 156.5 | 60 | 300 | 80 | 400 | 510 | 300 | 1235 | 6,282 |
| Year 2033 | | | | | | | | | | | |
| Traffic Demand Forecast [Vehicle/d | 29 | 1831 | 91.55 | 7 | 75 | 16 | 40 | 52 | 154 | 288 | |
| Total Processing Time [min/day] | | | | | | | | | | | |
| Customs | 580 | 45775 | 5035.25 | 140 | 375 | 320 | 1000 | 780 | 1540 | 0 | 55,545 |
| Passport Contorl | 290 | 18310 | 915.5 | 70 | 750 | 160 | 400 | 520 | 770 | 1440 | 23,626 |

Source: Study Team

Chiponde Border Post (Malawi):

In 2024, total processing time required for customs clearance at Mandimba border post is 11,733 [min/day] and for passport control 6,127 [min/day]. And in 2033, total processing time is 52,362 [min/day] and 22,712 [min/day] respectively.

**Table 5.2.7 Chiponde Border Post (Malawi) Total Processing Time Year 2024 and 2033**

| | Commercial Traffic | | | | | | | | Non-Commercial Traffic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger Vehicles | Pedestrian & Bicycle | |
| Year 2024 | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | | | |
| Traffic Demand Forecast [Vehicle/d | 3 | 3 | 0.15 | 324 | 8 | 30 | 51 | 40 | 60 | 247 | |
| Total Processing Time [min/day] | | | | | | | | | | | |
| Customs | 60 | 75 | 8.25 | 8100 | 120 | 750 | 1020 | 1000 | 600 | 0 | 11,733 |
| Passport Contorl | 30 | 30 | 1.5 | 3240 | 80 | 300 | 510 | 400 | 300 | 1235 | 6,127 |
| Year 2033 | | | | | | | | | | | |
| Traffic Demand Forecast [Vehicle/d | 3.5 | 3.5 | 0.175 | 1860 | 16 | 75 | 52 | 40 | 154 | 288 | |
| Total Processing Time [min/day] | | | | | | | | | | | |
| Customs | 70 | 87.5 | 9.625 | 46500 | 240 | 1875 | 1040 | 1000 | 1540 | 0 | 52,362 |
| Passport Contorl | 35 | 35 | 1.75 | 18600 | 160 | 750 | 520 | 400 | 770 | 1440 | 22,712 |

Source: Study Team

(2) Unit Workforce and Necessary Human Resources

Dividing above total processing time by unit workforce, necessary human resources shall be estimated.

Unit workforce is to be estimated based on current team and shift formation of both Mandimba and Chiponde assuming employment of 12 working hours and peak ratio.

Mandimba Border Post (Mozambique):

The following table indicates necessary resource and allocation for Mandimba border post in 2024 as well as 2033 in accordance with total processing time as earlier mentioned in Tables 5.2.6 and 5.2.7.

It summarizes that for the 1st step upgrading in 2014-2023 approximately 26 officers for customs and 14 officers for immigration shall be required, and that in the 2nd step upgrading in 2024-2033 approximately 123 officers for customs and 53 officers for immigration shall be necessary.

**Table 5.2.8 Mandimba Border Post (Mozambique) Necessary Resources**

| Upgrading Phase | Year | Customs [officers] | Immigration [officers] |
|---|---|---|---|
| 1st Step | 2014-2023 | 26 | 14 |
| 2nd Step | 2024-2033 | 123 | 53 |

Source: Study Team

The following tables are calculation breakdowns for estimation of necessary human resources in 2024 and 2033.

**Table 5.2.9 Mandimba Border Post (Mozambique) Necessary Resources in 2024**

| | Commercial Traffic | | | | | | | | Non-Commercial Traffic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger | Pedestrian | |
| Year 2024 | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | Vehicles | & Bicycle | |
| Traffic Demand Forecast [Vehicle/d | 11 | 313 | 15.65 | 6 | 30 | 8 | 40 | 51 | 60 | 247 | |
| Total Processing Time [min/day] | | | | | | | | | | | |
| Customs | 220 | 7825 | 860.75 | 120 | 150 | 160 | 1000 | 765 | 600 | 0 | 11,701 |
| Passport Contorl | 110 | 3130 | 156.5 | 60 | 300 | 80 | 400 | 510 | 300 | 1235 | 6,282 |
| Customs Unit Resource Capacity | 3 team | = 4 Officer (1+1+2), 1 Casher | | | | | | | | | |
| Working Hours [hr] | 12 | | | | | | | | | | |
| Peak Ratio (=10hours/12hours | 0.83333333 | | | | | | | | | | |
| Total limit Processing Time [min] | 1800 | | | | | | | | | | |
| Resource increasing Ratio | 6.50041667 | | | | | | | | | | |
| Necessary Resouree | | | | | | | | | | | |
| Per Regime | 0.12 | 4.35 | 0.48 | 0.07 | 0.08 | 0.09 | 0.56 | 0.43 | 0.33 | 0.00 | |
| teams | 0.37 | 13.04 | 1.43 | 0.20 | 0.25 | 0.27 | 1.67 | 1.28 | 1.00 | 0.00 | |
| officers | 0.49 | 17.39 | 1.91 | 0.27 | 0.33 | 0.36 | 2.22 | 1.70 | 1.33 | 0.00 | 26.00 |
| Total | | | | | | | | | | | |
| team | 20 | | | | | | | | | | |
| officers | 26 | => max. number of team = 26 | | | | | | | | | |
| cashers | 7 | | | | | | | | | | |
| Immigration Unit Resource Capacit | 3 team | = 4 Officer (1+1+2) | | | | | | | | | |
| Working Hours [hr] | 12 | | | | | | | | | | |
| Peak racio (=10hours/12hours) | 0.83333333 | | | | | | | | | | |
| Total limit Processing Time [min] | 1800 | | | | | | | | | | |
| Resource increasing Ratio | 3.48972222 | | | | | | | | | | |
| Necessary Resouree | | | | | | | | | | | |
| Per Regime | 0.06 | 1.74 | 0.09 | 0.03 | 0.17 | 0.04 | 0.22 | 0.28 | 0.17 | 0.69 | |
| teams | 0.18 | 5.22 | 0.26 | 0.10 | 0.50 | 0.13 | 0.67 | 0.85 | 0.50 | 2.06 | |
| officers | 0.24 | 6.96 | 0.35 | 0.13 | 0.67 | 0.18 | 0.89 | 1.13 | 0.67 | 2.74 | 13.96 |
| Total | | | | | | | | | | | |
| team | 10 | | | | | | | | | | |
| officers | 14 | => max. number of team = 14 | | | | | | | | | |

Source: Study Team

**Table 5.2.10 Mandimba Border Post (Mozambique) Necessary Resources in 2033**

| | Commercial Traffic | | | | | | | | Non-Commercial Traffic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger | Pedestrian | |
| Year 2033 | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | Vehicles | & Bicycle | |
| Traffic Demand Forecast [Vehicle/d | 29 | 1831 | 91.55 | 7 | 75 | 16 | 40 | 52 | 154 | 288 | |
| Total Processing Time [min/day] | | | | | | | | | | | |
| Customs | 580 | 45775 | 5035.25 | 140 | 375 | 320 | 1000 | 780 | 1540 | 0 | 55,545 |
| Passport Contorl | 290 | 18310 | 915.5 | 70 | 750 | 160 | 400 | 520 | 770 | 1440 | 23,626 |
| Customs Unit Resource Capacity | 3 team | = 4 Officer (1+1+2), 1 Casher | | | | | | | | | |
| Working Hours [hr] | 12 | | | | | | | | | | |
| Peak Ratio (=10hours/12hours | 0.83333333 | | | | | | | | | | |
| Total limit Processing Time [min] | 1800 | | | | | | | | | | |
| Resource increasing Ratio | 30.8584722 | | | | | | | | | | |
| Necessary Resouree | | | | | | | | | | | |
| Per Regime | 0.32 | 25.43 | 2.80 | 0.08 | 0.21 | 0.18 | 0.56 | 0.43 | 0.86 | 0.00 | |
| teams | 0.97 | 76.29 | 8.39 | 0.23 | 0.63 | 0.53 | 1.67 | 1.30 | 2.57 | 0.00 | |
| officers | 1.29 | 101.72 | 11.19 | 0.31 | 0.83 | 0.71 | 2.22 | 1.73 | 3.42 | 0.00 | 123.43 |
| Total | | | | | | | | | | | |
| team | 93 | | | | | | | | | | |
| officers | 123 | => max. number of team = 26 | | | | | | | | | |
| cashers | 31 | | | | | | | | | | |
| Immigration Unit Resource Capacit | 3 team | = 4 Officer (1+1+2) | | | | | | | | | |
| Working Hours [hr] | 12 | | | | | | | | | | |
| Peak racio (=10hours/12hours) | 0.83333333 | | | | | | | | | | |
| Total limit Processing Time [min] | 1800 | | | | | | | | | | |
| Resource increasing Ratio | 13.1252778 | | | | | | | | | | |
| Necessary Resouree | | | | | | | | | | | |
| Per Regime | 0.16 | 10.17 | 0.51 | 0.04 | 0.42 | 0.09 | 0.22 | 0.29 | 0.43 | 0.80 | |
| teams | 0.48 | 30.52 | 1.53 | 0.12 | 1.25 | 0.27 | 0.67 | 0.87 | 1.28 | 2.40 | |
| officers | 0.64 | 40.69 | 2.03 | 0.16 | 1.67 | 0.36 | 0.89 | 1.16 | 1.71 | 3.20 | 52.50 |
| Option1 | | | | | | | | | | | |
| Outbound | | | | 0.16 | | 0.36 | | 1.16 | 1.71 | 3.20 | 6.58 |
| Inbound | 0.64 | 40.69 | 2.03 | | 1.67 | | 0.89 | | 1.71 | 3.20 | 50.83 |
| Option2 | | | | | | | | | | | |
| Commercial | 0.64 | 40.69 | 2.03 | 0.16 | 1.67 | 0.36 | 0.89 | 1.16 | | | 47.59 |
| Outbound | | | | 0.16 | | 0.36 | | 1.16 | | | 1.67 |
| Inbound | 0.64 | 40.69 | 2.03 | | 1.67 | | 0.89 | | | | 45.92 |
| Non-Commercial | | | | | | | | | 1.71 | 3.20 | 4.91 |
| Total | | | | | | | | | | | |
| team | 39 | | | | | | | | | | |
| officers | 53 | => max. number of team = 14 | | | | | | | | | |

Source: Study Team

Chiponde Border Post (Malawi):

The following table indicates necessary resources and allocation for Chiponde

border post in 2024 as well as 2033 in accordance with total processing time as earlier mentioned in Tables 5.2.6 and 5.2.7.

It summarizes that for the 1st Step upgrading in 2014-2024 approximately 29 officers for customs and 17 officers for immigration shall be required, and that for the 2nd Step upgrading in 2025-2033 approximately 131 officers for customs and 63 officers for immigration shall be necessary.

**Table 5.2.11 Chiponde Border Post (Malawi) Necessary Resources**

| Upgrading Phase | Year | Customs [officers] | Immigration [officers] |
|---|---|---|---|
| 1st Step | 2014-2024 | 29 | 17 |
| 2nd Step | 2025-2033 | 131 | 63 |

Source: Study Team

The following tables are calculation breakdowns for estimation of necessary human resources in 2024 and 2033.

