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Guatemala

Sugar Annual

2011

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Report Highlights:

Sugar production for Marketing Year (MY 2012 November-October basis) is forecast at 2.5 million tons. Planted area has been increasing on the average of 4,000 Hectares (Ha) per year, but sugar yields have been dropping in between 2 and 5 percent for the last two years. Production for MY 2011 has been revised downward to 2.3 million tons, 10 percent down from the previous estimate. Total exports for MY 2012 are forecast at 1.8 million tons, showing a defined trend to maintain exports of refined sugar. The increase in refined exports is currently a major objective for the Guatemalan sugar industry. Major export destinations for Guatemalan raw sugar are the United States, Mexico, and Canada. Chile and Japan have become major export markets for refined sugar. Prices at the retail level during the beginning of FY 2011 experienced a considerable increase due to

the extra demand coming from Mexico. The sugar industry prides itself for its competitiveness within the region and at worldwide level. During MY2010, Guatemala positioned itself as the tenth biggest producer, fourth biggest exporter, third most competitive, and the more efficient in terms of port loading capacity. Its competitiveness is the result of economic, social, research, and environmental investments, which have resulted in the construction of a successful development model for any agro industrial activity.

Executive Summary:

Sugar production in Guatemala has not grown as expected despite the increases in planted area. In MY 2012, planted area is forecast at 247,000 Ha. Sugar yields from cane are forecast to recover to the values of MY2009. The Guatemalan sugar industry continues to be one of the most efficient in productivity terms, with 90 metric tons (MT)/Ha and port loading capacity of 2,200 MT/Hour. Guatemala has the biggest storage capacity for the Central American region (431,000 MT). For FY2010, Guatemala ranked number 10 in the list of major sugar producers worldwide, it was the second biggest exporter of the Latin American region, and third in competitiveness (utilization/capacity) worldwide.

Consumption for MY2012 is placed at 740,000 MT, close to Post's MY2011 estimate. Exports for MY2012 are forecast at 1.8 million tons. Guatemala continuously increases the share of its exports, which at present represents 80 percent of its total production. The U.S., Mexico, and Canada continue to be major export markets for raw sugar. Venezuela increased its demand for raw sugar from Guatemala five times compared to previous calendar year. Refined exports to Chile, Taiwan, and China continue on the upswing. The Guatemalan sugar industry is now moving more into the exportation of refined sugar, which is a higher value-added product. Less than ten years ago, raw sugar exports represented 89 percent of the export market for Guatemala. By CY 2010, raw sugar exports dropped to 54 percent, while refined sugar experienced a four fold increase in its market share, representing 46 percent of the export market. This evolution has increased the South American and Caribbean share in the Guatemalan export market, decreasing significantly Guatemalan sugar exports to Eastern and Central Europe.

Commodities:

Sugar, Centrifugal

Production:

For the MY 2012 crop, sugarcane yields are expected to average close to 93 MT/Ha. The highest sugarcane yield was reported in MY 2007 at over 94 MT/Ha. The record sugar yield was reported for MY 2000, 115 Kg/MT. In subsequent years, the sugar yield fell but recovered again in 2009. Since MY2010, however, sugar yields have been dropping. The loss in efficiency has been reportedly due to the effects of the climate change, which have translated into unusual rainy seasons and sunlight accumulation. MY 2010 was affected by the El Niño phenomenon, which reduced the total amount of rainfall though increased sunlight. MY2011 sugar production, impacted by the La Niña phenomenon, experienced early flowering followed by extended rainfall and lowered sunlight, translating into one of the heaviest drops in sugar cane yield in recent yields.

