Forestry in Guyana

Quarterly Market Report

1999/2

Economics Section
Planning and Development Division
Guyana Forestry Commission

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CONTENTS

GRAPHS AND TABLES

Graphs

Tables

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1. INTRODUCTION

The Market Report is produced quarterly by the Economics Section of the Policy and Planning Division. The purpose of the Quarterly Market Report is to provide a brief overview of trends in production and trade, and current issues affecting markets for Guyana's forest products.

The report is based primarily on the production, export and price data of the Guyana forest industry, which are monitored by the Guyana Forestry Commission (GFC). Data are obtained from producers, GFC forest officers, exporters and merchants, and compiled at the GFC Headquarters.

The report of the second quarter of 1999 (1999/2) begins with a summary of sector performance, definitions of timber products and flows, after which production, exports and prices are reviewed. A summary of international developments is then presented followed by a calendar of key developments in the sector.

2. SUMMARY

The second quarter of 1999 showed mixed signs of recovery in forest sector performance from the depressed markets in 1998. The recovery of the industry however, was severely deterred by the inability of merchants to trade on the main domestic market in Georgetown and on the export market as a result of the public sector strike that started on 29 April 1999 and lasted for 55 days. Performance of the sector was also affected by a decline in demand as a result of a poor performance by the engineering and construction sectors.

There were also mixed signs of recovery among the primary production sectors. Production of sugar increased by 154%, rice by 33% and diamonds by 10.6%, while production of bauxite and gold fell by 19.6% and 6.1% respectively, relative to the same period in 1998.

The number of new mortgages also declined in both the first and second quarters amounting to 23% below 1998 levels at the end of June 1999. Imports of building materials and public sector investment decreased as the public sector strike took effect resulting in a 22% decline in the engineering and construction sectors.

However, despite the long public sector strike, economic growth in the second quarter of 1999, according to the Ministry of Finance, averaged 2.6%. This was an improvement on the same period last year and was mainly due to the large increase in sugar production and to a lesser extent rice production. The target annual economic growth for Guyana for 1999 is 1.8%. Inflation (overall increase in price level) was 5.5% at the end of June and the Guyana dollar depreciated by 1.2% relative to the previous quarter and 7% relative to the second quarter of 1998 against the US dollar.

Production

With respect to the corresponding period of 1998, the second quarter of 1999 saw increases in total production of logs to 112,414 m^3, firewood to 931 cords and mangrove bark to 9,634 kgs. There were decreases in production of chainsaw lumber to 5,326 m^3, roundwood to 2,857 m^3, splitwood to 211 m^3, charcoal to 47,246 kgs, wattles to 475 pieces, plywood to 24,427 m^3 and manicole palm to 1,939,394 stems. Due to incomplete data on sawmill production it is impossible to give an accurate picture on

sawmill production relative to 1998. However, in 1999 sawmill production decreased to 3,133 m^3 in the second quarter. Processed manicole palm (Heart of Palm) also decreased to 27,881 cartons.

Exports

The second quarter of 1999 also saw an increase in export volume of logs to 25,343 m^3. There were decreases in the export volumes of all other forest products. Export volumes of sawnwood decreased to 5,868 m^3, roundwood to 909 m^3, splitwood to 164 m^3, charcoal to 9,546 kgs, plywood to 17,102 m^3 and Heart of Palm to 28,307 cartons. Total export value decreased to US$8.94 million from US$11.19 million in 1998 second quarter.

Prices

Domestic prices
Domestic prices for most species, according to producers, have remained stable for the past six months. However, a monthly sample price survey of 10 retailers revealed that maximum log prices for Baromalli (*Catostemma spp*.), Crabwood (*Carapa guianensis*) and Mora (*Mora excelsa*) increased in the second quarter relative to the previous quarter. Maximum log prices for Greenheart (*Chlorocardium rodiei*), Locust (*Hymenaea oblongifolia*), Purpleheart (*Peltogyne venosa*) and Shibadan (*Aspidosperma album*) decreased in this period. Dressed lumber prices remained fairly stable for all species except for mixed hardwood that decreased by 20%. Undressed lumber prices increased for all species except Crabwood and Purpleheart that fell in the second quarter. Domestic plywood prices remained stable.

Export prices
An index of export prices, as shown in Graph 8 with Jan 1997=100, shows a steady recovery in plywood prices. Log prices are also returning to 1997s levels from low levels in 1998. Undressed lumber prices decreased in the second quarter while dressed lumber prices showed a blip in April but returned to Jan 1997 level in June.

3. TIMBER PRODUCTS DEFINITION AND FLOWS[1]

In order to make the market reports more comprehensible, a definition and description of the terminology used to describe the forest products, was required. In an economy, the forestry sector is classified as the primary sector and to avoid any conflict in terminology, the use of primary and secondary products and levels of production within the forest industry are to be defined by the level of processing.

Figure 1 represents the flow of timber (non-timber forest products are excluded) from the forest into different categories of products (based on the statistical data collected by the GFC). The logs recorded at the GFC, are used in the production of sawmill lumber, shingles, plywood and for domestic and export logs. The production of roundwood, splitwood, chainsaw lumber and fuelwood (firewood and charcoal) are recorded independently of log production. The total of logs used in their production is not monitored and recorded by GFC.

Roundwood comprises of piles, poles, posts and spars. Splitwood includes paling staves, vat staves and shingles and fuelwood includes charcoal and firewood.

[1] Extracted from *Forestry in Guyana, Market Summary 1998*, Guyana Forestry Commission, June 1999.

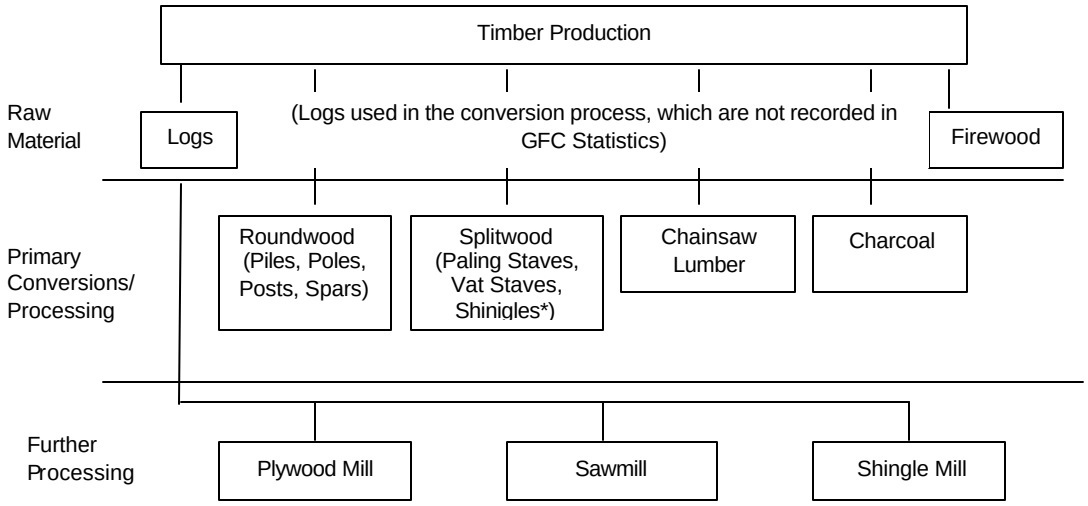
3.1 Levels of Processing

The flow of timber from the forest to forest products passes through three main stages of processing. Forest products such as logs and firewood can be classified as raw materials as they are removed from the forest, with limited processing[2]. Products such as roundwood, splitwood, chainsaw lumber and charcoal all require a degree of conversion from the raw material. This level of processing can be defined as primary conversion[3]. Primary conversion is often performed in the forest, as in the case in Guyana.

In Guyana there are three forest product types that are produced following further processing. These are plywood, sawmill lumber and shingles from the shingle mill. Shingles are produced in the forest and as such are classified as primary conversion products, however shingles that are produced from the mill are classified under further processing. Further processing includes the transformation of primary products into semi-finished and finished products made wholly or almost wholly of timber[4].

Forest Products produced from further processing are not included in the calculation of forestry's contribution to Gross Domestic Product (GDP) for Guyana.

Figure 1: Flows of Timber Products from Guyana's Forests



Note:
Flows and definitions are based on statistical data available at the GFC.
* Shingles are produced under primary conversion in the forest and some shingles are produced at the shingle mill which is then classified as further processing.

[2] Processing can be defined as the conversion of harvested raw material into products that may be used in further manufacturing or for consumption.

[3] The conversion of raw material into semi finished or finished products made wholly from timber.

[4] International Tropical Timber Agreement (ITTA)

4. DOMESTIC PRODUCTION

This section provides an overview of changes in production in the second quarter of 1999 relative to 1998 (refer to table 1).

