



An overview of haricot bean production and trade volumes in Cameroon

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Abstract

Beyond promoting food, health and nutritive security, haricot bean provide a steady and lucrative source of income for many rural households. Yet, much research around it is still centered on yield enhancement through breeding for pest and disease tolerance, soil management and other agronomic practices. Given the importance of this crop to the Cameroon's economy, it is important to examine the trade volumes and demand trends within Central African Sub Region and other countries in the World. Secondary data from the statistical department of the Ministry of Agriculture and Rural Development were used for the study. Results indicated that substantial volumes of haricot beans from Cameroon is exported to countries in the Central African Sub Region using three main routes; land, sea and air. Amongst these, land remained the highest exportation means. The demand trend showed that haricot bean is highly exported to Congo Brazzaville, Gabon and Equatorial Guinea. Results further revealed a greater quantity of haricot beans being consumed within the country compared to the traded volumes. With its great potentials and besides opening market channels, efforts should be made to increase haricot bean production so as to meet both local and international demands.

Keywords: Haricot beans; trade volume; demand trend; Cameroon; Central African Sub Region

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Cite this article as: Siri, S.N., Ngantu, H.N. and Birachi, E.A. (2014), "An overview of haricot bean production and trade volumes in Cameroon", *International Journal of Development and Sustainability*, Vol. 3 No. 2, pp. 276-285.

1. Introduction

1.1. Background

Cameroon is situated in Central West Africa from latitude 3° to 13° North of the Equator. Geographically it is a West African country but politically it belongs to Central Africa (Aaron, 1982). The country shares its borders with Chad, Central African Republic, Congo, Gabon, Equatorial Guinea and Nigeria. It is the bread basket for the West and Central African regions in terms of food production due to its rich biodiversity (Fonjong, 2004). Thus, Cameroon plays a leading role in meeting the food needs of the population of these countries, as significant proportions of their population depend on her agricultural output for their livelihood. A greater proportion of food produced in Cameroon is exported to neighbouring countries of Central and West Africa, Europe and America. Neglecting the agricultural sector therefore, is tantamount to creating a situation of food crisis in the Sub-Region and even beyond.

The haricot beans (*Phaseolus vulgaris* L.) is the second most important grain crop in next to maize in terms of production and consumption in Cameroon especially in the Western Highlands and in Africa as a whole (Broughton, 2003). It is one of the best means of mitigating food and nutrition problems experienced in most urban and rural areas in many developing countries like Cameroon. Nutritional wise, haricot beans is rich in protein (about 22%), provide a good source of iron and zinc (both of which are key elements for mental development). As food, they are cheap and consumed countrywide and year round because of their good storage properties. Health wise, haricot bean consumption has reportedly reduced colon and breast cancer, and heart diseases (Buruchara et al., 2011). Beyond promoting food, health and nutritional security, haricot beans provide a steady and lucrative source of income for many rural households, with its sales value exceeding US\$ 500 million annually in the East Africa Sub Region (Buruchara et al., 2011).

Despite the great potential of haricot beans, the crop has received little attention in terms of marketing. Much research on haricot beans have been focused on yield enhancement through breeding for pest and disease tolerance, soil management and other agronomic practices (Monitor Group, 2012). Unfortunately, these activities are carried out leaving behind other factors like trade volumes and demand trends which enhance marketing of the produce. The observed trends in demand provide an opportunity for Cameroonian farmers to increase haricot bean production as well as participate in its supply chain for income generation. However, haricot bean marketing in Cameroon has experienced some changes over the past decades which need to be understood in order to fully appreciate its potentials. Given the importance of this commodity in the Cameroon's economy, it is important to examine the trade volumes and demand trends within the Central African Sub Region and beyond. Against this back drop, this survey was conducted with the overall objective to determine haricot bean production in Cameroon and traded volumes both at the local and the international levels.