**Table 5.2.12 Chiponde Border Post (Malawi) Necessary Resources in 2024**

| | Commercial Traffic | | | | | | | | Non-Commercial Traffic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger | Pedestrian | |
| Year 2024 | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | Vehicles | & Bicycle | |
| Traffic Demand Forecast [Vehicle/d | 3 | 3 | 0.15 | 324 | 8 | 30 | 51 | 40 | 60 | 247 | |
| Total Processing Time [min/day] | | | | | | | | | | | |
| Customs | 60 | 75 | 8.25 | 8100 | 120 | 750 | 1020 | 1000 | 600 | 0 | 11,733 |
| Passport Contorl | 30 | 30 | 1.5 | 3240 | 80 | 300 | 510 | 400 | 300 | 1235 | 6,127 |
| Customs Unit Resource Cap | 6 team | = 9 Officer (1+1+1+2+2), 2 Casher | | | | | | | | | |
| Working Hours [hr] | 12 | | | | | | | | | | |
| Peak Ratio (=10hours/12hours | 0.83333333 | | | | | | | | | | |
| Total limit Processing Time [min] | 3600 | | | | | | | | | | |
| Resource increasing Ratio | 3.25923611 | | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | |
| Per Regime | 0.02 | 0.02 | 0.00 | 2.25 | 0.03 | 0.21 | 0.28 | 0.28 | 0.17 | 0.00 | |
| teams | 0.10 | 0.13 | 0.01 | 13.50 | 0.20 | 1.25 | 1.70 | 1.67 | 1.00 | 0.00 | |
| officers | 0.15 | 0.19 | 0.02 | 20.25 | 0.30 | 1.88 | 2.55 | 2.50 | 1.50 | 0.00 | 29.33 |
| Total | | | | | | | | | | | |
| team | 20 | | | | | | | | | | |
| officers | 29 | => max. number of team = 29 | | | | | | | | | |
| cashers | 7 | | | | | | | | | | |
| Immigration Unit Resource | 3 team | = 5 Officers (1+2+2) | | | | | | | | | |
| Working Hours [hr] | 12 | | | | | | | | | | |
| Peak racio (=10hours/12hours) | 0.83333333 | | | | | | | | | | |
| Total limit Processing Time [min] | 1800 | | | | | | | | | | |
| Resource increasing Ratio | 3.40361111 | | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | |
| Per Regime | 0.02 | 0.02 | 0.00 | 1.80 | 0.04 | 0.17 | 0.28 | 0.22 | 0.17 | 0.69 | |
| teams | 0.05 | 0.05 | 0.00 | 5.40 | 0.13 | 0.50 | 0.85 | 0.67 | 0.50 | 2.06 | |
| officers | 0.08 | 0.08 | 0.00 | 9.00 | 0.22 | 0.83 | 1.42 | 1.11 | 0.83 | 3.43 | 17.02 |
| Total | | | | | | | | | | | |
| team | 10 | | | | | | | | | | |
| officers | 17 | => max. number of team = 17 | | | | | | | | | |

Source: Study Team

**Table 5.2.13 Chiponde Border (Malawi) Necessary Resources in 2033**

| | Commercial Traffic | | | | | | | | Non-Commercial Traffic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger | Pedestrian | |
| Year 2033 | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | Vehicles | & Bicycle | |
| Traffic Demand Forecast [Vehicle/d | 3.5 | 3.5 | 0.175 | 1860 | 16 | 75 | 52 | 40 | 154 | 288 | |
| Total Processing Time [min/day] | | | | | | | | | | | |
| Customs | 70 | 87.5 | 9.625 | 46500 | 240 | 1875 | 1040 | 1000 | 1540 | 0 | 52,362 |
| Passport Contorl | 35 | 35 | 1.75 | 18600 | 160 | 750 | 520 | 400 | 770 | 1440 | 22,712 |
| Customs Unit Resource Cap | 6 team | = 9 Officer (1+1+1+2+2), 2 Casher | | | | | | | | | |
| Working Hours [hr] | 12 | | | | | | | | | | |
| Peak Ratio (=10hours/12hours | 0.83333333 | | | | | | | | | | |
| Total limit Processing Time [min] | 3600 | | | | | | | | | | |
| Resource increasing Ratio | 14.5450347 | | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | |
| Per Regime | 0.02 | 0.02 | 0.00 | 12.92 | 0.07 | 0.52 | 0.29 | 0.28 | 0.43 | 0.00 | |
| teams | 0.12 | 0.15 | 0.02 | 77.50 | 0.40 | 3.13 | 1.73 | 1.67 | 2.57 | 0.00 | |
| officers | 0.18 | 0.22 | 0.02 | 116.25 | 0.60 | 4.69 | 2.60 | 2.50 | 3.85 | 0.00 | 130.91 |
| Total | | | | | | | | | | | |
| team | 87 | | | | | | | | | | |
| officers | 131 | => max. number of team = 131 | | | | | | | | | |
| cashers | 29 | | | | | | | | | | |

| Immigration Unit Resource | 3 team | = 5 Officers (1+2+2) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Working Hours [hr] | 12 | | | | | | | | | | | |
| Peak racio (=10hours/12hours) | 0.83333333 | | | | | | | | | | | |
| Total limit Processing Time [min] | 1800 | | | | | | | | | | | |
| Resource increasing Ratio | 12.6176389 | | | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | | |
| Per Regime | 0.02 | 0.02 | 0.00 | 10.33 | 0.09 | 0.42 | 0.29 | 0.22 | 0.43 | 0.80 | | |
| teams | 0.06 | 0.06 | 0.00 | 31.00 | 0.27 | 1.25 | 0.87 | 0.67 | 1.28 | 2.40 | | |
| officers | 0.10 | 0.10 | 0.00 | 51.67 | 0.44 | 2.08 | 1.44 | 1.11 | 2.14 | 4.00 | 63.09 | |
| Total | | | | | | | | | | | | |
| team | 38 | | | | | | | | | | | |
| officers | 63 | => max. number of team = 63 | | | | | | | | | | |

Source: Study Team

(3) Resource Deployment

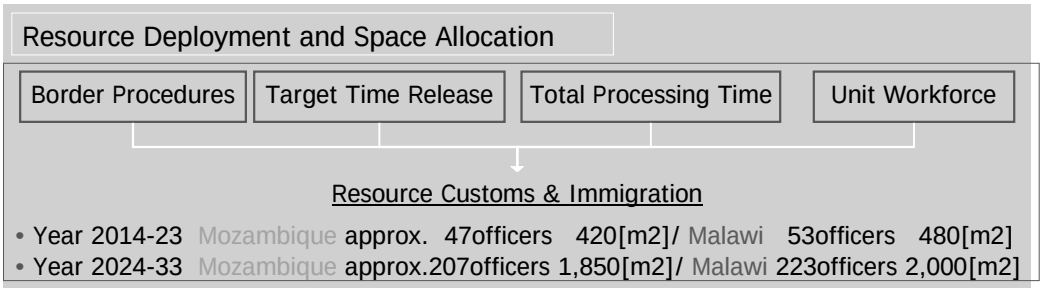
Necessary quantities of relevant officers for 2024 and 2033 are tentatively estimated as above mentioned.

However, once again it is emphasized that this is only reference for learning rough estimation of the number of required officers, and also for starting technical examination and discussion between two countries, since this estimation is conducted upon certain assumption as earlier mentioned.

Thus, in case border procedures are to be altered after bilateral technical discussion, target time release is to be revised consequently, then total processing time and necessary resources shall be modified.

Resource deployment shall be determined to employ under OSBP environment in conformity with the following issues. Examination shall be jointly undertaken by two countries in collaboration with joint technical committee and relevant working groups such as “Border Services and Procedure W/G”, “Legal W/G” and “ICT W/G”.

- Applicable border procedures and systems
- Target time release, total processing time, unit workforce and estimated efficiency
- Availability of customs officers and immigration officers
- Working hours and shifts to be applied
- Dissemination and training program and schedule of OSBP introduction




| Taget Year | 2024 | | | | 2033 | | | |
|---|---|---|---|---|---|---|---|---|
| | Mozambique | | Malawi | | Mozambique | | Malawi | |
| Shift | Ordinary | Peakage | Ordinary | Peakage | Ordinary | Peakage | Ordinary | Peakage |
| Customs | | | | | | | | |
| Q'ty Teams | 20 | 26 | 20 | 29 | 93 | 123 | 87 | 131 |
| Officers | 26 | | 29 | | 123 | | 131 | |
| Cashers | 7 | | 7 | | 31 | | 29 | |
| Total Staff | 33 | | 36 | | 154 | | 160 | |
| Unit WorkSpace [m2/person | 9 | | 9 | | 9 | | 9 | |
| Planed Office Area [m2] | 293 | | 323 | | 1,389 | | 1,440 | |
| Immigration | | | | | | | | |
| Q'ty Teams | 10 | 14 | 10 | 17 | 39 | 53 | 38 | 63 |
| Officers | 14 | | 17 | | 53 | | 63 | |
| Total Staff | 14 | | 17 | | 53 | | 63 | |
| Unit WorkSpace [m2/person | 9 | | 9 | | 9 | | 9 | |
| Planed Office Area [m2] | 126 | | 153 | | 473 | | 568 | |

**Figure 5.2.5 Structure to Determine Resources Deployment**

## 5.3 Proposed Facility Planning for Phased Introduction of OSBP

### 5.3.1 Facility Planning: Operational Options for OSBP

As the implementation policy defined in section 5.2., two-phased juxtaposed facility shall be introduced, with phases comprising the 1st step upgrading in 2014 and the 2nd step upgrading in 2024. Facility planning shall be detailed and proposed in conformity with the policy.

In starting the facility planning, it is essential that operational OSBP scheme is selected for the juxtaposed facility, since the juxtaposed facility shall be in split operation of two different buildings.

Type of split operation is optional in accordance with criteria to employ. The following operational schemes are options in accordance with different criteria to process border crossing traffic under OSBP environment.

(1) Split Operation per Traffic Direction

This operational scheme is an option which shall comply with traffic direction, and very standard for OSBP operation. Characteristics of the scheme are summarized as follows:

- Only entry flow at the country of entry to be processed for border crossing procedures.
- All traffic types shall be subject to process at two different buildings in each country, such as commercial traffic and non-commercial traffic.
- Customs and immigration shall be in separate operation for outbound (exit) traffic and inbound (entry) traffic.
- Customs and immigration of two countries shall jointly reside at two different facilities and shall process only one flow.

