Impact of Non-Tariff Barriers on Cross-Border Trade in Eastern Africa

Introduction
Multilateral trade agreements have brought down tariff barriers to trade following negotiations under GATT and subsequent rounds. However, non-tariff barriers (NTBs) have gained prominence as alternative trade policy instruments for domestic industry protection or for regulating trade. NTBs are barriers to trade that are not tariffs and include both trade-restricting measures (quotas, technical barriers, etc) and trade-promoting measures (export subsidies etc). In their application, NTBs are increasingly raising market access concerns at both global and regional levels.

On March 2, 2004, member states of the EAC signed a protocol for establishment of the East African Community Customs Union which commits the states to eliminate NTBs. However, despite this agreement, NTBs are still applied by member states. In 2003, RATES, noted that bureaucratic import/export procedures inhibit formal trade between the EAC countries. Inappropriate policy interventions in the commodity markets tend to distort relative prices thereby encouraging informal cross-border trade- a more costly alternative. In light of its effects on trade, the East African Business Council (EABC) which is a consortium for traders in the region commissioned a study in 2004 to seek views about the range and nature of the various impediments to trade in the region. The EABC study findings showed that NTBs evolve around business registration and licensing, customs procedures, police road checks, road axle regulations and control, and standards and certification requirements (EABC 2005).

Between November 2006 and February 2007, a follow up East Africa Community Business Climate Index Survey was conducted to assess the business climate and how it impacts on business operations within the region on a total of 504 respondents drawn from the capital cities of three EAC countries; Uganda, Kenya and Tanzania. The questionnaire used, focused on six trade-related clusters: customs procedures, immigration and work permits, business registration and licensing, police road blocks, weighbridge stations and quality standards and export certification. Perceptions of the business community and trade institutions regarding the then business climate were also sought.

The 2007 findings showed that while businesses experienced obstacles under all the six trade related areas, the biggest constraint were the customs procedures. On average, Kenyan businesses were more affected than their counterparts in Tanzania and Uganda, a situation no different from the 2004 findings. Additionally, the survey found that time spent, extra costs and corrupt practices under the six trade related cluster areas were the biggest obstacles to trade in the region. However, business climate factors were regarded as equally important. These factors included access to land and business premises, access to skilled labour, quality and cost of transport, access and cost of energy and telecommunications, legal and
regulatory framework, access to business finance and business support services, and ease of crossing EAC borders.

However, both the earlier EABC survey of 2004 and the follow up, did not quantify the welfare effects of NTBs to the region and to the various sectors in the economy. It was acknowledged that such evidence was necessary to advocate for policy action for needed reforms. Dr. Godfrey Bahigwa, then the ReSAKSS Coordinator, together with Dr. Michael Waithaka, then Coordinator of the Eastern and Central Africa Programme for Agricultural Policy Analysis (ECAPAPA) now the Policy Analysis and Advocacy Programme (PAAP) of ASARECA and other partners hence, conceived a project proposal to fill this key knowledge gap. This project is supported by funding from USAID-East Africa.

**Project objectives**

The overall objective of the project was to assess the impact of NTBs on cross-border trade in EAC with a view to suggesting areas of reform in order to enhance regional trade. Specifically, the project would,

- Establish the number and types of NTBs applicable within EAC partner states as well as regional trading partners
- Quantify effects of NTBs on cross-border trade among EAC partner states and their key regional trading partners
- Estimate trade benefits that would accrue to the region with reduction and eventual elimination of NTBs

**Expected project outputs**

This project on quantifying the welfare impacts of NTBs in EAC was expected to deliver the following results;

- Estimates of the quantitative welfare effects of NTBs
- Estimates of the relative importance of various NTBs to trade in EAC
- Strengthened capacity in EAC and partner institutions in modelling impacts of trade policy instruments on trade and welfare in the region
- Practical proposals for fast-tracking elimination of NTBs in the EAC region

In the pursuit of the realisation of these outputs, ASARECA/PAAP and ReSAKSS worked closely with the Kenya Institute of Public Policy Research Analysis (KIPPPRA), the Economic Policy Research Centre (EPRC) in Uganda and the Economic Social Research Foundation (ESRF) in Tanzania and the International Food Policy Research Institute (IFPRI).

