

EXPORT FACTSHEET

CASHEW NUTS



EXPORT FACTSHEET ECOWAS:

CASHEW NUTS



September 2011

Foreword

This ECOWAS export potential brief is the result of the intensive training on market analysis organized by the Market Analysis and Research Section of the International Trade Centre to build up the market analysis training capacity of a selected team members of ECOWAS-TEN expert networks with an objective to assist the Economic Community of West African States (ECOWAS), the trade support institutions (TSI) of the west African countries in the export potential analysis of the priority list of agricultural EXPECT products selected by ECOWAS secretariat. The results of this work take parts in the framework of the Programme for building African Capacity for Trade (PACT II), which is financed by the Canadian International Development Agency (CIDA).

This export potential brief presents statistical analysis enabling the evaluation of export performances of a particular product from the ECOWAS regional perspective. Thus, it provides a first step in the development of a regional export strategy.

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Acknowledgement from author

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The designations employed and the presentation of material in this study do not imply the expression of any opinion whatsoever on the part of the International Trade Centre (ITC) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

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Abbreviations

HS	Harmonized System
FAO	Food and Agricultural Organization of the United Nations
WCO	World Customs Organization
LB	Pounds
HTS	Harmonized Tariff Schedule
AMS	Agricultural Marketing Service
FDA	Food and drug Administration

A. Product Description

Definition and description of the product and its application(s)

Cashew is a tree (*Anacardium occidentale*) indigenous to Brazil that was formerly grown to prevent soil erosion in coastal areas because of its extensive root system. In the 15th and 16th century, it was taken to West Africa, East Africa and India by the Portuguese. It widely spread naturally because it is undemanding, tolerating poor soils and low rainfall.

What is known as cashew nut actually is the seed of the tree. The tree bears fruits, more precisely drupes that consist of a double shell and the seed. This fruits are often confused with the accessory fruit or false fruit, also called cashew apple. This is the large, coloured extension of the drupe. Both the seeds and the cashew apples are edible. The cashew apple can be eaten raw, but more frequently it is processed to pulp or juice. The seed or cashew nut can be eaten raw as well, but is also sold in fried and sometimes salted or sweetened form. Furthermore, oil can be obtained from the shell of the seed. This Cashew Nut Shell Liquid (CNSL) is a by-product of the roasting process and is used for industrial or medical purposes.

HS codes, NTL(s) for importing country and NTL(s) for ECOWAS

The Harmonized System (HS) is a numerical classification system of products used as a basis for the collection of custom duties and international trade statistics by almost all the countries, representing about 98% of world trade. It was developed by the world Customs Organisation (WCO) and implemented in the late 1980s.

Cashew Nuts are classified in the HS codes 080131 and 080132 depending on if they are shelled or not. This classification allows the comparison of cashew nuts trade at international level. In this Export Factsheet, we will refer to "Fresh or dried cashew nuts in shell" only, i.e. to the HS Code 080131.

Table 1: HS Codes and ECOWAS NTLs of cashew nuts both in shell and without shell

HS Code	Labelled Product	NTL	Labelled Product
080131	Fresh or dried cashew nuts, in shell	801310000	Cashew nuts, in shell, fresh or dried
080132	Fresh or dried cashew nuts, shelled	801320000	Cashew nuts, without shell, fresh or dried

Table 2: NTLs of the three biggest world importers of cashew nuts in shell

Countries	Code	Labelled Product
Vietnam	080131 (HS Code) The NTL of this product in this country is not available.	Fresh or dried cashew nuts, in shell
India	08013100	Fresh or dried cashew nuts, in shell
	08013101	Fresh or dried cashew nuts, in shell (detailed label not available)
	08013109	Fresh or dried cashew nuts, in shell (detailed label not available)
United States of America	0801310000	Cashew nuts, fresh or dried, in shell

B. World Production

Cashews are grown in Africa, Latin America and South East Asia. The leading producing countries of these regions are Viet Nam, India, Brazil and Indonesia. Increasingly, Africa is gaining importance in raw cashew nut production. Here, the main producing countries are Nigeria, Côte d'Ivoire, Tanzania, Mozambique, and Guinea Bissau, while countries such as Ghana, Burkina Faso and Benin are currently expanding area under cultivation. Agriculture Statistics of the Food and Agricultural Organization of the United Nations (FAO) show that in 2009, 30 countries produced Cashew nuts with shell, among them ten ECOWAS countries. In 2009, they made up for 30% of worldwide cashew nut production. According to estimates from the World Bank, around 97% of the world cashew production comes from wild growth and small farms while the remaining 3% come from planned plantations.

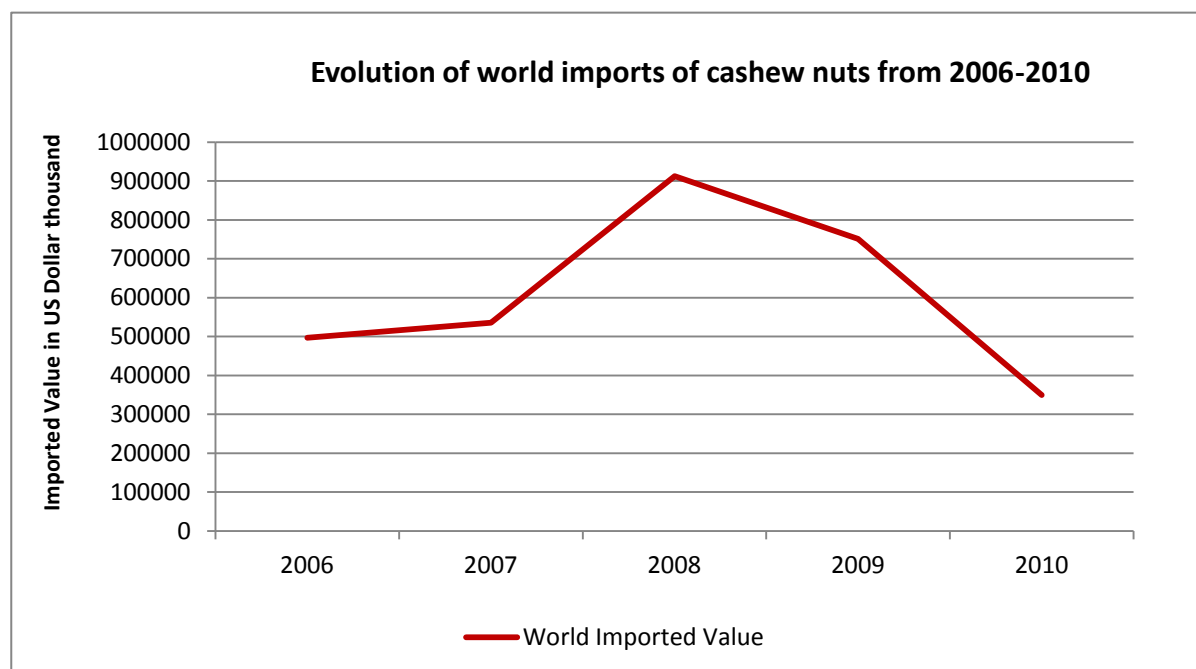
Rank	Country	Quantity Produced (metric tons)
1	Viet Nam	958,000
2	India	695,000
3	Nigeria	580,761
4	Côte d'Ivoire	246,383
5	Brazil	220,505
6	Indonesia	145,000
7	Philippines	111,993
8	United Republic of Tanzania	79,100
9	Mozambique	67,846
10	Guinea-Bissau	64,653
11	Benin	49,487
12	Thailand	38,184
13	Ghana	35,647
14	Malaysia	10,335
15	Kenya	8,381