2. Methodology

The study involved a review of secondary data, published research and analytical reports from the Regional Delegations of Agriculture and Rural Development (MINADER, 2008a; 2008b; 2009; 2010) within the

country from 2000 - 2010 including personal communications. MINADER data accessed through (<http://minader.cm>) constitutes the principal source of data used for the analysis. From the materials sourced, data on: haricot bean production and surface area; traded volumes; exporting centers; main exporting and importing countries and towns were collected. Results of analysis were summarized and presented in the form of line graphs to show trends and bar graphs to show proportions.

3. Results and Discussion

3.1. Haricot bean production volume in Cameroon

Figure 1 reveals a steady increase in haricot bean production from 175.000 tones (t) to about 215.000 t between 2001 and 2005. This later increased exponentially from 215.000t in 2005 to about 255.000 t in 2006 and maintained a constant increased to 275.000 t between 2006 and 2008. The constant increase in production is thought to have resulted from numerous collaborative research efforts between the International Centre for Tropical Agriculture (CIAT) and the Institute of Agricultural Research for Development (IRAD), to improve on haricot bean productivity in Cameroon. Improved technologies leading to breeding and introduction of high yielding and disease tolerant bean varieties to farmers and better market access channels were key benefits realized from the cooperation. In response to increased demand for the product at the international level and a global fight for food security, determined efforts were being made to increase production per unit area.

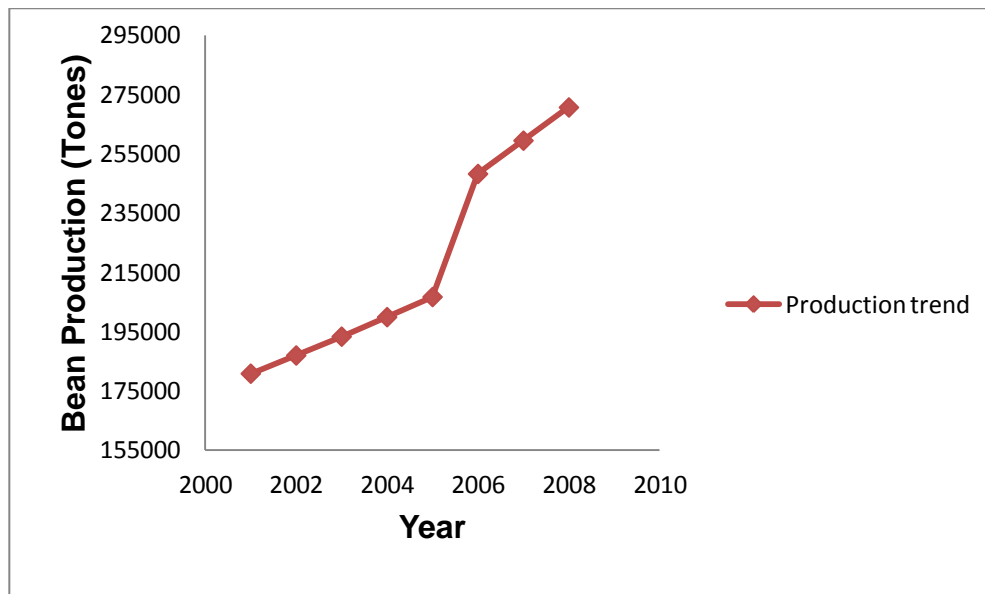


Figure 1. Haricot bean production trends (2001 - 2008)

3.2. Bean trade volumes and routes

The quantities of haricot beans traded between 2000 and 2005 were very limited and showed great fluctuations. In 2004, there was a quantum jump from 200 t to 1600 t and fell back to its initial traded volumes between 2007 and 2008 (Figure 2). Possible reasons for the observed fluctuations could be due to climatic influence on production. Haricot bean requires little amount of rain for optimum production. Thus in Cameroon, two peak production periods exist for haricot beans depending on the rain fall distribution pattern, hence the agro-ecological zones involved. High production values per unit area occur during the first and second seasons (March - June and September - December respectively) in the Western Highlands (Zone 3) and only during the second season (September-December) in the Humid Monomodal Forest (Zone 4) agro-ecological zones. Excessive rains during the first season leads to high disease incidence, causing wilting of the leaves and poor pod formation. Thus during periods of average rainfall, yields increase and decreases when the rainfall values are high. Production is positively correlated with traded volumes as reported by farmers in the growing areas. However, very little is known about the quantum jump in trade volume between 2005 to 2007, but increase in price of the commodity in addition to production increase might have played contributory roles.