Table 1
Evolution of Guatemalan Sugar Industry over the last 20 years

MY	Harvested Area (Ha)	Sugar Cane (1000 MT)	Sugar Cane Yield (MT/Ha)	Daily milling capacity of the industry (MT)	SUGAR PRODUCTION			Sugar Yield	
					Quintal* (Million)	Sacks (Million)	MT	(Pounds/Short Ton (ST))	(Kg/MT)
1985	84	5,570	66.3	53,093	11.95	11.00	549,831	197	99
1995	150	12,917	86.1	73,852	28.11	25.87	1,293,259	200	100
2000	180	14,339	79.7	116,747	35.98	33.10	1,655,235	231	115
2005	197	17,820	90.5	120,713	44.29	40.74	2,037,130	229	114
2006	194	16,367	84.4	127,597	40.16	36.95	1,847,402	226	113
2007	210	19,813	94.3	130,912	47.17	43.40	2,169,886	219	110
2008	216	19,957	92.4	135,593	46.07	42.39	2,119,357	212	106
2009	230	20,157	87.6	143,602	48.20	44.35	2,217,345	220	111
2010	235	22,530	95.9	144,149	50.89	46.82	2,340,852	208	103
2011 (e)	241	21,112	87.6	160,065	49.12	45.19	2,259,412	203	101
2012 (f)	247	21,637	87.6	161,665	53.79	49.49	2,474,412	220	111

* 1 quintal = 0.046 MT ; 1 MT=21.7391 quintales ; 1 ST = 0.907 MT ; 1 pound = 0.46 Kg
1 ST = 2,000 Kg ; 1 ST = 20.0 quintales

Source: Guatemalan Sugar Association, ASAZGUA, 2010

The area planted in sugarcane for MY2012 is forecast at 247,000 Ha, up about 2 percent compared to 2011, and represents 3 percent of the total country's surface and 10 percent of the total agricultural area. Typically, changes in planted area directly respond to sugarcane contracts offered by sugar mills (based on both domestic and foreign demand) and the dry ethanol market. Producers are expanding planted area toward the borders with El Salvador. Lately, as the palm oil production moves towards the Eastern and Northeastern part of the country, land in the Southwestern region toward the Mexican border might become available for sugar cane. The Guatemalan Sugarcane Research Center, CENGICANA, suggests the total potential area that could be planted to sugarcane is 350,000 Ha, which could yield up to 30 million MT of sugarcane.

Table 2
PS&D for 2010-2012

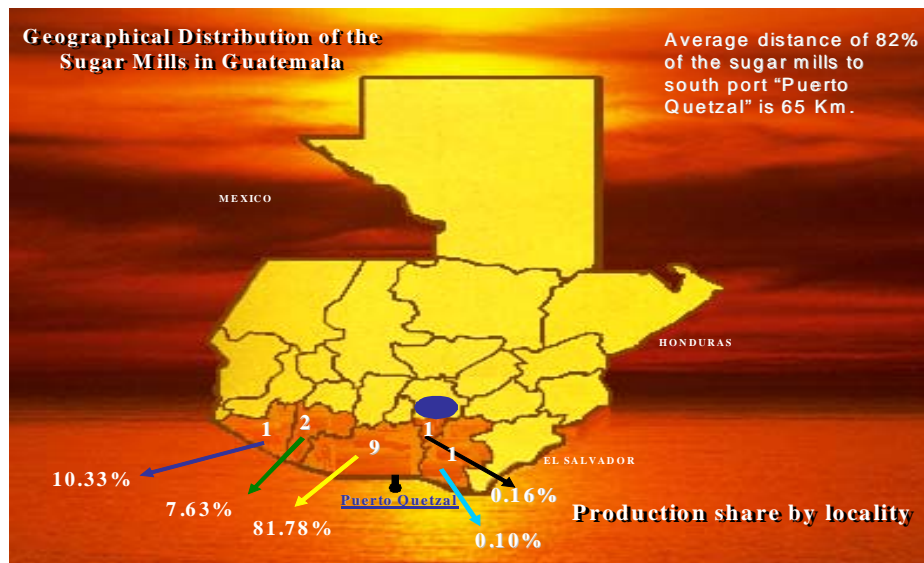
Sugar, Centrifugal Guatemala	2009/2010		2010/2011		2011/2012	
	Market Year Begin: Nov 2009		Market Year Begin: Nov 2010		Market Year Begin: Nov 2011	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	592	592	546	382		93
Beet Sugar Production	0	0	0	0		0
Cane Sugar Production	2,415	2,340	2,474	2,259		2,474
Total Sugar Production	2,415	2,340	2,474	2,259		2,474
Raw Imports	0	0	0	0		0
Refined Imp.(Raw Val)	0	0	0	0		0
Total Imports	0	0	0	0		0
Total Supply	3,007	2,932	3,020	2,641		2,567
Raw Exports	968	977	985	970		970
Refined Exp.(Raw Val)	686	838	695	838		838
Total Exports	1,654	1,815	1,680	1,808		1,808
Human Dom. Consumption	747	735	750	740		740
Other Disappearance	60	0	0	0		0