Source: FAO

C. The Structure of ECOWAS Exports and World Demand

Evolution of World Trade

Although the global market for cashew kernels is steadily growing, it is dominated by a small number of traders. West African cashews are predominantly exported as unprocessed raw cashew nuts. On average, 90% of the raw nuts produced in this region are exported to India. The world import value of cashew nuts in shell increased from US\$ 145,839,000 in 2001 to US\$ 579,584,000 in 2005, and declined to US\$ 496,761,000 in 2006. It picked up again in 2007 at the value of US\$ 536,032,000 and reached its peak in 2008 at the value of US\$ 912,391,000 and declined again in 2009 to 2010 from US\$ 751,037,000 to US\$ 349,388,000.



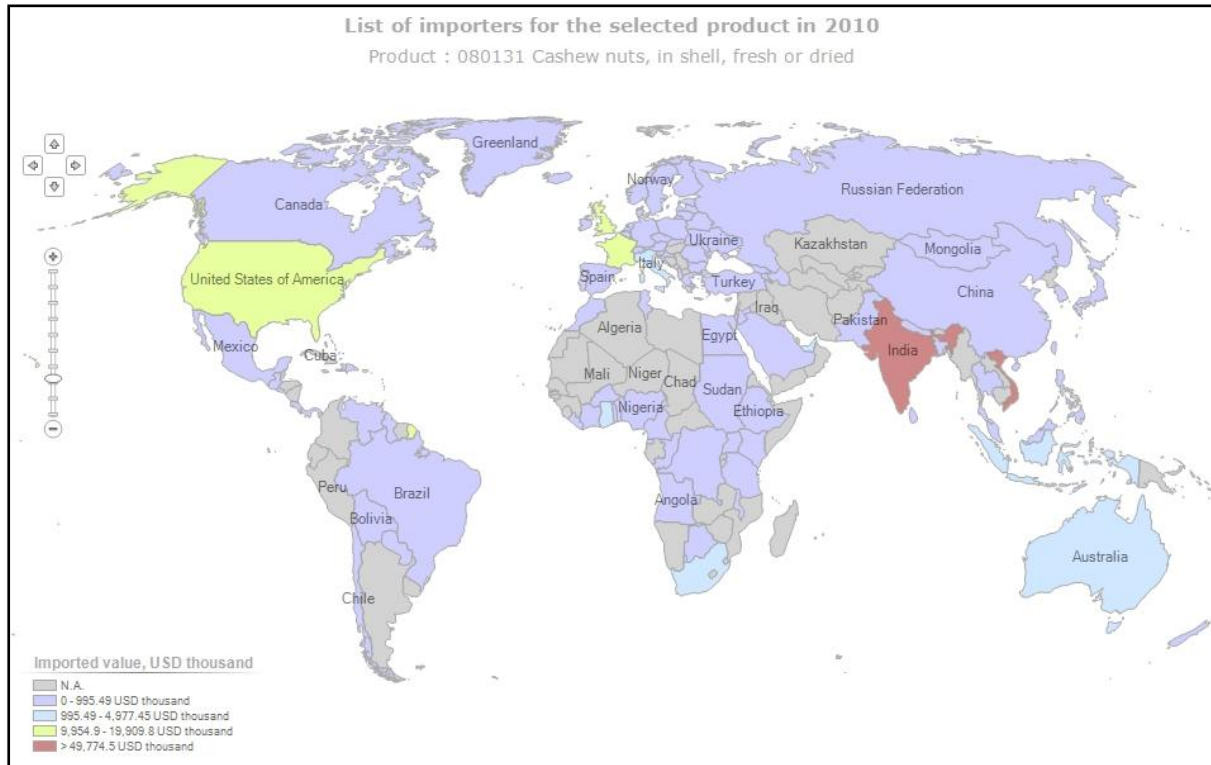
Source: ITC calculations based on COMTRADE statistics

Overall, there has been growth both in value and quantity of the world imports of cashew nuts between 2006 and 2010. Over this period, the annual growth in value and quantity has been 32% and 12% respectively, and that of exports 31% and 14%. The difference between the world's growth rate in value and that in quantity is the result of increasing unit values while the difference between import and export growth rates is due to statistical effects.

In all, there have been 90 importing and 60 exporting countries in the cashew nuts world market in 2010. The imported unit values of cashew nuts vary significantly from country to country due to the differences in the countries' average import and export prices. For instance, Antigua and Barbuda which is ranked 8th in the world import market in 2010 has the highest unit value of US\$ 442,000 and the largest importer Viet Nam has a unit value of US\$ 1,518. The United States of Americas as the

third largest importer has a unit value of US\$ 6,696. The disparities could be explained by the differences in terms of costs, distance and the quality of the traded product.

Viet Nam is the leading importer of cashew nuts with shell, with an import value of US\$ 146,708,000 in 2010. Its average annual growth rate in terms of value between 2006 and 2010 has been 52% and its share in world imports 42%. India with an import value of US\$ 135,873,000 is the second largest importer. Its average annual growth in value between 2006 and 2010 has been 23 % and its share in world imports 38.9%.



Source: Trade Map, ITC

World Import Characteristics

The total value of world imports for 2010 has been US\$ 349,388,000, the average annual growth rates in value and quantity between 2006 and 2010 32% and 12% respectively. The largest importing countries in terms of value in 2010 have been Viet Nam, India and United States of America with US\$ 146,708,000; 135,873,000 and 14,437,000 respectively. These three countries' share in world imports in 2010 has been 85% which indicates that the world demand for this product is concentrated.

