
# Thematic analysis

Agriculture

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# INTRODUCTION

This report will attempt to provide the most correct thematic analysis of the recently held Fifth Agricultural Census and the regular statistics reports.

It should be noted that the Fifth Agricultural Census was carried out in the following areas:

- The coastal plain (in 2008);
- Paramaribo and the interior on a random sample basis (in 2009).

The regular statistics figures by the Statistics Department of the Ministry of Agriculture, Animal Husbandry and Fisheries provides an annual overview of the agricultural situation in Suriname.

Considering the above it can be stated that there are differences to be observed.

Nevertheless, the thread will be followed, allowing for conclusions and recommendations to be made to bring the Agricultural sector in Suriname on a higher level.

# 1 AGRICULTURAL CROPS AND PRODUCE

## 1.1 Area under cultivation with agricultural crops

According to the last Fifth Agricultural Census Suriname has 10,234 farms. These cover a total surface area of 63,989.48 ha and fall under the following land titles:

- 21,084.63 ha (33 %) : land rented from the Government for a long period (> 40 years)
- 10,010.29 ha (16 %) : land rented from the Government for a short period (≤ 40 Year)
- 14,636.59 ha (23 %) : land under ownership title
- 4,689.23 ha (7 %) : use
- 3,733.18 ha (6 %) : land rented from private parties
- 1,312.47 ha (2 %) : occupation
- 504.64 ha (1 %) : allocated
- 7,342.55 ha (11 %) : Other
- 675.89 ha (1 %) : Not mentioned

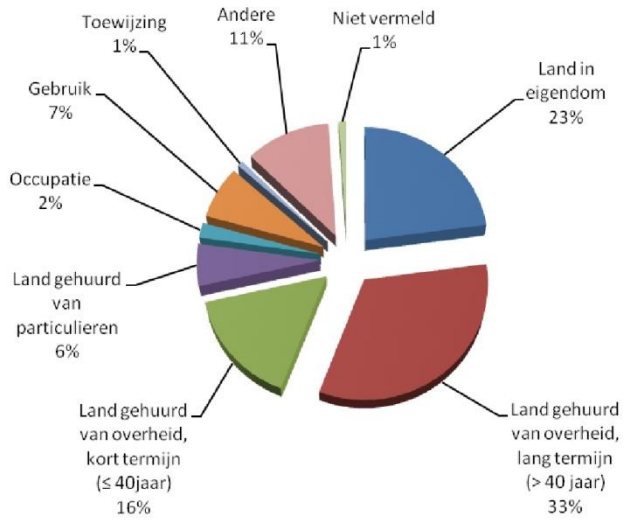



Figure 1: Surface area in percentages according to title on the land
*Source : Statistic data Fifth Agricultural census*

Figure 1 shows that about half of the total land area, which is used by farmers for production activities, are leased from the government. Of the total land area only 23% has an ownership title. The remaining 27% is used by farms to generate income, but they have no legal title to the land in question. From this distribution, the conclusion can be drawn that individuals within this sector have a more or less dependent position with respect to their income security and therefore their food security.

Land rent or lease is common in Suriname. As a result of the developments regarding plots and land in recent decades on the basis of the above figures, the following questions arose:

- How secure is the farmer in terms of his source of income, which falls in the 16% / 33% - land leased from the government for the short term / long term?
- What can the government do to guarantee the income security of the farmer?

The Fifth Agricultural Census indicates that of 63989.48 hectares, 35% is used for growing annual crops, semi-perennial crops and perennial crops.

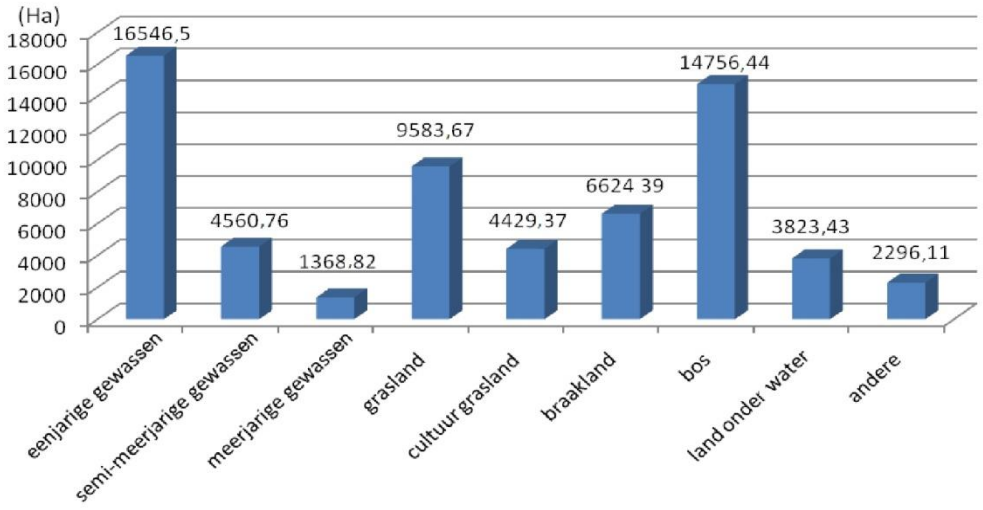



Figure 2: Farm acreage according to land use
*Source : Statistic data Fifth Agricultural census*

Figure 2 shows that 16546.5 hectares are used for the cultivation of annual crops, 4560.76 for semi-perennial crops, and 1368.82 for perennial crops.

However, the regular national statistical data, Table 1, indicate that annual and perennial crops occupy a larger area while semi-perennial crops occupy less surface area.

Table 1: Total rural area under cultivation (in ha) with annual, semi-perennial and perennial crops

| Area under cultivation (in ha): | 2008 | 2009 | 2010 |
|---|---|---|---|
| ANNUAL CROPS | 44,635 | 55,665 | 54,758 |
| SEMI-PERENNIAL CROPS | 2,221 | 2,422 | 2,555 |
| PERENNIAL CROPS | 2,704 | 3,019 | 3,004 |

*Source : Agricultural statistical data 2004-2009*

In the introduction was already stated that there will differences between the two data. The classification of crop groups may also have played a role.
In the Fifth Agricultural Census annual crops included the following crop groups: leafy vegetables, fruiting vegetables, legumes, grains and tubers, while in the regular statistic data are included: paddy, maize, cassava, other tubers, peanuts (shelled), mung beans, other legumes , vegetables and watermelon.

Also in the semi-perennial crops a difference in categorization is found:
Crop groups according to the Fifth Agricultural Census: bananas, Lady Finger bananas, papaya, pineapple, passion fruit and sugar cane. Crop groups according to the regular statistics are: Lady Finger bananas, bananas, pineapple and passion fruit.

Perennial crops, according to the Fifth Agricultural Census: avocado, carambola, West Indian cherry, mango and various citrus fruits.
For the regular statistics these are: coconuts, oranges, grapefruit, other citrus, papaya, mango and avocado.

Because there no consistent crop group classification is used, it is difficult to draw conclusions.

It should be noted that in the agricultural sector papaya does not belong to the perennial crops, but the semi-perennial crops due to the fact that the plant goes after about 9 months in production and after a period of 3 - 4 years dies or or stops producing.
Perennial crops last many years longer with their production.

Both from the data of the Fifth Agricultural Census as the regular statistics can be noted that the largest area planted is for annual crops. This is probably because of the crop group grains, more in particular rice.