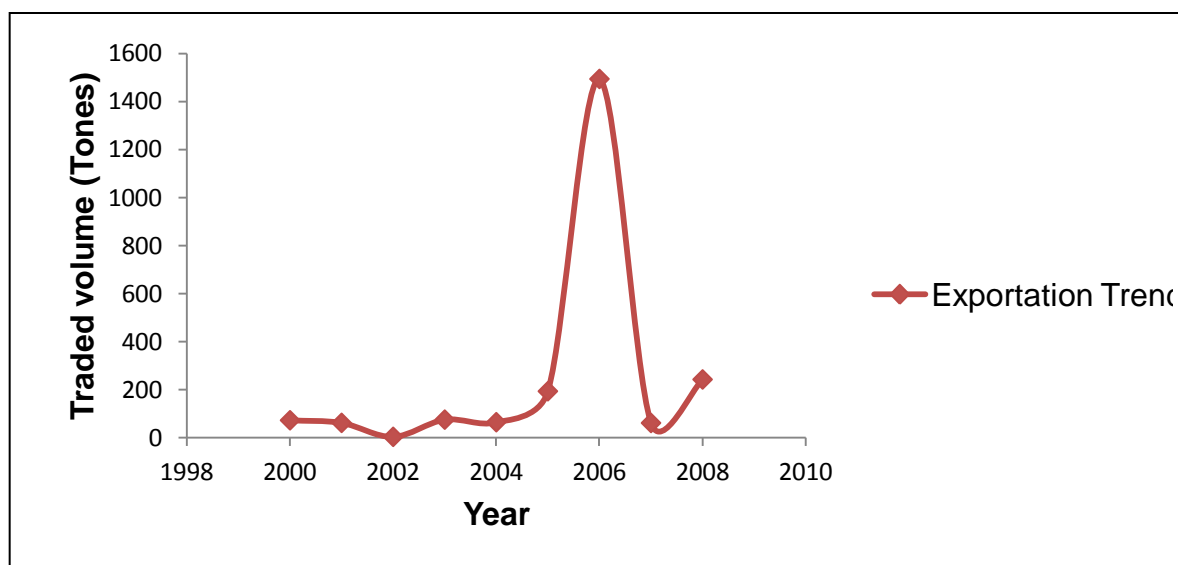


Figure 2. Haricot bean traded volumes in the different years

Results also revealed three major routes by which haricot beans were exported from Cameroon; by sea, air and by land. The preferred transportation means at any given time generally depended on the urgency of need, quantities to be exported and transportation costs.

3.2.1. Trade volumes by sea and exporting countries

Four major seaports in Cameroon (Douala, Campo-Kribi, South West (Idenau and Ekondo - Titi) (Figure 3) constituted the routes by which haricot beans were transported to other towns (within Cameroon) and countries by sea. The Douala seaport however was the major port (7629.5 t) through which haricot beans were transported to other countries. Haricot beans transported through the Campo (Kribi) (48.71 t), South West (Idenau) (2.12 t) and Ekondo - Titi (0.05 t) ports were in insignificant quantities. Possibly reasons for the more frequent usage of the Douala seaport could be due to closeness and access to the growing areas and markets compared to the other ports. Easy road access makes it busier, popular and rapid in operations thereby reducing time spent on shipment.

