

**HIGH-VALUE AGRICULTURAL PRODUCTS OF THE FIJI ISLANDS –
PERFORMANCE AND PROSPECTS**

**K.L. Sharma
School of Economics
Faculty of Business and Economics
The University of the South Pacific
Suva, Fiji Islands**

**E-mail: sharma_kl@usp.ac.fj
Fax: +(679) 323 2138**

**A poster paper prepared for presentation at the International Association of
Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006**

Copyright 2006 by K.L. Sharma. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

HIGH-VALUE AGRICULTURAL PRODUCTS OF THE FIJI ISLANDS – PERFORMANCE AND PROSPECTS

K.L. Sharma*

Abstract

This paper analyses the performance of high-value agricultural products of Fiji Islands in terms of their production and exports during 1975-2004. Problems and key issues affecting this are discussed. The performance of agriculture was poor for traditional, semi- and highly processed products during 1975-2004. Primary products, such as copra declined by 51 percent, paddy rice by 27 percent, cocoa by 91 percent, and beef by 7 percent. Sugarcane production increased only by 12 percent in three decades. There was a substantial increase in pork, chicken, eggs, and fish production. Production of processed products, such as sugar and coconut oil decreased during the period. Butter of local content increased by 24 percent, saw log by 16 percent and stock feed by 134 percent. Volume of sugar exports declined by 12 percent, canned fish by 50 percent and coconut oil by 79 percent. There is a great potential for diversification of exports from traditional to semi- and highly processed products. Improvements in competitiveness coupled with favourable domestic trade policies are crucial for successful export performance.

Keywords: High-value products, less developed countries, South Pacific Islands, agricultural trade.

1. Introduction

High-value products (HVPs) refer to semi-and highly processed agricultural commodities, such as preserved fruits, as well as unprocessed products with high unit value, such as fresh fruits. Some important traditional exports of developing countries are considered to be high-value products, including coffee and cocoa. HVPs are divided into three categories: semi-processed, highly processed, and traditional (primary). The two categories of processed goods correspond with the degree of product transformation prior to domestic use and export. Semi-processed goods, such as vegetable oils, are items that have undergone an intermediate level of processing, generally leaving the product suitable as an input for other uses. Highly processed goods, including such items as tinned meats and fish have undergone more extensive processing and are generally consumer-ready. The traditional category includes commodities that have high unit value but little processing.

Less developed countries (LDCs) aim to have a steady transition in their HVP export composition, from traditional toward semi- and highly processed HVPs. The expansion of processed products is warranted for several reasons. Most important, the export of processed products enables the exporters to capture more value added in preparing raw

* School of Economics, The University of the South Pacific, Suva, Fiji Islands.

farm products for intermediate or consumer use, and this increases domestic employment, income and tax revenue. HVPs are worth more per unit than bulk agricultural products and transportation costs per unit would be lower. Further, LDCs are likely to benefit from diversification and greater processing of their agricultural exports (USDA 1991).

This paper analyses the performance of high-value agricultural products of Fiji Islands, a small Island economy in the South Pacific, in terms of production and exports during the period 1975-2004. Potential high-value agricultural products are identified. Problems and key issues affecting the performance are discussed. The paper is divided into six sections. In the second section, a brief description of basic economic and social indicators of Fiji is presented as a background for analyzing trends in production and exports of HVPs of agriculture. The data sources are presented in section third. Trends in production of primary and processed agricultural commodities are analyzed in section four. This section also discusses trends in processed agricultural exports. In the fifth section prospects of high-value agricultural products are discussed. Section six deals with problems and key issues of agricultural production and exports. Finally, conclusions are drawn in section seven.

2. Basic economic and social indicators

Fiji is a small open Island economy in the South Pacific region. The Fiji group comprises 364 Islands with a total land area of about 18.4 thousand km² scattered over 230 thousand km² of ocean. The two main Islands of Viti Levu and Vanua Levu contain 87 percent of total land area and 93 percent of population. Basic economic and social indicators are given in Table 1.