## 1.2 Production of agricultural crops

Table 2: overview of the amount of acreage under cultivation (in ha) of annual crops and the quantity of production (in tons) in the period 2000-2010

| DESCRIPTION | Unit | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANNUAL CROPS: | | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dry paddy | Area under cultivation (in ha) | 41,995 | 50,786 | 40,050 | 52,425 | 49,020 | 45,563 | 44,232 | 42,087 | 43,654 | 54,492 | 53,555 |
| | Prod. (in tons) | 163,655 | 191,315 | 157,105 | 193,685 | 174,490 | 163,955 | 182,659 | 179,012 | 182,877 | 229,370 | 226,686 |
| Maize | Area under cultivation (in ha) | 21 | 36 | 31 | 28 | 26 | 19 | 20 | 18 | 12 | 10 | 15 |
| | Prod. (in tons) | 40 | 70 | 61 | 65 | 73 | 35 | 46 | 39 | 27 | 24 | 35 |
| Cassava | Area under cultivation (in ha) | 192 | 265 | 225 | 200 | 199 | 187 | 206 | 155 | 115 | 142 | 168 |
| | Prod. (in tons) | 3,041 | 5,236 | 4,213 | 4,234 | 4,891 | 3,754 | 4,120 | 3,948 | 2,894 | 3,931 | 4,243 |
| Other tubers: Sweet potatoes, pomtayer, Chinese tayer (taro) and purple sweet potato | Area under cultivation (in ha) | 85 | 86 | 74 | 71 | 66 | 84 | 79 | 71 | 73 | 60 | 59 |
| | Prod. (in tons) | 874 | 911 | 746 | 748 | 661 | 1,092 | 1,219 | 1,087 | 1,225 | 719 | 878 |
| Peanuts (shelled) | Area under cultivation (in ha) | 203 | 216 | 188 | 211 | 185 | 101 | 62 | 51 | 10 | 23 | 21 |
| | Prod. (in tons) | 254 | 265 | 1207 | 308 | 268 | 146 | 87 | 64 | 17 | 27 | 31 |
| Mung bean | Area under cultivation (in ha) | 131 | 149 | 102 | 126 | 112 | 121 | 75 | 94 | 50 | 100 | 85 |
| | Prod. (in tons) | 148 | 169 | 111 | 113 | 107 | 121 | 75 | 89 | 49 | 104 | 92 |
| Other legumes: soy and marrowfat peas | Area under cultivation (in ha) | 50 | 77 | 65 | 63 | 50 | 40 | 22 | 20 | 14 | 22 | 24 |
| | Prod. (in tons) | 40 | 67 | 78 | 73 | 58 | 41 | 27 | 23 | 16 | 36 | 37 |
| Vegetables | Area under cultivation (in ha) | 967 | 1,092 | 1,034 | 994 | 1,111 | 947 | 1,041 | 815 | 642 | 736 | 741 |
| | Prod. (in tons) | 15,758 | 17,073 | 17,138 | 16,414 | 18,536 | 15,123 | 17,800 | 14,368 | 12,518 | 12,344 | 13,179 |
| Watermelon | Area under cultivation (in ha) | 140 | 211 | 189 | 154 | 185 | 158 | 141 | 132 | 65 | 80 | 90 |
| | Prod. (in tons) | 2,272 | 3,449 | 3,480 | 2,869 | 3,287 | 2,785 | 2,490 | 2,520 | 1,228 | 1,582 | 2,103 |
| **TOTAL ANNUAL CROPS** | Area under cultivation (in ha) | **43,784** | **52,918** | **41,958** | **54,272** | **50,954** | **47,220** | **45,878** | **43,443** | **44,635** | **55,665** | **54,758** |
| | Prod. (in tons) | **186,082** | **218,555** | **183,139** | **218,509** | **202,371** | **187,052** | **208,523** | **201,150** | **200,851** | **248,137** | **247,284** |

*Source : Agricultural statistical data 2004-2009*

As already mentioned rice represents over a period of 10 years, the largest percentage of land in respect of annual crops.

In 2010, rice covered 97.8% of the total area and 91.7% in production, followed by vegetables by 1.35% and 5.3% respectively. The remaining 0.85% of acreage and 3% of production is taken up by the other annual crops listed.

These data show that, with regard to annual crops, the agricultural sector is still supported by rice.

This entails that the agricultural sector has a high degree of risk sensitivity. If, because of some threat to rice areas, for example salinization of the soil, the rice sector will fail, Suriname has a big problem.

This will be further discussed in chapter 2.

Table 3: overview of the amount of acreage under cultivation (in ha) of semi-perennial crops and the quantity of production (in tons) in the period 2000-2010

| DESCRIPTION | Unit | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SEMI-PERENNIAL CROPS** | | | | | | | | | | | | |
| Bananas | Area under cultivation (in ha) | 2,182 | 2,172 | 2,178 | 80 | 1,495 | 1,657 | 1,912 | 1,907 | 1,849 | 1,963 | 2,081 |
| | Prod. (in tons) | 48,706 | 43,139 | 8,071 | 1,278 | 35,298 | 57,830 | 64,555 | 71,084 | 88,724 | 82,267 | 94,272 |
| Plantain | Area under cultivation (in ha) | 496 | 536 | 482 | 443 | 381 | 309 | 252 | 402 | 332 | 424 | 440 |
| | Prod. (in tons) | 10,782 | 12,481 | 11,449 | 11,843 | 11,684 | 8,815 | 5,052 | 10,237 | 9,384 | 14,493 | 12,330 |
| Pineapple | Area under cultivation (in ha) | 25 | 25 | 23 | 25 | 26 | 27 | 25 | 25 | 20 | 20 | 20 |
| | Prod. (in tons) | 360 | 375 | 290 | 375 | 360 | 425 | 336 | 375 | 300 | 300 | 425 |
| Papaya | Area under cultivation (in ha) | 10 | 15 | 20 | 14 | 14 | 8 | 11 | 10 | 12 | 18 | 17 |
| | Prod. (in tons) | 165 | 241 | 315 | 257 | 260 | 142 | 227 | 198 | 277 | 393 | 346 |
| Passion fruit | Area under cultivation (in ha) | 21 | 30 | 36 | 40 | 25 | 22 | 14 | 12 | 20 | 15 | 14 |
| | Prod. (in tons) | 260 | 390 | 506 | 493 | 316 | 263 | 191 | 231 | 279 | 220 | 190 |
| **TOTAL SEMI PERENNIAL CROPS** | Area under cultivation (in ha) | **5,399** | **3,457** | **3,086** | **3,034** | **2,791** | **2,948** | **2,903** | **2,967** | **2,716** | **3,037** | **3,021** |
| | Prod. (in tons) | **60,273** | **56,626** | **20,631** | **14,246** | **47,918** | **67,465** | **70,161** | **82,125** | **98,964** | **97,673** | **107,563** |

*Source : Agricultural statistical data 2004-2009*

For the correctness the data for the papaya crop was included in the group of semi-perennial crops, and not that of the perennial crops.

The overall data will differ somewhat from the original data of the regular statistics.

Table 3 shows that the banana crop in 2003 experienced a significant decline, and in 2004, after converting the company Surland into the Foundation for the Preservation of the Banana Sector (SBBS) went back into production. From 2004 to 2010, the production showed virtually an upward trend.

Table 3 also shows that this crop also occupies the largest percentage of the semi-perennial crops followed by plantain.

Table 4: overview of the amount of acreage under cultivation (in ha) of perennial crops and the quantity of production (in tons) in the period 2000-2010