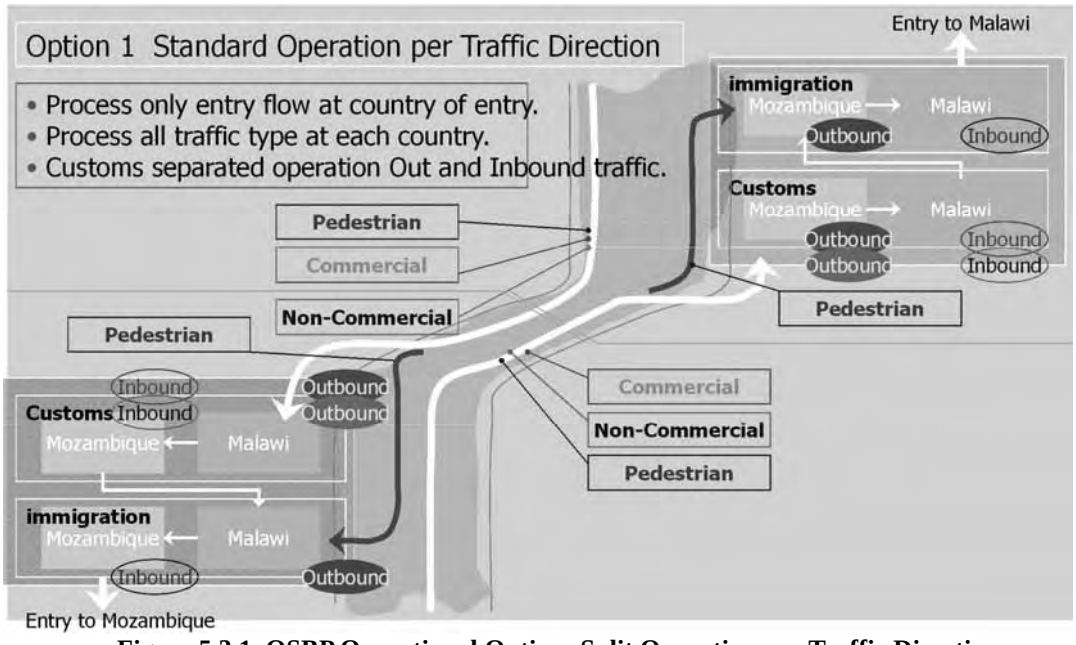



**Figure 5.3.1 OSBP Operational Option: Split Operation per Traffic Direction**

e.g. Facility at Mandimba:

Processing of commercial traffic such as imports to Mozambique, free transit (Inbound) of Mozambique, and international transit (Inbound) of Malawi.

Processing of non-commercial traffic such as TIP of Mozambique and TEP of Malawi.

e.g. Facility at Chiponde:

Processing of commercial traffic such as exports from Mozambique, free transit (outbound) of Mozambique and international transit of Malawi (outbound).

Processing of non-commercial traffic such as TIP of Malawi and TEP of Mozambique.

(2) Split Operation per Traffic Type

This operational scheme is another option which shall comply with traffic type. Characteristics of the scheme are summarized as follows:

- Entry and exit flow at the country of entry to be processed for border crossing procedures.
- Two buildings to be separated, one for processing commercial traffic and the other for non-commercial traffic.
- Customs office and immigration of two countries shall reside jointly at each facility and shall process two flows of each type of traffic.
- Customs and immigration shall be in dual operation for outbound (exit) traffic and inbound (entry) traffic at country of entry.

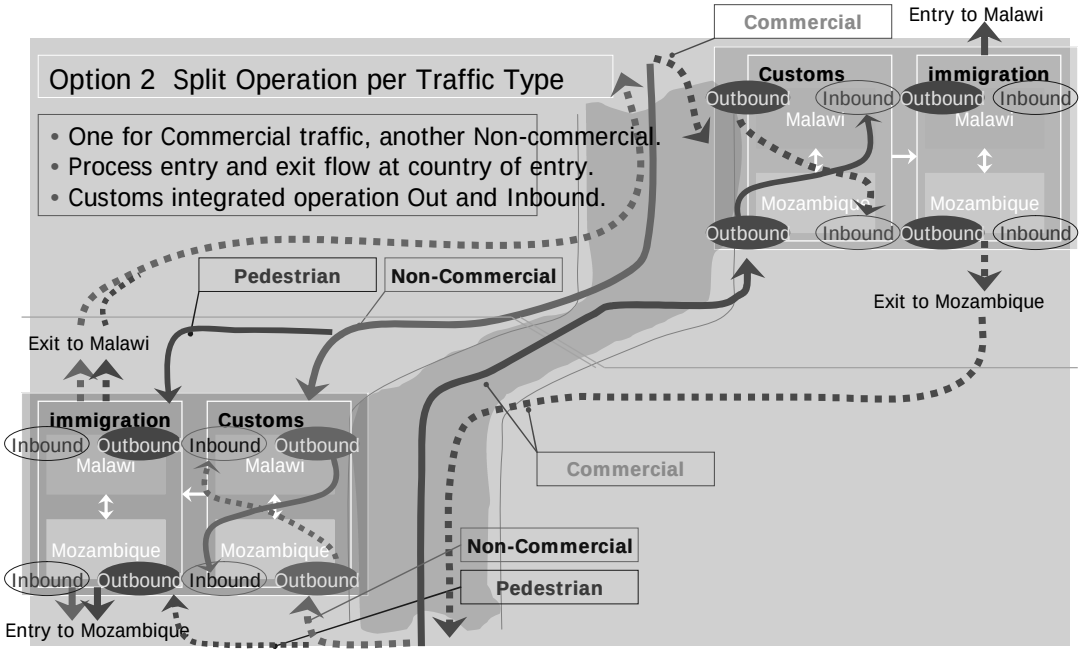



**Figure 5.3.2 OSBP Operational Option: Split Operation per Traffic Type**

e.g. Facility at Mandimba:

Processing of only commercial traffic such as imports to Mozambique, free transit (inbound) of Mozambique, international transit (inbound) of Malawi, in addition, exports from Mozambique, free transit (outbound) of

Mozambique and international transit of Malawi (outbound).

e.g. Facility at Chiponde:

Processing of only non-commercial traffic such as TIP of Mozambique, TEP of Malawi, in addition TIP of Malawi and TEP of Mozambique.

(3) Selection of Operational Options

Both operational options have advantages and disadvantages. Each scheme shall be examined to employ under the OSBP environment. Examination shall be jointly undertaken by two countries in collaboration with joint technical committee and relevant working groups such as "Border Services and Procedure W/G" , "Infrastructure W/G", "Legal W/G " and " ICT W/G".

5.3.2 Facility Planning: Facility Profiles for Two-Phased OSBP

Facility profiles shall be herewith proposed in conformity with the implementation policy which determines tentative design conditions such as border control procedures and systems, performance benchmarks and resource deployment as earlier mentioned.

Profiles are to be established and detailed in accordance with phases and operational options, that is be prepared for the 1st Step Upgrading in 2014-2023 and the 2nd Step Upgrading in 2024-2033 with two operational options.

(1) Facility Profile for the 1st Step Upgrading 2014-2023

1) Design Conditions

Estimated Traffic Patterns and Volume to process at the border post are as follows:

- Commercial Traffic

| Traffic Type<br>Customs Regimes | Traffic Volume<br>[2024] |
|---|---|
| Export | 6 |
| Import | 324 |
| Abbreviated | 313 |
| Normal | 11 |
| Free transit | 38 |
| Inbound | 30 |
| Outbound | 8 |
| International transit | 91 |
| Malawi-Import | 51 |
| Malawi-Export | 40 |
| | |
| Total | 459 |

- Non-commercial Traffic

| Traffic Type<br>Customs Regimes | Traffic Volume<br>[ 2024] |
|---|---|
| Passenger Vehicle | 25 |
| Inbound | 9 |
| Outbound | 16 |
| Bus | 3 |

| | |
|---|---|
| Inbound | 3 |
| Outbound | 0 |
| Motorcycle | 32 |
| Total | 60 |
| | |
| Pedestrian and bicycle | 247 |

Estimated Human Resources to consider at customs and immigration office are as follows:

- Mozambican Customs and Immigration

| Necessary resource | Q'ty [person] | |
|---|---|---|
| | Customs | Immigration |
| Teams | 20 | 10 |
| Officers | 26 | 14 |
| Cashers | 7 | - |
| Total | 33 | 14 |

- Malawian Customs and Immigration

| Necessary resource | Q'ty [person] | |
|---|---|---|
| | Customs | Immigration |
| Teams | 20 | 10 |
| Officers | 29 | 17 |
| Cashers | 7 | - |
| Total | 36 | 17 |

The following figure indicates breakdown structure of traffic pattern and volume.

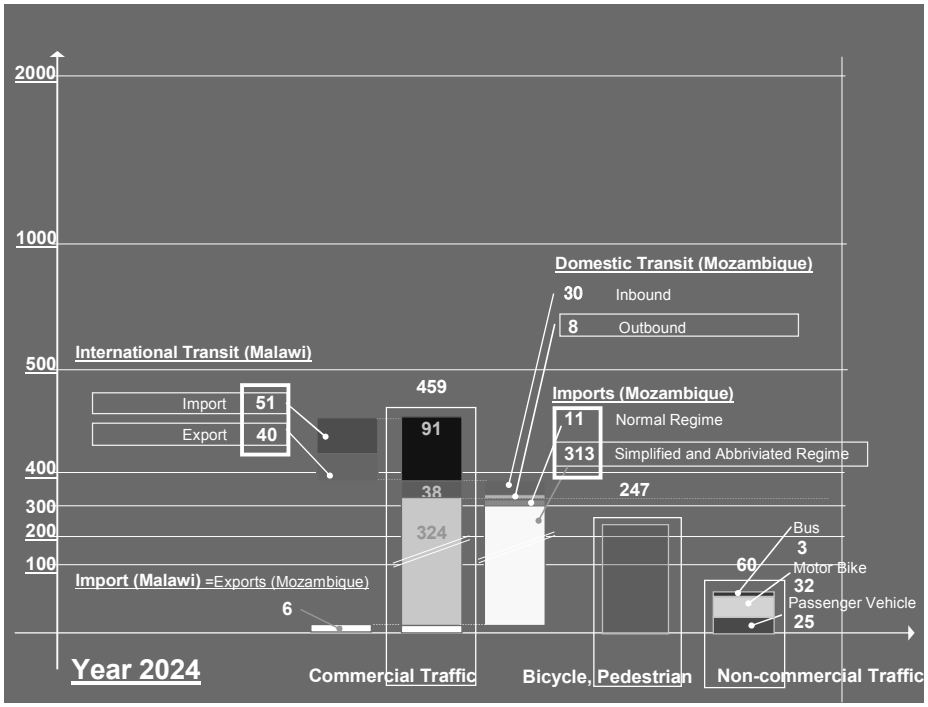



**Figure 5.3.3 Summary of Design Conditions: Traffic Trend and Resources in 2024**

2) Spatial Requirements

Spatial requirements, which are primarily composed of office space and parking space, shall be planned in accordance with operational options.

The following table indicates resource deployment and effective office area required per operational option classifying traffic type and traffic direction. Option 1 stands for split operation per traffic direction, and Option 2 stands for split operation per traffic type.

