

Producer Price Index - Agriculture (PPI-A)

(January – March 2002)

1. Introduction

The Producer Price Index-Agriculture (PPI-A) gives a measure of the average change in the selling prices which producers receive for their agricultural products.

The PPI-A with base year 1993=100 was compiled and published for the first time in 1996. The weights were then derived as the arithmetic mean of production for the years 1990, 1991 and 1992, valued at average prices in 1993. In order to reflect changes in the production pattern of agricultural products, a new set of weights has been calculated based on average production for the period 1996 to 1998, and valued at the average prices in 1997. The base period has accordingly been changed to 1997.

PPI-A for the months of January, February and March 2002 based on the new weighting pattern and base period, as well as monthly indices for 2000 and 2001 on the old base, are presented in this issue of the "Economic and Social Indicators"

2. Methodology

2.1 Weighting scheme

The weights are derived by multiplying the average of production during 1996, 1997 and 1998 by the average of unit prices in 1997. The weight is assigned to each commodity group on the basis of total production (as a proxy for sales) pertaining to the particular group. At commodity level, the weights are apportioned within the commodity group on the basis of production of each product.

Table 1 shows the previous and new sets of weights.

2.2 Coverage

The PPPI-A covers about 90% of total agricultural production, excluding forestry and fishing.

2.3 Price Collection

In principle, prices collected should refer to farm-gate prices, but it is extremely difficult to obtain such prices for vegetables, not only because of the enormous resources to be mobilised but also because of the unavailability of a list of planters. Hence, in lieu of the farm-gate price, the wholesale price of the produce is recorded at the two auction markets (Vacoas and Port-Louis) once a week.

In the case of commodities for which prices are fairly stable, data suppliers are visited on a quarterly basis, but prices are collected for each month of the quarter.

Prices of the main commercial crops like sugarcane, tea leaf and tobacco leaf, which are normally fixed for the crop year, are supplied by the respective marketing agencies.

2.4 Index calculation

The PPI-A is calculated according to a modified Laspeyres formula:

$$I_t = \frac{\sum W_i(P_{ti}/P_{oi}) \times 100}{\sum W_i}$$

Where :

I_t is the index for the current period t

P_{ti} is the price of commodity i in the current period t

P_{oi} is the price of the commodity i in the reference period o (1997)

W_i is the weight associated with commodity i

3. Producer Price Index - Agriculture : 1st Quarter 2002

3.1 Structure of the PPI-A (Base period: 1997=100)

The PPI-A covers two sub-groups, namely "Crop Products" and "Animals and Animal Products". "Crop Products" is further subdivided into "Sugar Cane" and "Other Crop Products". Sugar cane heavily influences both the "overall" index and that of sub-group "Crop Products", of which it constitutes 69.6% and 82.2% respectively. The price of sugar cane itself becomes available in final form only at the end of the crop year (July to June) and this price is assumed to have prevailed during the whole of the crop year.

3.2 Changes in the monthly index

The PPI-A stood at 124.9 at the end of March 2002, following consecutive increases of 3.4%, 6.2% and 2.2% in January, February and March respectively. Compared to December 2001, this represents a rise of 12.2% (Table 2).

The index for the sub-group "Crop Products", which carries 84.6% of the total weight, rose by 14.4% from December 2001 to 127.2 in March 2002. The rise is mainly attributable to changes in the prices of fresh vegetables and fruits. A general increase in the prices of vegetables and fruits, following the passage of cyclone Dina in January 2002, has pushed the sub-index "Other Crop Products" by 21.0% in January, 28.1% in February and 8.8% in March.

The index for the sub-group "Animal and Animal Products" declined by 2.1% in January mainly because of drops in the prices of pigs (5.7%) and eggs (6.2%). In February, the index rose by 2.3% mainly as a result of increases in the prices of pigs (9.8%) and of eggs (6.0%). The index remained unchanged during the month of March.

More details of changes on a month-to-month basis are given in Table 4 and changes over the corresponding month of the previous year in Table 5.

3.3 Changes in the quarterly index

Percentage changes on a quarterly basis and the net contributions of commodity groups and products to the change are given in Table 6. The overall index for the first quarter of 2002 showed a rise of 9.5% over the previous period and a substantial increase of 19.0% over the corresponding quarter of 2001.

4. Comparison with previous series

Table 7 summarises the monthly, quarterly and yearly indices since 1998. Indices for 1998 to 2001 have been worked out using 1993 as base period, while those for the first quarter of 2002 have been calculated with 1997 as base period.