**Relative importance of various NTBs to trade in EAC**

A few highlights from the study of the impact of NTBs on EAC trade in beef and maize. Administrative requirements for trade across the three countries are largely similar, however with variations in costings and emphasis (all traders in the region have to pay cess and excise duties, in addition to other duties in form of council permits, trading and transport licenses).
Other costs are incurred in the course of customs clearance including access to trade documentation, weighbridges, road blocks and road toll stations. The study pinpoints three key hindrances to trade in the region: duties, corruption at clearance points especially roadblocks and high transport costs. A country comparison of total duties paid showed that Ugandan traders paid relatively higher taxes than their regional counterparts. Ugandan traders also handle lower volumes of trade (17 heads of cattle and 13 tons of maize per trip) compared to regional averages of 24 heads of cattle and 17 tons of maize.

**Table 1 Country comparison of total duties paid by maize and beef traders per trip (US $)**

<table>
<thead>
<tr>
<th></th>
<th>MAIZE</th>
<th>BEEF CATTLE</th>
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</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>60</td>
<td>50.5</td>
</tr>
<tr>
<td>Uganda</td>
<td>77.5</td>
<td>92.5</td>
</tr>
<tr>
<td>Tanzania</td>
<td>46</td>
<td>17</td>
</tr>
</tbody>
</table>

The analysis identified roadblocks as a major barrier to effective trade in EAC. For every 100Km, maize and beef traders in Tanzania encounter at least two road blocks. Road blocks encountered in the other two partner states are higher, however. On average Kenyan beef and maize traders encounter 6 and 5 road blocks respectively. On the other hand, although Ugandan beef traders reported an average of only two road blocks for every 100 Km, maize traders encounter up to 7 roadblocks along the maize trading route.

Road blocks were perceived by traders as very expensive in terms of time lost and monetary cost incurred. The road blocks were reported to be too many, had unfriendly police checks coupled with corruption mainly in the form of bribery. Even though road blocks improve security along major highways, the cumbersome clearance at such roadblocks is time wasting. As such, they add to the cost of doing business. In addition, these road blocks also serve as an arena for extortion of bribes for policemen. The long hours taken to clear a vehicle at a roadblock is meant to induce the traders to offer a bribe to have their vehicles cleared fast enough.
This study confirmed findings elsewhere (Kafeero, 2008; African Press International (API), 2007) of the widespread use of bribes in the region’s trading route. At least 50% or more of traders reported paying a bribe at any of the customs clearance points along the trading routes with the amount of the bribe determined by the consignment value. The API report also showed that the East African region loses more than US $ 57,730 to corruption for every 100 transactions in tax revenue along the Northern Corridor. Bribes are usually initiated and paid to Customs officials to shorten the process of clearance so as to have a quicker release of goods. Some customs officials may ignore some cumbersome processes if they are offered a bribe. Other causes of bribery include police harassment and discrimination. Such fees do not only hinder trade facilitation but also undermine the spirit of East African cooperation.

Traders and transporters of both maize and beef cattle encountered long queues at customs offices. The longest time spent in queues per trip was approximately 7 hours in Uganda by maize traders and transporters (Table 2). These long queues were reported to be caused by too few staff at customs offices, discrimination by customs officials, and failure by customs officials to clarify the rules and regulations of trade and also the unloading process during inspection.