Total Use	807	735	750	740		740
Ending Stocks	546	382	590	93		19
Total Distribution	3,007	2,932	3,020	2,641		2,567
1000 MT						

CENGICAÑA supports the sugar industry with research and technical assistance. Its objective is to improve and increase sugarcane and by-product production and yields by generating and transferring quality technology for the profitable and sustainable development of the industry. CENGICAÑA's assistance has been very valuable to the sugar industry in keeping yields at acceptable levels despite poor weather conditions. Assistance has included the development of a rigorous integrated pest management program (IPM) meant to avoid the pest issues which plagued Guatemalan cotton production in the South Coast of Guatemala. Additionally, Guatemala is member of the International Consortium for Sugar Biotechnology (ICSB), and CENGICAÑA works in cooperation with ARS/California, Florida, Texas A&M, University of Georgia, and other sugar research institutions.

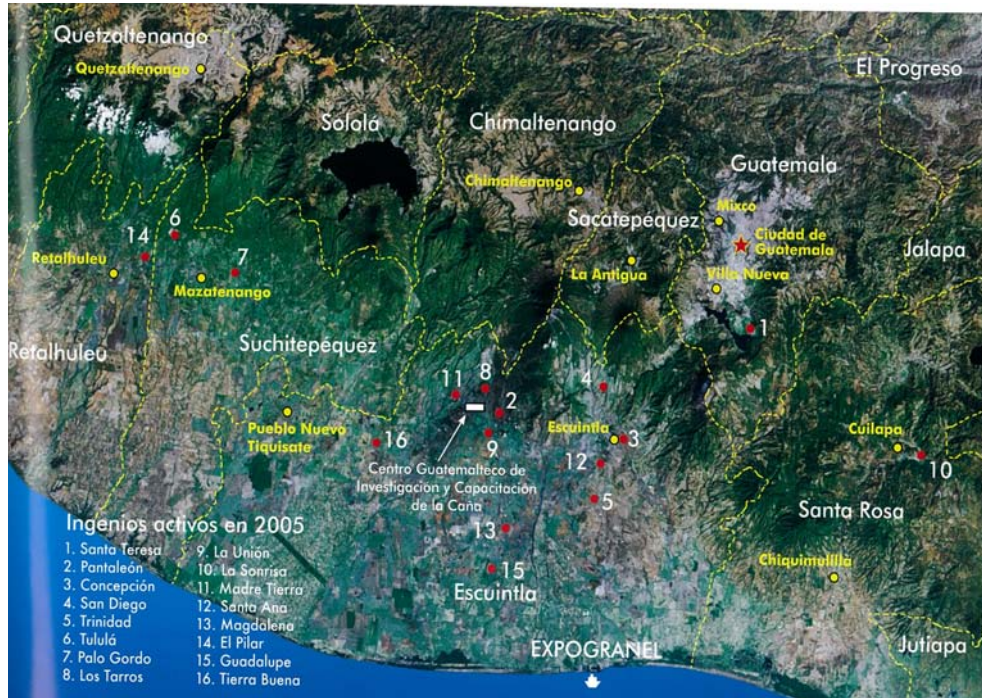
There are 12 active sugar mills in the country, 82 percent of which are located very close to Puerto Quetzal. They are, on average, 65 Km. away from the port (please see maps). Combined milling capacity is close to 150,000 MT per day. MY 2012 sugar production is forecast at 2.5 million MT.