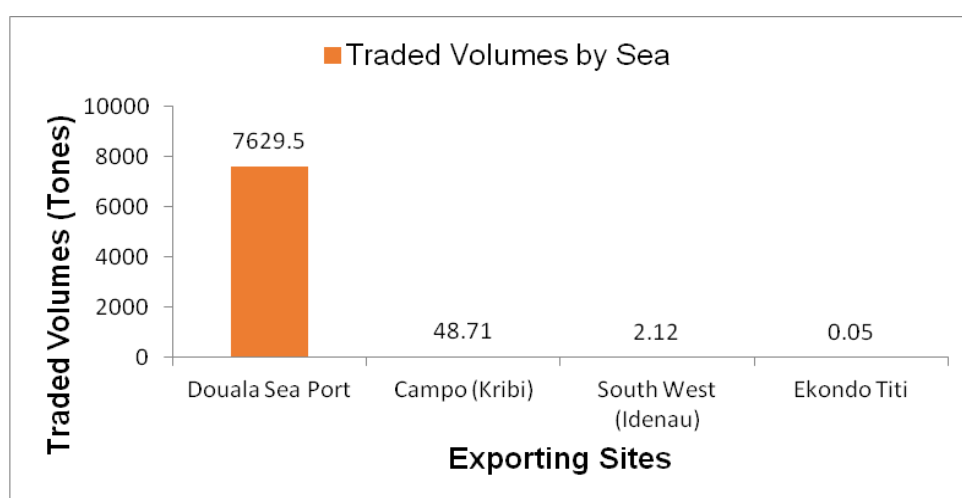


Figure 3. Haricot bean traded volumes by sea

3.2.2. Trade Volumes by Air and exporting countries

Considering air transport, the Nsimalen International Airport (721.4 t) played a very significant role in bean exportation to other countries as compared to the Douala International Airport (12.01t) (Figure 4). The observed role played by Nsimalen International Airport in haricot bean exportation was contrary to expectations. This is because the Douala International Airport is a more popular transport means in the country than the Nsimalen International Airport.

Specifically, haricot beans transported by air means from Cameroon were exported to England (722.7t), Ivory Coast (27.1t) and Benin (4.4t) with the greatest volume destined for England and the least being Benin (Figure 5).