The table below shows the world's ten largest importers of cashew nuts in 2010 with their ranking according to their imported value:

List of importers for the selected product in 2010											
Product : 080131 Cashew nuts, in shell, fresh or dried											
Ranking	Importers	Trade Indicators									
		Value imported in 2010 (USD thousand)	Trade balance in 2010 (USD thousand)	Quantity imported in 2010	Quantity Unit	Unit value (USD/unit)	Annual growth in value between 2006-2010 (%)	Annual growth in quantity between 2006-2010 (%)	Annual growth in value between 2009-2010 (%)	Share in world imports (%)	Concentration of supplying countries
	World	349388	3743	0	No quantity		32	12	55	100	0.24
1	Viet Nam	146708	-128020	96633	Tons	1518	52		256	42	0.6
2	India	135873	-122349	0	No quantity		23	17	6	38.9	0.51
3	United States of America	14437	-13782	2156	Tons	6696	44	33	80	4.1	0.67
4	United Kingdom	13100	-11935	2144	Tons	6110	166	185	229	3.7	0.4
5	France	11611	-11562	2034	Tons	5708	4	2	-11	3.3	0.51
6	Hong Kong, China	4522	-4522	2211	Tons	2045	213		216	1.3	0.9
7	South Africa	2736	-2730	485	Tons	5641	20	14	-30	0.8	0.56
8	Antigua and Barbuda	2210	-2210	5	Tons	442000			226	0.6	1
9	United Arab Emirates	1899	-1897	0	No quantity		38		208	0.5	0.32
10	Australia	1534	-1440	270	Tons	5681	-3	-19	107	0.4	1

Source: Trade Map, ITC

The concentration of supplying countries for the world importing market of cashew nuts, which is calculated based on the Herfindahl index, is 0.24. It indicates that the supply for the importing countries is concentrated on a limited number of exporting countries.

Among the fifteen ECOWAS member states seven countries, namely Ghana, Benin, Côte d'Ivoire; Togo, Liberia, Burkina Faso and Cape Verde have imported cashew nuts in 2010, with Ghana having the highest annual growth rate between 2009 and 2010 of 1,252%. The total value of imports in 2010 for these six countries was US\$ 2,384,000 representing only 0.68% of the world imports for 2010.

The table below shows the list of ECOWAS member countries importing Cashew nuts in 2010 with their ranking and market share respectively:

List of importers for the selected product in 2010

Product : 080131 Cashew nuts, in shell, fresh or dried

Ranking in world import	Importers	Trade Indicators								
		Value imported in 2010 (USD thousand)	Trade balance in 2010 (USD thousand)	Quantity imported in 2010	Quantity Unit	Unit value (USD/unit)	Annual growth in value between 2006-2010 (%)	Annual growth in quantity between 2006-2010 (%)	Annual growth in value between 2009-2010 (%)	Share in world imports (%)
	World	349388	3743	0	No quantity		32	12	55	100
	Economic Community of West African States (ECOWAS) Aggregation	2384	149115							0.7
13	Ghana	1095	-648	2236	Tons	490	119	50	1252	0.3
14	Benin	932	-918	3710	Tons	251	270	150	-2	0.3
26	Côte d'Ivoire	278	663	812	Tons	342	23	8	1	0.1
43	Togo	65	-55	260	Tons	250	52	12	242	0
66	Liberia	6	-6	1	Tons	6000	-35	-29	-81	0
69	Burkina Faso	6	7054	59	Tons	102				0
77	Cape Verde	2	-2	0	Tons					0

Source: Trade Map, ITC

World Export Characteristics

The largest three exporters for the selected product in 2010 have been Nigeria, the United Republic of Tanzania and Indonesia with their common export value adding up to US\$ 290,277,000 which represents 82.2% of the world exports in 2010. This indicates that the world supply for the selected product is concentrated in these three largest exporters. Though, there are other emerging exporting countries such as Viet Nam and India as has been indicated in the table below.

The concentration of importing countries in the world market of cashew nuts, which is calculated based on the Herfindahl index is 0.33, indicating that the source of the world demand for cashew nuts is concentrated on the largest importers such as Viet Nam, India and the United States of America.

List of exporters for the selected product in 2010

Product : 080131 Cashew nuts, in shell, fresh or dried

Ranking	Exporters	Trade Indicators										
		Value exported in 2010 (USD thousand)	Trade balance in 2010 (USD thousand)	Quantity exported in 2010	Quantity Unit	Unit value (USD/unit)	Annual growth in value between 2006-2010 (%)	Annual growth in quantity between 2006-2010 (%)	Annual growth in value between 2009-2010 (%)	Share in world exports (%)	Concentration of importing countries	
	World	353131	3743	0	No quantity		31	14	55	100	0.33	
1	Nigeria	142674	142674	85669	Tons	1665				306	40.4	0.6
2	United Republic of Tanzania	98603	98603	102707	Tons	960	59	44	44	27.9	0.89	
3	Indonesia	49000	47532	38484	Tons	1273	4	-9	-22	13.9	0.61	
4	Viet Nam	18688	-128020	3446	Tons	5423	35	7	48	5.3	0.25	
5	India	13524	-122349	2614	Tons	5174	6	1	4	3.8	0.32	
6	Mozambique	9526	9526		No quantity		-15		-28	2.7	0.62	
7	Burkina Faso	7060	7054	18532	Tons	381	117	59	207	2	0.46	
8	Mexico	4620	4620	715	Tons	6462	78	65	-62	1.3	0.87	
9	United Kingdom	1165	-11935	209	Tons	5574	83	70	-11	0.3	0.23	
10	Côte d'Ivoire	941	663	1141	Tons	825			-54	0.3	0.86	

Source: Trade Map, ITC

Another important characteristic of the world exporting market is that more than 67% of the selected product come from Africa, more precisely from Nigeria and the United Republic of Tanzania.



Source: Trade Map, ITC

ECOWAS Members' Export Performance for the Selected Product

Evolution of ECOWAS exports

The ECOWAS region is ranked as the world number one exporter of cashew nuts in shell in terms of both market share (42.9%) and value (US\$ 151,499,000) in 2010. The ECOWAS exports grew from 2006 to 2008 and started declining from 2009. The value of ECOWAS exports in 2006 was US\$ 161,813,000, US\$ 252,016,000 in 2007, US\$ 536,669,000 in 2008, US\$ 461,469,000 in 2009, and US\$ 151,499,000 in 2010.

The table below shows the exported value of the region and the member states in the world market of cashew nuts between 2006 and 2010:

Exporters	Exported value in 2006	Exported value in 2007	Exported value in 2008	Exported value in 2009	Exported value in 2010
World	287,030	374,172	657,611	653,161	353,131
Economic Community of West African States (ECOWAS) Aggregation	161,813	252,016	536,669	461,469	151,499
Nigeria	0	26,590	38,796	35,144	142,674
Burkina Faso		481	3,094	2,297	7,060
Côte d'Ivoire	91,331	101,916	170,955	170,463	941
Ghana	8,881	10,140	111,323	44,331	447
Mali	61	94	294	868	336
Benin	16,554	39,664	83,530	98,940	14
Togo		15	500	364	10
Senegal	955	963	5	455	8
Gambia	0	18	2,045	3,294	7
Guinea	98	504	1,265	13,961	1
Guinea-Bissau	43,933	71,631	124,862	91,305	1
Liberia				47	

Source: Trade Map, ITC

From 2006 to 2010, the ECOWAS region has lost its market share in cashew exports. The following are the ECOWAS world market shares over the past five years: 56.4 % (2006), 67.4% (2007), 81.6% (2008), 70.7% (2009), and 42.9% (2010).