Figure 1
Geographical Distribution of the Sugar Mills in Guatemala



Source: Guatemalan Sugar Association, ASAZGUA, 2011

Figure 2
GPS Map of Sugar Mills in Guatemala
(EXPOGRANEL is the sugar loading terminal at Puerto Quetzal)



Source: Guatemalan Sugar Association, ASAZGUA, 2011

Table 3 lists the number of active mills by country in Central America/Panama, including the production originally estimated in 2010.

Table 3
Sugar PS&D for the Central American Region

COUNTRY	ACTIVE MILLS	PRODUCTION		DOMESTIC CONSUMPTION		EXPORTS	
		MT	%	MT	%	MT	%
PANAMA	4	154,709	3.49%	123,423	6.65%	25,082	0.96%
COSTA RICA	16	389,879	8.80%	221,589	11.93%	179,522	6.86%
NICARAGUA	4	545,044	12.30%	263,071	14.16%	281,970	10.78%
HONDURAS	7	404,010	9.12%	312,752	16.84%	91,169	3.49%
EL SALVADOR	9	595,558	13.44%	253,000	13.62%	342,558	13.10%
GUATEMALA	12	2,340,853	52.84%	683,497	36.80%	1,694,835	64.81%
TOTAL	52	4,430,053	100%	1,857,332	100%	2,615,136	100%

Source: ASZAGUA, 2011

There are 5 sugar mills currently producing alcohol: Magdalena & Madre Tierra (Alcoholes MAG), Pantaleon (Bioetanol), Servicios Manufactureros, Palo Gordo, and DARSA, listed in Table 4 according to their capacity in liters (Lt)/day and total operation dates. Most of the alcohol is exported to the European Union, Central America, and Mexico. Other mills are adding alcohol refineries, and the industry hopes to increase ethanol production for use as motor fuel. Guatemala is interested in supplying locally produced alcohol from domestic sugarcane and, potentially, might be able to provide the entire region with enough ethanol to account for a 10 percent blend with gasoline.

Table 4
Ethanol production in Guatemala
2011(e)

<i>Distillery</i>	<i>Installed Capacity (Lt/day)</i>	<i>Plant Factor</i>	<i>Operation Days</i>	<i>Annual Production Estimate (Lt)</i>
<i>Palo Gordo</i>	120,000	95%	150	18,000,000
<i>Servicios Manufactureros</i>	120,000	95%	330	38,000,000
<i>Bioetanol*</i>	200,000	95%	150	22,000,000
<i>DARSA</i>	250,000	95%	310	80,000,000
<i>Alcoholes MAG</i>	300,000	95%	150	45,000,000
Total	840,000			203,000,000

*Will expand its capacity to 600,000 Lt/day by Nov. 2011

Source: 2010 Report from Guatemalan Renewable Fuels Association (ACR)

Approximately 40 percent of Guatemalan sugarcane is irrigated and only 20 percent is mechanized. The industry has not been able to increase the mechanized planted area due to: a) the land is of volcanic origin and is extremely stony, and b) the industry is the major source of agricultural labor and therefore decisions to mechanize have a considerable social impact. The sugar industry generates around 65,000 full-time jobs which support around 250,000 people, of whom 33,000 are sugarcane harvesters. In addition, the sugar industry generates employment indirectly for another 353,000 people. The sugar industry also contributed with 310 mega watts (MW) of energy potency during 2010, supplying around 23 percent of energy to the national grid system, exceeding the country's main hydroelectric dam during the sugar cane harvest season.

Table 5
Energy potency cogenerated by sugar mills in Guatemala
2010

SUGAR MILL	MW
PANTALEON	55.5
CONCEPCION	26.7
MAGDALENA	109.0
LA UNION	37.0
MADRE TIERRA	21.2
SANTA ANA	35.4
TULULA	13.6
SAN DIEGO	1.2
TRINIDAD	11.1
TOTAL	310.75

Source: ASAZGUA, 2011

Given worldwide demand for sugar, the export market has been increasing significantly in the past seven years, increasing for Guatemalan foreign currency earnings. Coffee and sugar are the two major foreign exchange earners.