Table 1 *Fiji: Basic economic and social indicators*

Indicator	Data
GDP at current factor cost 2002 (F\$ million)	3443
GDP per capita at current prices 2002 (F\$)	4168
Population 2002 ('000)	826
Annual population growth rate, % (1990 - 02)	1
Land area ('000 km ²)	18
Life expectancy at birth (years)	69
Infant mortality rate (per ' 000 live births, 1999)	18
Population using adequate sanitation (% in 1999)	43
Literacy rate as percentage of population aged 15 years and above	93
Public expenditure on education (% of GDP, 2001)	4.7
Public expenditure on health (% of GDP, 2001)	2.4

Source: Bureau of Statistics, Current Economic Statistics, and Key Statistics, various issues, Suva: Government of Fiji and UN Publications.

Fiji has a population of about 826 thousand with per capita GDP of F\$4168 in 2002 (US\$ 2100). Average life expectancy is about 69 years while infant mortality is 18 per thousand live births. The literacy rate is about 93 percent of population aged 15 years and above. Public expenditure on education and health was 4.7 percent and 2.4 percent of GDP respectively in 2001. Despite remoteness, vulnerability to natural hazards, and other natural handicaps, Fiji ranks as one of the largest and most developed of the Pacific Island economies.

3. The Data

The basic data on selected agricultural commodities for primary and processed products in volume and value are drawn from the Fiji Islands Bureau of Statistics for the period 1975-2004. Agricultural production and exports fluctuate sharply from year to year. For analyzing the trend five yearly averages are used: 1975-79, 1980-84, 1985-89, 1990-94, 1995-99, and 2000-04.

4. Trends in production and exports of agricultural products

The performance of traditional (primary), semi-processed, and highly processed agricultural products is analyzed by examining the trends in production and exports using five yearly averages from 1975-79 to 2000-04.

4.1. Trends in production of primary agricultural commodities

Fiji is a primary agricultural-based economy. The main crops grown in the country include sugarcane, copra, ginger, tropical fruits and vegetables. Livestock products include beef, pork, chicken and eggs. Fish production is a major activity of the Islands.

Table 2 depicts production of selected primary agricultural commodities in five-yearly averages 1975-79 to 2000-04. Sugar cane production increased but at a decreasing rate from 27.4 to 11.8 percent during 1975-79 to 2000-04 with negative rates in between. Copra, paddy rice, tobacco, cocoa showed negative growth in production since 1975, except for some increase during 1980-84 to 1985-89. Ginger production doubled during 1975-79 to 2000-04. Production of chicken increased consistently during the period but egg production fell during recent years. Fish production increased enormously from 4.3 thousand to 19.8 thousand tons.

Similar trends are also observed by examining annual indices of production presented in Table 3 for the recent period 1995-2004 at the base 1995. New products, yaqona and root crops, increased steadily during the period. Production of sugarcane and paddy rice decreased considerably with an index 68.5 and 83.2 respectively in 2003. Overall subgroup index of crops showed a decline in production especially since 1998. The contributing factors include expiry of land leases, political instability, less incentives to

Table 2 *Volume of production of selected primary agricultural commodities - 5 years' averages*