<table>
<thead>
<tr>
<th></th>
<th>Maize</th>
<th>Beef cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Uganda</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Tanzania</td>
<td>1</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Source: Survey results, 2007

*High Transport costs*

Figure 1 depicts the composition of transportation costs across Kenya, Uganda and Tanzania for maize trade. Vehicle hire and maintenance was the highest cost reported in Kenya and Tanzania, while Uganda traders reported high cost in transiting followed by vehicle hire and maintenance in maize trade. The high costs of hire and maintenance can be attributed to the poor condition of road networks along the trading corridors. The picture shows the state of the road at the Nimule border post, a major entry point from Uganda into Sudan.
Quantitative Welfare Effects of NTBS in EAC Trade in maize and beef cattle

The welfare impacts of NTB’s on cross border trade within the EAC were computed from a Spatial Equilibrium model of maize and beef trade in Kenya, Uganda and Tanzania. Three policy scenarios were simulated to quantify the impacts of NTB’s within the EAC, i.e. a 50 percent reduction in all NTBs, a complete abolishment of all NTB’s and the elimination of specific NTB types such as road blocks. The simulation provides quantitative measures of the welfare impacts of NTB reductions, which helps to weigh the benefits and costs of increased trade liberalization within the EAC. To solve the model, estimates were compiled for the quantities of maize and beef supplied and consumed in the three EAC countries, their corresponding prices and their price elasticities. In addition, data was collected on import tariff rates; the cost of NTB’s and transport costs. Details of data and model specification are given in the research report.

Results show that at the base scenario, the three EAC countries do not seem to have any formal trade in maize even though the equilibrium prices range from a low of $125 in Uganda to a high of $185 in Kenya. Beef prices in Uganda were lower than in Kenya and Tanzania. Thus, Uganda exports beef to Kenya and Tanzania to the tune of 88,000 MT and 54,000 MT respectively. The base scenario produces positive producer and consumer surpluses for both maize and beef in the three countries. Overall, the combined social surplus for the maize and beef sub-sectors in Kenya, Uganda and Tanzania amounted to $2.1 billion, $0.8 billion and $1.7 billion respectively.

When the applied NTB rates within the EAC are reduced by half, various changes from the base solution are observed. Maize prices fall by about 5 percent in Kenya but remain unchanged in both Uganda and Tanzania. The declining maize prices in Kenya results in a 3
percentage rise in maize consumption in Kenya, but leaves domestic maize production in
Kenya unchanged. On the other hand, Uganda’s maize production increases by about 11
percent. Subsequently, Uganda’s exports to Kenya rises substantially, while maize trade in
the other two countries remains unchanged.

The changes in maize prices and quantities elicit various changes in welfare measures. In
particular, consumer surplus in Kenya and Tanzania increases by 7 and 0.3 percent
respectively while it falls by 36 percent in Uganda. However, maize producers in Kenya lose
from the declining maize prices as their counterparts in Uganda gain while the welfare of
maize producers in Tanzania remains unchanged. Overall, social surplus in the maize sector
increases by 2 and 6 percent in Kenya and Uganda respectively while its remains unchanged
in Tanzania. The greatest beneficiaries and losers of the 50 percent reduction in NTB’s
within the maize sub-sector are maize producers and consumers in Uganda respectively.

Within the beef sub-sector, the reduction of NTB’s by half results in a 3 percentage increase
in beef prices in Tanzania, but leads to a 1.24 percent decline in beef prices in both Kenya
and Uganda. The increased beef prices in Tanzania leads to a 0.89 percent decline in beef
consumption, while production increases by 0.76 percent from the base. On the other hand,
beef consumption in Kenya and Uganda increases by 0.49 and 0.62 percent respectively,
while production falls by 0.19 and 0.33 respectively As a result, Ugandan beef exports to
Kenya increase by 2 percent while the counterpart exports to Tanzania decline by 7 percent.

Consumer surplus in both Kenya and Uganda increases by about 1 percent from the base
solution, while it falls by about 2 percent in Tanzania. In contrast, producer surplus falls by
about 1 percentage point in both Kenya and Uganda while it increases by about 3 percent in
Tanzania. Overall, social surplus in Kenya and Uganda fall by 0.2 and 0.8 percent
respectively while it increases by 0.4 percent in Tanzania. It therefore appears as though the
greatest losers from a 50 percent reduction in NTB’s would be beef consumers in Tanzania,
while the greatest gainers from this policy change would be beef producers in Tanzania.