Timber production was severely restrained as a result of the public sector strike that started late April and lasted for 55 days. Merchants in the main markets in Georgetown were forced to close businesses as striking workers rampaged through the city and blocked off main shipping ports. Even Customs workers were on strike resulting in a stoppage of imports and exports from Guyana as the necessary documents could not be processed. Timber producers, not unlike other producers, could not have cleared the imports of the necessary inputs i.e. parts for machinery, etc that were sitting on the wharves of Georgetown. In another instance one timber producer was forced to stop loading his ship bounded for Trinidad on private property by protesters. The effects of the strike came to a point that the President of the Guyana Forest Products Association, Mr. David Persaud, in a press release announced that the lumber trade was in "deep freeze", with 50% of sawmills having to shut down.

Timber markets were also depressed as a result of a decrease in domestic building activities. The domestic construction sector was slow as a result of the fragile political environment in the city during the strike. The decrease in domestic building activities was also reflected in the declines of new mortgages, imports of building materials and public sector investment in second quarter of 1999.

Another factor that affected production was the threat of the La Niña weather phenomenon, however this was short lived. According to the Meteorological Department the usual rains in May-June has been favorably low relative to previous years.

In addition the Guyana dollar depreciated by further 1.2%, causing the price of imported inputs to increase.

Table 1: Production of Forest Products

PRODUCTS	Unit	1st Quarter (Jan-Mar)			2nd Quarter (Apr-Jun)			Cumulative (Jan-Jun)		
		1998	1999	% chg	1998	1999	% chg	1998	1999	% chg
TIMBER PRODUCTS										
Logs										
Greenheart	m^3	21,946	19,130	-13	21,490	17,404	-19	43,436	36,534	-16
Special Class	m^3	9,458	6,999	-26	5,985	8,355	40	17,813	15,354	-14
Class 1	m^3	22,424	26,344	17	17,218	27,901	62	39,642	54,245	37
Class 2	m^3	63,237	36,797	-42	28,538	50,027	75	91,775	86,824	-5
Class 3	m^3	5,891	7,702	31	5,571	8,727	57	11,462	16,429	43
Total Logs	m^3	122,955	96,973	-21	78,802	112,414	43	201,757	209,387	4
Chainsaw Lumber (CL)										
Greenheart	m^3	1,426	410	-71	1,317	647	-51	2,743	1,057	-61
Special Class	m^3	471	196	-58	645	172	-73	1,116	368	-67
Class 1	m^3	3,255	2,268	-30	3,464	3,027	-13	6,719	5,295	-21
Class 2	m^3	768	651	-15	755	777	3	1,523	1,428	-6
Class 3	m^3	567	446	-21	499	702	41	1,066	1,148	7
Total CL	m^3	6,488	3,971	-39	6,680	5,326	-22	13,168	9,297	-29
Roundwood (RW)										
Greenheart Piles	m^3	1,989	2,333	17	1,265	1,893	50	3,254	4,226	30
Kakaralli Piles	m^3	171	3	-98	54	8	-85	225	11	-95
Mora Piles		0	0	-	0	55	-	0	55	-
Wallaba Poles	m^3	1,480	445	-70	1,265	274	-78	2,745	719	-74
Posts	m^3	759	620	-18	1,134	623	-45	1,893	1,243	-34
Spars	m^3	10	12	20	18	4	-77	28	16	-43
Total RW	m^3	4,409	3,413	-23	3,736	2,857	-24	8,145	6,270	-23
Splitwood (SW)										
Paling Staves	m^3	336	176	-48	468	181	-61	804	357	-56
Vat Staves	m^3	0	0	-	0	4	-	0	4	-
Shingles	m^3	41	4	-90	6	26	333	47	30	-36
Total SW	m^3	377	180	-52	474	211	-55	851	391	-54
Fuelwood										
Charcoal	kg	87,489	19,595	-78	133,739	47,246	-65	221,228	66,841	-70
Firewood	cord	392	569	45	495	931	88	887	1,500	69
Plywood	m^3	15,989	15,544	-2	24,734	24,427	-1	40,723	39,971	-2
Sawmill Lumber	m^3	n.a.	4,439	-	n.a.	3,429	-	n.a.	6,991	-
NON-TIMBER FOREST PRODUCT										
Wattles	piece	2,135	1,560	-27	1,981	475	-76	4,116	2,035	-51
Mangrove Bark	kg	0	30,704	-	3,447	9,634	56	3,447	40,338	1070
Manicole Palm	stem	1,457,150	306,834	-79	1,939,394	1,192,295	-39	3,396,544	1,499,129	-56
Processed Manicole Palm (Heart of Palm)	cartons	31,092	6,848	-78	53,368	27,881	-48	84,460	34,729	-59

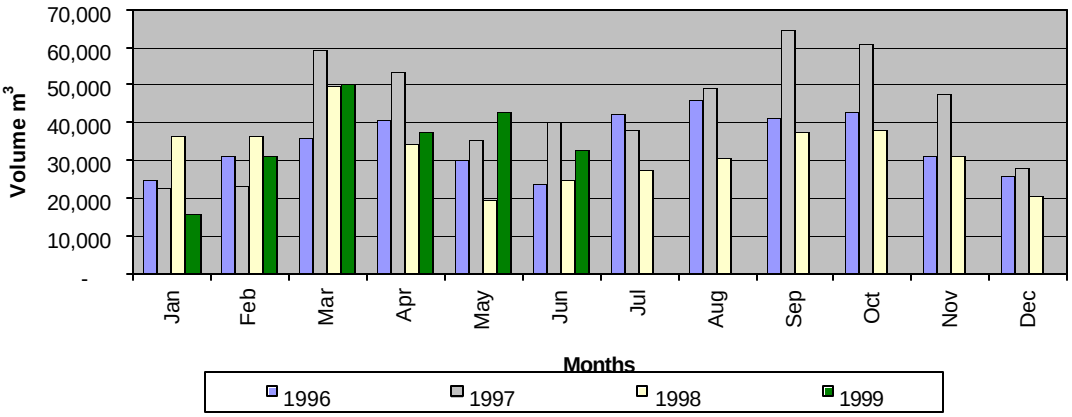
Source: Guyana Forestry Commission, Amazon Caribbean Limited for Processed Manicole Palm

Notes:
1. For Fuelwood Production we have reverted to the original measurements of Charcoal and Firewood until conversion rates are clarified.
2. % chg is the percentage change in production.
3. n.a. – not available.

4.1 Timber Products

Logs

Graph 1: Log Production, 1996-1999



Log production in the second quarter of 1999, exceeded 1998 production in the same period by 43%, to reach 112,414 m^3. This figure however was still 13% below 1997 levels.

Graph 1 shows that log production was remarkably high in May 1999 compared to the last three years. Production was also higher in all months in the second quarter of 1999 compared to 1998. Table 1 shows that there were an increase in all classes except for Greenheart which fell by 19%. The marked increases were found in Class 1, the more commercially utilized species (see appendix for species class categorization) and in Class 2 species where the majority comprised of Baromalli (*Catostemma spp*.). Baromalli is the major peeler species used in the production of plywood, which increased by 53% from the first quarter of 1999.

There was also an increase in log exports volume and value (see section on exports) during this period. The increase in exports was largely due a contract obtained by the Berbice Cortim Forest Export and Import Company Limited for supply 10,000 m^3 of logs to Japan in June. This alone made up 39% of total logs exported during the second quarter. Of total logs exported for this period, 94% went to Japan, Hong Kong and Korea. The demand from Asia is due to extended rains in traditional supply countries causing a shortage in logs in that region, driving prices up and as a result consumer mills were seeking alternative markets to source logs. The Korean economy is also recovering faster than expected with consumer spending fuelling growth and the Chinese increase in demand is due largely to the implementation of the National Forest Protection Programme that has reduced their domestic supply of logs and a booming interior decorations market. See section on exports for more details.

Log domestic prices for Baromalli, Crabwood and Mora also increased while Greenheart, Locust, Purpleheart and Shibadan decreased (see section on domestic prices for further details). An index of prices (see Graph 8) with Jan 1997 as the base period, indicate that the average log export prices are climbing again to reach Jan 1997 levels in June from the low levels of 1998.

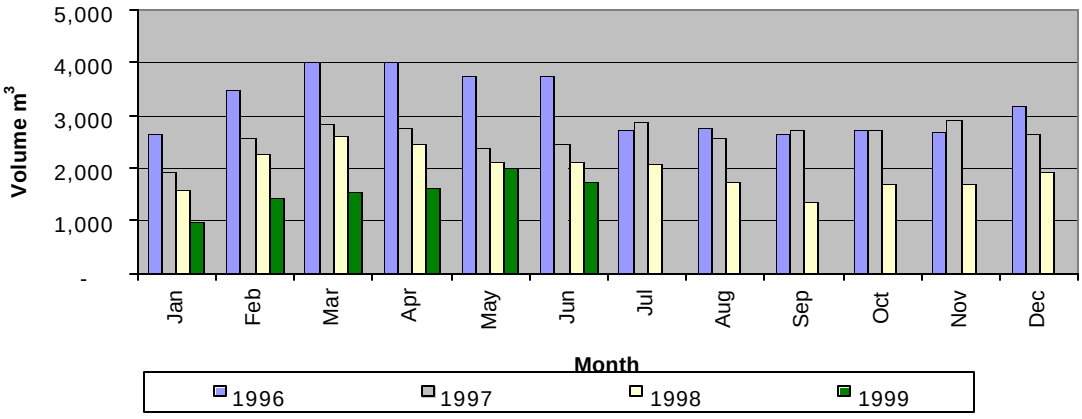
Using data on actual log production and seasonal indices that were calculated based on data for January and February 1999, log production forecasts for the remainder of the year were computed and are presented in Table 2. A seasonal adjustment indicates that there was a real decline in April of 1999 based on factors other than season. The decline suggests that low production in April was a result of low demand for logs during April.