Categories	1975 - 79	1980 - 84	1985 - 89	1990 - 94	1995-99	2000 - 04	Percentage change between 5 years' averages					
							1975-79 to 1980-84	1980-84 to 1985-89	1985-89 to 1990-94	1990-94 to 1995-99	1995-99 to 2000-04	1975-79 to 2000-04
Sugar cane ('000 tonnes)	2804.8	3571.8	3479.2	3739.4	3446.6	3135.8	27.35	-2.59	7.48	-7.83	-9.02	11.80
Copra ('000 tonnes)	25.9	22.7	26.2	13.9	12.9	12.7	-12.21	15.49	-46.86	-7.42	-1.27	-50.75
Paddy rice ('000 tonnes)	19.3	18.7	27.9	24.7	15.1	14.1	-2.91	49.29	-11.25	-38.98	-6.95	-26.93
Tobacco (tonnes)	400.4	286.8	249.2	290.6	193	292.4	-28.37	-13.11	16.61	-33.59	51.50	-26.97
Cocoa (tonnes)	105.4	177.2	318.4	281.8	91.2	9.4	68.12	79.68	-11.49	-67.64	-89.69	-91.08
Beef ('000 tonnes)	2.7	3.4	3.5	2.6	2.8	2.5	28.68	1.91	-24.94	7.24	-11.61	-6.70
Pork (tonnes)	411.2	671.6	582.6	725	762	776.6	63.33	-13.25	24.44	5.10	1.92	88.86
Goat (tonnes)	-	377.6	676.2	695	844	1025	-	79.08	2.78	21.44	21.44	-
Chicken ('000 tonnes)	1.5	3.4	4.0	6.3	8.7	10.4	132.53	17.35	55.37	39.06	19.44	604.18
Eggs ('000 tonnes)	1.2	1.8	1.9	2.3	3.1	2.7	48.43	5.13	23.02	29.57	-10.83	121.78
Fish ('000 tonnes)	4.3	10.3	11.8	14.3	15.8	19.8	142.95	14.26	21.11	10.39	25.48	365.73
Ginger ('000 tonnes)	1.5	3.5	4.5	5.1	2.5	3.0	125.01	29.52	12.23	-50.45	20.52	95.30

Source: Compiled and calculated from the basic data of Bureau of Statistics, Current Economic Statistics, and Key Statistics, various issues, Suva: Government of Fiji.

Table 3 *Annual indices of production of selected agricultural commodities*
(Base: 1995 = 100)

FSIC	Commodities	Weight	1996	1997	1998	1999	2000	2001	2002	2003	2004(p)
	Crops										
1111	Sugar cane	57.5	90.7	82.3	55.1	91.2	87.5	74.9	78.2	68.5	72.3
1116	Yaqona (kava)	6.6	102.5	126.4	122.3	122.8	117.7	174.7	154.2	129.6	82.1
1116	Root –crops	3.4	130.2	121.4	122.8	117.8	149.7	139.4	153.0	142.3	269.6
1116	Fresh vegetables	2.0	91.2	93.1	57.2	74.7	77.1	82.1	69.1	94.4	78.5
1113	Paddy rice	1.1	102.1	101.1	28.1	102.8	72.2	105.0	69.5	83.2	77.6
1112	Coconuts	1.1	102.6	107.7	146.4	154.0	122.9	154.3	133.8	88.6	138.1
1116	Fresh fruits	0.8	146.6	166.1	169.2	111.9	113.0	161.7	109.6	178.8	241.5
1116	Pulses	0.5	102.7	126.9	396.3	229.6	265.6	343.2	149.3	93.9	57.5
1114	Ginger	0.3	108.2	120.9	157.6	117.5	163.2	64.7	147.9	148.3	252.8
1115	Tobacco	0.1	176.5	212.5	122.8	171.3	230.1	286.8	175.0	283.1	100.0
	Sub-group	73.5	91.4	83.2	56.3	91.7	88.4	76.2	79.4	69.9	75.2
	Livestock										
1117	Poultry	2.3	109.6	104.5	88.7	94.3	92.0	94.0	121.2	138.8	147.2
1118	Milk and cream	0.9	105.9	105.6	113.4	97.9	81.4	91.4	94.1	96.2	101.0
1119	Beef	0.7	108.3	124.0	135.6	120.3	123.2	117.5	108.5	100.4	100.7
1119	Goat	0.6	103.1	106.1	109.4	112.6	144.9	116.7	137.0	108.5	162.8
1117	Eggs	0.4	100.0	108.7	109.3	119.6	83.0	70.6	71.5	62.5	71.4
1119	Pork	0.4	104.9	104.1	108.9	99.9	109.8	89.3	86.2	102.0	119.4
1119	Honey	0.1	135.6	153.3	137.8	177.8	222.2	262.2	240.0	219.1	222.2
	Sub-group	5.3	106.7	108.2	102.2	104.8	95.9	93.0	107.0	112.6	122.3
1300	Fish	21.2	79.7	76.1	80.1	118.1	121.3	86.2	119.1	90.1	132.2
	All groups	100.0	91.4	83.2	56.5	91.8	88.6	76.3	79.6	70.2	75.7
	All groups excluding Sugar	42.5	109.7	107.8	97.3	109.8	116.8	115.7	118.3	114.9	169.5