Major exporters of cashew nuts in the ECOWAS region

Nigeria is the largest exporter at both regional and global level with a world market share of 40.4%, followed by Burkina Faso being 7th with a world market share of 2%. The other ECOWAS countries in 2010 all have had market shares below 1%, which translates to the following ranks in world exports: Côte d'Ivoire(10), Ghana (17), Mali (19), Benin (35), Togo (37), Senegal (40) and Gambia (41).

Considering the annual growth of ECOWAS member states, Ghana has recorded the highest growth with a rate of 22,250% between 2009 and 2010 while Côte d'Ivoire, Benin, Togo, and Senegal experiencing negative growth in 2010.

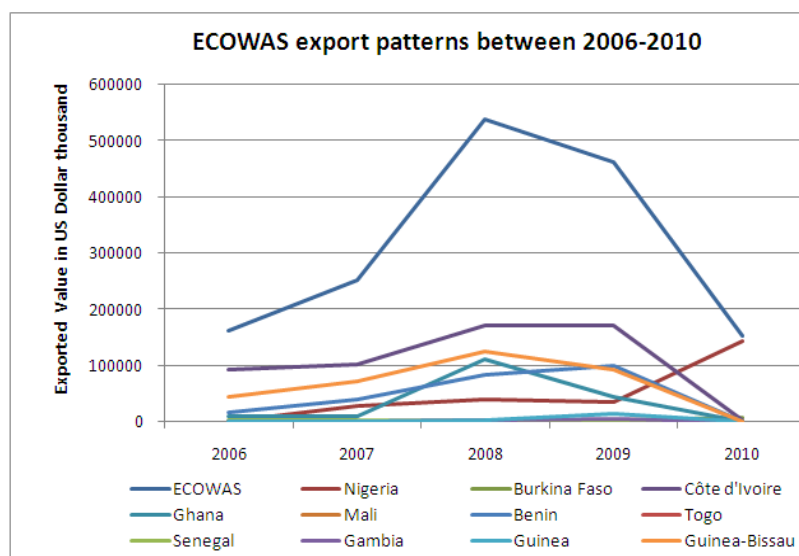
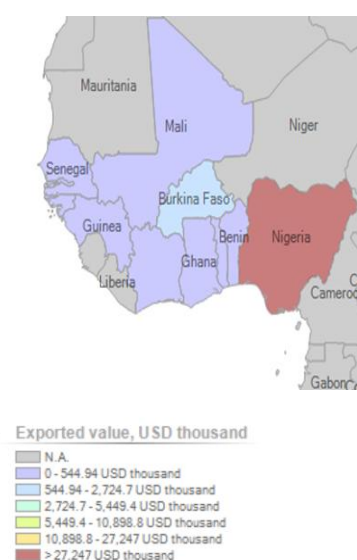
List of ECOWAS exporters for the selected product in 2010

Product : 080131 Cashew nuts, in shell, fresh or dried

Ranking (world)	Ranking (Region)	Exporters	Trade Indicators								
			Value exported in 2010 (USD thousand)	Trade balance in 2010 (USD thousand)	Quantity exported in 2010	Quantity Unit	Unit value (USD/unit)	Annual growth in value between 2006-2010 (%)	Annual growth in quantity between 2006-2010 (%)	Annual growth in value between 2009-2010 (%)	Share in world exports (%)
		World	353131	3743	0	No quantity		31	14	55	100
		Economic Community of West African States (ECOWAS) Aggregation	151499	149115							42.9
1	1	Nigeria	142674	142674	85669	Tons	1665			306	40.4
7	2	Burkina Faso	7060	7054	18532	Tons	381	117	59	207	2
10	3	Côte d'Ivoire	941	663	1141	Tons	825			-54	0.3
17	4	Ghana	447	-648	510	Tons	876			22250	0.1
19	5	Mali	336	336	1092	Tons	308			33	0.1
35	6	Benin	14	-918	31	Tons	452			-96	0
37	7	Togo	10	-55	15	Tons	667	-5		-58	0
40	8	Senegal	8	8	1	Tons	8000	-64	-86	-98	0
41	9	Gambia	7	7	3	Tons	2333	-3			0
53	10	Guinea-Bissau	1	1	1	Tons	1000				0
60	11	Guinea	1	1	0	Tons					0

Source: Trade Map, ITC

The map below gives the geographical representation of the exporters of cashew nuts in the ECOWAS region and the graph next to it shows the export performance of each country as well as that of the region between 2006 and 2010:



ECOWAS's Major Importing markets

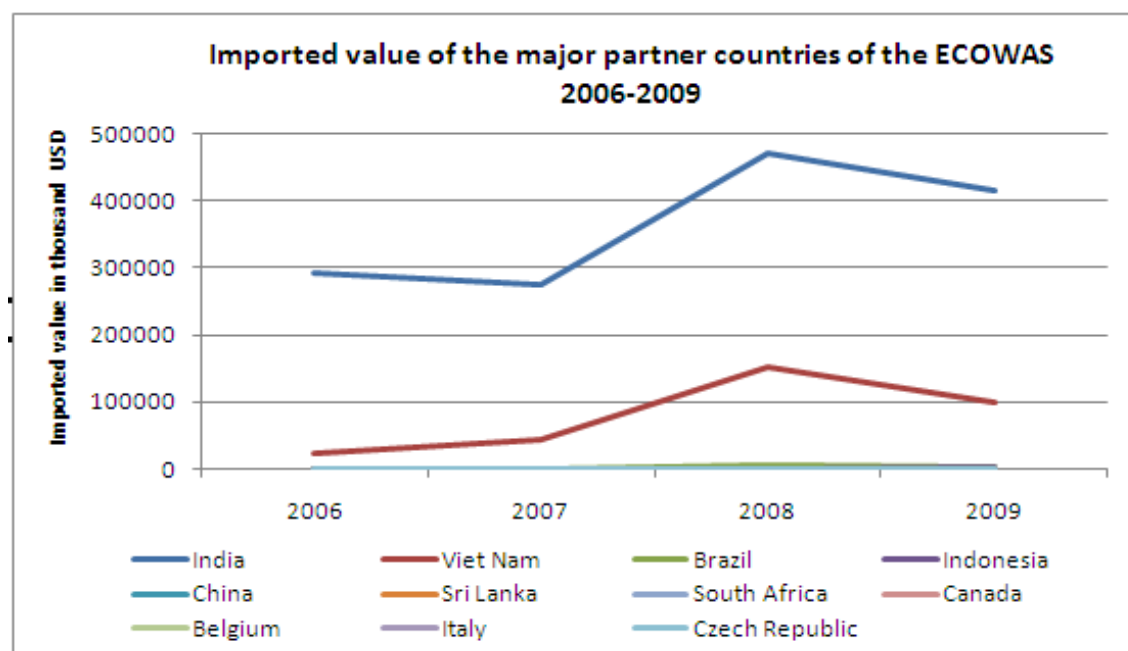
In 2009, India was the largest partner country that imported cashew nuts from the ECOWAS region with a value of US\$ 416,564,000 accounting for approximately 80 % of the export value of the region, followed by Viet Nam (19%), Brazil (0.6%) and Indonesia (0.2%).