**Table 5.3.1 Mozambique Inbound at Mandimba border: Necessary Resources in 2024**

| | Mozambique | | | | |
|---|---|---|---|---|---|
| Taget Year | 2024 | | | | |
| Facility Type | Option1 | | Option2 | | |
| Traffic Type | All | All | Commercial | | Non-Commercia |
| Direction | Outbound | Inbound | Outbound | Inbound | Out/In |
| Customs | | | | | |
| Q'ty Teams | | | | | |
| Officers | 3.7 | 23.7 | 2.3 | 22.3 | 1.33 |
| Cashers | 1.0 | 6.0 | 1.0 | 7.0 | 1.00 |
| Total Staff | 4.7 | 29.7 | 3.3 | 29.3 | 2.33 |
| Unit WorkSpace [m2/person | 9 | 9 | 9 | 9 | 9 |
| Planed Office Area [m2] | 42 | 267 | 30 | 264 | 21 |
| Immigration | | | | | |
| Q'ty Teams | | | | | |
| Officers | 4.9 | 12.5 | 1.4 | 9.1 | 3.4 |
| Total Staff | 4.9 | 12.5 | 1.4 | 9.1 | 3.4 |
| Unit WorkSpace [m2/person | 9 | 9 | 9 | 10 | 9 |
| Planed Office Area [m2] | 44 | 113 | 13 | 91 | 31 |
| Other Facility and Space | | | | | |
| Parking [Units] | | | | | |
| Trailers | (9) | 11 | (9) | 11 | 0 |
| Trucks | 10 | 47 | 10 | 47 | 0 |
| Passengers Car | 9 | 9 | 0 | 0 | 9+9 |
| Bus | 1 | 1 | 0 | 0 | 1+1 |

| | Malawi | | | | |
|---|---|---|---|---|---|
| Taget Year | 2024 | | | | |
| Facility Type | Option1 | | Option2 | | |
| Traffic Type | All | All | Commercial | | Non-Commercia |
| Direction | Outbound | Inbound | Outbound | Inbound | Out/In |
| Customs | | | | | |
| Q'ty Teams | | | | | |
| Officers | 26.1 | 4.7 | 24.6 | 3.2 | 1.5 |
| Cashers | 6.0 | 1.0 | 6.0 | 1.0 | 1.0 |
| Total Staff | 32.1 | 5.7 | 30.6 | 4.2 | 2.5 |
| Unit WorkSpace [m2/person | 9 | 9 | 9 | 9 | 9 |
| Planed Office Area [m2] | 289 | 51 | 276 | 38 | 23 |
| Immigration | | | | | |
| Q'ty Teams | | | | | |
| Officers | 15.2 | 6.1 | 10.9 | 1.8 | 4.3 |
| Total Staff | 15.2 | 6.1 | 10.9 | 1.8 | 4.3 |
| Unit WorkSpace [m2/person | 9 | 9 | 9 | 9 | 9 |
| Planed Office Area [m2] | 137 | 55 | 99 | 16 | 38 |
| Other Facility and Space | | | | | |
| Parking [Units] | | | | | |
| Trailers | 11 | (9) | 11 | (9) | 0 |
| Trucks | 49 | 10 | 49 | 10 | 0 |
| Passengers Car | 9 | 9 | 0 | 0 | 9+9 |
| Bus | 1 | 1 | 0 | 0 | 1+1 |

Source: Study Team

The following tables are calculation details of resource deployment for Option 1 and Option 2.

**Table 5.3.2 Mozambique: Necessary Resources Deployment in 2024**

| Year 2024 | Commercial Traffic | | | | | | | | Non-Commercial Traffic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger Vehicles | Pedestrian & Bicycle | |
| | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | | | |
| Customs Unit Resource Cap | 3 team | = 4 Officer (1+1+2), 1 Casher | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | |
| Per Regime | 0.12 | 4.35 | 0.48 | 0.07 | 0.08 | 0.09 | 0.56 | 0.43 | 0.33 | 0.00 | |
| teams | 0.37 | 13.04 | 1.43 | 0.20 | 0.25 | 0.27 | 1.67 | 1.28 | 1.00 | 0.00 | |
| officers | 0.49 | 17.39 | 1.91 | 0.27 | 0.33 | 0.36 | 2.22 | 1.70 | 1.33 | 0.00 | 26.00 |
| Option1 | | | | | | | | | | | |
| Outbound | | | | 0.27 | | 0.36 | | 1.70 | 1.33 | | 3.66 |
| Inbound | 0.49 | 17.39 | 1.91 | | 0.33 | | 2.22 | | 1.33 | | 23.68 |
| Option2 | | | | | | | | | | | |
| Commercial | 0.49 | 17.39 | 1.91 | 0.27 | 0.33 | 0.36 | 2.22 | 1.70 | | | 24.67 |
| Outbound | | | | 0.27 | | 0.36 | | 1.70 | | | 2.32 |
| Inbound | 0.49 | 17.39 | 1.91 | | 0.33 | | 2.22 | | | | 22.35 |
| Non-Commercial | | | | | | | | | 1.33 | | 1.33 |
| Immigration Unit Resource | 3 team | = 4 Officer (1+1+2) | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | |
| Per Regime | 0.06 | 1.74 | 0.09 | 0.03 | 0.17 | 0.04 | 0.22 | 0.28 | 0.17 | 0.69 | |
| teams | 0.18 | 5.22 | 0.26 | 0.10 | 0.50 | 0.13 | 0.67 | 0.85 | 0.50 | 2.06 | |
| officers | 0.24 | 6.96 | 0.35 | 0.13 | 0.67 | 0.18 | 0.89 | 1.13 | 0.67 | 2.74 | 13.96 |
| Option1 | | | | | | | | | | | |
| Outbound | | | | 0.13 | | 0.18 | | 1.13 | 0.67 | 2.74 | 4.86 |
| Inbound | 0.24 | 6.96 | 0.35 | | 0.67 | | 0.89 | | 0.67 | 2.74 | 12.51 |
| Option2 | | | | | | | | | | | |
| Commercial | 0.24 | 6.96 | 0.35 | 0.13 | 0.67 | 0.18 | 0.89 | 1.13 | | | 10.55 |
| Outbound | | | | 0.13 | | 0.18 | | 1.13 | | | 1.44 |
| Inbound | 0.24 | 6.96 | 0.35 | | 0.67 | | 0.89 | | | | 9.10 |
| Non-Commercial | | | | | | | | | 0.67 | 2.74 | 3.41 |

Source: Study Team

**Table 5.3.3 Malawi: Necessary Resources Deployment in 2024**

| Year 2024 | Commercial Traffic | | | | | | | | Non-Commercial Traffic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger Vehicles | Pedestrian & Bicycle | |
| | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | | | |
| Customs Unit Resource Cap | 6 team | = 9 Officer (1+1+1+2+2), 2 Casher | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | |
| Per Regime | 0.02 | 0.02 | 0.00 | 2.25 | 0.03 | 0.21 | 0.28 | 0.28 | 0.17 | 0.00 | |
| teams | 0.10 | 0.13 | 0.01 | 13.50 | 0.20 | 1.25 | 1.70 | 1.67 | 1.00 | 0.00 | |
| officers | 0.15 | 0.19 | 0.02 | 20.25 | 0.30 | 1.88 | 2.55 | 2.50 | 1.50 | 0.00 | 29.33 |
| Option1 | | | | | | | | | | | |
| Outbound | | | | 20.25 | | 1.88 | | 2.50 | 1.50 | | 26.13 |
| Inbound | 0.15 | 0.19 | 0.02 | | 0.30 | | 2.55 | | 1.50 | | 4.71 |
| Option2 | | | | | | | | | | | |
| Commercial | 0.15 | 0.19 | 0.02 | 20.25 | 0.30 | 1.88 | 2.55 | 2.50 | | | 27.83 |
| Outbound | | | | 20.25 | | 1.88 | | 2.50 | | | 24.63 |
| Inbound | 0.15 | 0.19 | 0.02 | | 0.30 | | 2.55 | | | | 3.21 |
| Non-Commercial | | | | | | | | | 1.50 | | 1.50 |
| Immigration Unit Resource | 3 team | = 5 Officers (1+2+2) | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | |
| Per Regime | 0.02 | 0.02 | 0.00 | 1.80 | 0.04 | 0.17 | 0.28 | 0.22 | 0.17 | 0.69 | |
| teams | 0.05 | 0.05 | 0.00 | 5.40 | 0.13 | 0.50 | 0.85 | 0.67 | 0.50 | 2.06 | |
| officers | 0.08 | 0.08 | 0.00 | 9.00 | 0.22 | 0.83 | 1.42 | 1.11 | 0.83 | 3.43 | 17.02 |
| Option1 | | | | | | | | | | | |
| Outbound | | | | 9.00 | | 0.83 | | 1.11 | 0.83 | 3.43 | 15.21 |
| Inbound | 0.08 | 0.08 | 0.00 | | 0.22 | | 1.42 | | 0.83 | 3.43 | 6.07 |
| Option2 | | | | | | | | | | | |
| Commercial | 0.08 | 0.08 | 0.00 | 9.00 | 0.22 | 0.83 | 1.42 | 1.11 | | | 12.75 |
| Outbound | | | | 9.00 | | 0.83 | | 1.11 | | | 10.94 |
| Inbound | 0.08 | 0.08 | 0.00 | | 0.22 | | 1.42 | | | | 1.81 |
| Non-Commercial | | | | | | | | | 0.83 | 3.43 | 4.26 |

Source: Study Team

Unit workspace for office space is to count 9.0 [m2/person] for calculation in reference to the ADB design guide.

Following criteria of delay ratio are considered for required parking lots:

- Trucks: 15 % of inbound total or outbound total [vehicles/day]
- Trailers: 15% of inbound transit or outbound transit [vehicles/day]
- Passenger car: 15% of passenger vehicle traffic [vehicles/day]
- Bus: 15% of bus traffic [vehicles/day]

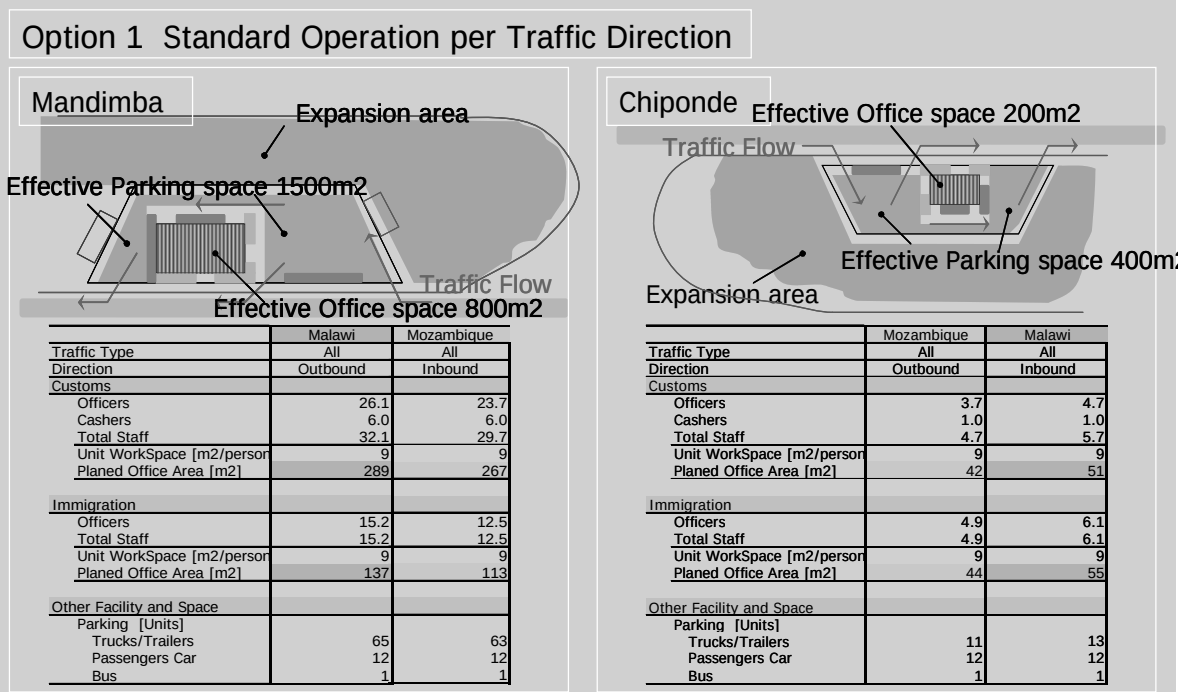
Option 1: Split Operation per Traffic Direction

- Mandimba Border Post is to process all traffic types going in one direction (entry) such as inbound traffic for Mozambique as well as outbound traffic for Malawi.
- Chiponde Border Post is to process all traffic types going in one direction (entry) such as outbound traffic for Mozambique as well as inbound traffic for Malawi.
- Both border posts where two countries' customs and immigration offices reside are to have the following resource deployment and area.
- Effective space for office and parking is summarized as follows. It notes that effective space indicated does not stand for construction area.