Source: Bureau of Statistics, Key Statistics, Suva: Government of Fiji, September 2005.

farmers in terms of technical advice, supply of farm inputs, irrigation facilities, and marketing arrangement. In livestock production poultry, goat, and honey showed significant increase during 1995-2004. Fish production increased by 32 percent in 2004 at base 1995.

4.2. Trends in production of processed agricultural products

Table 4 shows volume of production of processed agricultural products for the period 1975-79 to 2000-2004. Sugar is produced in raw and refined form. Sharps and flour are produced using completely foreign wheat input. Some butter is produced from local milk while some is manufactured from foreign input contents. Production of sugar and coconut oil decreased during the period mainly due to decline in primary production. Butter of local content increased by 24 percent, saw log by 16 percent and stock feed remarkably by 134 percent.

4.3. Trends in processed agricultural exports

A large quantity of agricultural products are exported in their raw form with a little processing such as ginger, root crops, and fruits and vegetables. Export volume of processed products is presented in Table 5. Sugar export decreased considerably by 24 percent, canned fish by 83 percent and coconut oil by 43 percent during the period 1995-99 to 2000-2004. Molasses by product of sugar, and bakery products showed fluctuations in exports over a period of time.

Table 6 shows contribution of agricultural exports in total domestic export earnings and changes from 1975-79 to 2000-04 in five yearly averages. The share of sugar in total export earnings drastically declined from 74 to 23 percent during the period. The share of other exports such as molasses, canned fish, coconut oil also declined over a period of time. The decline in these exports was especially during the period 1995-99 to 2000-04. Fresh fruits, taro (dalo), bakery products showed steady increase in their shares. The contribution of forestry products such as timber and wood manufactures increased from 1.4 percent to 6.1 percent in earnings over the period and fell by 2 percent during 2000-04 like other agricultural exports mainly due to political upheaval in the country.

Overall the share of agricultural exports in total domestic export earnings declined from 90 percent to 41 percent during the period while the share of nonagricultural exports increased. Exports of manufactured goods include chemicals, textiles, yam, made-up articles, machinery and transport equipment, garments, footwear, and gold.

Table 4 *Volume of production of processed agricultural products - 5 years' averages*

Categories	1975 - 79	1980 - 84	1985 - 89	1990 - 94	1995 - 99	2000 - 04	Percentage change between 5 years' averages					
							1975-79 to 1980-84	1980-84 to 1985-89	1985-89 to 1990-94	1990-94 to 1995-99	1995-99 to 2000-04	1975-79 to 2000-04
							Sugar (‘000 tonnes)	350	421.8	413.6	438.6	375
Coconut Oil (‘000 tonnes)	16.4	21.1	9.9	8.1	8.9	8.9	28.41	-52.86	-18.40	9.33	0.65	-45.65
Sharps (‘000 tonnes)	19.6	18.5	22.5	11.1	3.9	1.3	-5.69	21.98	-50.83	-65.01	-65.72	-93.22
Flour (‘000 tonnes)	13.6	21.1	25.6	30.1	46.5	65.2	54.57	21.54	17.43	54.56	40.23	378.15
Butter(imported content) (tonnes)	860.2	597.2	797.6	964.4	1229.4	1227	-30.57	22.56	20.91	27.48	-0.20	42.64
Butter (tonnes)	1380	905.4	1238.2	1476.2	1722.6	1712	-34.39	36.76	19.22	16.69	-0.62	24.06
Cigarettes (tonnes)	599.8	613	538.4	572.2	496	450.6	2.20	-12.17	6.28	-13.32	-9.15	24.87
Saw Log (‘000 cubic meter)	174	188.6	188.8	246.8	244.2	145.6	8.39	0.11	30.72	-1.05	-40.38	16.32
Stockfeed (‘000 tonnes)	16.1	20.3	17.8	24.8	29.3	37.6	26.55	-12.27	39.20	17.94	28.29	133.83

Source: Compiled and calculated from the basic data of Bureau of Statistics, Current Economic Statistics, and Key Statistics, various issues, Suva: Government of Fiji .