Table 2: Forecasts of Log Production for April-December 1999

Month	Log Production (m^3)
April	42,532
May	33,532
June	31,349
July	35,555
August	45,090
September	48,362
October	49,757
November	41,021
December	28,287
TOTAL	448,973

Chainsaw Lumber

Graph 2: Chainsaw Lumber Production, 1996-1999



Figures presented under this section only captures legally produced chainsaw lumber. It is predominantly small concessionaires (SFPs) that engage in chainsaw operations. In 1998, there were 390[5] SFP operations in Guyana mostly concentrated in the Demerara region. Chainsaw lumber operations also mainly supply the domestic markets as they provide a cheaper alternative, due to lower costs of production, as oppose to sawmill lumber. Although there is some of chainsaw lumber exported, this amount is very small.

Graph 2 depicts a steady decline of chainsaw lumber production since 1996. Table 1 shows that chainsaw lumber production fell to 5,326 m^3 in second quarter of 1999, 22% lower than that of 1998 second quarter. There were declines in all classes except for Class 2 and 3 that increased, which

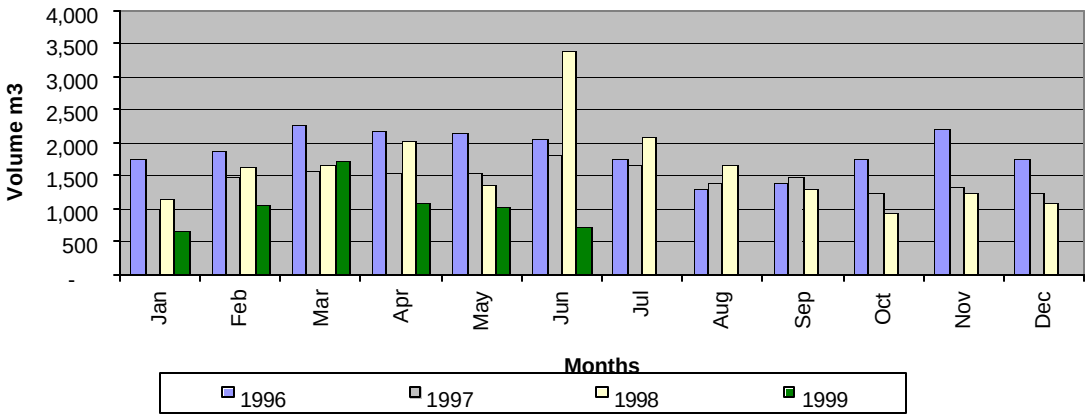
[5] includes those under consideration for conversion to larger concessions, i.e. TSA and WCL

suggests that there has been an increase in the use of lesser-used species. The increase in lesser-used commercial species and the decline in Greenheart, Special Class and Class 1 species also suggest that the higher class species that achieve higher prices may have been worked out from most areas close to roadways and river ways that are easily accessible by these small concessions. Hence the higher-class species are becoming more difficult to obtain by chainsaw operators.

The chainsaw lumber market in the second quarter of 1999 was also hit hard by the pubic sector strike as many retailers in main markets of Georgetown were forced to close shop. Sales in the outlying regions however continued, but could not make up for the loss of sales in Georgetown.

Roundwood

Graph 3: Roundwood Production, 1996-1999



Roundwood in this section comprises of Piles, Poles, Posts and Spars.

As shown in Table 1, there was a 24% decline in total roundwood production in the second quarter of 1999 relative to 1998, amounting to 2,857 m^3. Although the total of roundwood declined, there was a 50% increase in the production of Greenheart piles during this period. The increase in the production of Greenheart piles is related to export demand from North America and a continued strong domestic demand for the product in the second quarter of 1999. Export volumes for piles and other roundwood, however, decreased during this period as a result to the public sector strike. Also environmentalists in New York are becoming more active against the importation of Greenheart into that State.

Graph 3 depicts lowest level of production for roundwood for the second quarter of 1999 compared to the last three years.

Splitwood

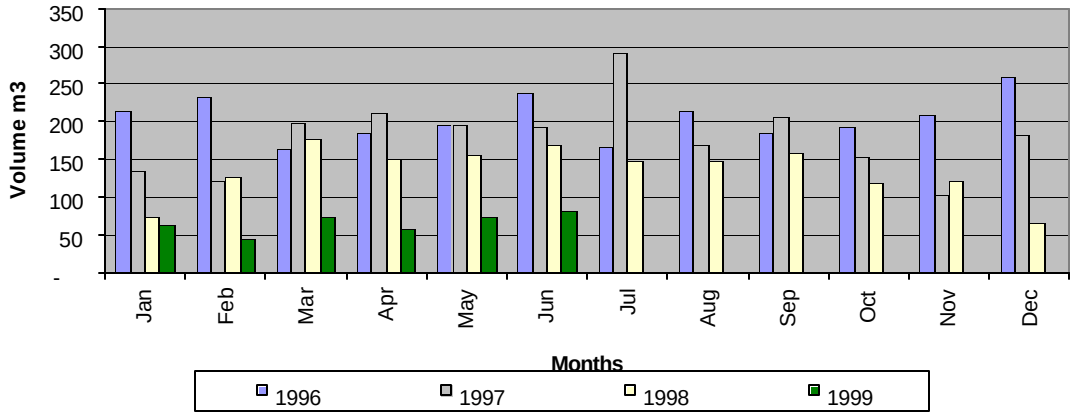
Splitwood comprises of paling staves, vat staves and shingles.

Splitwood production was 211 m^3 in the second quarter of 1999, 55% lower than it was in 1998. There was a 61% decline in the production of paling staves, which accounted for 86% of total splitwood production during this period. Shingles production on the other hand increased by 333% to amount to

23 m^3 and vat staves emerged at 4 m^3 from no production in previous periods under consideration. Although there was a remarkable increase in shingles, it should be noted that the product only accounted for 12% of total splitwood produced in the second quarter of 1999. Note that the shingles reported in this section exclude shingle mill production.

Major declines in splitwood production as depicted in Graph 4 are brought about from a decline in the production of paling staves which constitute the majority of splitwood. Paling staves are being replaced gradually by substitutes such as concrete and chain link fencing materials. Slow markets in Georgetown, as a result of the public sector strike, also hindered production.

Graph 4: Splitwood Production, 1996-1999



Fuelwood

Charcoal production totalled 47,246 kgs in the second quarter of 1999. This figure represents a 65% decrease relative to the second quarter of 1998. Charcoal production reflects the seasonal pattern in consumption of the product as well as difficulty of its production in rainy season. In 1999, however charcoal production are showing record level lows for all months and indicate that the use of charcoal is not as popular anymore. There are fewer Bar-be-Ques than there was a year ago and more and more persons who used charcoal for cooking are replacing the product with propane and electric cookers. Charcoal exports have also declined tremendously in the second quarter of 1999.

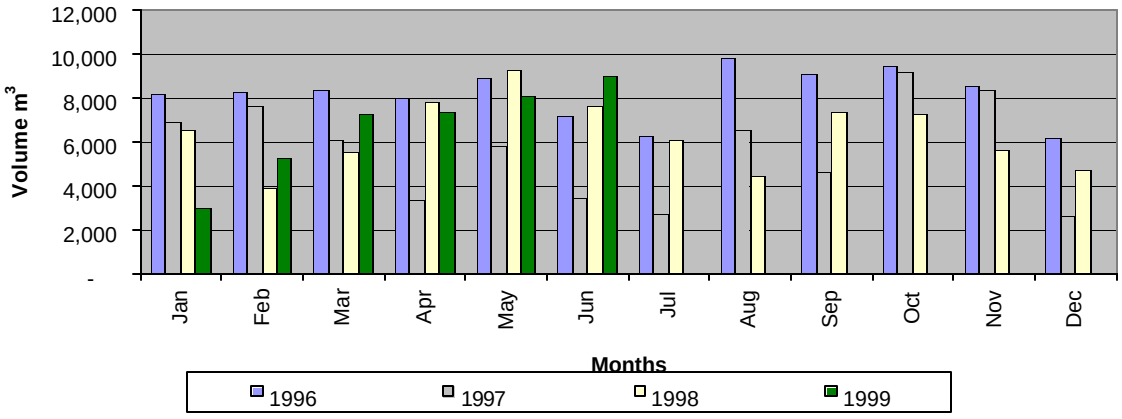
Firewood production amounted to 981 cords in the second quarter of 1999, 88% higher than 1998 levels. The majority of firewood produced is consumed in steam boilers by sugar estates and bakeries in Guyana. The remainder is consumed in rural homes as fuel for cooking. The large increase in firewood production is related to the increase in sugar production in the second quarter of 1999.