Viet Nam and China have the strongest growth among all the partner countries of the ECOWAS in terms of their export value at rates of 310% and 357% respectively. It is also interesting to note that most of the region's export was concentrated in Asia.

List of importing markets for a product Exported by ECOWAS in 2009 (Mirror data)

Importers	Exported value in 2009	Growth between 2006-2009	Share in exported value of ECOWAS in 2009	Ranking in the world import
Total	520881	65.2%	100.00%	
India	416564	43.2%	79.97%	1
Viet Nam	99590	310.1%	19.12%	2
Brazil	3040	N/A	0.58%	8
Indonesia	1145	N/A	0.22%	9
China	288	357.1%	0.06%	27
Sri Lanka	125	N/A	0.02%	15
South Africa	42	N/A	0.01%	7
Canada	28	N/A	0.01%	22
Belgium	27	N/A	0.01%	34
Italy	25	N/A	0.00%	19
Czech Republic	5	N/A	0.00%	35

The graph below shows the evolution of the imported value of the major importers of ECOWAS over the period from 2006 to 2009:



E. Market Access Conditions

Tariffs Faced by ECOWAS in the World and ECOWAS Tariff Advantage against its Competitors in Major Importing Markets

All the member states of ECOWAS are developing countries and member of the World Trade Organisation. Some are categorized as least developed countries according to the United Nations. For this reason, they benefit from preferential access, which allows them to have tariff advantage against a number of their competitors.

The table below shows the tariffs faced by ECOWAS member states when exporting cashew nuts in shell (HS: 080131) and their tariff advantage against their competitors in major importing markets.

Importers	Average of Tariff applied to ECOWAS Countries	Average of Exporter tariff advantage*
Belgium	0.0%	0.0%
Brazil	10.0%	0.0%
Canada	0.0%	0.0%
China	20.0%	-19.4%
Czech Republic	0.0%	0.0%
France	0.0%	0.0%
Hong Kong (SARC)	0.0%	0.0%
India	0.0%	0.0%
Indonesia	5.0%	-0.2%
Italy	0.0%	0.0%
South Africa	0.0%	0.0%
Sri Lanka	28.0%	0.0%
United Kingdom	0.0%	0.0%
United States of America	0.0%	0.0%
Viet Nam	5.0%	0.0%

Source: Market Access Map, ITC

List of Trade Regimes and Preferential Access Benefited by ECOWAS Member States

In major importing markets of cashew nuts in shell, the ECOWAS member states benefit from the types of preferential access according to their status as the described in the table below:

Major Importing Countries	Applied Trade Regimes
UNITED KINGDOM	MFN to all ECOWAS Member States
	Côte d'Ivoire and Ghana enjoy preferential tariffs for EPA countries
	Côte d'Ivoire, Ghana, Gabon and Nigeria enjoy preferential tariffs for GSP countries
	Benin, Burkina Faso, Gambia, Guinea, Niger, Senegal, Sierra Leone and Togo enjoy preferential tariffs to least Developed countries
FRANCE	MFN to all ECOWAS Member States

	Côte d'Ivoire and Ghana enjoy preferential tariffs for EPA countries
	Côte d'Ivoire, Ghana, Gabon and Nigeria enjoy preferential tariffs for GSP countries
	Benin, Burkina Faso, Gambia, Guinea, Niger, Senegal, Sierra Leone and Togo enjoy preferential tariffs to Least Developed Countries
UNITED STATES OF AMERICA	MFN to all ECOWAS member states
	Benin, Burkina Faso, Gabon, Gambia, Ghana, Liberia, Mali, Nigeria and Senegal, enjoy preferential tariffs for AGOA countries
	Benin, Burkina Faso, Gambia, Ghana, Mali, Niger, Nigeria, Senegal and Sierra Leone enjoy preferential tariffs for AGOA countries eligible for treatment of certain textiles and apparel.
INDIA	MFN to all ECOWAS Member States
	Benin, Gabon, Ghana, Guinea and Nigeria enjoy preferential tariffs for GSTP countries
	Benin and Guinea enjoy preferential tariffs for GSTP countries (LDC)
VIET NAM	Liberia enjoys MFN tariffs

Source: ITC Market Access

D. Prospects for Product Diversification

Identifying Value-Addition Opportunities for Current Exported Products and New Related Products with Export Potential

With the aim of product diversification, the ECOWAS region could think of strengthening the processing facilities for cashew nuts and increase the production of roasted and salted cashew nuts, or cashew nuts as ingredients in confectionery and bakery products such as sweets, ice creams, cakes and chocolates. However, this type of product diversification could be constrained by higher import taxes and stiff competition from competitors such as Viet Nam and India.

Germany and Spain can serve as examples for successful exports of value-added products, as they have global attractiveness indices of 66 and 61, and an absolute growth 2006-2010 of 200% and 29% respectively.

Is there a tariff escalation issue on the main markets (tariff much higher for a transformed good than it is for the raw product)? Yes, for instance the raw cashew nuts exported to India attract zero tariff, however the value addition cashew nut products from ECOWAS countries particularly Ghana attracts as high as 35% tariff from India.

F. Prospects for Market Diversification

The market diversification analysis is based on a market screening, including a number of factors. They allow for the identification of international markets giving a particular interest to one country or an exploitation sector. In previous sections, we have gone through the market for cashew nuts in terms of production, imports and exports in the global perspective as well as the regional ECOWAS perspective.

This section now presents the identification of attractive markets of cashew nuts through a methodology developed by ITC in order to enable the ECOWAS countries to diversify their export markets.

Market Screening: Identifying Attractive Markets

The calculation of the Market Attractiveness Index is based on a number of variables which are grouped in three dimensions: market characteristics, market dynamisms and market access conditions.

Index 1: Market Characteristics

The market characteristics are based on the available data on Trade Map and offer quantitative information on the importance of world demand of cashew nuts. For each market, the index takes into account:

- The total imported value (in 2010)
- The trade balance (in value and percentage)
- Unit value (value/quantity)

The index related to market characteristics is based on the calculation of weighted average of the three indicators following the identification of market attractiveness methodology.