**Table 5.3.4 Option 1: Effective Space required for Office and Parking in 2024**

| Facility | Mandimba Border [m2] | | Chiponde Border [m2] | |
|---|---|---|---|---|
| | Mozambique | Malawi | Mozambique | Malawi |
| Customs office | 290 | 270 | 40 | 50 |
| Immigration office | 140 | 110 | 45 | 55 |
| Sub-total -building | | 810 | | 200 |
| Total building | | | | 1,010 |
| Parking area | | 1,500 | | 400 |
| Total parking | | | | 1,900 |

Source: Study Team




| | Malawi | Mozambique |
|---|---|---|
| Traffic Type | All | All |
| Direction | Outbound | Inbound |
| Customs | | |
| Officers | 26.1 | 23.7 |
| Cashers | 6.0 | 6.0 |
| Total Staff | 32.1 | 29.7 |
| Unit WorkSpace [m2/person | 9 | 9 |
| Planed Office Area [m2] | 289 | 267 |
| Immigration | | |
| Officers | 15.2 | 12.5 |
| Total Staff | 15.2 | 12.5 |
| Unit WorkSpace [m2/person | 9 | 9 |
| Planed Office Area [m2] | 137 | 113 |
| Other Facility and Space | | |
| Parking [Units] | | |
| Trucks/Trailers | 65 | 63 |
| Passengers Car | 12 | 12 |
| Bus | 1 | 1 |

| | Mozambique | Malawi |
|---|---|---|
| Traffic Type | All | All |
| Direction | Outbound | Inbound |
| Customs | | |
| Officers | 3.7 | 4.7 |
| Cashers | 1.0 | 1.0 |
| Total Staff | 4.7 | 5.7 |
| Unit WorkSpace [m2/person | 9 | 9 |
| Planed Office Area [m2] | 42 | 51 |
| Immigration | | |
| Officers | 4.9 | 6.1 |
| Total Staff | 4.9 | 6.1 |
| Unit WorkSpace [m2/person | 9 | 9 |
| Planed Office Area [m2] | 44 | 55 |
| Other Facility and Space | | |
| Parking [Units] | | |
| Trucks/Trailers | 11 | 13 |
| Passengers Car | 12 | 12 |
| Bus | 1 | 1 |

**Figure 5.3.4 Option 1: Split Operation per Traffic Direction in 2024**

Option 2: Split Operation per Traffic Type

- Mandimba Border Post is to process commercial traffic going in two directions (entry, exit) such as inbound/outbound traffic of Mozambique as well as outbound/inbound traffic of Malawi.
- Chiponde Border Post is to process non-commercial traffic going in two

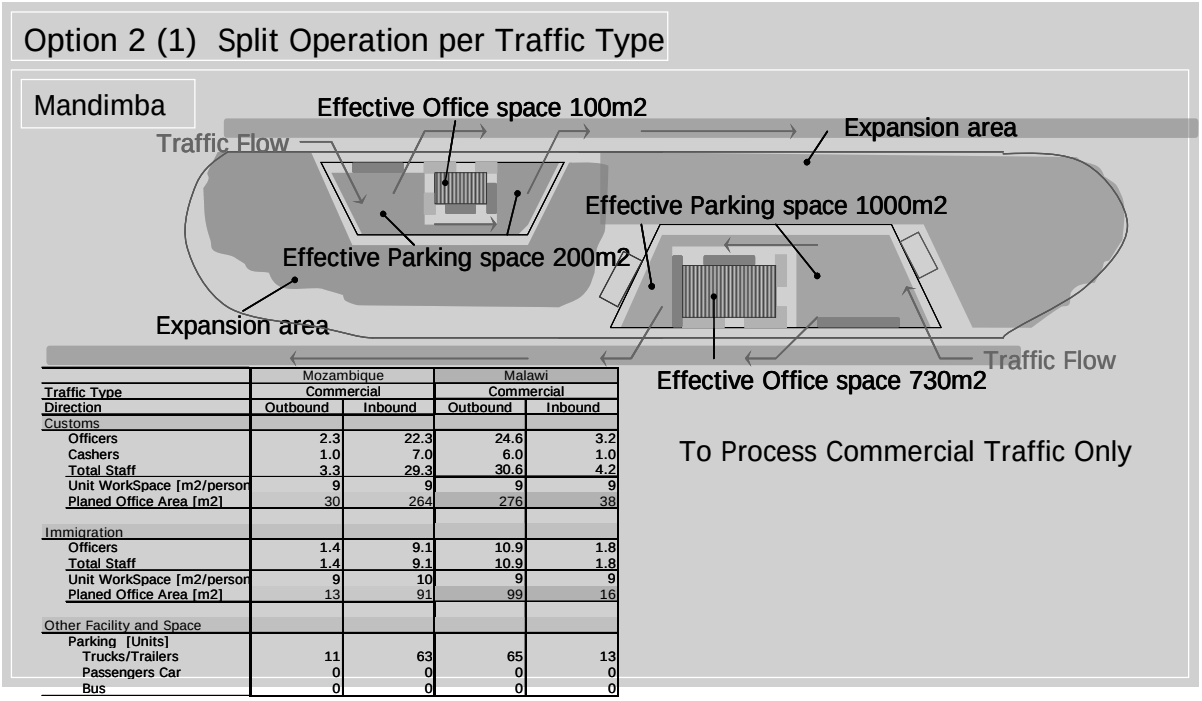
directions (entry, exit) such as inbound/outbound traffic of Mozambique as well as outbound/inbound traffic of Malawi.

- Both posts where two countries' customs and immigration office reside are to have the following resources deployment and area.
- Effective space for office and parking is to be summarized as follows. It notes that effective space indicated does not stand for construction area.

**Table 5.3.5 Option 2: Effective Space required for Office and Parking in 2024**

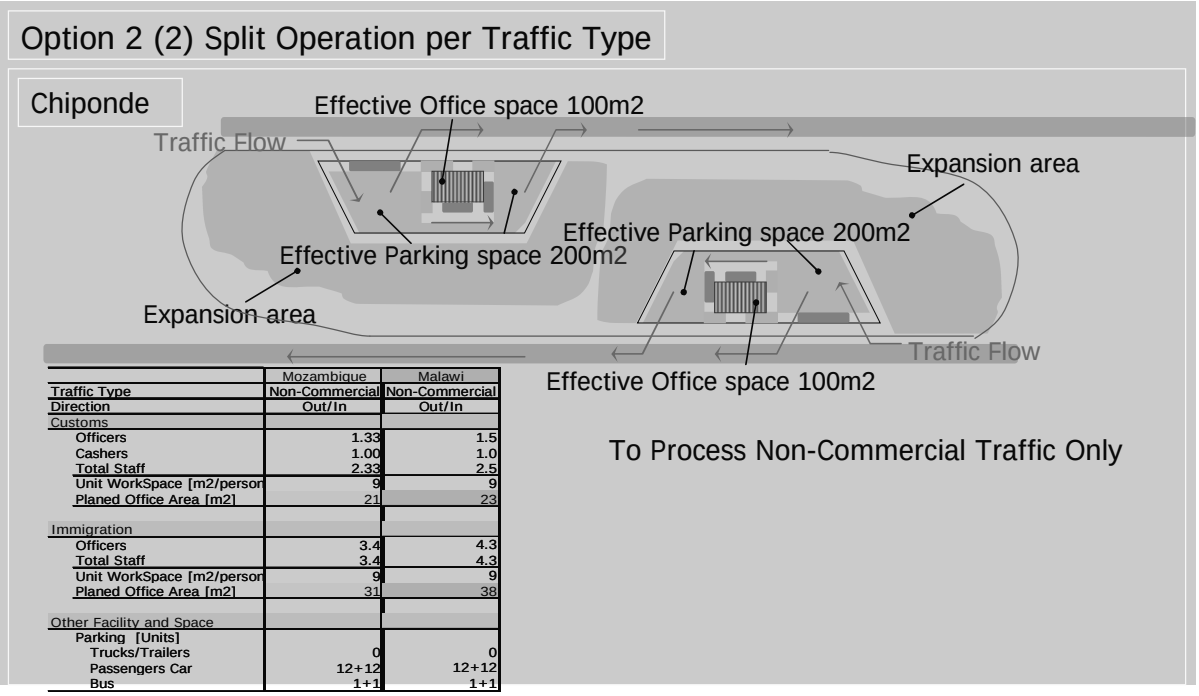
| Facility | Mandimba Border [m2] | | | | Chiponde Border [m2] | | | |
|---|---|---|---|---|---|---|---|---|
| | Outbound | | Inbound | | Outbound | | Inbound | |
| | Moz | Malw | Moz | Malw | Moz | Malw | Moz | Malw |
| Customs office | 30 | 40 | 265 | 280 | 25 | 25 | 25 | 25 |
| Immigration office | 15 | 20 | 95 | 100 | 35 | 40 | 35 | 40 |
| Sub-total building | | 105 | | 740 | | 125 | | 125 |
| Total building | | | | | | | | 1,095 |
| Parking area | | 400 | | 1,400 | | 200 | | 200 |
| Total parking | | | | | | | | 2,200 |

Source: Study Team




| Traffic Type | Mozambique Commercial | | Malawi Commercial | |
|---|---|---|---|---|
| Direction | Outbound | Inbound | Outbound | Inbound |
| Customs | | | | |
| Officers | 2.3 | 22.3 | 24.6 | 3.2 |
| Cashers | 1.0 | 7.0 | 6.0 | 1.0 |
| Total Staff | 3.3 | 29.3 | 30.6 | 4.2 |
| Unit WorkSpace [m2/person | 9 | 9 | 9 | 9 |
| Planed Office Area [m2] | 30 | 264 | 276 | 38 |
| Immigration | | | | |
| Officers | 1.4 | 9.1 | 10.9 | 1.8 |
| Total Staff | 1.4 | 9.1 | 10.9 | 1.8 |
| Unit WorkSpace [m2/person | 9 | 10 | 9 | 9 |
| Planed Office Area [m2] | 13 | 91 | 99 | 16 |
| Other Facility and Space | | | | |
| Parking [Units] | | | | |
| Trucks/Trailers | 11 | 63 | 65 | 13 |
| Passengers Car | 0 | 0 | 0 | 0 |
| Bus | 0 | 0 | 0 | 0 |

**Figure 5.3.5 Option 2: Split Operation per Traffic Type in 2024 at Mandimba**




| | Mozambique | Malawi |
|---|---|---|
| Traffic Type | Non-Commercial | Non-Commercial |
| Direction | Out/In | Out/In |
| Customs | | |
| Officers | 1.33 | 1.5 |
| Cashers | 1.00 | 1.0 |
| Total Staff | 2.33 | 2.5 |
| Unit WorkSpace [m2/person | 9 | 9 |
| Planed Office Area [m2] | 21 | 23 |
| Immigration | | |
| Officers | 3.4 | 4.3 |
| Total Staff | 3.4 | 4.3 |
| Unit WorkSpace [m2/person | 9 | 9 |
| Planed Office Area [m2] | 31 | 38 |
| Other Facility and Space | | |
| Parking [Units] | | |
| Trucks/Trailers | 0 | 0 |
| Passengers Car | 12+12 | 12+12 |
| Bus | 1+1 | 1+1 |