Plywood

Relative to 1998, there was a slight decrease in plywood production in the second quarter of 1999 of 1% to 24,427 m^3. Despite the slight decrease, and as depicted in Graph 5, June 1999 experienced the highest plywood production compared to the previous three years. This is a reflection of firming international markets for plywood in the latter part of the second quarter with demand healthy and prices are recovering from 1998 levels.

Plywood exports also decreased during the second quarter compared to the previous year. An index of export prices for the product however, showed a steady recovery in plywood prices.

Graph 5: Plywood Production, 1996-1999



Sawmill lumber

For the first time we are able to present sawmill production data, hence due to data gaps in 1998 we are unable to compare production between years. However, production in 1999 shows a decline in production in the second quarter to 3,429 m^3 from 4,439 m^3 in the first quarter. The average recovery rate for all sawmills based on inputs and outputs declared to GFC, is approximately 22%.

4.2 Non-timber Forest Products

Wattle

A wattle is a sapling less than 3 inches (8cm) in diameter and is used mainly in agricultural /farming activities for supporting young plants.

Wattle production totalled 475 pieces in the second quarter of 1999, representing a 76% decline from 1998 levels during the same period. The decrease in wattle production is related to a decrease in farming activities in the second quarter and also to a decrease in the use of the product.

Mangrove Bark

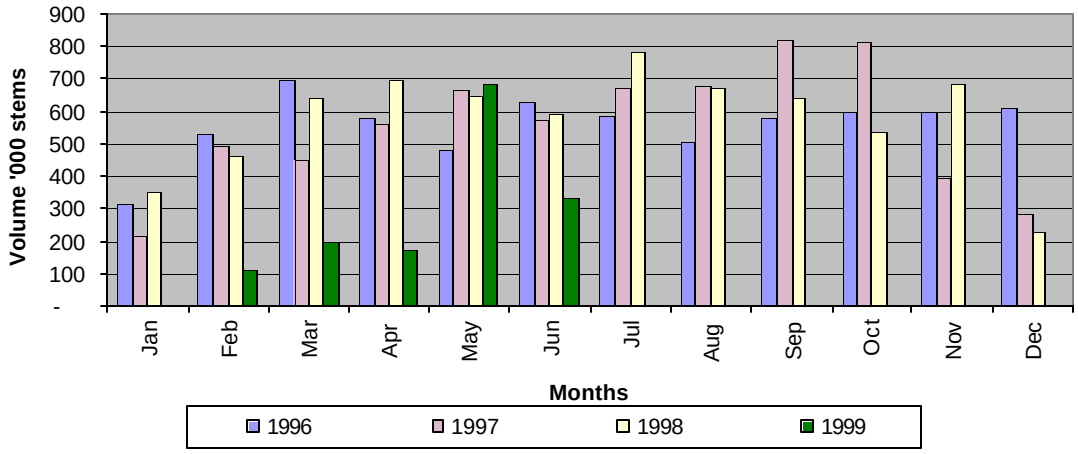
Mangrove bark is used in the leather craft industry in the tanning of leather.

In the second quarter of 1999, mangrove bark totalled 9,634 kgs, representing a 56% increase from the corresponding period of 1998. The increase in mangrove bark production is due to an increase in the demand for mangrove bark used in the manufacturing of leather accessories.

Manicole Palm

Manicole palm (*Euterpe oleracaceae*) is processed, tinned and largely exported as a delicacy to markets in Europe. The sole producer in Guyana is Amazon Caribbean Ltd that began production in 1990. A very small percentage of the end product is sold on the domestic market.

Graph 6: Manicole Palm Production, 1996-1999



Production of Manicole palm in the second quarter of 1999 amounted to 1.19 million stems, 39% lower than its 1.93 million stems in the corresponding period of 1998. Graph 6 depicts that 1999 production has been at lowest levels in recent years except for May which achieved a record level high in comparison to previous years. In our first quarter report (1999/1) we reported that a new canning factory built in Berbice last year had to cease operation due to the collapse in markets for Manicole Palm and at the end of the second quarter the plant had not yet resumed operations. However, the North-West plant continued operations at subdued levels.

Processed Manicole Palm / Heart of Palm in the second quarter amounted to 27,881 cartons, 48% lower than last year levels. There were also decreases in export volume to 28,307 cartons, and export value to US$0.5 million, 39% and 26% less than 1998 level respectively.

5. ROYALTY ON PRODUCTION

Royalty is levied on primary forest products that are harvested from Guyana's State forest by concessionaires. The royalty as stated in this section is the amount payable to the Guyana Forestry Commission and is not the cash royalty collected during the period, given debt collection from previous periods and unpaid royalties from the current period.

Royalty on production declined to G$33.73 million in the second quarter of 1999, from G$37.88 million in the corresponding period of 1998. The 11% decline from 1998 levels is in line with reduced production levels for most products in the second quarter of 1999.

Table 3 gives a breakdown of royalty on production of the various products in the second quarter of 1999 with logs accounting for 65% of total royalty, chainsaw lumber 22%, roundwood 8.5%, splitwood 0.3%, fuelwood 0.5% and non-timber forest products 3.6%.

Graph 7: Royalty on Production, 1997-1999

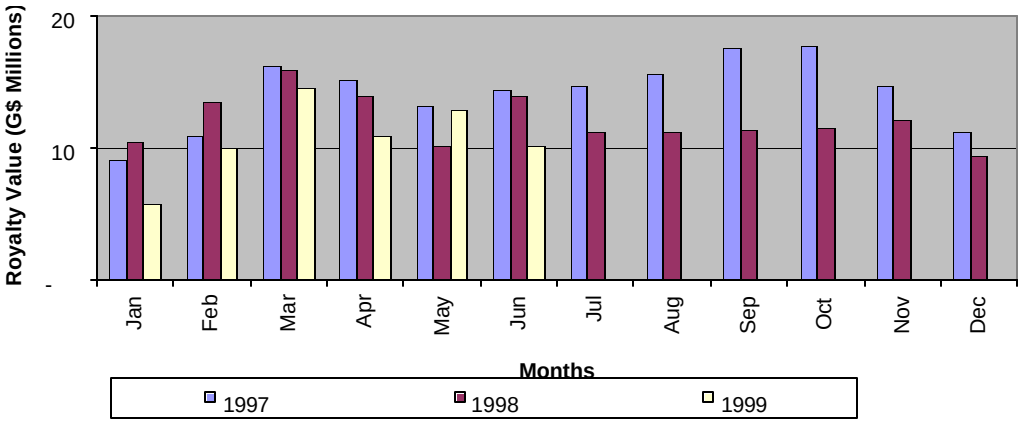


Table 3: Breakdown of Royalty on Production (Apr-Jun 1999)

PRODUCTS	Royalty on Production G$
TIMBER PRODUCTS	
Logs	
Greenheart	6,768,342
Special Class	2,874,169
Class 1	5,943,531
Class 2	5,699,623
Class 3	710,116
Total Logs	21,995,781
Chainsaw Lumber (CL)	
Greenheart	1,603,033
Special Class	425,964
Class 1	4,286,945
Class 2	688,885
Class 3	372,217
Total CL	7,377,044
Roundwood	
Greenheart Piles	2,424,225
Kakaralli Piles	2,600
Mora Piles	66,327
Wallaba Poles	266,461
Posts	109,223
Spars	14,590
Total Roundwood	2,883,426
Splitwood	
Paling Staves	76,826
Vat Staves	3,570
Shingles	23,287
Total Splitwood	103,683
Fuelwood	
Charcoal	62,496
Firewood	102,410
NON-TIMBER FOREST PRODUCTS	
Wattles	1,425
Mangrove Bark	10,710
Manicole Palm	1,192,295
TOTAL ROYALTY	**33,729,270**

Source: Guyana Forestry Commission

6. EXPORTS

6.1 Export: Volume and Value

Table 4: Export Volume of Forest Products

PRODUCTS	Unit	1st Quarter (Jan-Mar)			2nd Quarter (Apr-Jun)			Cumulative (Jan-Jun)		
		1998	1999	% change	1998	1999	% change	1998	1999	% change
Logs	m^3	15,875	8,860	-44	19,136	25,343	32	35,011	34,203	-2
Sawnwood	m^3	3,773	5,720	52	7,925	5,868	-26	11,698	11,588	-1
Roundwood	m^3	2,861	1,142	-60	2,335	909	-61	5,196	2,051	-60
Splitwood	m^3	117	150	27	267	164	-39	384	314	-18
Charcoal	kgs	32,079	38,683	21	18,752	9,546	-49	50,831	48,229	-5
Plywood	m^3	10,449	17,640	69	23,451	17,102	-27	27,551	34,562	25
Heart of Palm (Manicole)	carton	44,349	22,880	-48	46,157	28,307	-39	90,506	51,187	-43