The two series are therefore not strictly comparable since they are based on different weighting patterns. However, for certain purposes, a comparison between the old and new series may be necessary. A crude method for converting an index from the new base (1997=100) to the old base (1993=100) is to multiply it by the coefficient 1.370.

For example, the index for January 2002, which stands at 115.1 on the new base, works out to $115.1 \times 1.370 = 157.7$, when referred to the old base.

Central Statistics Office
Ministry of Economic Development, Financial Services and Corporate Affairs
Port Louis

June 2002

CONTACT PERSON

Mr. B.Unmar
Statistician (Agriculture Unit)
Central Statistics Office
Rose Hill
Tel. 467-2944/5
Fax 465-0941

Table 1 : Weights by commodity group, previous and new base periods

Commodity Group	Previous Weight	New Weight
	Base period: 1993	Base period : 1997
Crop Products	<u>871.0</u>	<u>846.2</u>
Sugar cane	719.3	695.9
Other crop products	151.7	150.3
Cereal	1.9	*
Root Crops	16.0	13.2
Fruits	21.9	18.7
Fresh vegetables	68.2	89.4
Flowers, Ornamental plants	11.2	14.2
Tea	21.2	8.8
Tobacco	11.3	6.0
Animals & Animal Products	<u>129.0</u>	<u>153.8</u>
Cattle	5.5	4.2
Pigs	7.0	6.2
Goat	4.0	1.4
Sheep	0.3	*
Deer	6.4	6.2
Poultry	56.9	86.2
Eggs	33.8	43.2
Milk	14.7	6.4
Honey	0.4	*
Total	1,000.0	1,000.0

* : not significant (less than one) and not considered in the new set of weights

Monthly Producer Price Index -Agriculture (PPI-A)

(Base period: Year 1997=100)

Table 2: Monthly indices by commodity groups and products, January - March 2002

Commodity Group	Weight	2002			1st Quarter ²
		January	February	March	
Crop Products					
Sugar cane ¹	846.2	116.1	124.0	127.2	121.7
Other crop products	695.9	107.0	107.0	107.0	107.0
Root Crops	150.3	158.1	202.6	220.5	189.7
Fruits	13.2	138.2	164.2	179.2	144.4
Fresh vegetables	18.7	157.1	139.0	125.5	147.3
Flowers, Ornamental plants ¹	89.4	171.3	246.3	277.8	225.9
Tea ¹	14.2	114.2	112.8	107.9	111.6
Tobacco ¹	8.8	137.3	137.3	137.3	137.3
Animals & Animal Products	6.0	143.3	143.3	143.3	143.3
Cattle	153.8	109.7	112.2	112.2	111.4
Pigs	4.2	84.8	84.8	84.8	84.8
Goat	6.2	106.8	117.3	117.3	113.8
Deer	1.4	112.2	112.2	112.2	112.2
Poultry	6.2	128.9	128.9	128.9	128.9
Eggs	86.2	106.5	106.7	106.7	106.6
Milk	43.2	117.5	124.5	124.5	122.2
Overall Index	6.4	100.0	100.0	100.0	100.0
	1,000.0	115.1	122.2	124.9	120.1

¹ Provisional

² Quarterly indices have not been derived as the arithmetic mean of the monthly indices

Monthly Producer Price Index -Agriculture (PPI-A)
 (Base period: Year 1993=100)

Table 3(a) : Monthly indices by commodity groups and products, January - December 2001