A fifty percent reduction in NTB’s within the maize and beef sub-sectors in Kenya, Uganda
and Tanzania yields a 0.8, 1.5 and 0.2 percent increase in social welfare. When the impacts of
a 50 percent NTB reduction across the three EAC countries are summed up, total EAC
social welfare increases by 3 percent relative to the base solution. The gainers from the
reduction in NTB’s benefit so much that they can potentially compensate the losers from
this policy change. Since such a policy has a potential to compensate losers, it can be
recommended based on the compensation principle.

When NTB’s within the EAC are completely abolished, maize prices in Kenya decline by
about 4 percentage points from the base solution, but increase by 42 and 7 percent
respectively in Uganda and Tanzania. The declining maize prices in Kenya lead to a 3
percent increase in consumption but cause a 36 percent decline in maize production. On the
other hand, maize consumption declines in both Uganda and Tanzania by 25 and 6 percent,
while production increases by 32 and 13 percent respectively. As a result, Ugandan and
Tanzanian maize exports to Kenya increase substantially.

The welfare changes emanating from a complete abolishment of NTB’s within the EAC vary
across the three countries. In Kenya, consumer surplus within the maize sector increases by
5 percent, while producer surplus falls by 75 percent. The loss in Kenya’s maize producer’s welfare outweighs the gain in consumer surplus. Thus, the net effect is a 26 percent decline in social welfare for maize farmers in Kenya. In contrast, consumer surplus in Uganda and Tanzania falls by 64 and 11 percent respectively, while producer surplus increases by 83 and 34 percent. The net welfare effect within the maize sub-sectors in Tanzania and Uganda is a 29 and 10 percent increase in social surpluses.

The greatest gainers from a complete abolishment of NTB’s within the EAC maize sub-sectors would be maize producers in Uganda while the greatest losers from this policy change would be maize producers in Kenya. Ugandan maize producers benefit from the increasing domestic maize prices and expand their exports to Kenya. In contrast, Kenya’s maize producers are hurt by the declining maize prices and as a result cut back on production.

Within the beef sub-sector, a complete removal of NTB’s yields a 2 percent decline in beef prices in both Kenya and Uganda but leads to a 5 percent increase in Tanzanian beef prices relative to the base solution. Subsequently, beef consumption in Kenya and Uganda increases by 1 percent as production only falls marginally. The reverse is true in Tanzania where beef consumption falls by 2 percent as production rises by 1 percent (Table 19). As a result, Uganda expands its beef exports to Kenya by 10 percent, while Ugandan beef exports to Tanzania fall by 22 percent.

Consumer surplus in both Uganda and Kenya increases by 2 percent while it falls by 4 percent in Tanzania. On the other hand, producer surplus within the beef sub-sectors in Kenya and Uganda fall by 3 percent. In Tanzania, producer surplus for beef producers increases by 6 percent relative to the base solution, but consumer surplus falls by 4 percent. When both beef producers and consumers are considered, social surplus declines in Kenya and Uganda but increases in Tanzania. The declines in social surplus within the beef sub-sector in Kenya and Uganda arise since the loss in producer surplus is greater than the gain in consumer surplus. Once again, beef producers in Tanzania would gain most from a complete removal of NTB’s within the EAC while beef consumers in Tanzania would be the greatest losers from this policy change.

The effect of a complete removal of NTB’s within the maize and beef sub-sectors in the EAC would be a 11 percent decline in social welfare in Kenya. However, social welfare increases by 9 and 5 percent in Uganda and Tanzania respectively. When the impacts of a complete removal of NTB’s within the EAC are summed up, the net effect is a 4 percent increase in social welfare for the entire EAC relative to the base solution. Thus, the gainers from a complete removal of NTB’s within the EAC can potentially compensate the losers. Such a policy can also be passed based on the compensation principle.