**Figure 5.3.6 Option 2: Split Operation per Traffic Type in 2024 at Chiponde**

(2) Facility Profile for the 2nd Step Upgrading 2024-2033

1) Design Conditions

Estimated Traffic Patterns and Volume to process at the border post are as follows:

- Commercial Traffic

| Traffic Type<br>Customs Regimes | Traffic Volume<br>[ 2033] |
|---|---|
| Export | 7 |
| Import | 1,860 |
| Abbreviated | 1,831 |
| Normal | 29 |
| Free transit | 91 |
| Inbound | 75 |
| Outbound | 16 |
| International transit | 92 |
| Malawi-Import | 52 |
| Malawi-Export | 40 |
| Total | 2,050 |

- Non-commercial Traffic

| Traffic Type<br>Customs Regimes | Traffic Volume<br>[ 2033] |
|---|---|
| Passenger vehicle | 59 |
| Inbound | 21 |
| Outbound | 38 |
| Bus | 7 |
| Inbound | 7 |
| Outbound | 0 |
| Motorcycle | 88 |
| Total | 154 |
| Pedestrian and bicycle | 288 |

Estimated Human Resources to consider at customs and immigration office are as follows:

- Mozambican Customs and Immigration

| Necessary resource | Q'ty [person] | |
|---|---|---|
| | Customs | Immigration |
| Teams | 93 | 39 |
| Officers | 123 | 53 |
| Cashers | 31 | - |
| Total | 154 | 53 |

- Malawian Customs and Immigration

| Necessary resource | Q'ty [person] | |
|---|---|---|
| | Customs | Immigration |
| Teams | 20 | 10 |
| Officers | 29 | 17 |
| Cashers | 7 | - |
| Total | 36 | 17 |

The following figure indicates breakdown structure of traffic pattern and volume.

It should be noted that international transit seems to possess high growth potential for future, and that import traffic seems able to vary its regime and proportion, which currently stands at 1,835 [vehicles/day] for simplified and abbreviated regime and 25 [vehicles/day] for normal regime.

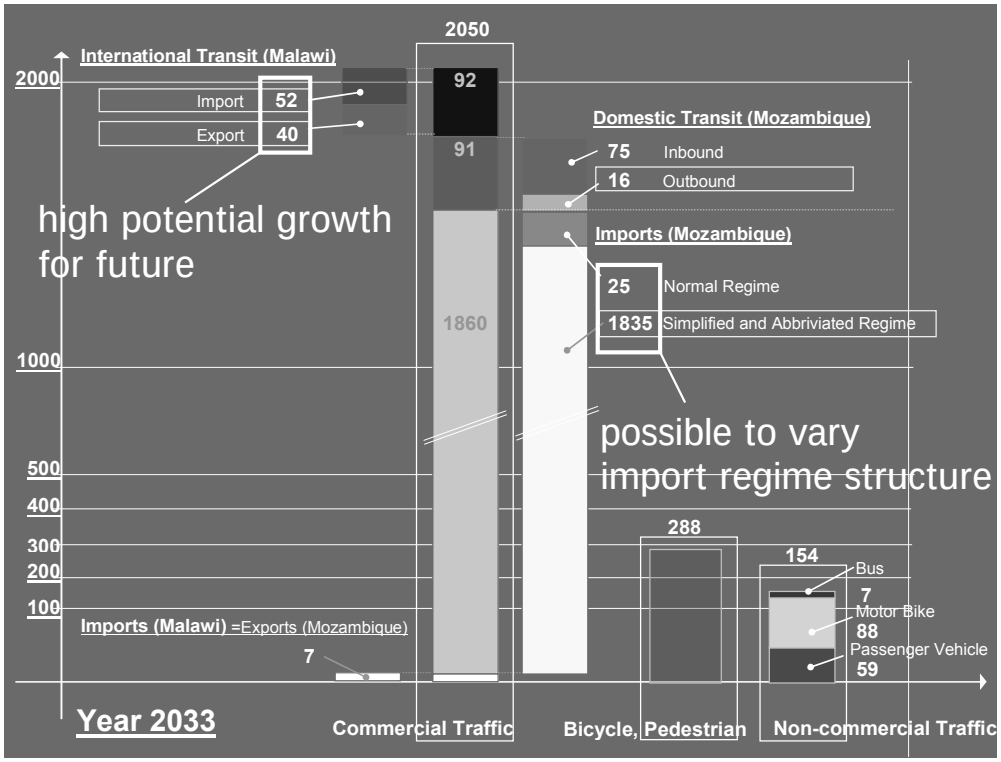



**Figure 5.3.7 Summary of Design Conditions: Traffic Trend and Resources in 2033**

2) Spatial Requirements

The following table indicates resource deployment and effective office area required per operational option classifying traffic type and traffic direction. Option 1 stands for split operation per traffic direction, and Option 2 stands for

split operation per traffic type.

**Table 5.3.6 Mozambique Inbound at Mandimba border: Necessary Resources in 2033**

| | Mozambique | | | | |
|---|---|---|---|---|---|
| Taget Year | 2033 | | | | |
| Facility Type | Option1 | | Option2 | | |
| Traffic Type | All | All | Commercial | | Non-Commercial |
| Direction | Outbound | Inbound | Outbound | Inbound | Out/In |
| Customs | | | | | |
| Q'ty Teams | | | | | |
| Officers | 6.2 | 120.7 | 2.8 | 117.3 | 3.4 |
| Cashers | 1.0 | 30.0 | 1.0 | 30.0 | 1.0 |
| Total Staff | 7.2 | 150.7 | 3.8 | 147.3 | 4.4 |
| Unit WorkSpace [m2/person | 9 | 9 | 9 | 9 | 9 |
| Planed Office Area [m2] | 65 | 1,356 | 34 | 1,325 | 40 |
| Immigration | | | | | |
| Q'ty Teams | | | | | |
| Officers | 6.6 | 50.8 | 1.7 | 45.9 | 4.9 |
| Total Staff | 6.6 | 50.8 | 1.7 | 45.9 | 4.9 |
| Unit WorkSpace [m2/person | 9 | 9 | 9 | 9 | 9 |
| Planed Office Area [m2] | 59 | 458 | 15 | 413 | 44 |
| Other Facility and Space | | | | | |
| Parking [Units] | | | | | |
| Trailers | (10) | 18 | (10) | 18 | 0 |
| Trucks | 12 | 275 | 12 | 275 | 0 |
| Passengers Car | 23 | 23 | 0 | 0 | 23+23 |
| Bus | 1 | 1 | 0 | 0 | 1+1 |

| | Malawi | | | | |
|---|---|---|---|---|---|
| Taget Year | 2033 | | | | |
| Facility Type | Option1 | | Option2 | | |
| Traffic Type | All | All | Commercial | | Non-Commercial |
| Direction | Outbound | Inbound | Outbound | Inbound | Out/In |
| Customs | | | | | |
| Q'ty Teams | | | | | |
| Officers | 127.3 | 7.5 | 123.4 | 3.6 | 3.9 |
| Cashers | 28.0 | 1.0 | 28.0 | 1.0 | 1.0 |
| Total Staff | 155.3 | 8.5 | 151.4 | 4.6 | 4.9 |
| Unit WorkSpace [m2/person | 9 | 9 | 9 | 9 | 9 |
| Planed Office Area [m2] | 1,398 | 76 | 1,363 | 42 | 44 |
| Immigration | | | | | |
| Q'ty Teams | | | | | |
| Officers | 61.0 | 8.2 | 54.9 | 2.1 | 6.1 |
| Total Staff | 61.0 | 8.2 | 54.9 | 2.1 | 6.1 |
| Unit WorkSpace [m2/person | 9 | 9 | 9 | 9 | 9 |
| Planed Office Area [m2] | 549 | 74 | 494 | 19 | 55 |
| Other Facility and Space | | | | | |
| Parking [Units] | | | | | |
| Trailers | 18 | (10) | 18 | (10) | 0 |
| Trucks | 279 | 12 | 279 | 12 | 0 |
| Passengers Car | 23 | 23 | 0 | 0 | 23+23 |
| Bus | 1 | 1 | 0 | 0 | 1+1 |

Source: Study Team

The following tables are calculation details of resource deployment for Option 1 and Option 2.

**Table 5.3.7 Mozambique: Necessary Resource Deployment 2033**

| Year 2033 | Commercial Traffic | | | | | | | | Non-Commercial Traffic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger Vehicles | Pedestrian & Bicycle | |
| | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | | | |
| Customs Unit Resource Cap | 3 team | = 4 Officer (1+1+2), 1 Casher | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | |
| Per Regime | 0.32 | 25.43 | 2.80 | 0.08 | 0.21 | 0.18 | 0.56 | 0.43 | 0.86 | 0.00 | |
| teams | 0.97 | 76.29 | 8.39 | 0.23 | 0.63 | 0.53 | 1.67 | 1.30 | 2.57 | 0.00 | |
| officers | 1.29 | 101.72 | 11.19 | 0.31 | 0.83 | 0.71 | 2.22 | 1.73 | 3.42 | 0.00 | 123.43 |
| Option1 | | | | | | | | | | | |
| Outbound | | | | 0.31 | | 0.71 | | 1.73 | 3.42 | | 6.18 |
| Inbound | 1.29 | 101.72 | 11.19 | | 0.83 | | 2.22 | | 3.42 | | 120.68 |
| Option2 | | | | | | | | | | | |
| Commercial | 1.29 | 101.72 | 11.19 | 0.31 | 0.83 | 0.71 | 2.22 | 1.73 | | | 120.01 |
| Outbound | | | | 0.31 | | 0.71 | | 1.73 | | | 2.76 |
| Inbound | 1.29 | 101.72 | 11.19 | | 0.83 | | 2.22 | | | | 117.26 |
| Non-Commercial | | | | | | | | | 3.42 | | 3.42 |
| Immigration Unit Resource | 3 team | = 4 Officer (1+1+2) | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | |
| Per Regime | 0.16 | 10.17 | 0.51 | 0.04 | 0.42 | 0.09 | 0.22 | 0.29 | 0.43 | 0.80 | |
| teams | 0.48 | 30.52 | 1.53 | 0.12 | 1.25 | 0.27 | 0.67 | 0.87 | 1.28 | 2.40 | |
| officers | 0.64 | 40.69 | 2.03 | 0.16 | 1.67 | 0.36 | 0.89 | 1.16 | 1.71 | 3.20 | 52.50 |
| Option1 | | | | | | | | | | | |
| Outbound | | | | 0.16 | | 0.36 | | 1.16 | 1.71 | 3.20 | 6.58 |
| Inbound | 0.64 | 40.69 | 2.03 | | 1.67 | | 0.89 | | 1.71 | 3.20 | 50.83 |
| Option2 | | | | | | | | | | | |
| Commercial | 0.64 | 40.69 | 2.03 | 0.16 | 1.67 | 0.36 | 0.89 | 1.16 | | | 47.59 |
| Outbound | | | | 0.16 | | 0.36 | | 1.16 | | | 1.67 |
| Inbound | 0.64 | 40.69 | 2.03 | | 1.67 | | 0.89 | | | | 45.92 |
| Non-Commercial | | | | | | | | | 1.71 | 3.20 | 4.91 |