Commodity Group	Weight	2001											
		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Crop Products	871.0	138.3	141.3	139.9	142.5	144.7	146.2	143.8	141.8	139.8	140.5	141.3	144.1
Sugar cane	719.3	140.9	140.9	140.9	140.9	140.9	140.9	141.9	141.9	141.9	141.9	141.9	141.9
Other crop products	151.7	126.0	143.4	135.3	149.8	162.9	171.5	152.6	141.4	129.9	133.8	138.4	154.8
Cereal	1.9	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
Root Crops	16.0	184.2	209.6	212.8	202.8	237.9	220.4	218.1	217.8	216.3	205.5	215.8	215.6
Fruits	21.9	153.6	140.3	145.9	146.9	150.8	142.7	145.5	150.6	155.2	145.5	136.0	142.7
Fresh vegetables	68.2	104.4	141.8	121.3	157.2	177.0	202.7	156.1	129.2	101.8	119.0	129.8	164.0
Flowers, Ornamental plants	11.2	107.8	106.1	104.7	95.6	94.9	96.3	121.2	123.3	128.1	109.6	110.0	111.4
Tea	21.2	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5
Tobacco ¹	11.3	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9
Animals & Animal Products	129.0	121.2	125.2	124.3	125.2	127.0	131.9	134.2	133.7	130.9	128.5	126.8	126.8
Cattle	5.5	94.4	94.4	94.4	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
Pigs	7.0	96.0	101.3	106.3	121.3	121.3	121.3	127.4	127.4	127.4	127.4	127.4	127.4
Goat	4.0	147.9	147.9	147.9	147.9	147.9	147.9	147.9	147.9	147.9	147.9	147.9	147.9
Sheep	0.3	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7
Deer	6.4	140.1	140.1	140.1	140.1	140.1	148.0	148.0	148.0	148.0	149.5	149.5	149.5
Poultry	56.9	120.8	120.8	120.8	120.8	120.8	120.8	120.8	120.8	120.8	120.8	121.3	121.3
Eggs	33.8	124.9	139.1	134.4	134.4	141.0	158.2	165.6	163.7	153.3	144.0	136.7	136.7
Milk	14.7	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
Honey	0.4	163.5	163.5	164.6	176.2	176.2	184.3	184.3	175.7	167.0	165.2	165.2	165.2
Overall Index	1,000.0	136.1	139.2	137.9	140.3	142.4	144.4	142.6	140.8	138.7	139.0	139.4	141.9

¹ Provisional

Monthly Producer Price Index -Agriculture (PPI-A)

(Base period: Year 1993=100)

Table 3(b) : Monthly indices by commodity groups and products, January - December 2000

Commodity Group	Weight	2000											
		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Crop Products	871.0	145.6	156.5	160.1	154.3	151.2	148.0	140.5	142.8	141.2	139.0	137.5	136.5
Sugar cane	719.3	150.7	150.7	150.7	150.7	150.7	150.7	140.9	140.9	140.9	140.9	140.9	140.9
Other crop products	151.7	121.6	183.8	204.6	171.4	153.5	135.0	138.3	151.6	142.8	129.8	121.1	115.4
Cereal	1.9	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
Root Crops	16.0	189.1	237.0	241.3	306.1	269.2	234.3	193.9	191.4	193.3	184.3	189.1	187.4
Fruits	21.9	140.9	143.3	201.7	200.5	199.3	191.5	191.1	219.9	211.9	162.5	166.2	138.8
Fresh vegetables	68.2	94.3	220.7	249.1	161.7	130.9	100.2	116.1	136.1	118.6	107.2	86.2	82.7
Flowers, Ornamental plants	11.2	127.3	127.5	117.0	108.6	109.0	109.9	116.7	122.1	122.1	124.6	121.1	120.6
Tea	21.2	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5
Tobacco	11.3	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9
Animals & Animal Products	129.0	111.7	111.7	111.4	114.7	118.1	120.6	123.7	123.7	119.3	115.7	114.9	117.5
Cattle	5.5	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4
Pigs	7.0	93.6	93.6	93.6	93.6	88.3	88.3	78.8	78.8	78.8	88.3	88.3	95.7
Goat	4.0	147.9	147.9	147.9	147.9	147.9	147.9	147.9	147.9	147.9	147.9	147.9	147.9
Sheep	0.3	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7
Deer	6.4	133.2	133.2	133.2	133.2	133.2	133.2	139.0	139.0	139.0	140.1	140.1	140.1
Poultry	56.9	116.6	116.6	116.6	116.6	116.6	116.6	120.2	120.2	120.2	120.2	120.2	120.8
Eggs	33.8	97.6	97.5	96.2	108.7	123.0	131.5	139.0	139.0	122.1	106.3	102.3	110.8
Milk	14.7	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
Honey	0.4	156.5	160.0	160.0	160.0	166.9	166.9	168.7	172.2	170.4	163.5	163.5	163.5
Overall Index	1,000.0	141.2	150.7	153.8	149.2	146.9	144.5	138.3	140.3	138.4	136.0	134.6	134.0

Monthly Producer Price Index -Agriculture (PPI-A)

Table 4 : Percentage changes from previous month by commodity groups and products , April 2001 - March 2002