The table below presents the ranking of the 10 most attractive markets based on that index:

Importing markets of HS: 080131	Import 2010	Index: Import 2010	Trade Balance 2010	Index: Trade Balance 2010	Unit Value \$/unit 2010	Index: Unit Value \$/unit 2010	Market characteristics A
Viet Nam	48,926	100	836,629	100	5,637	100	100
Belgium	33,516	69	-15,829	67	5,940	100	76
United States of America	706,597	100	-693,421	0	5,932	100	75
United Kingdom	81,090	100	-65,681	0	6,276	100	75
Canada	57,313	100	-55,291	0	6,085	100	75
China	71,891	100	-71,772	0	3,140	100	75
France	34,579	71	-33,801	37	6,190	100	70
Italy	22,124	45	-14,653	69	4,749	100	65
India	10,110	21	563,973	100	1,760	97	60
South Africa	10,027	20	-9,837	78	5,518	100	55

Source: ITC/MAR

Index 2: Market Dynamism

The market dynamism section represents the trends of the world imports of cashew nuts. The market dynamism index is calculated as the average of two indicators: the relative growth of world imports and the absolute growth of world imports between 2006 and 2010.

The table below shows the list of the importing countries in which the imports of cashew nuts have been increasing rapidly according to the market dynamism index:

Importing markets of HS: 080131	Value: 2006	Value: 2007	Value: 2008	Value: 2009	Value: 2010	Relative growth 2006 to 2010	Index: Relative growth 2006 to 2010	Abso lute growth 2006 to 2010	Index: Absolut e growth 2006 to 2010	Market Dynamism B
China	4,128	18,276	78,176	98,953	71,891	104	100	67,763	100	100
Viet Nam	5,044	8,932	5,154	11,046	48,926	76	97	43,882	100	99
Canada	40,618	46,678	60,117	46,375	57,313	9	60	16,695	100	84
United States of America	525,167	578,857	650,664	596,942	706,597	8	59	181,430	100	84
India	937	555	950	2,391	10,110	81	100	9,173	56	74
Belgium	26,439	25,874	35,875	36,400	33,516	6	59	7,077	44	50
Indonesia	65	1,165	1,248	2,121	1,702	126	100	1,637	12	47
France	29,547	34,284	38,529	35,368	34,579	4	57	5,032	32	42
Italy	18,319	12,973	19,152	16,656	22,124	5	58	3,805	25	38
Sri Lanka	452	176	426	982	1,605	37	76	1,153	10	36

Source: ITC/MAR

Index 3: Market Access Conditions

The market access conditions index is calculated by the weighted average of the two underlying indexes: average exporter's tariff advantage against their competitors in each market and the average exporter's distance advantage over their competitors.

Applied tariffs to Ghana for the product HS: 080131	Tariff applied to exporter	Index: Tariff applied to exporter	Exporter's tariff advantage*	Index: Exporter's tariff advantage ¹	Index: Market Oppenness	Average distance* (Exporter-Market in km)	Index: Average distance* (Exporter-Market in km)	Distance advantage* (for exporter to the market ,km)	Index: Distance advantage* (for exporter to the market ,km)	Index: Market remoteness	Market access conditions C
France	0%	100	0.0%	100	100	4,485	26	3,601	95	61	98
United Kingdom	0%	100	0.0%	100	100	5,130	31	2,850	90	60	96
Canada	0%	100	0.0%	100	100	9,050	61	2,471	87	74	95
South Africa	0%	100	0.0%	100	100	4,925	30	1,690	81	55	92
Italy	0%	100	0.0%	100	100	4,220	24	1,668	81	53	92
Brazil	10%	67	0.0%	100	83	5,532	34	243	71	52	88
Czech Republic	0%	100	0.0%	100	100	5,074	31	-557	65	48	86
United States of America	0%	100	0.0%	100	100	9,560	65	-910	62	64	85
India	0%	100	0.0%	100	100	8,479	57	-3,336	45	51	78
Belgium	0%	100	0.0%	100	100	4,968	30	-4,557	36	33	74

Source: ITC/MAR

Market Attractiveness Index

The market attractiveness index examines the possibilities of developing the diversification of ECOWAS export markets of cashew nuts. It is calculated by the weighted average of the three indices previously calculated. Only the most attractive markets are shown in the list below.

Attractive markets for Ghana HS: 080131	Market Attractiveness Index (A+B+C) Weighted Avg	Market characteristics A	Market Dynamism B	Market access conditions C
France	90	70	42	98
United Kingdom	86	75	22	96
Canada	92	75	84	95
South Africa	82	55	23	92
Italy	84	65	38	92
Brazil	78	50	29	88
Czech Republic	77	53	32	86
United States of America	84	75	84	85
India	76	60	74	78
Belgium	72	76	50	74
Viet Nam	77	100	99	72
Sri Lanka	65	50	36	70
Indonesia	66	52	47	70

Source: ITC/MAR

ECOWAS Trade Performance in attractive market:

The ECOWAS region doesn't export a large amount of the analysed product to the attractive markets. Only Nigeria that exported US\$ 1,425,000 to United States of America in 2010 as has been indicated in the table below.

The target markets are mostly growing markets, with both the United Kingdom and the United States of America having a positive annual growth rate between 2006-2010 in quantity and value of 33%, 185%, and 80% and 229% respectively with the exception of France with -11% annual growth in value. However, the ECOWAS region is losing market share in the attractive markets.

Competition in the attractive markets

As can be seen from the table below, the competitors Brazil and Viet Nam are gaining market share in the indicated target markets, while their unit values are higher than the unit values of the ECOWAS region.

With regard to the distance to the target market, there are some countries where the ECOWAS is located closer and some where it is farther away. India is closer to United Kingdom and France, while ECOWAS is closer to United States of America and Spain than its competitors.

		United States of America		United Kingdom		France	
COMPETITORS	Year	Value'000	Quantity tons	Value'000	Quantity tons	Value'000	Quantity tons
Brazil	2009	6,868	983				
	2010	11,674	1,672				
Viet Nam	2009			1,686	295		
	2010			7,280	1275	5,041	863
India	2009					6,857	1,219
	2010					6,547	1,164

G. Value Chain Analysis

Value Chain Mapping for Ghana as an example for the ECOWAS region

Research and Preproduction

As a result of research by the Ministry of Food and Agriculture, certain interventions have been implemented to address some of the production constraints experienced by farmers in terms of seeds and nurseries.

Supply of raw materials

These interventions have resulted in improved planting materials (seeds and grafts) ; rehabilitation of old unproductive farms through canopy substitution with scion materials from high yielding trees, selective thinning, pruning, and chemical control of weeds, pest and disease.

Production and Packaging

Cashew trees, which may live for thirty to forty years, start bearing fruit in the third or fourth year. They grow in warm regions, with an annual rainfall of 1,000 to 3,000 mm, mainly in Central and South America, Asia and Africa.

In Ghana cashews are grown in Northern, Upper West, Brong Ahafo, Ashanti, Volta, and Greater Accra regions. The nuts may be kept for about a year provided they are properly dried and immediately after harvesting (maximum moisture 9%) and properly stored to prevent mould. Usually the nuts are sun-dried and constantly turned over for several days until the kernels rattle in the shell. Packaging is done in Jute/Poly Propylene woven bags of 50 or 25 kg use as export standard.