Source: Guyana Forestry Commission
Note: Sawnwood includes dressed lumber, undressed lumber, sleepers and pallets
Roundwood includes hewn, piles, poles and posts
Splitwood comprises shingles and paling staves

Table 5: F.O.B. Export Value of Forest Products ('000 US$)

PRODUCTS	1st Quarter (Jan-Mar)			2nd Quarter (Apr-Jun)			Cumulative (Jan-Jun)		
	1998	1999	% change	1998	1999	% change	1998	1999	% change
Logs	1,333.47	548.26	-59	1,123.73	1,652.51	47	2,457.20	2,200.77	-10
Sawnwood	1,472.15	1,589.95	8	3,060.27	1,201.99	-60	4,532.42	2,791.94	-38
Roundwood	517.81	193.50	-63	419.99	140.12	-67	937.80	333.62	-64
Splitwood	36.47	75.50	107	78.65	78.89	0.3	115.12	154.39	34
Charcoal	6.18	2.72	-55	3.65	0.72	-80	9.83	3.44	-65
Plywood	*2,473.48	4,868.17	97	5,720.14	5,291.94	-7	8,193.62	10,160.11	24
Heart of Palm (Manicole)	800.99	461.19	-42	784.13	576.83	-26	1,585.12	1,038.02	-35
TOTAL	6,640.55	7,739.29	17	11,190.56	8,943.00	-20	17,831.11	16,682.29	-6

Source: Guyana Forestry Commission
Note: Sawnwood includes dressed lumber, undressed lumber, sleepers and pallets
Roundwood includes hewn, piles, poles and posts
Splitwood comprises shingles and paling staves
* Correction from last issue.

Relative to 1998, the second quarter of 1999 showed decreases in the volumes of all forest products exports except for logs. Total export earnings also decreased to US$8.9 million from US$11.1 million in the second quarter of 1998. The decreases in volumes and values of most products exported was a result of the 55 days long public sector strike which started in May and lasted through June and forced City ports to close. As a result there was very little export during the strike period forcing the volumes of almost all products down.

Log exports accounted for 22% of total logs produced in the second quarter of 1999. At 25,343 m^3 log export volume was 32% higher than 1998 levels. The value of log exports was US$1.65 million, 47% higher than 1998 levels in the second quarter. Of the exports, 39% went to Japan, 30% to Hong Kong, 24% to Korea and the remainder to Trinidad. The demand from Asia is largely due to decreases in production caused by extended rainy seasons in that region in the second quarter of the year. Domestic log supply in China is also shortened as a result of the National Forest Protection Programme established by the Chinese government. Many economies in the far east including China and Korea are also recovering from economic problems in 1998 and are growing at a faster rate than expected, hence increased demand and consumer spending.

At 5,868 m^3 **sawnwood** export volume in the second quarter of 1999 was 26% lower than 1998 levels. Export value stood at US$1.20 million, 60% lower than 1998 levels. Together Latin America and Europe accounted for 90% of total sawnwood exports in the second quarter of 1999. As shown in the section on export destinations, the market for sawnwood in Europe is growing, in particular for undressed lumber and sleepers. The Latin America / Caribbean region however still dominates the Guyana's sawnwood maket with a share of 49% of total sawnwood exports.

34% of piles, 36% of poles and 27% of posts produced in the second quarter of 1999 were exported. At 909 m^3 **roundwood** export volume was 61% lower than the corresponding period of 1998. Piles constituted 71% of all the roundwood exported during this period of which 90% went to the United States of America (USA), 9% to Europe and 1% to Trinidad. Although the New York City Council eliminated Greenheart from their list of approved species in January of this year the majority of Greenheart piles exported to the USA went to buyers in Staten Island, New York, however at reduced levels.

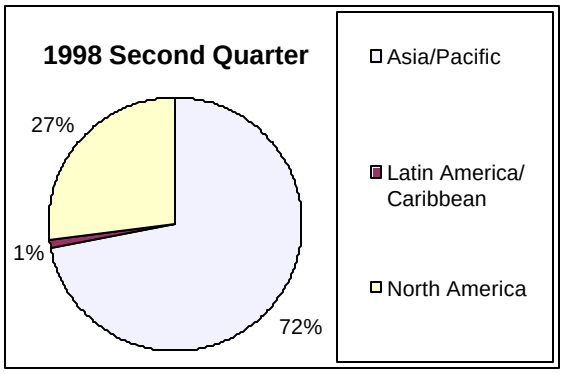
Splitwood exports in the second quarter of 1999 comprised shingles only. At 164 m^3 shingles export volume was 39% lower in the second quarter of 1999 relative to 1998. 80% of shingles went to Latin America / Caribbean region, the main market for Guyana's shingles and the other 20% went to North America. The decrease in exports of splitwood is a result of the long public sector strike in the second quarter.

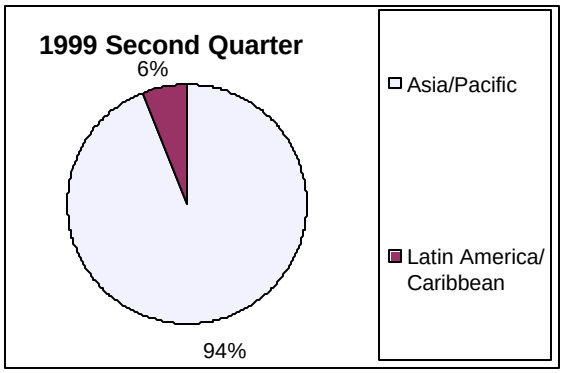
Plywood markets internationally are firming again. Export volume from Guyana accounted for 69% of plywood produced in the second quarter totalling 17,102 m^3. This figure represents a 27% decrease relative to the second quarter of 1998. Export value also decreased to US$5.2 million, 26% lower relative to 1998.

6.2 Export: Destination

The exports by destination are based on volumes.

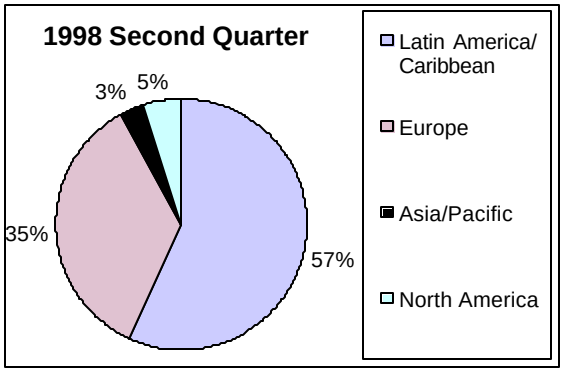
Logs

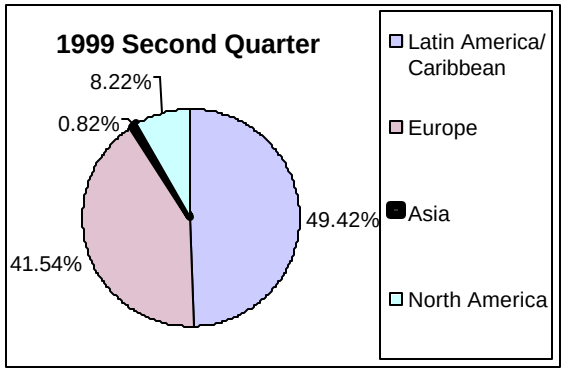




The Asia / Pacific region increased its market share of logs from Guyana in the second quarter of 1999 to 94% (shared between Japan, Hong Kong and Korea) from 72% in the first quarter of 1998. The shift toward Asia / Pacific region is a result of increase in demand for logs from that region in the second quarter of 1999 related to growing economies and decrease in supply from traditional suppliers due to extended rains.

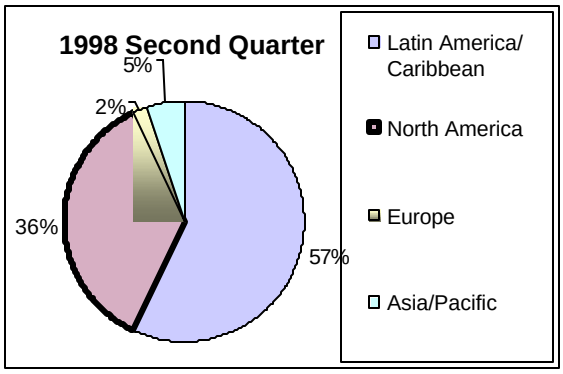
Sawnwood

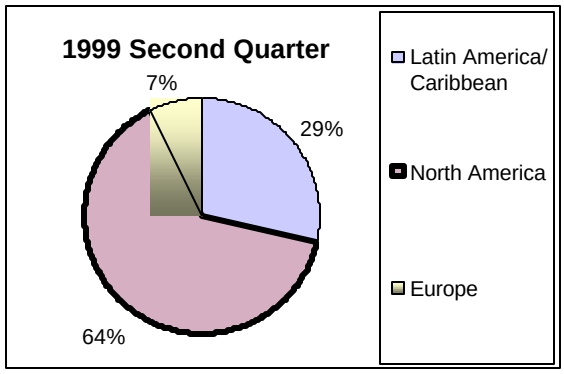




Although Latin America / Caribbean continue to receive the largest share of sawnwood from Guyana, their market share has declined in comparison to 1998 second quarter. Europe increased its market share to 41.5% in the second quarter of 1999 from 35% in the corresponding period of 1998. The North American market for sawnwood also grew, amounting to 8.2% of total market shares. The Asia / Pacific market decreased even further to less than 0.82% of the market share.