Commodity Group	Percentage changes from											
	Mar 01 to Apr 01	Apr 01 to May 01	May 01 to June 01	June 01 to July 01	July 01 to Aug 01	Aug 01 to Sept 01	Sept 01 to Oct 01	Oct 01 to Nov 01	Nov 01 to Dec 01	Dec 01 to Jan 02	Jan 02 to Feb 02	Feb 02 to Mar 02
Crop Products	3.6	2.9	1.5	4.8	-2.0	-1.7	1.6	-1.3	3.4	4.4	6.8	2.6
Sugar cane	0.0	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other crop products	19.5	13.3	6.5	-11.5	9.3	-8.9	9.4	-6.8	18.8	21.0	28.1	8.8
Root Crops	17.8	0.5	6.0	16.1	-0.1	0.2	-0.4	0.1	0.5	-2.0	18.8	9.1
Fruits	1.2	5.1	-0.8	0.5	3.9	12.5	45.4	-23.5	18.2	17.3	-11.5	-9.7
Fresh vegetables	31.3	19.9	8.6	-20.3	-15.6	-17.9	10.6	-5.3	30.0	31.9	43.8	12.8
Flowers, Ornamental plants	-5.7	-0.5	2.9	23.5	1.8	3.8	-13.1	-2.6	1.7	1.5	-1.2	-4.3
Tea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tobacco	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Animals & Animal Products	0.5	1.4	4.3	1.6	-0.3	-2.3	-2.4	-1.8	-0.1	-2.1	2.3	0.0
Cattle	3.3	0.0	0.0	-2.6	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pigs	13.9	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	-5.7	9.8	0.0
Goat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deer	0.0	0.0	5.6	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0
Poultry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0
Eggs	0.0	4.6	12.5	4.0	-0.9	-6.2	-7.1	-5.9	-0.2	-6.2	6.0	0.0
Milk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall Change	3.1	2.6	2.0	4.3	-1.7	-1.8	0.9	-1.4	2.9	3.4	6.2	2.2

Monthly Producer Price Index -Agriculture (PPI-A)

Table 5 : Percentage changes from corresponding month of previous year by commodity groups and products , April 2001 - March 2002

Commodity Group	Percentage changes from											
	Apr 00 to Apr 01	May 00 to May 01	Jun 00 to Jun 01	Jul 00 to Jul 01	Aug 00 to Aug 01	Sept 00 to Sept 01	Oct 00 to Oct 01	Nov 00 to Nov 01	Dec 00 to Dec 01	Jan 01 to Jan 02	Feb 01 to Feb 02	Mar 01 to Mar 02
Crop Products	-5.2	-1.9	2.6	12.2	8.2	7.2	10.6	10.6	15.4	18.2	23.3	29.7
Sugar cane	-6.4	-6.4	-6.4	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
Other crop products	-0.2	17.0	45.9	21.3	1.1	-4.6	13.0	13.3	41.3	53.6	74.5	115.5
Root Crops	-34.3	-22.3	-2.7	14.4	13.4	14.9	13.5	15.7	15.6	16.7	61.8	85.9
Fruits	-26.2	-21.6	-22.5	-21.6	-28.7	-17.9	40.7	-15.3	8.1	20.4	23.3	52.7
Fresh vegetables	11.3	36.8	91.3	37.0	3.7	-10.1	11.1	28.7	80.9	95.3	111.6	175.0
Flowers,Ornamental plants	-0.2	-0.9	0.9	16.5	12.8	17.1	-0.4	0.2	2.2	4.6	4.5	4.1
Tea	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tobacco	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.0	0.0
Animals & Animal Products	8.8	7.4	8.6	8.1	7.8	9.4	11.6	10.1	7.4	1.3	0.1	1.0
Cattle	3.3	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Pigs	29.2	37.1	37.1	60.6	60.6	60.6	43.8	43.8	32.9	24.9	30.3	23.9
Goat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deer	5.1	5.1	6.4	6.4	5.6	5.6	6.9	6.9	6.9	6.9	6.9	6.9
Poultry	1.7	1.7	1.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4
Eggs	23.5	16.7	19.9	18.5	17.5	24.2	36.3	31.1	21.1	0.0	-4.6	-1.3
Milk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall Change	-3.1	-0.4	3.6	11.6	8.2	7.5	10.7	10.5	14.0	15.3	19.3	24.8

Quarterly Producer Price Index -Agriculture (PPI-A)