| DESCRIPTION | Unit | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PERENNIAL CROPS:** | | | | | | | | | | | | |
| Coconut | Area under cultivation (in ha) | 1,082 | 1,078 | 1,036 | 962 | 840 | 827 | 781 | 777 | 771 | 813 | 822 |
| | Prod. (in tons) | 8,517 | 8,056 | 10,033 | 10,273 | 6,137 | 5,144 | 4,971 | 7,116 | 8,508 | 9,014 | 8,709 |
| Oranges | Area under cultivation (in ha) | 1,341 | 1,294 | 1,283 | 1,245 | 1,252 | 1,307 | 1,280 | 1,321 | 1,216 | 1,420 | 1,414 |
| | Prod. (in tons) | 9,817 | 10,445 | 11,335 | 13,037 | 12,400 | 13,039 | 13,610 | 13,651 | 13,454 | 12,709 | 15,138 |
| Grapefruit | Area under cultivation (in ha) | 139 | 135 | 141 | 119 | 114 | 117 | 113 | 107 | 110 | 105 | 113 |
| | Prod. (in tons) | 819 | 1,062 | 1,026 | 1,052 | 974 | 927 | 921 | 879 | 1,141 | 1,252 | 1,314 |
| Other citrus fruits* | Area under cultivation (in ha) | 258 | 260 | 312 | 410 | 317 | 400 | 421 | 470 | 388 | 377 | 359 |
| | Prod. (in tons) | 1,948 | 2,192 | 2,537 | 3,014 | 2,877 | 2,850 | 4,270 | 5,087 | 4,525 | 4,008 | 4,026 |
| Avocado*** | Area under cultivation (in ha) | 7 | 7 | 8 | 7 | 7 | 3 | 5 | 4 | 7 | 8 | 8 |
| | Prod. (in tons) | 62 | 75 | 85 | 74 | 70 | 49 | 56 | 92 | 133 | 153 | 140 |
| Mango | Area under cultivation (in ha) | 144 | 163 | 157 | 141 | 141 | 129 | 109 | 103 | 69 | 91 | 90 |
| | Prod. (in tons) | 1,341 | 1,748 | 1,845 | 1,711 | 1,693 | 1,384 | 1,465 | 1,226 | 996 | 1,639 | 1,149 |
| Others perennial crops* | Area under cultivation (in ha) | 508 | 490 | 109 | 122 | 92 | 149 | 172 | 165 | 131 | 187 | 181 |
| | Prod. (in tons) | 1,349 | 1,074 | 1,144 | 1,439 | 1,263 | 1,508 | 1,877 | 1,709 | 1,770 | 2,698 | 2,549 |
| **TOTAL PERENNIAL CROPS** | Area under cultivation (in ha) | **5,379** | **3,427** | **3,046** | **3,006** | **2,763** | **2,932** | **2,881** | **2,946** | **2,692** | **3,001** | **2,987** |
| | Prod. (in tons) | **23,853** | **24,652** | **28,005** | **30,600** | **25,414** | **24,901** | **27,170** | **29,760** | **30,527** | **31,473** | **33,025** |

* Other citrus fruits: Pomelo, Mandarin, Lime, Tangelo, Lemon, Yellow and Red King

** Other perennial crops: Cocoa, coffee, soursop, West Indian cherry, guava, sapodilla, Spanish lime and rambutan

*Source : Agricultural statistical data 2004-2009*

Table 4 shows that for perennial crops the orange crop takes the lead followed by coconuts.

It is striking that the crop group "other citrus", for the period 2000 to 2005 covered an average planted acreage of 2,570 ha with an average production of 326 tons. In the period 2006 to 2010, the average area planted was 4,383 hectares with an average production of 403 tons. The increase in planted acreage is about 70% while the increase in production is only 24%.
This may be due to the fact that it concerns perennial crops. The acreage was planted but the trees are yet to come into production.

Table 5: total overview of the amount of acreage under cultivation (in ha) of perennial crops and the total quantity produced (in tons) in the period 2000-2010 for annual, semi-perennial and perennial crops

| **DESCRIPTION** | **Unit** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANNUAL CROPS | Area under cultivation (in ha) | 43,784 | 52,918 | 41,958 | 54,272 | 50,954 | 47,220 | 45,878 | 43,443 | 44,635 | 55,665 | 54,758 |
| | Prod. (in tons) | 186,082 | 218,555 | 183,139 | 218,509 | 202,371 | 187,052 | 208,523 | 201,150 | 200,851 | 248,137 | 247,284 |
| SEMI-PERENNIAL CROPS | Area under cultivation (in ha) | 5,399 | 3,457 | 3,086 | 3,034 | 2,791 | 2,948 | 2,903 | 2,967 | 2,716 | 3,037 | 3,021 |
| | Prod. (in tons) | 60,273 | 56,626 | 20,631 | 14,246 | 47,918 | 67,465 | 70,161 | 82,125 | 98,964 | 97,673 | 107,563 |
| PERENNIAL CROPS | Area under cultivation (in ha) | 5,379 | 3,427 | 3,046 | 3,006 | 2,763 | 2,932 | 2,881 | 2,946 | 2,692 | 3,001 | 2,987 |
| | Prod. (in tons) | 23,853 | 24,652 | 28,005 | 30,600 | 25,414 | 24,901 | 27,170 | 29,760 | 30,527 | 31,473 | 33,025 |
| **GENERAL TOTAL** | **Area under cultivation (in ha)** | **51,8897** | **59,123** | **47,743** | **57,880** | **55,658** | **52,175** | **50,973** | **48,746** | **49,560** | **61,106** | **60,317** |
| | **Prod. (in tons)** | **270,208** | **299,833** | **231,775** | **263,355** | **275,703** | **279,428** | **306,054** | **313,035** | **330,342** | **377,283** | **387,872** |

*Source : Agricultural statistical data 2004-2009*

Tables 2 and 5, and Figures 3a and 3b show very clearly that the Surinamese agricultural sector is dependent on the annual crops and, in particular, the rice crop.

The semi-perennial and perennial crops have remained fairly constant after 2000 and differ little or not from each other in area under cultivation.

As regards the production, there is however a significant difference between the semi-perennial and perennial crops. The former have almost twice as high a production than the perennial crops. The earlier mentioned reason, semi-perennial crops become productive earlier, while perennial crops have to wait several years before the first production occurs.

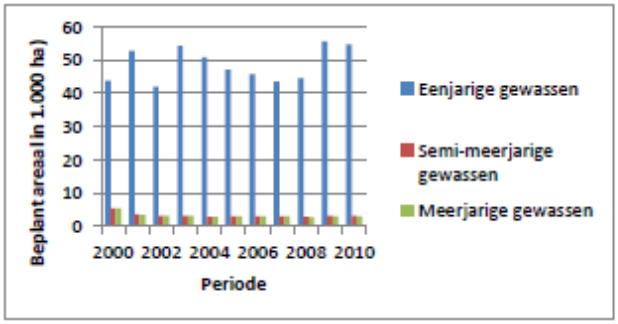



Figure 3a: Overview of the total area under cultivation (in 1,000 ha) of annual, semi-perennial and perennial crops in the period 2000 to 2010

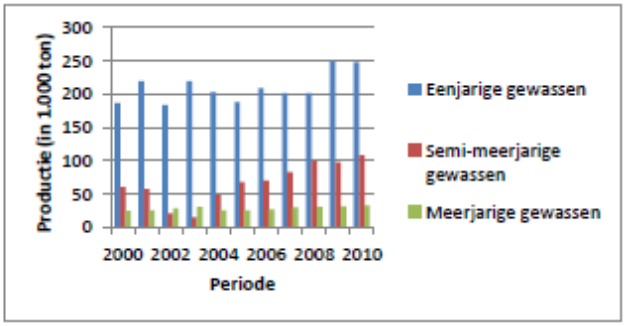



Figure 3b: Overview of the total production (in 1,000 ha) of annual, semi-perennial and perennial crops in the period 2000 to 2010