The welfare effects of eliminating specific types of NTB’s were also analyzed. In particular, the effects of eliminating three types of NTBs were considered; road blocks, permits and customs clearance. Overall, the welfare impacts of eliminating specific NTB’s were positive but marginal (less than 0.5% change) when reduced by 50% or by three quarters and hence not discussed. However, the welfare impacts give compelling evidence in support of eliminating NTB’s.
Proposals for fast-tracking elimination of NTBs in the EAC region

The SEM analysis suggests that a reduction or a complete elimination of NTB’s within the EAC maize and beef sub-sectors would lead to an improvement in social welfare in the three EAC countries. These findings lend credence to the calls to reduce or abolish NTB’s within the EAC. On the basis of these findings, policy makers within the EAC should consider abolishing or reducing the applied NTB’s within the maize and beef sub-sectors. Such policy measures have a great potential of improving the welfare of people living in the EAC countries. Addressing the negative effects to trade associated with NTBs requires effective policy actions by the national governments in the EAC and other stakeholders in the agricultural trade sector. This study provides a basis for the following policy actions:

a) Streamline administrative requirements to improve on efficiency
Maize and beef cattle traders adhere to a number of administrative requirements for trade in East Africa including: licences, municipal permits, customs clearance, road toll stations, weighbridges, standards and certification. These procedures are necessary for disease control, security and quality and consumer health considerations, but there is need to improve the efficiency in these procedures to minimize time loss and avoid unnecessary extra costs to trade.

Policy actions to increase efficiency in administrative procedures to trade can include:
   i) Agreements to harmonize trade regulations and procedures for example through creation of single check border points across neighbouring countries. License or border clearance procedures and documentation could be harmonised across municipal or across the region through the RECS. This would speed up implementation of procedures at point of origin and the border and minimize time loss at check points such as roadblocks, weighbridges, council and municipalities.
   ii) Build capacity at check points in terms of enhancing the human capacity through training, provision of all necessary equipment in good working condition, upgrade customs information systems to allow for effective communication on changes in policy related to cross border trade and improve access to required documentation for trade by decentralising licensing agencies.

b) Remove unnecessary barriers that contribute to increased transportation costs
Inefficiencies in trade administrative procedures increase the transportation costs of maize and beef cattle trade in EAC. In addition, corruption, lack of clear information for all administrative procedures required for trade by the traders and poor road conditions contribute significantly to increased transportation costs. Corruption was reported to be a common problem among all countries; more than two thirds of beef cattle traders in Kenya and Tanzania and about a half in Uganda reported to have given bribe to be able to easily trade. Complications in the administrative procedures and lack of adequate information on trade requirements and awareness on trade reforms and regulation by the traders make them unable to meet some of the requirements and resort to either pay bribe. They also find it more appealing to engage in informal trade. Both of this adds to transaction costs. Simplification of the administrative procedures and improvement of access to information by all levels of traders especially small scale traders will make it more likely for traders to adhere to the regulations.
The study also found that vehicle hire and maintenance was the highest contributor to transportation costs, respondents indicated that poor road conditions were one of the factors contributing to the need for frequent maintenance. High fuel costs were also stated to be a big factor for high vehicle charges. While improvement of roads in the EAC region (both feeder roads as well as international trading routes) is one of the areas that the governments would want to invest in, one option that could also be explored is the reduction of domestic taxes which constitute a large proportion of fuel prices.

c) Removal or reduction of NTBs should be tackled as a group and not one-by-one: governments should not reduce one main NTB and expect a major increase in trade; to have major impact; NTBs should be reduced as a group.

d) Since NTBs are similar across the region, region-wide approach for tackling NTBs might be less costly and as effective as national-specific or sector-specific approaches: this recommendation was initially proposed in the EABC study which also found that NTBs were similar across the EAC states.

e) Design and implement monitoring systems to provide feedbacks to the relevant authorities on the control of unnecessary barriers to trade in the EAC region. EAC recognizes that the removal of unnecessary non tariff barriers to trade in EAC will stimulate regional trade and the member countries are introducing measures to achieve this. A point in case is the recent move by Kenya to downscale roadblocks from 47 to less than 20 and to turn Mombasa into a 24 hour port. A monitoring system on these new initiatives provides feedback on the implementation and adjustments required to smoothen their applicability on the ground. Monitoring bodies can be composed of stakeholders from governments as well as the private sector.