Table 6: Quarterly changes (%) and Net Contributions of commodity groups and products to the change, 1st Quarter 2001 - 1st Quarter 2002

Commodity Group	Percentage Changes from previous quarter				Percentage Changes from corresponding quarter of previous year				Net Contributions from			
	1st Qr 01 to 2nd Qr 01	2nd Qr 01 to 3rd Qr 01	3rd Qr 01 to 4th Qr 01	4th Qr 01 to 1st Qr 01	2nd Qr 00 to 2nd Qr 02	3rd Qr 00 to 3rd Qr 01	4th Qr 00 to 4th Qr 01	1st Qr 01 to 1st Qr 02	1st Qr 01 to 2nd Qr 01	2nd Qr 01 to 3rd Qr 01	3rd Qr 01 to 4th Qr 01	4th Qr 01 to 1st Qr 02
Crop Products	5.2	4.5	0.0	11.5	-0.9	9.2	12.0	22.7	4.40	3.98	0.00	10.66
Sugar cane	0.0	10.1	0.0	0.0	-6.4	10.1	10.1	0.00	6.82	0.00	0.00	0.00
Other crop products	27.3	-13.8	-0.2	59.7	23.4	5.7	21.0	75.0	4.45	-2.86	-0.03	10.66
Root Crops	2.7	19.3	-0.1	2.7	-15.4	14.4	15.2	25.8	0.04	0.30	0.00	0.05
Fruits	-27.4	8.7	39.8	13.0	-23.4	-22.6	5.2	24.6	-0.61	0.14	0.69	0.32
Fresh vegetables	57.3	-26.2	-4.9	103.9	48.5	9.7	36.3	125.0	5.14	-3.70	-0.51	10.29
Flowers, Ornamental plants	-8.0	28.8	-11.4	-0.5	-0.1	15.5	0.6	4.4	-0.12	0.40	-0.21	-0.01
Tea	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Tobacco	0.0	0.0	0.0	0.0	10.4	10.4	0.0	0.0	0.00	0.00	0.00	0.00
Animals & Animal Products	3.5	4.0	-5.2	-1.2	8.2	8.5	9.6	0.8	0.60	0.71	-0.95	-0.22
Cattle	3.3	-0.8	0.8	0.0	3.3	3.2	3.3	3.3	0.01	0.00	0.00	0.00
Pigs	19.8	4.9	0.0	0.5	34.4	60.6	39.9	26.3	0.11	0.03	0.00	0.00
Goat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Deer	1.9	3.7	1.2	0.0	5.6	6.2	6.9	6.9	0.01	0.03	0.01	0.00
Poultry	0.0	0.0	0.1	0.2	1.7	0.2	0.2	0.3	0.00	0.00	0.01	0.02
Eggs	8.7	10.9	-14.8	-4.5	19.9	20.0	29.3	-2.0	0.47	0.64	-0.96	-0.25
Milk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Total	5.0	4.4	-0.8	9.5	0.5	9.1	11.7	19.0	5.00	4.70	-0.90	10.40

Table 7: Producer Price Index - Agriculture, January 1998 to March 2002

Month	Base: 1993 = 100				Base: 1997=100
	1998	1999	2000	2001	
January	138.4	153.5	141.2	136.1	115.1
February	141.1	154.5	150.7	139.2	122.2
March	155.4	155.7	153.8	137.9	124.9
<i>1st Quarter</i>	<i>145.0</i>	<i>154.0</i>	<i>147.3</i>	<i>137.4</i>	<i>120.1</i>
April	154.6	159.7	149.2	140.3	
May	143.0	157.3	146.9	142.4	
June	140.3	154.3	144.5	144.4	
<i>2nd Quarter</i>	<i>145.4</i>	<i>157.0</i>	<i>146.5</i>	<i>142.5</i>	
July	150.8	146.5	138.3	142.6	
August	151.5	146.4	140.3	140.8	
September	151.2	143.6	138.4	138.7	
<i>3rd Quarter</i>	<i>151.5</i>	<i>145.4</i>	<i>138.8</i>	<i>140.6</i>	
October	151.3	143.7	136.0	139.0	
November	150.1	144.4	134.6	139.4	
December	151.2	143.4	134.0	141.9	
<i>4th Quarter</i>	<i>150.7</i>	<i>143.5</i>	<i>134.6</i>	<i>140.2</i>	
Year	147.3	149.0	138.3	140.5	