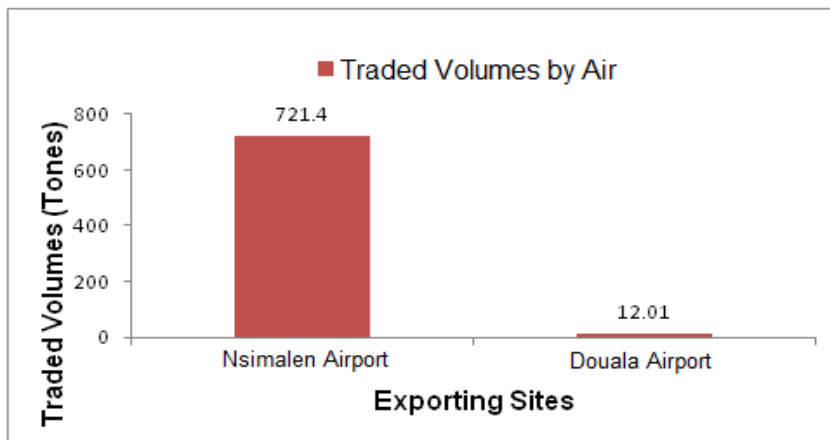


Figure 4. Haricot bean traded volumes by air

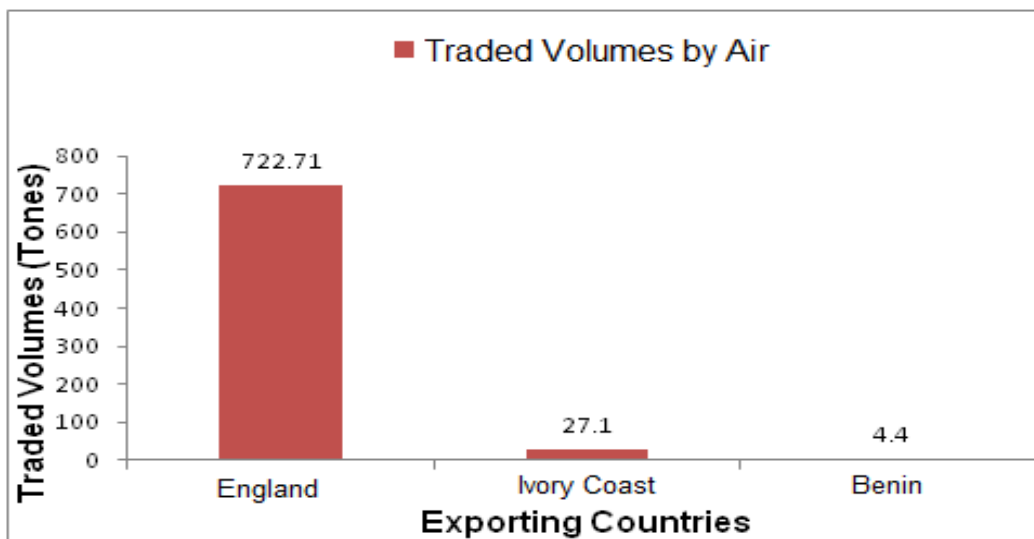


Figure 5. Main haricot bean exporting countries by air

3.2.3. Trade volumes by land and exporting countries

With regards to transportation by land, seven major towns in Cameroon (Figure 6) played a significant role in haricot beans exportation to other towns and neighbouring countries. Significant haricot bean exportation activities, however, took place mostly in Moloundou (1564.2t), Kye-ossi (323.9t) and Abang- Minko (238.7t) while Aboulo (27t), Kentzou (16.5t), Ekok (6.1t) and Idenau (23.2 t) played only supportive roles. Demand, road access and closeness to the neighbouring countries were possible reasons for the disparity in the quantity of haricot beans exported by land through the different towns in the South, East and South West Regions. Kye-ossi for example has a good road link to Equatorial Guinea and Gabon who depend solely on

Cameroon for this commodity. This clearly illustrates how good road infrastructures alone can play a leading role in the bean value chain; taking the produce close to its consumers thereby attracting high market returns for the local farmers. When this happens, it drastically reduces farmer exploitation problems of low sales prizes imposed by the middlemen. In this improved conditions of road networks, haricot beans can leave the farmer's hand directly to the consumer with very minimal post-harvest losses, leading to increased income generation from such an activity.

Haricot beans transported from Cameroon by land were exported only to Central and West African countries (Figure 7). Gabon (451.1t) and Congo Brazzaville (344.5t) were the highest exporters of haricot beans from Cameroon within the CEMAC zone. Other minor exporters of this commodity were Equatorial Guinea (64.4t), Nigeria in West Africa (29.3t) and Central African Republic (16.5t). Equatorial Guinea, Central African Republic and Gabon especially were countries in the Central Africa Sub-Region that depended much on Cameroon's agricultural output.