Source: Study Team

**Table 5.3.8 Malawi: Necessary Resource Deployment 2033**

| Year 2033 | Commercial Traffic | | | | | | | | Non-Commercial Traffic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Import | | | Export | Free Transit | | International Transit | | Passenger Vehicles | Pedestrian & Bicycle | |
| | Normal | Simplified Abbreviated | + Inspection | | Inbound | Outbound | Inbound | Outbound | | | |
| Customs Unit Resource Cap | 6 team | = 9 Officer (1+1+1+2+2), 2 Casher | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | |
| Per Regime | 0.02 | 0.02 | 0.00 | 12.92 | 0.07 | 0.52 | 0.29 | 0.28 | 0.43 | 0.00 | |
| teams | 0.12 | 0.15 | 0.02 | 77.50 | 0.40 | 3.13 | 1.73 | 1.67 | 2.57 | 0.00 | |
| officers | 0.18 | 0.22 | 0.02 | 116.25 | 0.60 | 4.69 | 2.60 | 2.50 | 3.85 | 0.00 | 130.91 |
| Option1 | | | | | | | | | | | |
| Outbound | | | | 116.25 | | 4.69 | | 2.50 | 3.85 | | 127.29 |
| Inbound | 0.18 | 0.22 | 0.02 | | 0.60 | | 2.60 | | 3.85 | | 7.47 |
| Option2 | | | | | | | | | | | |
| Commercial | 0.18 | 0.22 | 0.02 | 116.25 | 0.60 | 4.69 | 2.60 | 2.50 | | | 127.06 |
| Outbound | | | | 116.25 | | 4.69 | | 2.50 | | | 123.44 |
| Inbound | 0.18 | 0.22 | 0.02 | | 0.60 | | 2.60 | | | | 3.62 |
| Non-Commercial | | | | | | | | | 3.85 | | 3.85 |
| Immigration Unit Resource | 3 team | = 5 Officers (1+2+2) | | | | | | | | | |
| Necessary Resourece | | | | | | | | | | | |
| Per Regime | 0.02 | 0.02 | 0.00 | 10.33 | 0.09 | 0.42 | 0.29 | 0.22 | 0.43 | 0.80 | |
| teams | 0.06 | 0.06 | 0.00 | 31.00 | 0.27 | 1.25 | 0.87 | 0.67 | 1.28 | 2.40 | |
| officers | 0.10 | 0.10 | 0.00 | 51.67 | 0.44 | 2.08 | 1.44 | 1.11 | 2.14 | 4.00 | 63.09 |
| Option1 | | | | | | | | | | | |
| Outbound | | | | 51.67 | | 2.08 | | 1.11 | 2.14 | 4.00 | 61.00 |
| Inbound | 0.10 | 0.10 | 0.00 | | 0.44 | | 1.44 | | 2.14 | 4.00 | 8.23 |
| Option2 | | | | | | | | | | | |
| Commercial | 0.10 | 0.10 | 0.00 | 51.67 | 0.44 | 2.08 | 1.44 | 1.11 | | | 56.95 |
| Outbound | | | | 51.67 | | 2.08 | | 1.11 | | | 54.86 |
| Inbound | 0.10 | 0.10 | 0.00 | | 0.44 | | 1.44 | | | | 2.09 |
| Non-Commercial | | | | | | | | | 2.14 | 4.00 | 6.14 |

Source: Study Team

Unit workspace for office space assumes 9.0 [m2/person] for calculation in reference to the ADB design guide.

Following criteria of delay ratio are considered for required parking lots:

- Trucks: 15 % of inbound total or outbound total [vehicles/day]
- Trailers: 15% of inbound transit or outbound transit [vehicles/day]
- Passenger car: 15% of passenger vehicle traffic [vehicles/day]
- Bus: 15% of bus traffic [vehicles/day]

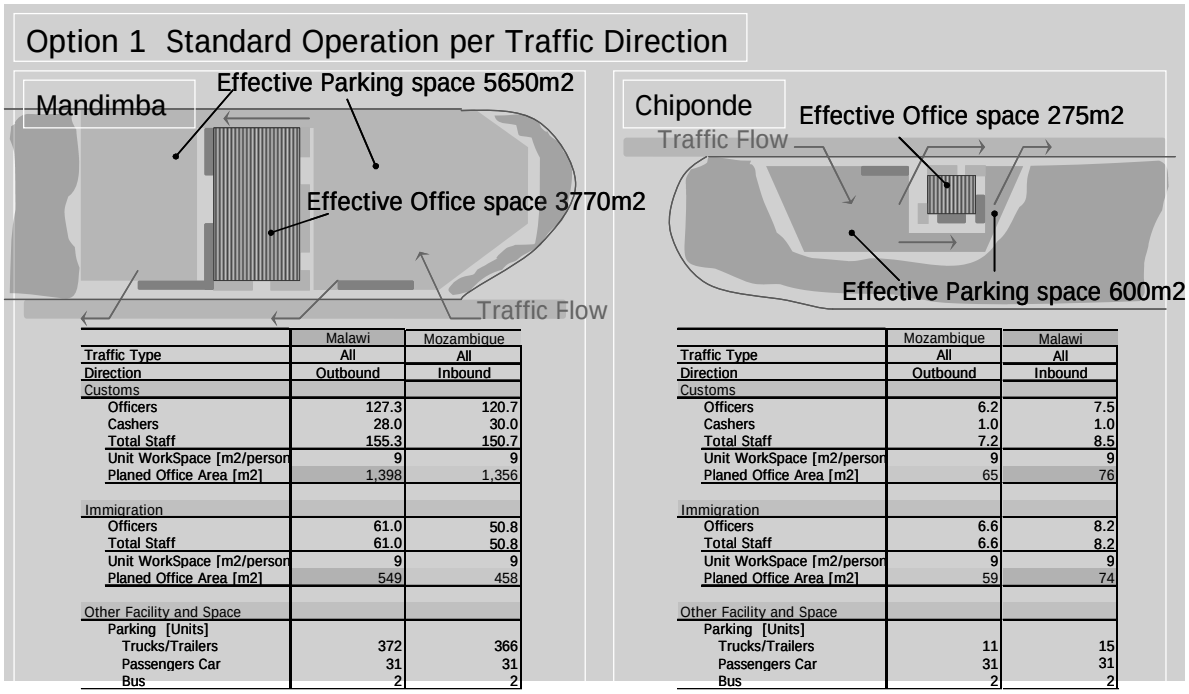
Option 1: Split Operation per Traffic Direction

- Effective space for office and parking is to be summarized as follows. It should be noted that effective space indicated does not stand for construction area.

**Table 5.3.9 Option 1: Effective Space required for Office and Parking in 2024**

| Facility | Mandimba Border [m2] | | Chiponde Border [m2] | |
|---|---|---|---|---|
| | Mozambique | Malawi | Mozambique | Malawi |
| Customs office | 1,360 | 1,400 | 65 | 75 |
| Immigration office | 460 | 550 | 60 | 75 |
| Sub-total -building | | 3,770 | | 275 |
| Total building | | | | 4,045 |
| Parking area | | 5,650 | | 600 |
| Total parking | | | | 6,250 |

Source: Study Team




| | Malawi | Mozambique |
|---|---|---|
| Traffic Type | All | All |
| Direction | Outbound | Inbound |
| Customs | | |
| Officers | 127.3 | 120.7 |
| Cashers | 28.0 | 30.0 |
| Total Staff | 155.3 | 150.7 |
| Unit WorkSpace [m2/person | 9 | 9 |
| Planed Office Area [m2] | 1,398 | 1,356 |
| Immigration | | |
| Officers | 61.0 | 50.8 |
| Total Staff | 61.0 | 50.8 |
| Unit WorkSpace [m2/person | 9 | 9 |
| Planed Office Area [m2] | 549 | 458 |
| Other Facility and Space | | |
| Parking [Units] | | |
| Trucks/Trailers | 372 | 366 |
| Passengers Car | 31 | 31 |
| Bus | 2 | 2 |

| | Mozambique | Malawi |
|---|---|---|
| Traffic Type | All | All |
| Direction | Outbound | Inbound |
| Customs | | |
| Officers | 6.2 | 7.5 |
| Cashers | 1.0 | 1.0 |
| Total Staff | 7.2 | 8.5 |
| Unit WorkSpace [m2/person | 9 | 9 |
| Planed Office Area [m2] | 65 | 76 |
| Immigration | | |
| Officers | 6.6 | 8.2 |
| Total Staff | 6.6 | 8.2 |
| Unit WorkSpace [m2/person | 9 | 9 |
| Planed Office Area [m2] | 59 | 74 |
| Other Facility and Space | | |
| Parking [Units] | | |
| Trucks/Trailers | 11 | 15 |
| Passengers Car | 31 | 31 |
| Bus | 2 | 2 |

**Figure 5.3.8 Option 1: Split Operation per Traffic Direction in 2033**

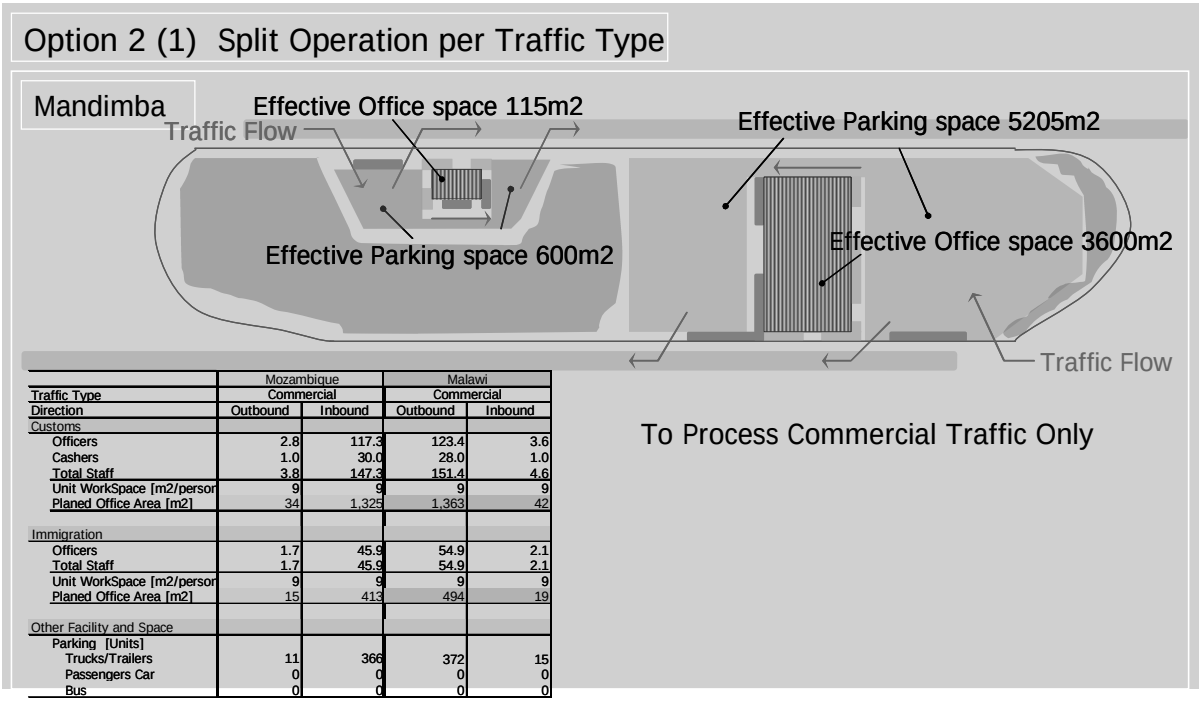
Option 2: Split Operation per Traffic Type

- Effective space for office and parking is to be summarized as follows. It should be noted that effective space indicated does not stand for construction area.