## 1.3 Prices of agricultural produce (farm gate prices)

Table 6: The farm gate prices (in Srd) of agricultural products in the period 2004 - 2010

| DESCRIPTION | IN SRD PER KG | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| **ANNUAL CROPS:** | | | | | | | |
| Dry paddy | 0.28 | 0.32 | 0.34 | 0.39 | 0.92 | 0.56 | 0.64 |
| Corn (grains) | 1.25 | 1.58 | 3.00 | 2.62 | 4.19 | 4.75 | 4.85 |
| Cassava | 0.62 | 0.93 | 1.69 | 1.93 | 1.78 | 1.65 | 1.48 |
| Other tubers | 1.65 | 1.88 | 3.17 | 3.17 | 3.94 | 4.18 | 7.51 |
| Peanuts (shelled) | 4.00 | 3.75 | 4.10 | 4.15 | 6.04 | 6.26 | 6.00 |
| Mung bean | 4.80 | 4.80 | 6.90 | 6.02 | 7.76 | 9.68 | 9.15 |
| Other legumes: soy and marrowfat peas | 6.20 | 4.70 | 4.70 | 5.05 | 6.98 | 8.66 | 8.56 |
| Vegetables | 1.73 | 2.27 | 2.78 | 2.80 | 2.70 | 3.33 | 4.12 |
| Watermelon | 0.83 | 0.94 | 1.10 | 1.62 | 2.16 | 1.72 | 1.55 |
| **SEMI-PERENNIAL CROPS** | | | | | | | |
| Bananas | 0.74 | 0.75 | 0.84 | 0.86 | 0.96 | 1.27 | 0.97 |
| Plantain | 1.05 | 1.21 | 1.54 | 1.44 | 1.57 | 2.03 | 1.46 |
| Pineapple | 1.76 | 2.07 | 4.33 | 3.83 | 3.83 | 3.96 | 4.76 |
| Passion fruit | 1.23 | 1.40 | 1.84 | 2.29 | 2.23 | 3.36 | 4.22 |
| **PERENNIAL CROPS:** | | | | | | | |
| Coconuts | 0.88 | 0.96 | 0.65 | 0.71 | 1.30 | 1.31 | 1.33 |
| Oranges | 0.88 | 1.48 | 2.05 | 1.74 | 1.82 | 2.37 | 2.10 |
| Grapefruit | 0.89 | 1.13 | 1.64 | 1.66 | 1.40 | 1.13 | 1.23 |
| Other citrus fruits | 1.73 | 2.22 | 2.29 | 3.12 | 4.26 | 4.04 | 3.75 |
| Papaya | 0.70 | 1.32 | 2.25 | 3.15 | 2.65 | 2.89 | 3.57 |
| Avocado | 1.70 | 3.64 | 4.95 | 4.50 | 5.44 | 4.54 | 4.20 |
| Mango | 1.94 | 2.82 | 3.39 | 2.66 | 2.65 | 2.74 | 2.68 |

*Source : Agricultural statistical data 2004-2009*

Table 6 shows for dry paddy in 2008 a high price, because of the prevailing shortage of rice on the world market, this automatically caused a surge in world market prices, which obviously also had its effect in Suriname.

The mung bean crop and "other pulses" exhibit a higher price compared to "other tubers."

In the semi-perennial crops, the pineapple crop earns the most, followed by passion fruit, while prices for the perennial crops, avocado and "other citrus" yield the highest farm gate prices.

That said crops yield a relatively higher price is the result of the market situation. Demand for these products exceeds supply causing the value of the product to go up.
Coconuts are also popular in recent years among consumers, especially with regard to fresh or processed coconut water in bottles. Also for this plant, an increase in the price is observed.

We cannot yet speak of a coconut industry on a large scale in Suriname, because the production of coconut oil and coconut water, often takes place in "home kitchens". This leads to only small quantities being produced. It is worth noting that the production also does not take place according to international standards.

## 1.4 Gross production value of agricultural produce

Table 7: The gross production values (in thousands of Srd) of agricultural products in the period 2004 - 2010

| DESCRIPTION | IN THOUSANDS OF SRD | | | | | | |
|---|---|---|---|---|---|---|---|
| | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** |
| **ANNUAL CROPS:** | | | | | | | |
| Dry paddy | 48,857 | 52,466 | 62,104 | 69,815 | 168,247 | 128,447 | 145,079 |
| Maize | 91 | 55 | 138 | 102 | 113 | 114 | 170 |
| Cassava | 3,032 | 3,491 | 6,963 | 7,620 | 5,151 | 6,486 | 6,280 |
| Other tubers | 756 | 2,053 | 3,864 | 3,446 | 4,827 | 3,005 | 6,594 |
| Peanuts | 1,072 | 548 | 357 | 266 | 103 | 169 | 186 |
| Mung bean | 514 | 581 | 518 | 536 | 380 | 1,007 | 842 |
| Other legumes | 360 | 193 | 127 | 116 | 112 | 312 | 317 |
| Vegetables | 32,067 | 34,329 | 49,484 | 40,230 | 34,160 | 41,106 | 54,297 |
| Watermelon | 2,728 | 2,618 | 2,739 | 4,082 | 2,652 | 2,721 | 3,260 |
| **TOTAL ANNUAL CROPS** | **89,477** | **96,334** | **126,294** | **126,213** | **215,745** | **183,367** | **217,025** |
| **SEMI-PERENNIAL CROPS** | | | | | | | |
| Bananas | 26,121 | 43,373 | 54,226 | 61,132 | 85,175 | 104,479 | 91,444 |
| Plantain | 12,268 | 10,666 | 7,780 | 14,741 | 14,733 | 29,421 | 18,002 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pineapple | 634 | 880 | 1,455 | 1,436 | 1,149 | 1,188 | 2,023 |
| Passion fruit | 389 | 368 | 351 | 529 | 622 | 739 | 802 |
| **TOTAL SEMI-PERENNIAL CROPS** | **39,412** | **55,287** | **63,812** | **77,838** | **101,679** | **135,827** | **112,271** |

*Source : Agricultural statistical data 2004-2009*

Continued: "Table 7: The gross production values (in thousands of Srd) of agricultural products in the period 2004 - 2010"

| **DESCRIPTION** | **IN THOUSANDS OF SRD** | | | | | | |
|---|---|---|---|---|---|---|---|
| | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** |
| **PERENNIAL CROPS:** | | | | | | | |
| Coconuts | 5,401 | 4,938 | 3,231 | 5,052 | 11,060 | 11,808 | 11,583 |
| Oranges | 10,912 | 19,298 | 27,901 | 23,753 | 24,486 | 30,120 | 31,790 |
| Grapefruit | 867 | 1,048 | 1,510 | 1,459 | 1,597 | 1,415 | 1,616 |
| Other citrus fruits | 4,977 | 6,327 | 9,778 | 15,871 | 19,277 | 16,192 | 15,098 |
| Papaya | 182 | 187 | 511 | 624 | 734 | 1,136 | 1,235 |
| Avocado | 119 | 178 | 277 | 414 | 724 | 695 | 588 |
| Mango | 3,284 | 3,903 | 4,966 | 3,261 | 2,639 | 4,491 | 3,079 |
| **TOTAL PERENNIAL CROPS:** | **25,742** | **35,879** | **48,174** | **50,434** | **60,517** | **65,857** | **64,989** |
| | | | | | | | |
| **TOTAL AGRICULTURAL PROD.** | **154,631** | **187,500** | **238,280** | **254,485** | **377,941** | **385,051** | **394,285** |

*Source : Agricultural statistical data 2004-2009*

The gross production value is calculated by multiplying the production (in kilograms) by the farm gate price.

## 1.5 Export quantities and values of agricultural products

Agricultural products that are being exported are: rice, bananas, vegetables, tubers, fruit, processed vegetables, fruits and other plant parts and flowers.
The below figures (4 to 9) indicate the development of the export quantity and the accompanying value per export product in the period 2005 to 2010.

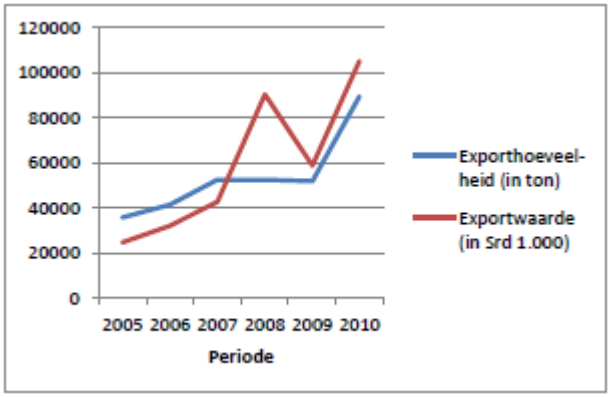



Figure 4: development of export quantity and export value of the **rice crop** in the period 2005 - 2010

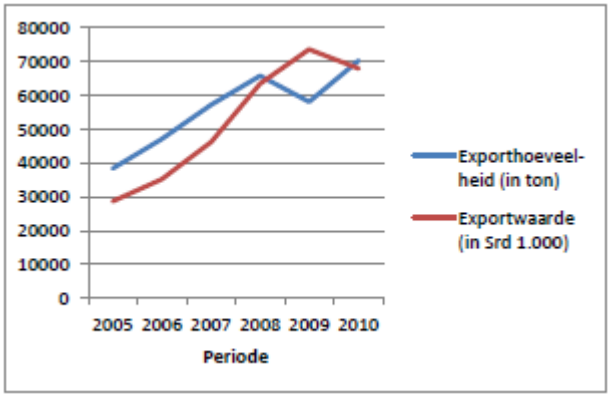



Figure 5: development of export quantity and export value of the **banana crop** in the period 2005 - 2010

In Figure 4, the peak of the export value of rice in 2008 is clearly shown. As previously indicated, the rise in the world market price was responsible for this. In 2009, the value stabilized at the normal level to rise again in 2010.