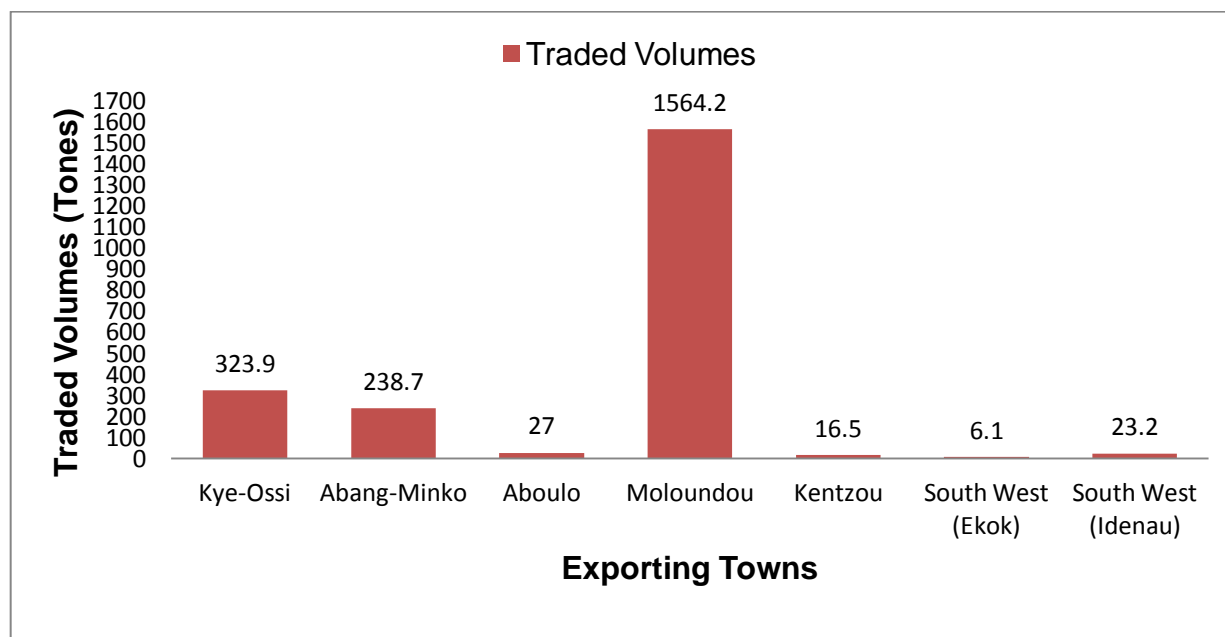


Figure 6. Haricot bean traded volumes by land

3.2.4. Main haricot beans importing countries

Given the large volumes of haricot beans exported, Cameroon also imported beans from other countries using three major towns; Ekondo - Titi (30.73t), Douala (810.52t) and Ekok (12.3 t). Ekok and Ekondo - Titi are areas in the humid forest zone where bean production is not the major pre-occupation of the people (Figure 8). Given that haricot bean is consumed countrywide, consumers prefer to import from towns in

Nigeria that are closer than main haricot bean markets in Cameroon. Atah in Nigeria is a very good example of such town with beans preferred due to grain quality and import flexibility.