The cashew kernels are the main commercial product of the cashew tree. The kernel, which is the edible part of the nut, contains 47% fat (of which 87% are unsaturated fatty acids); 21% protein, 22% carbohydrates, and the remaining 10% made up of other substances including calcium, phosphorus, iron and various vitamins, the main ones being A,D and E.

Exportation and Delivery

The cashew nuts when dried are stored in dry jute or sisal bags in well ventilated dry rooms. Shipment takes place as early as possible after drying within a maximum period of 90 days to avoid deterioration and spoilage of the raw nuts. In terms of quantity, minimum requirement should be one 20ft full container load.

As an export requirement the following should be written on the package: Name of product, country of origin, name of importer and net weight. The shipment of the product is within 30 days. Payment is by Letter of Credit, and inspection is done by S.G.S or equivalent inspection company.

Currently 30 countries produce cashew nuts for export and/or domestic consumption. According to estimates from the World Bank, around 97% of world cashew production comes from wild growth and small farms while remaining 3% come from planned plantations.

In Ghana, recognised buying agents do the networking and aggregate nuts from producers for the exporters on contract bases. The exporters in most cases provide funds in advance for the purchase on agreed terms. These transactions are however based on mutual trust between the exporter and the agent. Average minimum prices are determined by exporters after negotiation with principals of importing companies based on world market prices at the beginning of the season. Major exporters from Ghana include Sri-Krishna Products Limited, Ghana National Procurement Agency (GNPA), BET Export Ghana Ltd., OLAMGh. Ltd, and Jonaya Co. Ltd

Sale to final consumer

Only 2% of the raw cashew nuts are processed locally, while the remaining 98% are exported to India.

Elimination and Product recycle

There are 21 roasting companies in Ghana adding flavour and taste to 42 tons of kernels for the domestic market. The only medium processing company in Ghana is Mim cashew products.

Challenges: Strength and Weakness**Inputs (seeds, fertilizers, nurseries, etc.)****Precise and measurable challenges:**

- Limited access to good planting materials; seed dealers/nurseries are found only in a few cashew producing areas.
- The majority of cashew farmers experience severe difficulties in obtaining necessary inputs; the use of agrochemicals for controlling pests and diseases has become inevitable.

Production: (productivity, diseases, etc.)**Precise and measurable challenges:**

- High incidence of pest infestations, weak extension services.
- Production is mostly carried out by smallholder farmers (88%) which normally results in low productivity. The cashew industry in Ghana exists of only 12 processing companies with total installed capacity of 2,137 ton per year. The only medium processing company is Mim cashew products.
- Devastating effects from sucking pests lead to secondary infections and subsequent losses in yield and quality. Frequent bush fires are challenges to cashew industry as well.

Harvest, transport, drying, shelling, pulping, fermentation and packaging of the homogenous seeds**Precise and measurable challenges:**

- Inadequate transport facilities and frequent fluctuations in the price of fuel have resulted in high cashew transport costs that are major bottlenecks on the side of processing companies.
- The cashew nuts are collected in bulk and packed into sacks obtained from associations by untrained personnel. Moreover, there are only bad road networks to cart the raw nuts to the marketing centers.

Services: standards, finance, assurance, customs, transport, quality control, exportation**Precise and measurable challenges:**

- There is limited access to working capital and high costs of capital.
- Raw cashew nuts are marketed between March and June each year without much structured organization to the underlying process.
- Since this is an activity restricted to only few months in the year, there are no exclusive traders for raw cashew nuts. This has resulted in middlemen playing an important role in the marketing of nuts, and thereby reduced the margin or dividends accrued by cashew farmers.

Solutions: Strengths and Opportunities of value chain**Inputs (seeds, fertilizers, nurseries, etc.)****Precise Solutions:**

So far, the Cocoa Research Institute in Ghana (CRIG) has been mandated to handle cashew research. Apart from the CRIG, national universities and the council for scientific and industrial research (CSIR) are also involved in cashew-related research.

These bodies should intensify their efforts to enable cashew farmers to get the needed seeds and nurseries on time, and also identify the seeds that are suitable for the Ghanaian environment.

The government should subsidize the seeds, nurseries and fertilizers to farmers.

Production: (productivity, diseases, etc.)

Precise Solutions:

The cashew development project is providing technical support to district agricultural development units (extension units) as well as to cashew farmers regarding appropriate methods for cashew production. It also supplies farmers and processors with important market information. This body should intensify its efforts to reach more farmers.

The disease control division of the Ministry of Food and Agriculture should provide proper disease control mechanisms to farmers

Harvest, transport, drying, shelling, pulping, fermentation, packaging of the homogenous seeds

Precise Solutions:

The quality of cashew kernels depends on the quality of raw nuts. The following is a list of some of the various factors exporters should consider throughout the process from harvesting to shipment to ensure quality of their raw cashews:

- The nuts should be harvested only after they have fallen to the ground.
- The nuts should be sun-dried immediately after harvesting.
- During the drying process (which normally lasts two to three days), the nuts density should not exceed 20kg per square meter.

The Cashew Development Project (CDP) coordinates cashew-related activities in the country, provides technical backstopping to activities, provides market information through its website (www.ghanacashewproducts.com), lobbies on behalf of the cashew sector and strengthens production sector.

The farmers should be trained by the Cashew Development Project on the best method of cashew production and the government should provide roads to the production centers.

Investors should be motivated by the government for example by tax holidays for the first ten years in the production and processing of cashew nuts in Ghana for home consumption and export.

Services: standards, finance, assurance, customs, transport, quality control, exportation.

Precise Solutions:

Non-governmental organizations as most notably the Trade and Investment Program for a Competitive Export Economy (TIPCEE), Technoserve and the Adventist Development and Relief Agency (ADRA) are supporting national extension staff with training on technical issues and business management.

Ghana Standards Board and the Food and Drug Board watch over the quality and safety of cashew products (development of quality standards). Currently, some cashew value chain stakeholders (producers, processors and exporters) benefit from credit facilities offered by the Agriculture Development Bank and Export Development and Investment Fund (EDIF).

The cashew value chain promotion in Ghana has to be integrated into national policies and strategies. And also the farmers should form associations to enable them to access funds and also have greater bargaining power in terms of prices and advocating against government policies which are not in their favor.

Many Africa countries have considerable comparative advantages within the agricultural sector because of their natural resources. Moreover; globalisation provides opportunities for integrating developing countries into the global economy and can thereby reveal options for building up and strengthening national economies. In this context, African countries could use the comparative advantage they have to significantly increase their share of international economic growth and, thus, support their own sustainable economic development and poverty alleviation.