Table 5 *Volume of agricultural exports - 5 years' averages*

Category	1975 - 79	1980 - 84	1985 - 89	1990 - 94	1995 - 99	2000 - 04	Percentage change between 5 years' averages					
							1975-79 to 1980-84	1980-84 to 1985-89	1985-89 to 1990-94	1990-94 to 1995-99	1995-99 to 2000-04	1975-79 to 2000-04
							Sugar (‘000 tonnes)	309.2	396.4	394	405.2	356.4
Molasses (‘000 tonnes)	96.2	141.4	133.4	17.6	144.4	100	46.99	-5.66	-86.81	720.45	0.48	3.95
Canned fish (‘000 tonnes)	2.4	4.2	5.3	6.5	7.1	1.2	77.77	26.87	22.82	9.29	-83.47	-49.96
Coconut oil (‘000 tonnes)	16.2	14.4	8.6	6.6	6.0	3.4	-11.11	-40.28	-23.26	-9.01	-42.83	-78.82
Green Ginger (‘000 kg)	1.6	2.2	2.6	1.5	.8	-	40.13	15.13	-42.54	-47.23	-	-
Dalo (‘000 kg)	-	-	396.2	1720.8	5774.2	-	-	-	334.33	235.55	-	-
Bakery Products (‘000 kg)	766.2	893.8	896.2	1124.2	1266.8	-	16.65	0.27	25.44	12.68	-	-
Cigarettes (‘000 kg)	9	5.2	20.8	2.8	0.8	-	-42.22	300.00	-86.54	-71.43	-	-

Source: Compiled and calculated from the basic data of Bureau of Statistics, Current Economic Statistics, and Key Statistics, various issues, Suva: Government of Fiji.

Table 6 *Value of Agricultural exports – 5 years' averages*

Category	Percentage share in value of total domestic exports						Percentage change in value between 5 years' averages					
	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	1975-79 to 1980-84	1980-84 to 1985-89	1985-89 to 1990-94	1990-94 to 1995-99	1995-99 to 2000-04	1975-79 to 2000-04
	Sugar	73.66	66.60	48.56	39.05	30.94	22.80	43.60	31.42	33.86	13.10	-15.05
Molasses	2.58	6.67	2.61	1.92	1.88	1.07	309.78	-29.45	22.39	40.00	-34.60	223.96
Canned Fish	4.06	6.95	7.22	5.93	3.16	0.39	150.85	102.16	36.55	23.99	-85.81	-25.29
Fresh Fish	0.31	0.22	1.15	2.04	3.51	6.48	11.37	858.45	194.77	145.09	113.23	16344.29
Coconut Oil	6.32	4.91	1.32	0.66	0.81	0.40	22.95	-51.64	-16.29	74.73	-42.61	-50.08
Green Ginger	0.75	1.02	0.81	0.38	0.16	-	113.32	49.29	-24.84	-38.13	-	-
Other Ginger	-	-	0.07	0.23	0.10	-	-	-	408.88	-39.15	-	-
Dalo	-	-	0.10	0.40	1.04	1.66	-	-	-	553.23	270.60	83.58
Bakery Products	0.45	0.49	0.41	0.32	0.31	-	70.93	50.84	30.98	35.67	-	-
Cigarettes	0.04	0.03	0.03	0.01	-	-	30.80	68.39	-47.32	-90.91	-	-
Mineral Water	-	-	-	-	-	3.51	-	-	-	-	-	-
Timber & Wood	1.41	2.34	4.99	5.69	6.08	4.19	163.12	284.14	89.77	525.50	-20.62	2222.27
Manufactures												
Total Agricultural Exports	89.58	88.72	67.32	56.63	48.00	40.51						
Other Exports	10.42	11.28	32.68	43.37	52.00	59.49	71.37	422.08	120.89	71.16	31.90	-
Total Domestic Exports (F\$ mm)	123.9	196.0	353.3	588.1	839.4	967.8	58.24	80.24	66.46	42.73	15.29	681.28