Importantly, from 2008, whether or not to a small extent, the trend of the export value exceeds the trend of the export quantity.

For the banana crop both the decrease in export quantity in 2009 as the increase in the export value in the same year is striking in Figure 5. Although less was exported, the export value was higher as a result of the higher world market price.

In both cases, both for the rice and banana crop, it can be clearly seen how sensitive the Surinamese agricultural sector is for the world market price. In the above cases , there was increase in the world market price, which has been favorable, but what are the consequences if the world market price falls, and how will we deal with that.

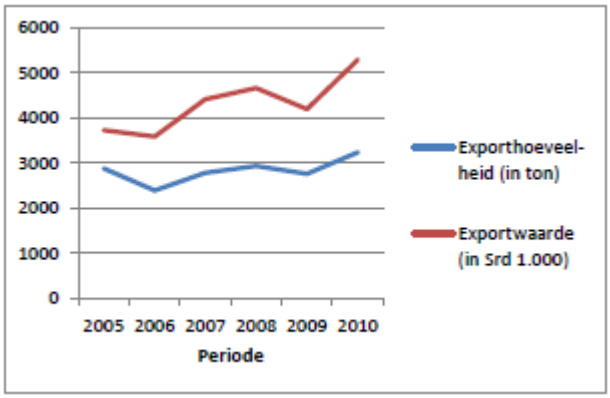



Figure 6: development of the export quantity and export value of **vegetables and tubers in the period 2005 - 2010**

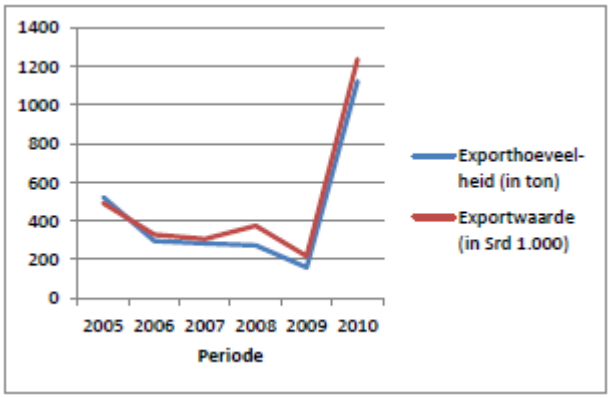



Figure 7: development of the export quantity and export value of **fruit** in the period 2005 - 2010

Figure 6 shows a reasonably stable development of both the export quantity and export value. In this case, the development of the export value is higher than that of the export quantity which indicates that a relatively higher value has been paid per unit of product.

This is in contrast to the results in Figure 7, in which the two curves virtually fit on each other which means that the ratio of the export quantity and export value is nearly 1 to 1.

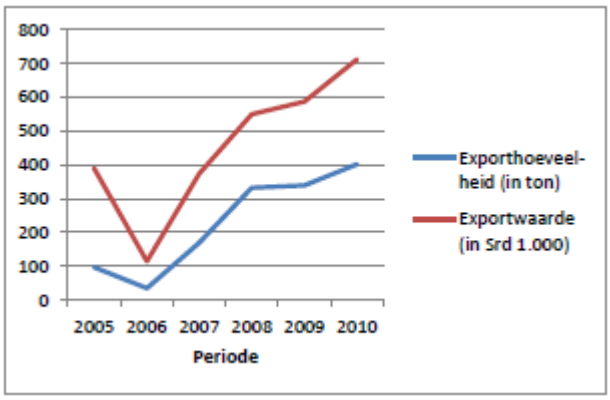



Figure 8: development of the export quantity and export value of **processed vegetables, fruits and plant parts** in the period 2005 - 2010

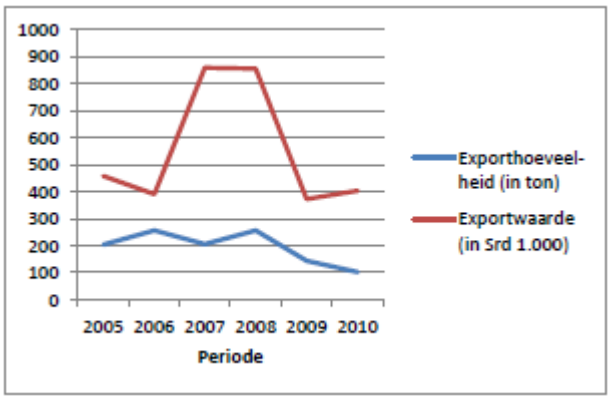



Figure 9: development of the export quantity and export value of **flowers** in the period 2005 - 2010

The trend for processed vegetables, fruits and plant parts in Figure 8 shows for both the export quantity and export value an increase. So there is a demand for processed products and the price per unit of product is relatively high, indicating that there is potential in this export group.

For the crop flowers Figure 9 shows a decreasing trend for the export quantity. The trend of the export value is indeed higher than the development of the exports quantity, but the peak period in 2007-2008 was continued with a major decline in 2009. Only in 2010 a slight increase occurred.

The above figures indicate that washed vegetables and tubers, and processed vegetables, fruits and plant parts have a lot of potential. The value per product unit is relatively high and an increasing trend can be seen in both the export quantity and export value.

The washed rice and bananas will probably always remain interesting but at the same time depend on what is happening in the world market.

Since these two plants represent more than 90% of the total export volume and total export value of plant agricultural products, it is important to draft a risk management plan for both sectors. Here the risks are identified and described, their impact on the sectors is mapped and it is clearly stated how to respond to these.

The total amount of plant agricultural export products and their export value for the period 2005 - 2010 is as follows:

Table 8: the export quantity (in tons) and export value (in SRD 1000) of plant agricultural products during the period 2005-2010

| DESCRIPTION | UNIT | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|
| **QUANTITY** | | | | | | | | |
| Rice | tons | 52,280 | 35,877 | 41,462 | 52,500 | 52,641 | 51,941 | 89,412 |
| Bananas | ,, | 20,121 | 38,388 | 47,005 | 57,135 | 65,750 | 58,132 | 70,239 |
| Vegetables and tubers | ,, | 2,732 | 2,873 | 2,390 | 2,783 | 2,936 | 2,757 | 3,239 |
| Fruit (excl. Bananas) | ,, | 621 | 522 | 297 | 282 | 273 | 160 | 1,122 |
| Preparation of vegetables, fruits and plant parts | ,, | 39 | 96 | 34 | 169 | 332 | 339 | 401 |
| Flower cultivation | ,, | 339 | 204 | 256 | 206 | 257 | 145 | 102 |
| **TOTAL QUANTITY AGRICULTURAL PROD.** | **tons** | **76,132** | **77,960** | **91,444** | **113,075** | **122,189** | **113,474** | **164,515** |
| **VALUE:** | | | | | | | | |
| Rice | SRD1000 | 33,260 | 24,742 | 32,017 | 42,853 | 90,477 | 58,950 | 105,213 |
| Bananas | ,, | 14,759 | 28,664 | 35,196 | 46,219 | 63,447 | 73,608 | 67,987 |
| Vegetables and tubers | ,, | 2,925 | 3,724 | 3,587 | 4,408 | 4,665 | 4,193 | 5,289 |
| Fruit (excl. Bananas) | ,, | 593 | 491 | 330 | 305 | 374 | 217 | 1,238 |
| Preparation of vegetables, fruits and plant parts | ,, | 88 | 390 | 114 | 374 | 549 | 586 | 711 |
| Flower cultivation | ,, | 671 | 457 | 391 | 859 | 855 | 372 | 404 |
| **TOTAL EXPORT VALUE OF AGRICULTURAL PRODUCTS** | **SRD1000** | **52,296** | **58,468** | **71,635** | **95,018** | **160,367** | **137,926** | **180,842** |