**Table 5.3.10 Option 2: Effective Space required for Office and Parking in 2033**

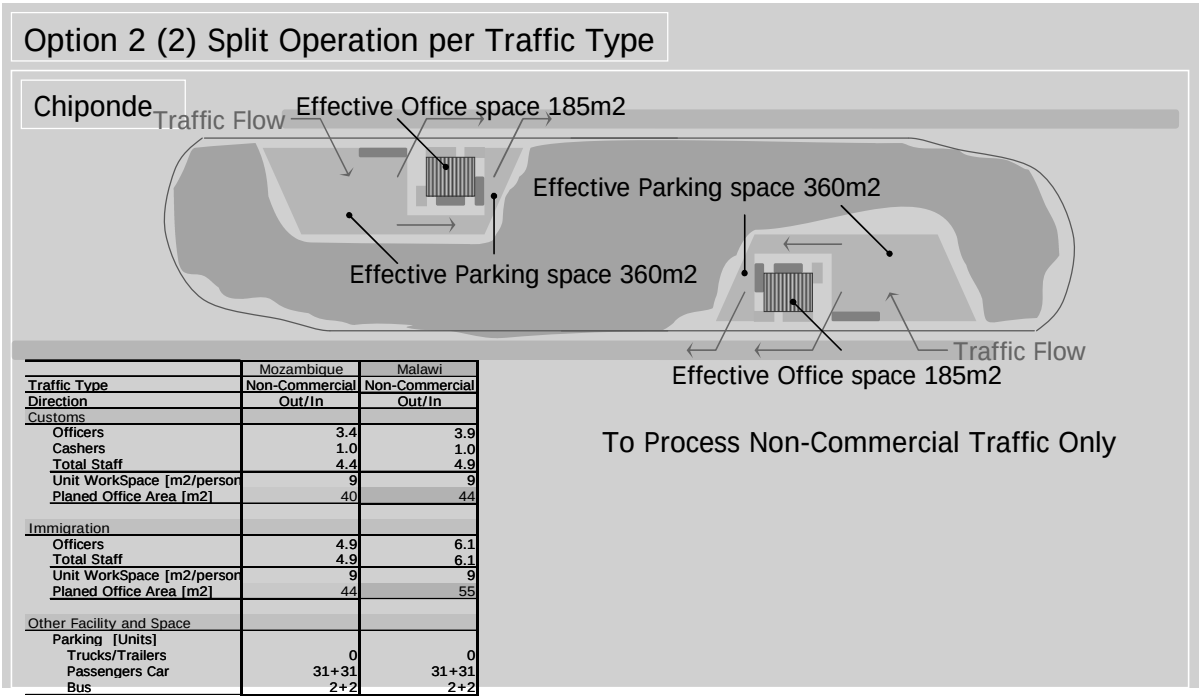
| Facility | Mandimba Border [m2] | | | | Chiponde Border [m2] | | | |
|---|---|---|---|---|---|---|---|---|
| | Outbound | | Inbound | | Outbound | | Inbound | |
| | Moz | Malw | Moz | Malw | Moz | Malw | Moz | Malw |
| Customs office | 35 | 45 | 1,325 | 1,365 | 40 | 45 | 40 | 45 |
| Immigration office | 15 | 20 | 415 | 495 | 45 | 55 | 45 | 55 |
| Sub-total building | | 115 | | 3,600 | | 185 | | 185 |
| Total building | | | | | | | | 4,085 |
| Parking area | | 600 | | 5,205 | | 360 | | 360 |
| Total parking | | | | | | | | 6,525 |

Source: Study Team




| Traffic Type | Mozambique Commercial | | Malawi Commercial | |
|---|---|---|---|---|
| Direction | Outbound | Inbound | Outbound | Inbound |
| Customs | | | | |
| Officers | 2.8 | 117.3 | 123.4 | 3.6 |
| Cashers | 1.0 | 30.0 | 28.0 | 1.0 |
| Total Staff | 3.8 | 147.3 | 151.4 | 4.6 |
| Unit WorkSpace [m2/persor | 9 | 9 | 9 | 9 |
| Planed Office Area [m2] | 34 | 1,325 | 1,363 | 42 |
| Immigration | | | | |
| Officers | 1.7 | 45.9 | 54.9 | 2.1 |
| Total Staff | 1.7 | 45.9 | 54.9 | 2.1 |
| Unit WorkSpace [m2/persor | 9 | 9 | 9 | 9 |
| Planed Office Area [m2] | 15 | 413 | 494 | 19 |
| Other Facility and Space | | | | |
| Parking [Units] | | | | |
| Trucks/Trailers | 11 | 366 | 372 | 15 |
| Passengers Car | 0 | 0 | 0 | 0 |
| Bus | 0 | 0 | 0 | 0 |

**Figure 5.3.9 Option 2: Split Operation per Traffic Type 2033 at Mandimba**




| Traffic Type | Mozambique Non-Commercial | Malawi Non-Commercial |
|---|---|---|
| Direction | Out/In | Out/In |
| Customs | | |
| Officers | 3.4 | 3.9 |
| Cashers | 1.0 | 1.0 |
| Total Staff | 4.4 | 4.9 |
| Unit WorkSpace [m2/persor | 9 | 9 |
| Planed Office Area [m2] | 40 | 44 |
| Immigration | | |
| Officers | 4.9 | 6.1 |
| Total Staff | 4.9 | 6.1 |
| Unit WorkSpace [m2/persor | 9 | 9 |
| Planed Office Area [m2] | 44 | 55 |
| Other Facility and Space | | |
| Parking [Units] | | |
| Trucks/Trailers | 0 | 0 |
| Passengers Car | 31+31 | 31+31 |
| Bus | 2+2 | 2+2 |

**Figure 5.3.10 Option 2: Split Operation per Traffic Type in 2033 at Chiponde**

3) Preliminary Facility Layout

The following figures show very preliminary layout comprising just three components of the border facility, namely customs & immigration office building, parking lots and approach road.

Preliminary layout is a projection incorporated into the aerial photographs of the survey implemented by the Study.

Option 1: Split Operation per Traffic Direction

Mandimba Border Post (Mozambique)


**Figure 5.3.11 Option 1: Split Operation per Traffic Direction in 2033 at Mandimba**

Chiponde Border Post (Malawi)


**Figure 5.3.12 Option 1: Split Operation per Traffic Direction in 2033 at Chiponde**

Preliminary construction costs are estimated as follows. It should be noted that no other components and no equipments are considered other than the three components described.

**Table 5.3.11 Option 1: Preliminary Estimation of Construction Cost in 2033**

| Facility | Mandimba Border Post | | Chiponde Border Post | |
|---|---|---|---|---|
| | Construction area [m2] | Construction Cost [mill Usd] | Construction area [m2] | Construction Cost [mil Usd] |
| Office Buildings (x 1.25) | 4,800 | 3.10 | 350 | 0.24 |
| Parking lots (x 1.85) | 10,500 | 0.53 | 1,100 | 0.06 |
| Approach road | 5,000 | 0.37 | 9,300 | 0.69 |
| Sub-total [mil Usd] | | 4.00 | | 0.99 |
| Total [mil Usd] | | | | 4.99 |

Construction area is roughly estimated based on effective office area and effective parking area as earlier mentioned.

Unit construction cost of the building is calculated in reference to conventional public building in Northern Region of Mozambique, for which similar specifications might be employed.

Option 2: Split Operation per Traffic Type

Mandimba Border Post (Mozambique)

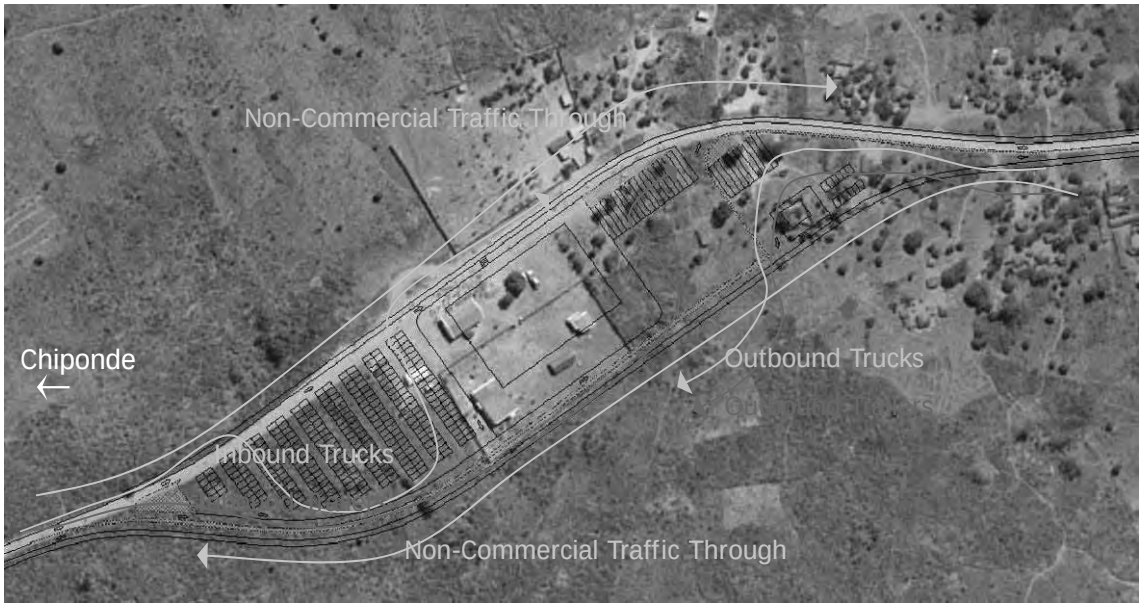



**Figure 5.3.13 Option 2: Split Operation per Traffic Type in 2033 at Mandimba**

Chiponde Border Post (Malawi)


**Figure 5.3.14 Option 2: Split Operation per Traffic Type in 2033 at Chiponde**

Preliminary construction costs are estimated as follows. It should be noted that no other components and no equipments are considered other than the three components described.

**Table 5.3.12 Option 2: Preliminary Estimation of Construction Cost in 2033**

| Facility | Mandimba Border Post | | Chiponde Border Post | |
|---|---|---|---|---|
| | Construction area [m2] | Construction Cost [mill Usd] | Construction area [m2] | Construction Cost [mil Usd] |
| Office Buildings (x 1.25) | 4,600 | 3.00 | 460 | 0.30 |
| Parking lots (x 1.85) | 10,800 | 0.54 | 1,350 | 0.07 |
| Approach road | 5,000 | 0.37 | 9,300 | 0.69 |
| Sub-total [mil Usd] | | 3.91 | | 1.06 |
| Total [mil Usd] | | | | 4.97 |

Construction area is roughly estimated based on effective office area and effective parking area as earlier mentioned.

Unit construction cost of the building is calculated in reference to conventional public building in Northern Region of Mozambique, for which similar specifications might be employed.

5.3.3 Facility Planning: Other Considerations

It is essential that other relevant components shall be duly examined and determined to furnish under the OSBP environment.

Examination shall be jointly undertaken by the two countries in collaboration

with joint technical committee and relevant working groups such as “Border Services and Procedure W/G”, “Infrastructure W/G” and “ICT W/G”.

The following components might be additionally considered in conformity with border procedures and systems to employ.

- Inspection area
  - X-Ray
  - Weigh bridge
  - Inspection dock
- Administration & maintenance area
  - Border patrol/ Police office
  - Residence/ Dormitory for border staff
- Auxiliary area
  - Customs brokers office
  - Bank, insurance company office
  - Retail shops