Source: Compiled and calculated from the basic data of the Bureau of Statistics, Current Economic Statistics, and Key Statistics, various issues, Suva: Government of Fiji.

5. Prospects of high-value agricultural products

Fiji is endowed with a rich natural resource base, including abundant stocks of forests, minerals and fisheries resources. Key agricultural commodities include sugarcane, root crops, fresh fruits and vegetables, poultry products and fish. Fiji still exports mostly traditional (primary) HVPs to its neighboring countries Australia, New Zealand and the Pacific countries. There is a great potential to increase the production of traditional products, such as sugar, ginger, taro, copra, fresh fruits and vegetables for diversification to semi- and highly processed exports.

For semi-processed goods, the volume of fresh fish, coconut oil, ginger products, milk and cream, frozen chicken, roots and tubers, honey, timber and wood manufactures need to be increased. Cut flower potential is still untapped. Similarly markets for spices need to be explored.

For diversification highly processed agricultural products has a potential for exports for Fiji. These include fruit juices (mangoes, guavas, passion fruits, pineapples), preserved fruits and vegetables, dairy products (butter, cheese), wine and beer. The demand for these products can be generated in neighboring countries on competitive basis.

6. Problems and key issues of production and exports

The performance of agricultural has been poor since 1995 in terms of production and exports of agricultural commodities. There are some critical institutional constraints which hindering the performance. The Property rights of land (land tenure system) are a major constraint (Prasad and Tisdell 1996). Others include availability and cost of credit, technological adaptation, marketing and pricing of agricultural products, and rural infrastructure (Sharma 2003). These supply-side factors are also crucial for successful export performance. Productivity improvement, agricultural research and extension, and infrastructure development are key issues for success.

Improvement in competitiveness is an essential factor for export performance. This would ease demand conditions for exports in international market. Domestic policies related to trade liberalization and exchange rate need to be favourable for the improvement.

7. Conclusions

High-value products play an important role in export earnings of Fiji Islands. The performance of agriculture was poor for traditional, semi- and highly processed agricultural products during 1995-2004. During the period 1995-99 the share of traditional products, such as sugar, molasses, ginger, and taro accounted for 34 percent. Semi-processed products, such as fresh fish, coconut oil, timber and wood products, contributed 10.4 percent to exports. Highly processed products including canned fish and

bakery products constituted a 3.5 percent share in total exports. Fiji has a great potential to diversify from traditional to semi- and highly processed products. Further there are opportunities for exploring markets for new products like cut flower and spices. Improvement in competitiveness is an essential factor in determining the export performance. Favorable domestic policies related to trade liberalization and exchange rate would export earnings.

Acknowledgement

The author gratefully acknowledges computational assistance from Ms Nalini Lata, School of Economics at the University of the South Pacific.

References

- Bureau of Statistics (2000). Current Economic Statistics, Suva: Government of Fiji.
- Bureau of Statistics (2004). Key Statistics, Suva: Government of Fiji.
- Prasad, B. and Tisdell, C. (1996). "Institutional Constraints to Economic Development: The Case of Native Land Rights in Fiji", *Asia Pacific Development Journal*, 3(2), 49-71.
- Sharma, K.L. (2003). "Growth Inequality and Poverty in Fiji Islands: Institutional Constraints and Key Issues", a paper presented at the 25th International Conference of Agricultural Economists, Durban, South Africa.
- U.S. Department of Agriculture, Economic Research Service (1991). *Less Developed Countries Performance in High-Value Agricultural Trade*, Report April 1991, Washington DC, USA.