Table 6

Source: ASAZGUA, 2011

**Import Values for Major Guatemalan Export Agricultural Products
2003-2010
Thousands of US \$**

Año	2003	2004	2005	2006	2007	2008	2009	2010
Total Import Value	2,284,338	3,074,419	3,644,832	3,813,657	4,219,396	5,034,553	4,795,305	5,490,744
Main Ag Products	944,528	1,244,861	1,456,635	1,449,539	1,560,044	1,540,893	1,855,565	2,087,566
Sugar and Products	316,429	457,024	497,499	550,608	546,509	406,708	492,987	763,831
Banana	228,051	277,481	289,119	266,020	302,383	322,919	494,291	351,565
Coffee	328,122	424,740	575,322	529,553	587,987	660,130	589,245	705,477
Cardamom	67,548	98,473	108,152	122,851	143,890	180,435	300,212	307,500
Central America	312,833	382,765	371,876	590,535	692,547	1,147,115	1,212,780	1,991,856
Other Products	1,036,975	1,446,793	1,816,320	1,773,583	1,966,805	2,346,544	1,726,960	1,411,321

The Guatemalan Sugar Association, (“Asociación de Azucareros de Guatemala” - ASAZGUA), which represents the sugary industry, determines the price of sugarcane through a price formula set sometime before the harvest season starts. The price is based on a minimum of 87.5 kilos of sugar/MT of sugarcane. For sugar content above the basis, the producer receives a proportional upward adjustment.

Local sugar prices (in US\$) for CY 2010 were as follows:

At Mill	Wholesaler	Retailer
\$0.26/pound	\$0.30/pound	\$0.33/pound

Sugar prices in Guatemala have been historically the second cheapest in Central America after Nicaragua (\$ 0.28/pound). Within the region, El Salvador has had historically the highest sugar prices available for the final consumer (\$ 0.39/pound). MY 2011 has been atypical due to the extra demand from the U.S. Guatemala exported close to 300,000 MT to Mexico during CY 2010. According to Post contacts, and given the favorable retail prices for sugar in Mexico (\$0.41/pound), close to 60,000 MT were reported smuggled to Mexico over a 3 month period last year. Contraband at the Guatemalan-Mexican border has been a constant challenge for the authorities of both countries; estimates of smuggling are close to 2,000 MT on a monthly basis. The issue is directly related to the high sugar prices formulated in the U.S. During CY2010, average sugar prices at retail level in the U.S. were \$0.55/pound, followed by Mexico (\$0.41/pound), and Guatemala (\$0.33). When the U.S. demands extra sugar, Mexico exports its production and fills its domestic market with Guatemalan sugar. Unfortunately, due to the lack of law enforcement at the Guatemalan-Mexican border, Guatemalan sugar is smuggled in to Mexico. The Guatemalan sugar industry hopes that the sugar quota for the country can be set taking into account the market trends in-between U.S.-Mexico-Guatemala.

Consumption:

Consumption for MY2011 is expected to increase to 740,000 MT as a result of the stronger demand by the local confectionary industry, which has been expanding its operations to supply both the local and export markets. Per capita consumption of sugar is almost 53 Kg.

Established by government decree in 1997, “Comercializadora de Guatemala” (COMETRO) maintains a legal oligopoly on the domestic wholesale and retail markets. COMETRO markets and distributes to retailers through 38 warehouses strategically located throughout the country. Competition from other wholesalers has forced COMETRO to come out with new marketing strategies in order to compete with small wholesalers offering lower prices due to lower costs in packaging, transportation, and others.

In Guatemala almost all wholesale sugar is sold through COMETRO. There are ways of buying wholesale from mills, but it is very difficult and the amounts are very small. However, in the retail market, anyone can sell.

Alternative sweeteners and other alternative sugar products are not a detrimental or significant factor in total domestic sugar consumption. Sugar confectionery imports and sugar smuggling to Mexico have had a neutral effect on sugar consumption. Currently, domestic consumption is split 28 percent for industrial and 72 percent for human. The soft drink industry is the major industrial consumer of sugar, followed by confectioneries, bakeries, juice makers, dairy producers, and pharmaceutical companies.