*Source : Agricultural statistical data 2004-2009*

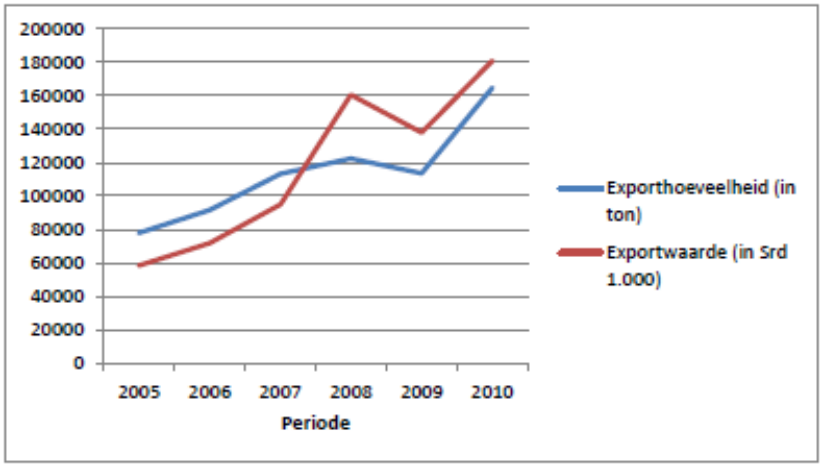


Figure 10: diagram of the total export and import value of vegetable agricultural products in the period 2005 - 2010

The total export quantity has clearly increased in the period 2009 - 2010 The development of the export value is since 2008 higher than the development of the export quantity.

## 1.6 Import quantities and values of agricultural products

Suriname exports around 6 crops (see Chapter 1.5) and imports according to Table 9 more than twice as many product groups.

Table 9: overview of the total import quantities (in tons) of vegetable agricultural products in the period 2004 - 2010

| **DESCRIPTION** | **UNIT** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** |
|---|---|---|---|---|---|---|---|---|
| **QUANTITY:** | | | | | | | | |
| Vegetables and tubers | tons | 11,702 | 14,248 | 13,360 | 15,913 | 15,245 | 15,294 | 15,647 |
| Vegetable fats and oils | ,, | 8,211 | 8,827 | 10,149 | 9,838 | 11,350 | 10,805 | 12,322 |
| Prep. of vegetables, fruits and other plant parts | ,, | 6,729 | 8,082 | 6,971 | 7,122 | 7,533 | 23,210 | 10,056 |
| Coffee, tea, maté and spices | ,, | 403 | 408 | 410 | 377 | 506 | 391 | 364 |
| Cocoa and cocoa products | ,, | 648 | 636 | 641 | 686 | 783 | 1,020 | 26 |
| Sugar and confectionery | ,, | 18,177 | 20,533 | 18,729 | 22,892 | 22,662 | 19,282 | 22,626 |
| Products for human consumption * | ,, | 5,567 | 6,245 | 7,781 | 7,733 | 7,656 | 7,486 | 3,868 |
| Grains | ,, | 18,655 | 21,560 | 24,202 | 17,460 | 29,002 | 14,759 | 38,527 |
| Flour, starch, wheat gluten | ,, | 18,119 | 19,107 | 20,311 | 21,258 | 19,774 | 22,041 | 17,221 |
| Oil containing seeds and fruits | ,, | 7,339 | 8,452 | 3,271 | 748 | 895 | 675 | 612 |
| Preparations of grains, flour, starch | ,, | 2,900 | 3,055 | 3,405 | 3,308 | 3,875 | 3,937 | 2,246 |
| Beverages, alcohol-containing fluids and vinegar | ,, | 13,808 | 16,604 | 22,873 | 18,829 | 17,181 | 18,196 | 17,608 |
| Flower cultivation | ,, | 19 | 38 | 28 | 42 | 35 | 42 | 35 |
| Fruit | ,, | 1,224 | 1,805 | 1,672 | 1,752 | 1,912 | 2,114 | 3,397 |
| **TOTAL QUANTITY OF AGRICULTURAL PRODUCTS** | **tons** | **113,501** | **129,600** | **133,803** | **127,958** | **138,409** | **139,252** | **144,555** |

*: extracts, scents, concentrates, yeast, sauces, preparations for soup, consumption ice cream and other products for human consumption.

*Source : Agricultural statistical data 2004-2009*

If Tables 8 and 9 are compared, then it appears that from 2004 to 2009 more was imported in various products than was exported. Only in 2010 was 20,000 less imported than exported. In comparison with the previous years more was imported, but in 2010 much more rice and bananas were exported, so that the total export quantity increased significantly.

Figure 11 gives the diagrammatic course of both the import and export quantity in the period 2004 - 2010.

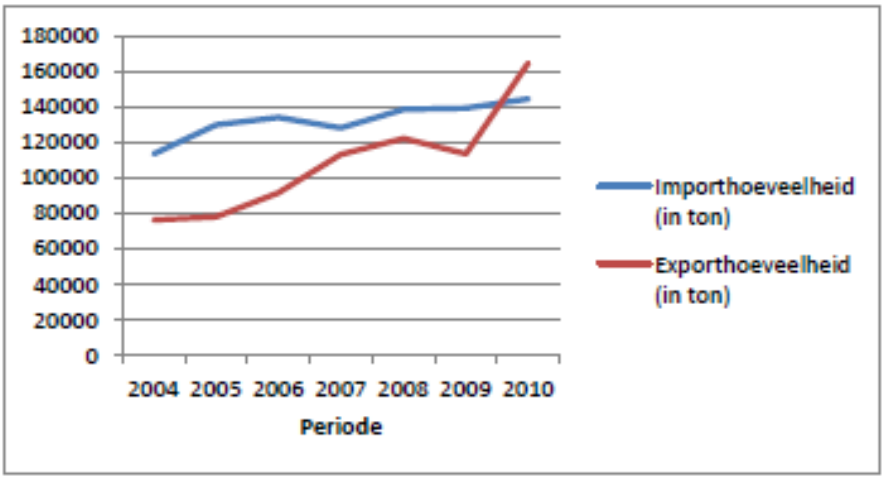



Figure 11: diagram of the total import and export quantity of vegetable agricultural products in the period 2005 - 2010

The most optimal situation is when of course the progress of the export quantity exceeds that of the import quantity.

If the trend of 2010 is continued, including the groups of vegetables and tubers, prepared vegetables, fruit and other plant parts and the flower cultivation, the conclusion could be drawn that Suriname is on the right track.