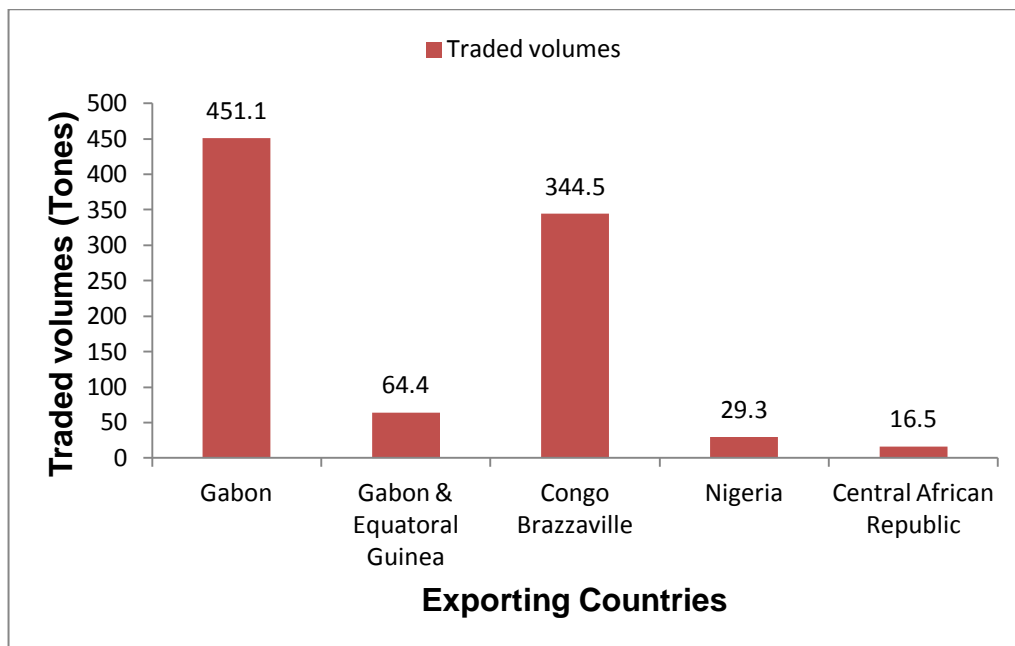


Figure 7. Main haricot bean exporting countries by land

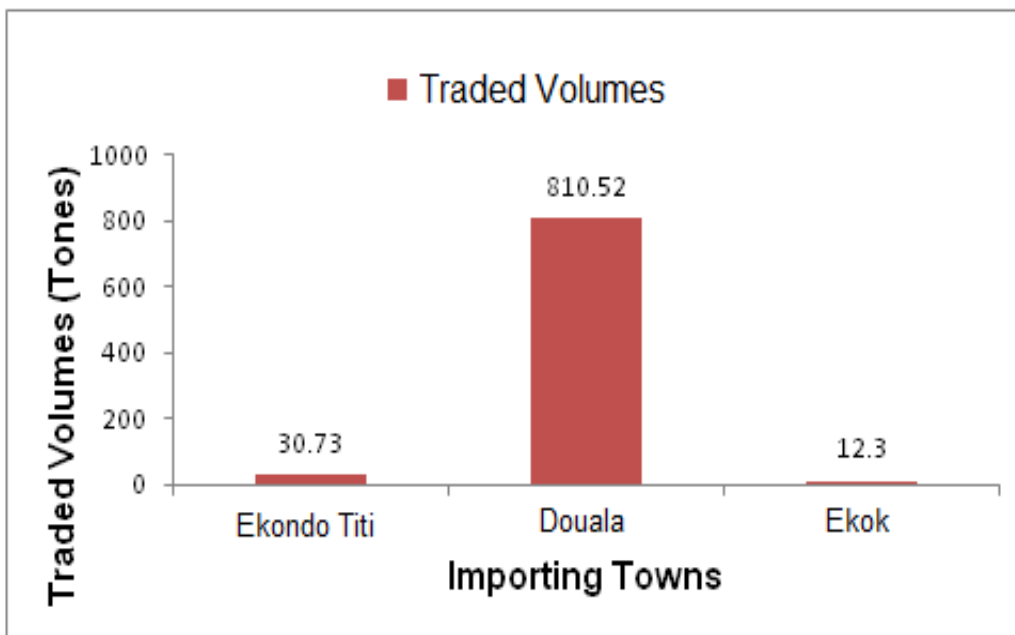


Figure 8. Main haricot bean importing towns in Cameroon

The large volumes of haricot beans imported via Douala compared to the other towns could be due to its great diversity of transportation means and the targeted population size.

4. Conclusions

- Generally, haricot beans production for the past years in Cameroon has increased as relentless efforts have been made to introduce nutrient rich, high yielding and disease resistance varieties in the major growing areas.
- The volume of haricot beans exported from Cameroon to other countries is relatively minimal as compared to the quantity produced. Therefore, indicating a high rate of haricot bean consumption in the country.
- Douala Seaport constitutes the major route through which haricot beans is transported to other countries by sea.
- Regarding air transport, Nsimalen International Airport is the major means with England being the major exporting country.
- Moloundou in the East Region remains the major exporting town by land to Congo Brazzaville, Gabon and Equatorial Guinea.
- Despite the large haricot bean production volumes, Cameroon still import bean mostly from Nigeria through the border towns of the North West and South West Regions.

Acknowledgements

Authors wish to express sincere thanks to the Pan-African Bean Research Alliance (PABRA), who provided funds for this research.

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