Trade:

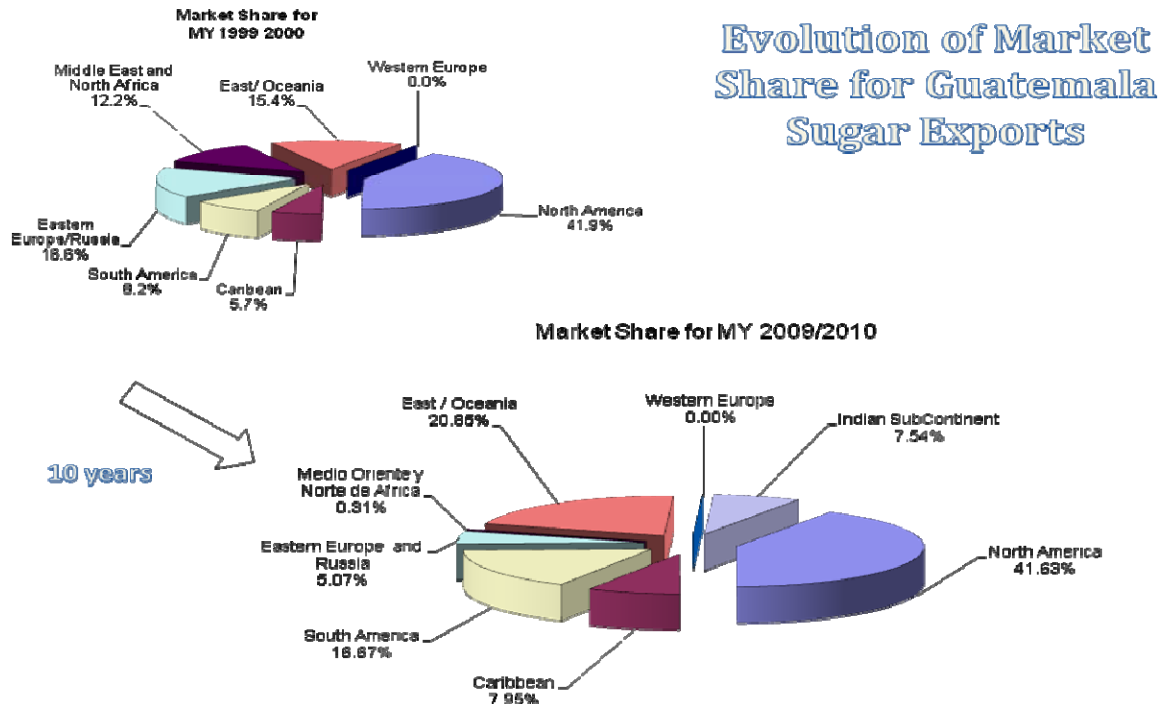
Table 7
Export Trade Matrix
CY2009-2010

Export Trade Matrix			
Country	Guatemala		
Commodity	Centrifugal Sugar		
Time period	Jan-Dec		
2009		2010	
U.S. (including re-exports)	164,271	U.S. (including re-exports)	322,004
Others		Others	
South Korea	360,588	Mexico	175,483
Mexico	298,491	Canada	169,680
Chile	209,144	Chile	149,425
Canada	140,487	Venezuela	112,387
Malaysia	95,713	South Korea	107,074
Indonesia	91,315	Taiwan	90,961
Taiwan	83,534	Indonesia	53,743
China	53,370	China	52,198
Jamaica	37,091	Trinidad	25,784
Venezuela	26,742	Jamaica	18,548
Trinidad	20,356	Malaysia	2,989
Total for others	757,751	Total for others	782,789
Others not listed	73,865	Others not listed	507,410
Grand Total	995,887	Grand Total	1,612,203