Table 10: overview of the total import quantities (in Srd 1,000) of vegetable agricultural products in the period 2004 - 2010

| DESCRIPTION | UNIT | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|
| **VALUE:** | | | | | | | | |
| Vegetables and tubers | SRD1000 | 11,714 | 12,957 | 17,622 | 12,454 | 19,238 | 18,445 | 27,690 |
| Vegetable fats and oils | ,, | 23,708 | 34,377 | 27,878 | 32,216 | 53,082 | 38,122 | 43,815 |
| Prep. of vegetables, fruits and other plant parts | ,, | 15,321 | 19,359 | 18,867 | 21,214 | 24,627 | 27,565 | 31,641 |
| Coffee, tea, maté and spices | ,, | 2,983 | 2,804 | 3,398 | 3,198 | 5,358 | 3,172 | 3,792 |
| Cocoa and cocoa products | ,, | 3,658 | 4,117 | 4,515 | 5,087 | 5,816 | 6,697 | 303 |
| Sugar and confectionery | ,, | 20,701 | 26,411 | 30,289 | 29,937 | 35,816 | 35,457 | 48,560 |
| Products for human consumption * | ,, | 38,653 | 46,026 | 54,869 | 74,481 | 64,746 | 66,935 | 25,396 |
| Grains | ,, | 10,182 | 12,013 | 14,691 | 14,143 | 28,388 | 15,243 | 27,515 |
| Flour, starch, wheat gluten | ,, | 19,690 | 19,684 | 22,409 | 28,433 | 38,121 | 34,569 | 25,292 |
| Oil containing seeds and fruits | ,, | 9,102 | 9,553 | 4,510 | 2,049 | 2,837 | 2,504 | 2,416 |
| Preparations of grains, flour, starch | ,, | 13,333 | 14,796 | 17,103 | 18,454 | 24,224 | 23,581 | 13,615 |
| Beverages, alcohol-containing fluids and vinegar | ,, | 24,191 | 43,617 | 42,363 | 41,370 | 41,595 | 52,136 | 50,971 |
| Flower cultivation | ,, | 590 | 813 | 543 | 629 | 518 | 1,868 | 662 |
| Fruit | ,, | 2,702 | 3,985 | 4,810 | 5,653 | 6,143 | 6,905 | 9,387 |
| **TOTAL VALUE AGRICULTURAL PRODUCTS** | **SRD1000** | **196,528** | **250,512** | **263,867** | **289,318** | **350,509** | **333,199** | **311,055** |

*: extracts, scents, concentrates, yeast, sauces, preparations for soup, consumption ice cream and other products for human consumption.

*Source : Agricultural statistical data 2004-2009*

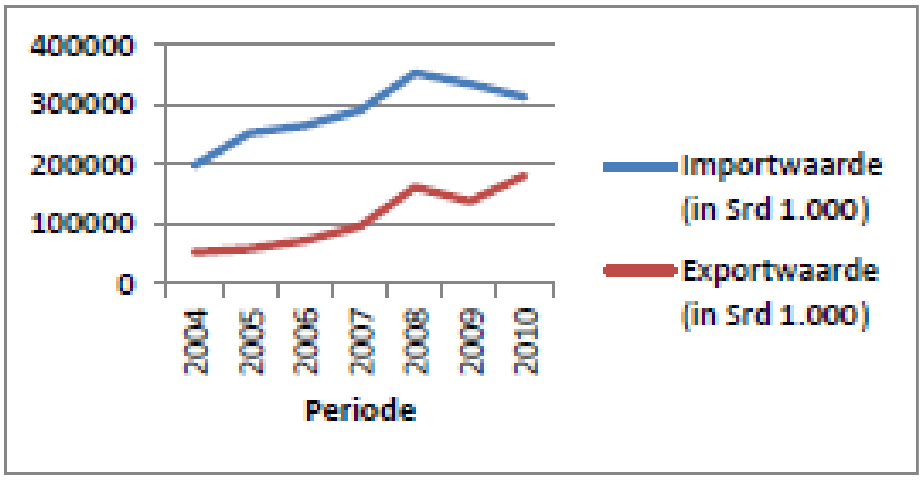



Figure 12: diagram of the import and export values of 2004 - 2010

# 2 PADDY

## 2.1 Acreage under cultivation and production of dry paddy

Table 11: overview of the amount of acreage under cultivation (in ha) and the quantity of paddy production (in tons) in the period 2000-2010

| DESCRIPTION | UNIT | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PADDY ACREAGE:** | | | | | | | | | | | | |
| Standing Acreage | ha | 49,350 | 49,350 | 49,350 | 49,350 | 50,790 | 50,790 | 50,790 | 50,790 | 50,790 | 50,790 | 50,790 |
| Area under cultivation: Spring | ,, | 24,385 | 23,637 | 17,630 | 25,885 | 21,583 | 23,022 | 21,769 | 21,521 | 19,903 | 26,255 | 26,840 |
| Fall | ,, | 17,610 | 27,149 | 22,420 | 26,540 | 27,437 | 22,541 | 22,463 | 20,566 | 23,751 | 28,237 | 26,715 |
| **TOTAL AREA UNDER CULTIVATION** | **ha** | **41,995** | **50,786** | **40,050** | **52,425** | **49,020** | **45,563** | **44,232** | **42,087** | **43,654** | **54,492** | **53,555** |
| **Total area under cultivation of which:** | **ha** | **41,995** | **50,786** | **40,050** | **52,425** | **49,020** | **45,563** | **44,232** | **42,087** | **43,654** | **54,492** | **53,555** |
| - Small-scale agriculture | ,, | 18,207 | 19,381 | 17,052 | 24,365 | 23,950 | 23,027 | 23,589 | 23,135 | 24,223 | 24,193 | 25,542 |
| - Factory farming | ,, | 23,788 | 31,405 | 22,998 | 28,060 | 25,070 | 22,536 | 20,643 | 18,952 | 19,431 | 30,299 | 28,013 |
| **Total area under cultivation according to region:** | | | | | | | | | | | | |
| - Nickerie | ,, | 37,925 | 45,978 | 36,473 | 48,606 | 45,695 | 42,984 | 41,766 | 40,311 | 41,648 | 52,371 | 51,660 |
| - Other districts | ,, | 4,070 | 4,808 | 3,577 | 3,819 | 3,325 | 2,579 | 2,466 | 1,776 | 2,006 | 2,121 | 1,895 |
| **PADDY PRODUCTION:** | | | | | | | | | | | | |
| - Spring | tons | 93,750 | 93,260 | 68,192 | 93,920 | 67,710 | 79,149 | 89,579 | 90,322 | 83,980 | 110,560 | 118,624 |
| - Fall | ,, | 69,905 | 98,055 | 88,913 | 99,765 | 106,780 | 84,806 | 93,080 | 88,690 | 98,897 | 118,810 | 108,062 |
| **TOTAL PRODUCTION** | **tons** | **163,655** | **191,315** | **157,105** | **193,685** | **174,490** | **163,955** | **182,659** | **179,012** | **182,877** | **229,370** | **226,686** |
| **Total production of which:** | **tons** | **163,655** | **191,315** | **157,105** | **193,685** | **174,490** | **163,955** | **182,659** | **179,012** | **182,877** | **229,370** | **226,686** |
| - Small-scale agriculture | ,, | 75,887 | 78,975 | 71,140 | 97,810 | 89,515 | 89,970 | 101,960 | 101,627 | 103,299 | 102,272 | 114,322 |
| - Factory farming | ,, | 87,768 | 112,340 | 85,965 | 95,875 | 84,975 | 73,985 | 80,699 | 77,385 | 79,578 | 127,098 | 112,364 |
| **Total production by region:** | | | | | | | | | | | | |
| - Nickerie | ,, | 150,115 | 175,776 | 144,140 | 181,883 | 163,466 | 155,300 | 174,212 | 173,485 | 175,284 | 221,751 | 219,551 |
| - Other districts | ,, | 13,540 | 15,539 | 12,965 | 11,802 | 11,024 | 8,655 | 8,447 | 5,527 | 7,593 | 7,619 | 7,135 |

*Source : Agricultural statistical data 2004-2009*

In table 11 a distinction is made in spring and fall season The planting in the spring season is the period from the second week of November until end of December and the fall is from the second week of May to end of June.
As these periods depend strongly on the weather circumstances, and Suriname is also subject to climatological changes, the periods can fall these days earlier or later.

The distinction in small-scale farming and factory farming has to do with the acreage size. Farms having an acreage size of 0.1-12 ha fall under - Small-scale agriculture while farms having an acreage size larger than 12 ha fall under - Factory farming.

Table 11 shows that the major part of paddy production takes place in the District of Nickerie.

Remarkably, the difference in area under cultivation between farms in small-scale farms and factory farms is not significant (Figure 13) and that even if less is planted by the small-scale farms sometimes their harvests are larger than the factory farms (Figure 14).
The reason for this could be that the companies in factory farming do not work efficiently or hardly efficiently so that an optimum production is not obtained.