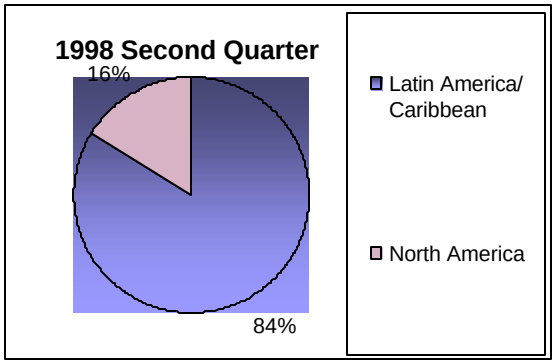
Roundwood

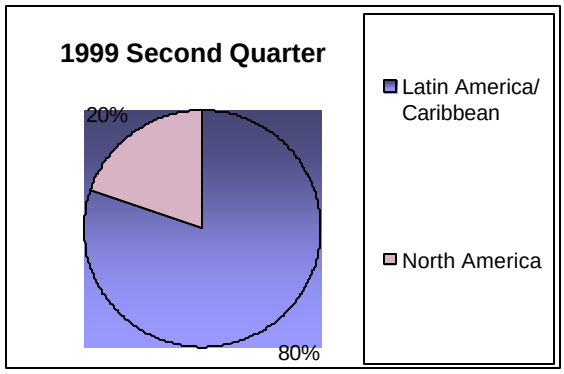




The roundwood market shifted toward North America in the second quarter of 1999 to 64% from 36% corresponding period of 1998. This was due to the demand for piles from North America. There was movement away from the Latin America/Caribbean market from 57% of total market shares in the second quarter 1998 to 29% for the same period in 1999. The movement in market shares away from Latin America/Caribbean is related to poor markets as a result of low expansion and contraction in many of these economies. Europe also increased its market shares from 2% in 1998 to 7% in 1999 second quarter.

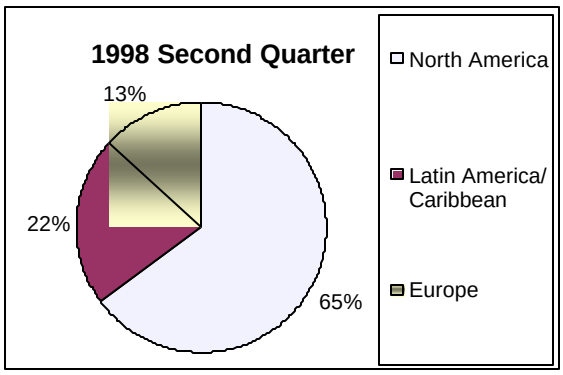
Splitwood

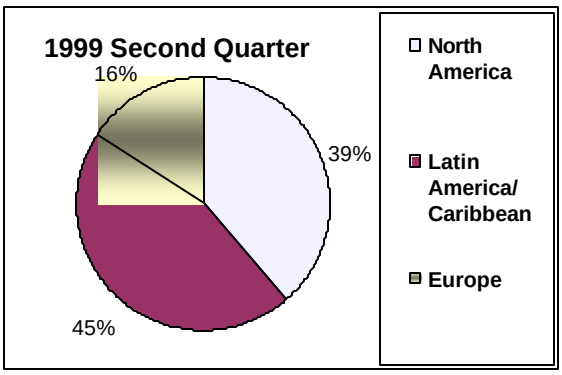




Splitwood exports as mentioned in the Export Volume and Value section comprises shingles only. The splitwood market in North America maintained its slice of market share in the second quarter of 1999, as depicted in the figures above. 20% of splitwood went to North America while 80% went to Latin America/Caribbean. There was however decreases in volumes going to both regions.

Plywood





Plywood markets are shifting from being primarily dominated by North American buyers to a more levelled playing field between North America, Latin America and Europe. North America plywood market shares reduced from 65% in 1998 second quarter to 39% in 1999 second quarter. Latin America/Caribbean market shares increased from 22% to 45% and Europe from 13% to 16%. The European market is fairly new but is gradually growing as seen in the last three quarters of 1998. World Wide Wood in the UK reported that plywood producers in Guyana are said to be reasonably competitive and while they are able to obtain prices in the US to match those available from Europe, they are still just maintaining a selling presence in the European market.

7. PRICES

7.1 Domestic Prices

Prices quoted in this section are countrywide average domestic prices. The average regional prices will vary depending on location of sale; i.e. prices in Georgetown are significantly higher than the prices in the outlying regions such as Berbice and Essequibo. The Minimum band represents the lowest price the product is sold at while the maximum is the highest price for the product.

Average Domestic Prices (minimum and maximum) for 2nd Quarter 1999

Logs G$

Species	Min/cft hoppus	Max/cft hoppus	Min/m^3	Max/m^3
Baromalli	226	326	6,278	9,056
Crabwood	150	364	4,167	10,111
Greenheart	318	396	8,833	11,000
Locust	150	378	4,167	10,500
Mora	150	332	4,167	9,222
Purpleheart	282	380	7,833	10,556
Shibadan	150	339	4,167	9,417
Ulu	150	345	4,167	9,583

Dressed Lumber G$

Species	Min / bm	Max / bm	Min / m^3	Max / m^3
Crabwood	53	105	22,472	44,520
Greenheart	100	126	42,400	53,424
Locust	60	119	25,440	50,456
Mixed Hardwood	48	56	20,352	23,744
Mora	40	79	16,960	33,496
Purpleheart	80	123	33,920	52,152
Shibadan	59	93	25,016	39,432

Undressed Lumber G$

Species	Min / bm	Max / bm	Min / m^3	Max / m^3
Crabwood	49	96	20,776	40,704
Greenheart	100	130	42,400	55,120
Locust	57	130	24,168	55,120
Mora	47	73	19,928	30,952
Purpleheart	76	109	32,224	46,216
Shibadan	55	84	23,320	35,616

Other Products

Product	Unit	Min G$ / unit	Max G$ / unit
Greenheart Piles <=55'	lin ft	360	536
Kakaralli Piles <=55'	lin ft	250	500
Greenheart Piles >55'	lin ft	400	929
Kakaralli Piles >55'	lin ft	275	275
Wallaba Poles <=50'	lin ft	250	447
Wallaba Poles >50'	lin ft	280	398
Wallaba Posts 10'	post	625	706
Wallaba Posts 8'	post	321	425
Shingles	piece	8	17

Plywood

G$ / 4'x8' Average Retail Price

Width	Min Price	Max Price
5.2 mm	1,150	1,230
9 mm	1,950	1,958
12 mm	2,500	2,587
15 mm	3,100	3,100
18 mm	3,750	3,850

Plywood Prices from the mill

Width	G$ / 4'x8'	G$ / m^3
5.2 mm	914	59,047
9 mm	1522	56,809
12 mm	2011	56,296
15 mm	2525	56,548
18 mm	2925	54,588

7.2 Export Prices

The prices quoted in this section are average export prices based on exports from Guyana for the period April to June 1999. Please refer to the average exchange rate presented in the annex of the report for conversion to Guyana dollars.

Logs US$

Species	Min / cft hopp	Max / cft hopp	Min / m^3	Max / m^3
Greenheart	1.97	2.69	55	74
Mora	1.62	3.49	45	97
Purpleheart	3.24	3.24	90	90
Kabukalli	1.62	1.62	45	45
Shibadan	1.62	1.62	45	45
Mixed Hardwood	1.90	4.26	53	118

Dressed Lumber US$

Species	Min / bm	Max / bm	Min / m^3	Max / m^3
Crabwood	0.72	1.05	305	445
Greenheart	0.36	2.24	153	950
Locust	0.84	0.85	356	360
Mixed Hardwood	0.50	0.85	212	360
Mora	0.29	0.29	123	123
Purpleheart	0.72	1.60	305	678
Shibadan	1.20	1.20	509	509
Kabukalli	1.15	1.68	488	712

Undressed Lumber US$

Species	Min / bm	Max / bm	Min / m^3	Max / m^3
Crabwood	1.00	1.00	424	424
Greenheart	0.72	1.45	305	615
Locust	0.81	0.85	343	360
Mixed Hardwood	0.44	0.75	187	318
Mora	0.50	0.75	212	318
Purpleheart	0.40	1.20	170	509
Shibadan	0.64	0.64	271	271
Kabukalli	0.60	0.85	254	360