More than 40% of the global cashew crop is produced by about 2.5 million small farmers in Africa. The vast majority of these farmers live in rural areas and struggle to make as little as € 90 to € 300 per year through the production of cashews. Such low incomes results from a number of factors, including low yields, poor quality nuts and a lack of business skills.

Cashew farmers in Africa rarely organise themselves into associations, which leads to a weak bargaining position with dealers.

For the above challenges the various government and institutions such as the Ministry of Trade and Industry and the Ministry of Food and Agriculture should take initiatives to increase the competitiveness of African cashew production and achieve a sustainable reduction in poverty. These should be done through training on the proper use of farm tools and provision of quality seedlings and nurseries, and also they should be encouraged to form associations.

Secondly, success in the global market place depends on the production of high volume of superior nuts. Therefore, governments should focus on helping cashew farmers meet international quality standards by providing advice and training on every stage of the production process (e.g. good maintenance, increasing yields, post harvest handling, and cooperative management and specialty market requirements). With a 32% share of the global nut market, cashews are highly priced in Europe and North America and demand is growing in China and India.

The global market is growing at an annual rate of between 2.5% to 4% and has a turnover of more than 1 billion Euros each year. Linking African Smallholder farmers to this market through improved information systems and the promotion of African brands will enable them to increase their income substantially.

Annex 1: Market attractiveness index methodology

Identification of attractive markets

Identifying potential products and markets is a necessary step in the process of diversifying exports. While acknowledging the existence of sophisticated methodologies, we have employed composite indicators to help us identify exports and markets with potential. This methodology is based on combining indicators discussed earlier into composite indicators.

Composite indicators allow the identification of those *markets* or *products* in which enterprises in *Country X* have the potential to export more. ITC employs a composite indicator because it reflects all information about the trade performance of products and markets, both negative and positive, and may easily be re-adjusted by changing the weightings of the sub-indicators depending on *Country X*'s situation. Thus, all indicators are important; combining them into a single summary measure allows the identification of those product / market combinations that are dynamic, open, granting a preferential access and where *Country X* is currently under-represented.

The sub-indicators are expressed in a variety of different statistical units and different variable sets have different ranges or scales. These need to be translated to a common basis to avoid problems in mixing measurement units (e.g. \$ value, % growth, km distance). Thus, they must be standardised or normalised before they are aggregated into a composite indicator. Several techniques can be used to standardise or normalise variables, with each method having its advantages and disadvantages.

The normalisation method used here converts each indicator into a range of 0 (weak performance) and 100 (best performance). It gives 0 points to markets with values below a certain threshold value and 100 points to markets with values above the threshold value. All other markets obtain points between 0 and 100 depending on their relative distance between these two thresholds.

The thresholds are used to avoid having extreme values dominate and also to partially correct for data quality problems, as values extremely far from the average or normal range are more likely to reflect poor underlying data. The thresholds used here vary from one indicator to another. For example, regarding the openness indicator, the markets applying a zero percent ad valorem tariff gets 100 points whereas markets applying a tariff superior to 40% get 0 points. The following formula is applied:

$$100 * \frac{\text{Value} - \text{Lower limit}}{\text{Upper limit} - \text{Lower limit}}$$

The sub-indicators are composed of Market characteristics, Markets trends and Market Access Conditions:

Market characteristics

The *market characteristics* indicator is a composite indice including the size of world demand (the total value of imports in 2010); the trade balance in value and the unit value (\$/unit).

World demand is characterized by the size of import value. Large markets are potentially more interesting than small ones. The value of the country's total imports for the selected sector indicates the importance of the sector.

Market trends

The *market trend indicator* looks at market dynamism, as measured by the import growth rate from the World and absolute growth (i.e. absolute change in value of imports) from the World (the relative growth and absolute growth in imports over the period 2006-2010). The strong growth suggests that enterprises in *Country X* have a potential to export more to those markets.

Market access conditions

The *market access conditions* examines two elements: 1) the *preferential access to import markets*, as measured by the tariff differential between *Country X* and the tariff faced by the rest of competitors in each import market; and 2) the *relative distance*, as measured by the difference of distance between *Country X* and an importing market and the distance between *Country X*'s competitors and the same market.

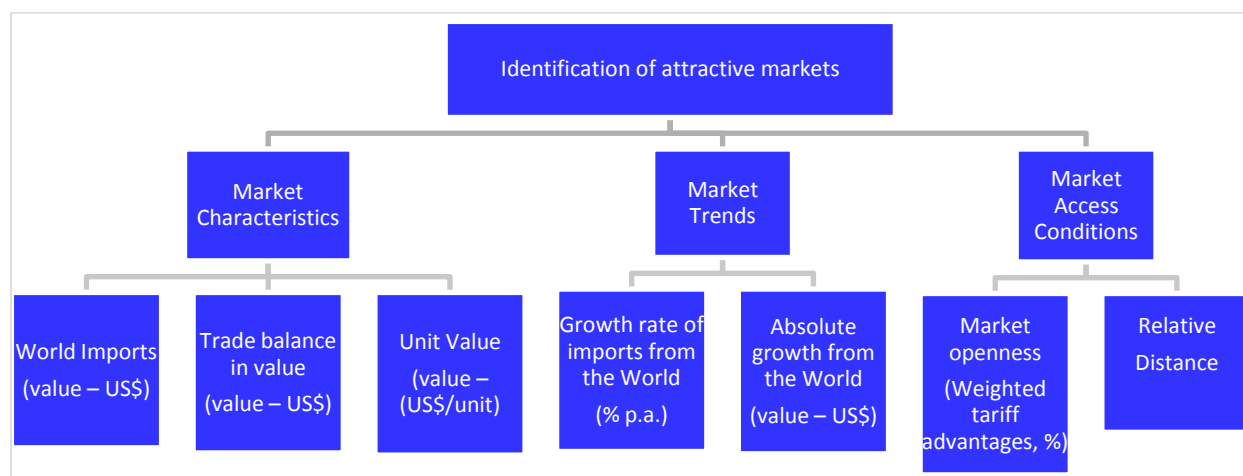
Distance

The relative distance indicator aims to measure if *Country X* (i.e. exporting country) is more advantaged than its competitors when exporting to the same market. The closer *Country X* is to its markets and the further away are its competitors from the same market, the greater is *Country X*'s advantage. In order to measure this, we compute the difference of distance between *Country X* (i.e. exporting country) and trading partner and the distance between competing exporters and the target market, weighted by each exporter's trade flow at HS 6-digit level. We employ trade flow by partner level at HS 6-digit level and distance data between exporting countries and demanding markets (TradeMap dataset and CEPII distance dataset.)

Thus the more negative this indicator, the better for Country X.

$$\delta_{i0j} = D_{ij} - \frac{\sum_{i \neq i0} D_{ij} x_{i \rightarrow j}}{\sum_{i \neq i0} x_{i \rightarrow j}}$$

Figure: Overview : Identification of attractive markets



Annex 2: List of Sources

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