Source: ASAZGUA, 2011

During CY 2010, Guatemala exported almost US\$ 765 million in raw and refined sugar, representing the biggest agricultural source of foreign exchange for the country. In CY2010 Guatemala exported 1.6 million MT (MMT). Exports for MY2011 are forecast at 1.8 MMT. Guatemala continues exporting around 70 percent of its total production. The U.S., Mexico, Canada, and Chile continue to be major export markets for raw sugar. Refined exports to Venezuela and Taiwan are also on the upswing. The Guatemalan sugar industry is focusing its exports more on refined sugar. To facilitate entry into the refined sugar business, Guatemala opened in 2010 a storage and handling facility in Puerto Quetzal. The facility has a capacity for 66,000 MT of 50 Kg bags for container transportation. Figure 3 shows the evolution of the market share for Guatemala's sugar exports.

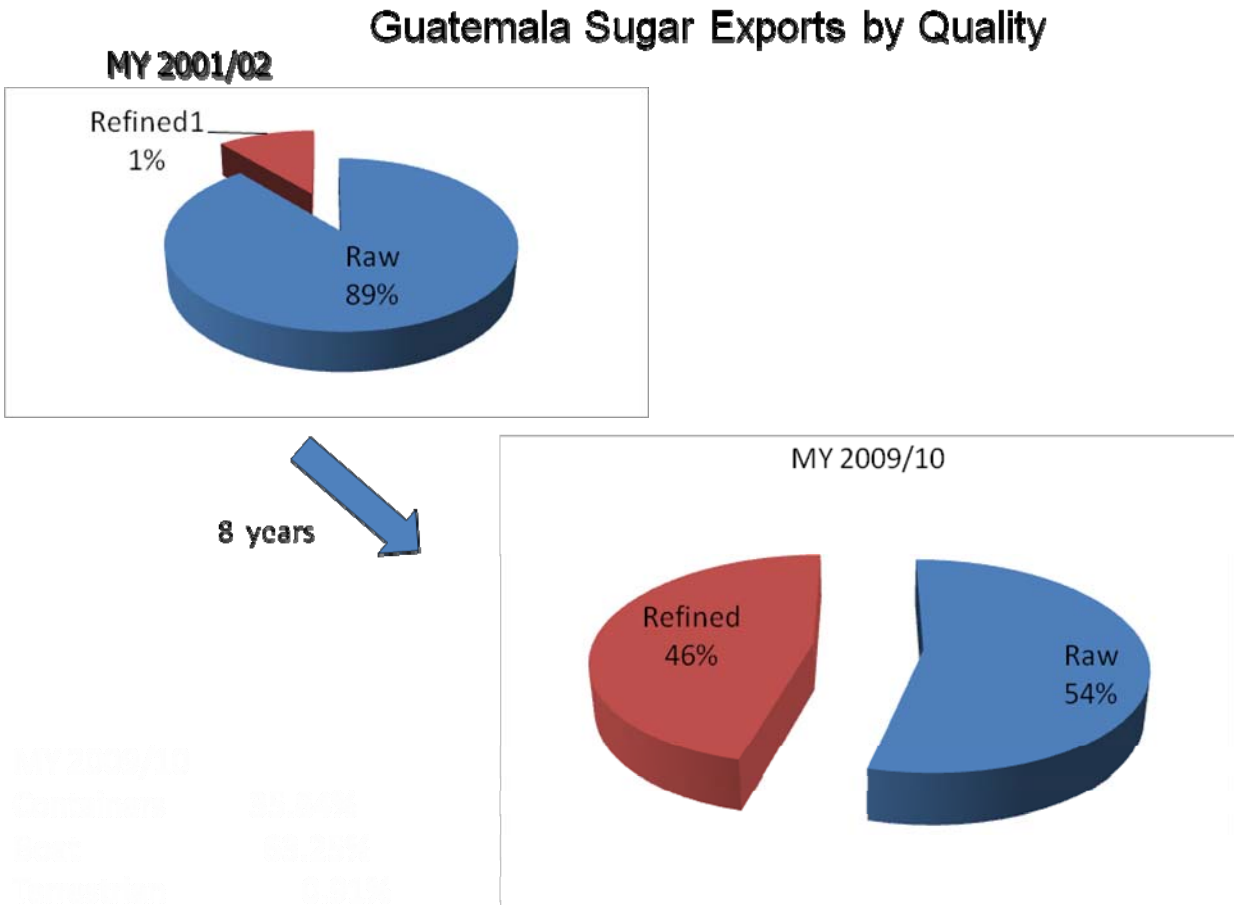
Figure 3



Source: ASAZGUA, 2011

For MY 2010, raw sugar exports represented 54 percent, while refined sugar represented 46 percent of the exports market—a substantial increase from previous year. This evolution has increased the South American and Caribbean share of the Guatemalan export market, while significantly decreasing the share of raw sugar exports to Eastern and Central Europe. Europe, through its free trade agreement with Central America, has set an initial sugar quota of 65,000 MT for Guatemala, which represents 43 percent of the region’s quota. Figure 4 shows the evolution of Guatemala’s sugar exports by quality.

Figure 4



Source: ASAZGUA, 2011

Stocks:

MY 2012 ending stocks (19,000 MT) are expected to be lower than those of MY 2011 (93,000 MT). Domestic stocks are held in warehouses managed by COMETRO throughout the country. All exported sugar is held in warehouses managed by EXPOGRANEL at a loading terminal located at Puerto Quetzal. Its warehousing capacity has increased to 365,000 MT for bulk sugar, and 66,000 MT for refined sugar (50 Kg sacks). It has a loading capacity of 2,200 MT per hour, comparable to facilities in Brazil and Australia. Port improvements which open the possibilities to increase export competition are underway. The effort is focused on a reduction of terminal and line-haul costs by accommodating larger vessels at the port.

Policy:

The Sugar Board of Guatemala, which includes representatives from the Ministry of Economy, sugarcane producers, and sugar mills, establishes production goals, sets sugarcane prices, and allocates the U.S. sugar quota to the different sugar mills. The allocation to each mill is based on past production performance, previous quotas, and milling capacity.