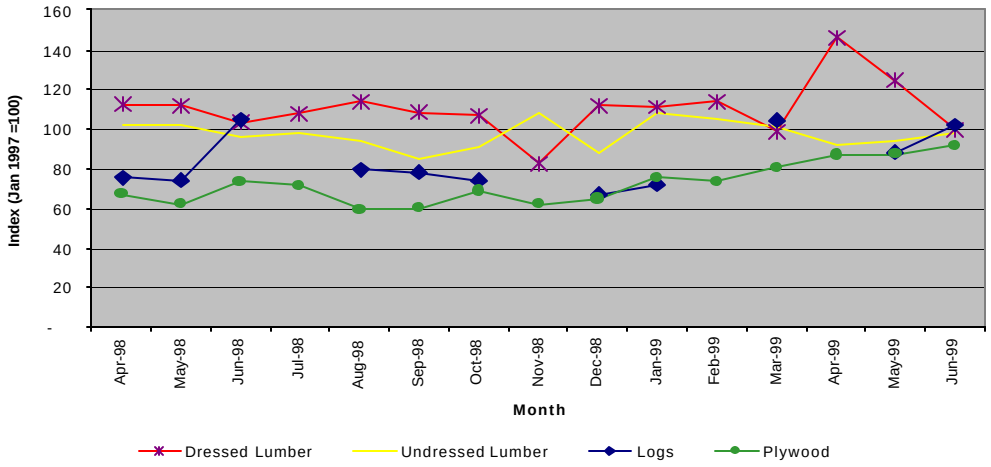
Other Products US$

Product	Unit	Min	Max
Greenheart Piles	lin ft	2.00	4.75
Wallaba Poles	lin ft	0.24	4.50
Wallaba Posts	post	0.58	0.70
Mora Sleepers	Bm	0.52	0.69
Pallets	Bm	0.03	0.51
Shingles	Bundle of 50 pieces	7.00	16.45

Plywood Prices US$

Species	Min / m^3	Max / m^3
Baromalli	155.48	428.57

Graph 8: Average F.O.B. Prices for Selected Products



Graph 8 above shows movement of average export prices for logs, dressed lumber, undressed lumber and plywood with January 1997 as the base period (Jan 1997=100)

Trends in Log prices show an upward movement. Gaps in the trend line are a result of no exports of logs for those periods. However as depicted in Graph 8, March and June log export prices are back up to January 1997 level.

There was a blip in dressed lumber prices in April, however prices returned to Jan 1997 level in June. Undressed lumber prices remained fairly stable dropping slightly in the second quarter of 1999.

Plywood prices are climbing again, almost back up to Jan 1997 levels in June, but still falling short by 9% of the base period level.

8. INTERNATIONAL TROPICAL TIMBER MARKET IN THE SECOND QUARTER OF 1999[6]

This section aims to identify some of the major international market occurrences in the second quarter of 1999.

General Issues

Overall the international market has shown continued signs of recovery from the depressed markets in 1997 and the first half of 1998. Prices are firming and demand is picking up. Supply however has been slow in the second quarter due to extended rainy seasons in many producing countries in Southeast Asia and some parts of Brazil.

The **Korean** economy is recovering faster than expected. Consumer spending is fueling the economy rather than exports and investment, which were the main engines driving the economy.

[6] Further information can be obtained from ITTO Fortnightly Tropical Timber Market Report and timber reports from internet web pages on timber trade.

With the SE Asia economic situation more stable and demand in the **UK** seeming to pick up prices are firming which is most welcome by the UK trade. Stocks are generally low and deliveries are slow so any increase in demand may be difficult to meet in the short term. Bad weather is causing a shortage in supplies from SE Asia and South America. It is becoming apparent that although the conservation lobby is still active, the loss of markets in the UK, are primarily due to poor marketing. Prices are fairly stable throughout the trade and everyone is looking for an improvement in the second half of the year. House building is on the rise but only slightly. The trend toward certification is in the softwood trade is gathering pace but traders are saying the slow response of tropical producers could become a problem if not resolved within a year or two, they fear losing further market shares to US hardwoods and softwoods.

The **Chinese** economy grew by 8.3% in the first quarter relative to the previous year and is expected to be 8% in the second quarter before slipping. The target annual growth for China for 1999 is 7%. The interior decoration market is also booming in China at present. Timber products are the main materials used in decoration e.g. flooring and walling.

It is forecast that in Guangdong, **China** timber demand will be 8 million m^3 while domestic supply will be on 3 million m^3 due to the implementation of the National Forest Protection Programme. The problem of declining log size and quality has added to the problem. In the second quarter a large amount of timber has entered China from SE Asia, Africa and South America but unfortunately just as the market revived demands seems to have stagnated again and prices are falling.

Changes in the economic environment in **Brazil** have helped to improve the domestic timber market. Demand is steadying and some price increases were experienced. Devaluation pressure on prices has also eased as the real has strengthened.

The **Indonesian** Government is set to raise the resource tax imposed on the country's timber industries from 6% to 10%, as part of the agreement with multilateral lenders. The World Bank and the IMF have been advocating a resource tax rate of 17.5%.

Draft standards on forest certification have been finalized in **Ghana** and pilot forests are due to be selected by the end of June for field trials.

In **Japan** the 1999 demand for hardwood logs from SE Asian countries is projected at around 3.7 million m^3, 6.7% down from 1998 according to Japan South-Sea Lumber Conference. Demand in various end-uses is forecast at 3.32 million m^3 for plywood manufacture, 4.4% less than 1998 and 0.38 million m^3 for sawmilling, 23.1% less than last year. The demand for plywood is forecast at about 7.9 million m^3 based on projections of housing starts for 1999 at 1.3 million units with 4.5 million m^3 of imports and 3.4 million m^3 of domestic production.

Logs

In **Sarawak** the weather is still hampering logging and stocks are reportedly low.

The rain season in some parts of the Amazon in **Brazil** is lasting longer than expected and log supplies are at a very low level.

Japanese FOB log prices are firming because of slowed logging and firming Japanese log demand driven by steady demand from plywood mills. The rising domestic plywood market prices, help lift log prices as higher consumption is anticipated. Log arrivals have been slight and in the immediate

future there is no chance to see rapid recovery of log arrivals. With higher FOB prices in the pipeline plywood mills are stepping up buying which will add more pressure to keep up prices.

PNG still suffers from unstable weather and log production continues to be slow. FOB prices are pushed up to follow Sarawak prices.

Downturn in construction permits in the housing sector in **Korea** has seriously affected timber markets and the mills returned to cutting back their production again after only a short period of increasing in operations. Imports of hardwood logs dropped in the first quarter and because of bad weather in most supply countries, prices are even higher for April shipment. Actual consumption has not much improved and imported logs are still in stocks.

China State investment in infrastructure and the continued progress of the construction and maintenance sectors has driven up demand. The timber market continues to strengthen although the pace of increase has slackened and at present supply is out-stripping demand however, log producers are reporting active business at stable prices. The Chinese government also decided to reduce timber import tariffs to zero from 2% as a January 1999 to encourage timber imports.

The **Indonesian** Government announced that, effective 16 March, it had reduced export taxes for logs, sawn timber and raw rattan to 20% from previous tax level of 30%. The measure was taken to comply with the reform programmes agreed with the IMF. Local wood product producers are complaining about this move because they are worried the tax reduction will result in a shortage of log supply to processing mills. The government also announced that they had revoked logging concessions of 14 timber companies since they failed to pay reforestation fees that were due by 1 April 1999.
The Sabah State Government recently announced that it has frozen the issuance of new timber licenses effective from mid-April.

Sawnwood

In **Brazil** exporters have reported improvement in the international market, but export levels in April remain much the same as March levels, with some price movements. Pressure to lower prices due to devaluation is not so strong. In fact exporter gains from the devaluation has been greatly offset by production costs increases, increases in sea freights (especially containers), and price reductions remain competitive with other supply countries. There is however a general feeling that demand in the international market has slowed. However, in May tropical sawnwood exports to Asia resumed and the demand is so high that Brazilian producers are finding it difficult to find the volume. As a result large trading and exporting companies are looking for alternatives. While demand is picking up, prices are still lower than before the Asian crises but are slowly improving.

1998 imports of sawnwood in **Japan** was the lowest since 1986, and arrivals continue to be low as importers are trying not to carry too much inventory.

The **Malaysian** Timber Industry Board (MTIB) announced new export tax (cess fee) rate for Malaysian timber products. The new rate was RM10.00 per cubic metre of sawn timber, plywood and BCJs. However, within the same week of implementation the Government reversed the decision bringing the cess back to RM 1.36 per m^3 amid protests from the timber industry.

In the **United States** the hardwood lumber industry has enjoyed a period of very good years which is predicted to extend into the next millennium. The hardwood industry is closely tied to homebuilding and remodeling. Housing starts are very solid and the furniture market has a rosy outlook for 1999

and beyond. On the other hand, the export market was soft due to the economic slowdowns in the Far East and Russia.

Environmentalists also have a major impact on the hardwood lumber industry in the United States. Several lawsuits have been lodged against the hardwood industry by various environmental organizations. As a result production of timber in national forests is less than half what it was a decade ago.