According to Guatemalan law, all sugar sold domestically must be enriched with vitamin A. The industry claims to invest more than \$3.5 million a year in vitamin A. The Government of Guatemala (GOG) at times opens quotas for imported sugar to try to control market prices;

however, they are rarely filled in part due to the requirement for vitamin A enrichment. All imports are assessed a tariff of 20 percent and a value-added-tax of 12 percent, and they must comply with the enrichment law.

ASAZGUA has in place a series of policies that govern the whole efficiency and sustainability of the sugar industry in Guatemala. They include: a) labor policy. The labor force in the sugar industry is composed by 38 percent of workers from the South Coast and 62 percent from the rest of the country, mainly the Western Highlands and some eastern areas with extreme poverty. During 2010, the sugar cane harvesters earned an average monthly salary in between \$379.75 and \$434.56, 41-61 percent above the minimum wage. The wage is established based on the individual's productivity; the average harvester cuts 6 MT of sugarcane, but some workers harvest up to 8-14 MT. The wage represents a net income for the harvesters, since the mills provide all meals (especially designed by a nutritionist, to fill a 4,000 calories demand on a daily basis).

The sugar industry in Guatemala also has transportation policies in place, which have been established with central and department government authorities. The policies include maximum sugar cane transporting truck dimensions and weight, plus driver training. To increase the efficiency of the transportation costs and logistics, the sugar industry has invested in 3,378 km of internal roads from Taxisco to Tiquisate, creating a road network between mills and reducing circulation of 174,000 less travels. At present, 70 percent of the sugar cane trucks travel through the internal roads. For the 30 percent of trucks that use the main highways and roads, the sugar industry has promoted a road cleaning service, which includes 25 small companies which are subcontracted by the sugar industry.

Marketing:

ASAZGUA is continuing its marketing strategy designed to maintain domestic sugar consumption, in response to the increasing preference of artificial sweeteners by a small sector. Both by radio and visual media, the sugar industry has been successfully promoting the fact that natural sugar contains "just 16 calories per teaspoon". The main export strategy is geared to increase refined sugar exports.