Plywood

The plywood market seems to be firming. FOB log prices and imported plywood prices are holding up and this is allowing importers and plywood mills in **Japan** to cover their costs. Imported plywood prices have been rising and domestic prices are following. Imported 12mm concrete form board C& F prices are staying high at US$365-370 per m^3 deliver to the wholesaler, much higher than the domestic market can bear. Indonesian thin plywood C&F is about US$535 per m^3. Due to the tight supply of thin plywood, a sharp rise in price is anticipated. Log inquiries from plywood mills are active because of declining log inventories and a firming trend in the plywood market so log prices are moving up gradually.

PNG plywood quality taun is about US$130 per m^3 FOB.

In **China**, the market and price for imported plywood are stable. Domestic plywood does not have a good market and is uncompetitive because of higher production costs.

In **Germany**, the market for imported plywood suffers from week domestic demand and prices are under continuing pressure. Undercutting and selling below cost result from high stocks and the competitive pressure exerted by the individual importer companies. This is in contrast to the development of prices in the producer countries. The North American plywood market remains unchanged in Germany while shipments from Indonesia are still delayed according to importers. Some analyst fear long term weakening of supply of plywood.

The hardwood plywood and veneer industry in the **United States** has maintained strong growth for several years. It is also reported that US plywood producers are still not interested in supplying the European market due to lively markets at home and as a result only small quantities of export qualities are being produced.

On the other hand Tropical Plywood demand is generally low in **Brazil**. Pine plywood has decreased further while increases in the cost of raw material (logs and resin) as well as container charges have taken out most of the gains plywood exporters had with the real devaluation.

During the second quarter the demand for plywood in **China** rose slightly, prices for imported plywood did not appear to rise due to large stocks and continued arrivals.

9. CALENDAR OF KEY EVENTS IN GUYANA'S FORESTRY SECTOR

Greenheart continued to be on the New York City Council's list of species pending elimination.

April

According to visiting Colombian Minister of Agriculture, Dr Carlos Durgas, Guyana stands to gain US$12.5 million a year from production of palm oil from a 5,000 hectares of land. Dr Durgas and his team were in Guyana to sign a letter of intent to assist Guyana's Intermediate Savannahs Project (INSAP).

The National Assembly passed the Customs (Amendment) Bill 1999 to implement the fourth and final phase of tariff reductions under the CARICOM Common External Trade (CET). The CET is part of the policy of the CARICOM Common Market to integrate the economies of the region by creating an enlarged and more assured market for regional producers and manufacturers.

A five days Workshop on Reduced Impact Logging (RIL) hosted by Iwokrama International Centre for Rain Forest Conservation and Development and Tropenbos Guyana and Guyana Forestry Commission that targeted key agencies from the local forestry sector, was held at Le Meridien Pegasus.

May

Unscheduled 24-hour patrols scrutinizing the transport of logs and sawn lumber has garnered in excess of G$1 million in fines and royalty for the Guyana Forestry Commission (GFC). The patrols are part of the GFC's tightened monitoring of forest operations after it was established that a large amount of illegally obtained forest produce continues to be transported to sawmills and lumber dealers at nights and during weekends.

Employees of Demerara Timbers Limited Mabura Hill operations downed tools for 2 weeks to protest the company's 3% wage increase offer.

June

Lumber trade was seriously affected by the 55 days public sector strike that resulted in 50% of sawmills closing. Many lumberyards in Georgetown were forced to cease operations by striking workers and also due to low sales brought about from instability in the City. External trade also ceased during this time due to Customs and Excise Department on strike. Due to the inability to ship products timber exporters were faced with many customers canceling orders. Production in the forests was also affected by strike due to the inability to clear necessary inputs and spare parts from the wharf as a result of the necessary paper work not being processed by the Customs Department.

Bukingham Forest Enterprises Inc, a company incorporated locally by Dutch and foreign investors, has teamed up with Guyana Forest Fund NV, a Curacao based company to form a joint venture operation to buy, process and market Guyana's timber products in the Netherlands.

President Janet Jagan signed a Memorandum of Understanding that would pave the way for Guyana's membership of MERCOSUR. MERCOSUR is a four-nation bloc in South America that represents the world's third largest trade bloc with a combined economy of US$1 trillion and 200 million people.

ANNEXES

CLASSIFICATION OF TIMBERS 1996

Ref: First Schedule, Forest Act. Amendments, 1996

Classification	Species (Local Names)	Species (Scientific Names)
Special Category	Greenheart	Chlorocardium rodiei
	Purpleheart	Peltogyne venosa
	Brown Silverballi	Licaria cannella
	Red Cedar	Cedrela odorata
	Letterwood	Brosimum guianense
	Bulletwood	Manilkara bidentata
Class 1	Crabwood	Carapa guianensis
	Yellow Silverballi	Aniba hypoglauca
	Itikiboraballi	Swartzia xanthopetala
	Locust	Hymenaea oblonifolia
	Tatabu	Diplotropis purpurea
	Determa	Ocotea rubra
	Wamara	Eperua grandiflora
	Kabukalli	Goupia glabra
	Shibadan	Aspidosperma album
	Tauroniro	Humiria balsamifera
	Manniballi	Moronobea coccinea
	Washiba	*Tabebuia* sp.
	Hakia	Tabebuia serratifolia
	Dalli	Virola spp.
	Suya	Pouteria speciosa
	Ulu	Trattinickia demerarae
	Simarupa	Quassia simarouba
	Aromata	Clathrotropis branchypetala
	Mora	Mora excelsa
	Morabukea	Mora gonggrijpii
	Hububalli	Loxopterygium sagotii
Class 2	Baromalli	Catostemma commune
	Dukalli	Parahancornia fasciculata
	Kereti Silverballi	Lauraceae spp
	Kurahara	Calophyllum lucidum
	Wabaima	Licaria cannella
	Karohoro	Schefflera decaphylla
	Baradan	Ocotea tomentella
	Ubudi	Anarcadium giganteum
	Kirikua	Iryanthera macrophylla
	Kurokai	Protium decandrum
	Maporokan	Inga alba
	Monkey Pot	Lecythis zabucajo
	Manni	Symphonia globulifera
	Pakuri	Platonia insignis
	Yaruru (Yarula)	Aspidosperma excelsum
	Muneridian	Siparuna spp.
	Wallaba	Eperua grandiflora
Class 3	Burada	Parinari campestris
	Duka	Tapirira marchandi
	Dukaria	Sacoglottis cydonioides
	Fukadi	Terminalia amazonia
	Inyak	Antonia ovata
	Limonaballi	Chrysophyllum pomiferum
	Suradan	Hyeronima alchorneoides
	White Cedar	Tabebuia insignis
	Futui	Jacaranda copaia
	Halchiballi	Pera schomburgkiana
	Haiariballi	Alexa imperatricis
	Huruasa	Abarema jupunba
	Iteballi	Vochysia schomburgkii
	Kakaralli	Eschweilera alata
	Kauta	Licania laxiflora
	Other Species	

Glossary of terms

Firewood	Include parts of trees made up into bundles or loads, or cut in a manner in which it is usual to cut wood for burning, and all refuse wood generally, but does not include straight logs or poles of any kind.
Forests	An ecosystem dominated by woody plants, consisting either of closed forest formations, where trees of various stories and undergrowth cover a high portion of the ground, or of open forest with a continuous vegetation cover in which the tree crown exceeds 10%, and includes mangrove forests and any wetlands or open lands within a forest which form an integral part of the ecosystem.
Non-timber forest products	All biological material, other than industrial roundwood, that may be extracted from natural ecosystems, either for commercial purposes, for use within the household or for social, cultural or religious purposes. Also known as non-wood forest products.
SFP	State Forest Permission: A lease, valid for 1 year, for an area up to 20,000 acres (8,094 hectares) of State forest.
Spars	Saplings 6-10 "(15-25 cm) in diameter.
Timber	Includes a tree or any ligneous part of a tree whether standing, fallen or felled, and all wood, whether or not sawn, split, hewn or otherwise cut up or fashioned.
Wattles	Saplings less than 3" (8 cm) in diameter.

Average Quarterly Exchange Rate to the United States (US) Dollar

December 1997	G$114.00=US$1
March 1998	G$149.30=US$1
June 1998	G$147.15=US$1
September 1998	G$152.61=US$1
December 1998	G$164.70=US$1
March 1999	G$174.46=US$1
June 1999	G$176.51=US$1

Source: Bureau of Statistics, Guyana

Metric Conversion Table		
To convert	**From**	**Into m^3 multiply by**
Logs	Cft hoppus	0.036
	Cft	0.0283
Mill sawn lumber	Board ft / Board Measure	0.002358
Chainsawn lumber	Board ft / Board Measure	0.002358
Piles	Linear ft	0.02
Poles	Linear ft	0.0067
Posts	Linear ft	0.0057
Paling staves	Pieces	0.00236
Vat staves	Pieces	0.001132
Shingles	Pieces	0.000566
Spars	Linear ft	0.000283
Charcoal	Lbs	0.0034
Firewood	Cords	2.83

Source: GFC, FA0

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Note:
The Guyana Forestry Commission is responsible for the provision of the domestic statistical data on forestry.