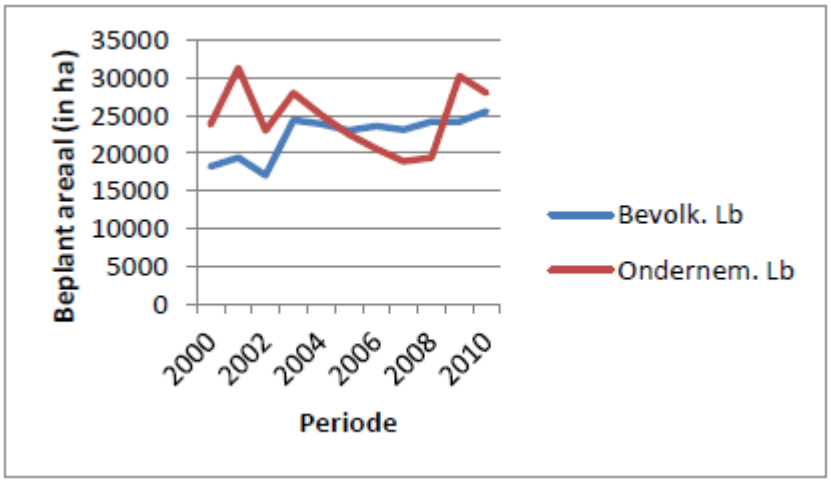



Figure 13: overview of the area under cultivation (in ha) in the small-scale and factory farms over the period 2000-2010

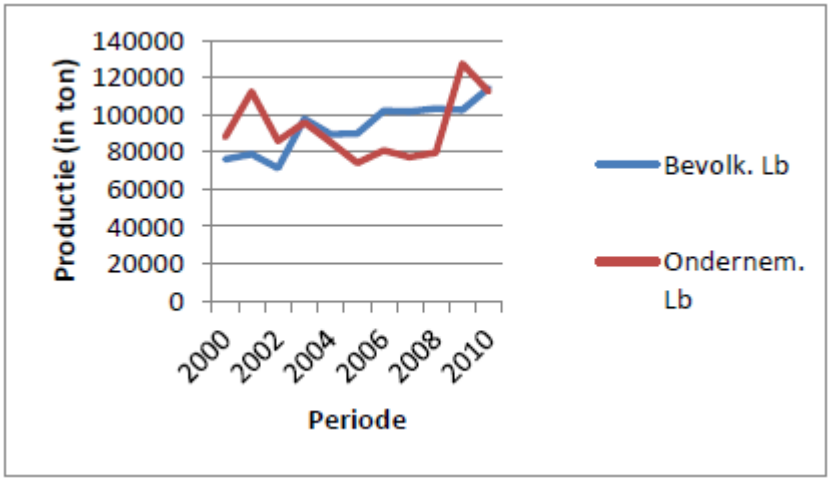



Figure 14: overview of the paddy production (in tons) in the small-scale and factory farms over the period 2000-2010

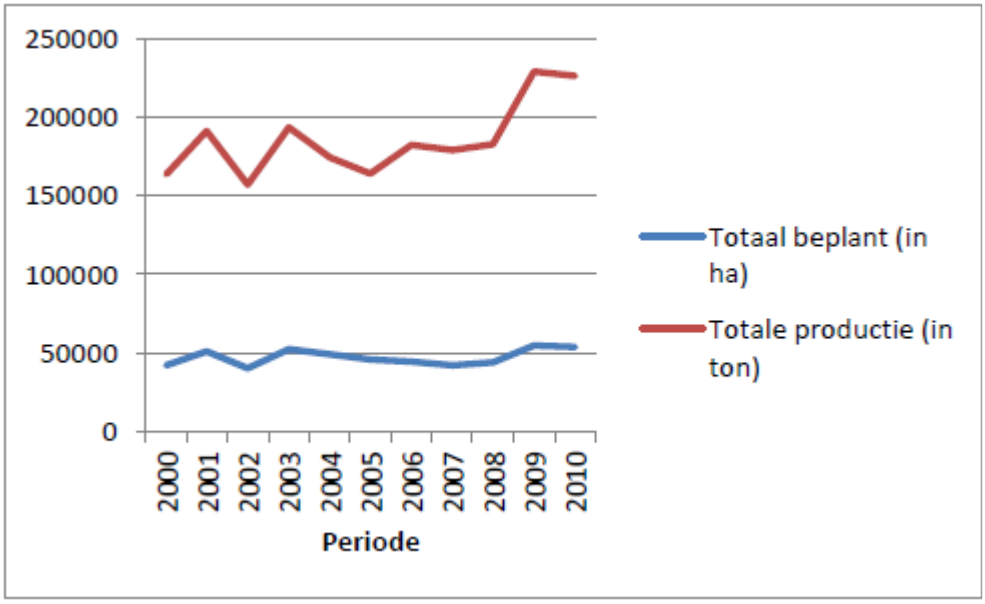



Figure 15: overview of the total area under cultivation (in ha)
and the total paddy production over 2000-2010

Figure 15 shows that, although the area under cultivation remained almost at the same level in the last ten years, there still is an increase in paddy production.

In the comparison with Figure 14 it is striking that around 2009-2010 the paddy production in factory farms is decreasing and that of the small-scale farms increases to a point where they almost touch.

Since the rice sector is the pillar of the agricultural sector and a large proportion of the income is owed to this sector, it is important to make efficient use of the resources of this sector.

## 2.2 Paddy production, processing and destination

Table 12: overview of the paddy production (in tons), its processing stages and the export product

| DESCRIPTION | UNIT | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. Standing Acreage | **ha** | **50,790** | **50,790** | **50,790** | **50,790** | **50,790** | **50,790** | **50,790** |
| 2. Area under cultivation | **„** | **49,020** | **45,563** | **44,232** | **42,087** | **43,654** | **54,492** | **53,555** |
| 3. Cropping intensity | „ | 0.97 | 0.90 | 0.87 | 0.83 | 0.86 | 1.07 | 1.05 |
| 4. Wet paddy (21% humidity) | tons | 190,076 | 178,600 | 198,975 | 195,002 | 199,212 | 249,858 | 246,935 |
| 5. Wet paddy (14% humidity 91.8% of wet paddy) | „ | 174,490 | 163,955 | 182,659 | 179,012 | 182,877 | 229,370 | 226,686 |
| **(Control)** | „ | **174,490** | **163,955** | **182,659** | **179,012** | **182,877** | **229,370** | **226,686** |
| 6. Sowing seed 140 kg/ha | „ | 6,863 | 6,379 | 6,192 | 5,892 | 6,112 | 7,629 | 7,498 |
| 7. Animal fodder + transport losses (4% of 5) | „ | 6,980 | 6,558 | 7,306 | 7,160 | 7,315 | 9,175 | 9,067 |
| 8. Dry paddy prior to processing (5-(6+7) | „ | 160,647 | 151,018 | 169,160 | 165,959 | 169,450 | 212,566 | 210,121 |
| 9. Chaff and husking losses | „ | 38,555 | 36,244 | 40,598 | 39,830 | 40,668 | 51,016 | 50,429 |
| 10. Cargo deliveries (8-9) | „ | 122,092 | 114,774 | 128,562 | 126,129 | 128,782 | 161,550 | 159,692 |
| 11. Export Cargo* | „ | 17,883 | 20,992 | 10,941 | 16,567 | 28,069 | 28,849 | 36,409 |
| 12. Remaining cargo for domestic processing (10-11) | „ | 104,209 | 93,782 | 117,621 | 109,562 | 100,713 | 132,701 | 123,283 |
| 13. White rice (82% broken of 12) | „ | 85,451 | 76,901 | 96,449 | 89,841 | 82,585 | 108,815 | 101,092 |
| 14. Export white rice (various broken) | „ | 34,397 | 14,885 | 30,521 | 35,933 | 24,572 | 23,092 | 53,003 |
| 15. Tot. domestic cons. + stocks (13-14) | „ | 51,054 | 62,016 | 65,928 | 53,908 | 58,013 | 85,723 | 48,089 |
| 16. Sharps (18% of 12) | „ | 18,758 | 16,881 | 21,172 | 19,721 | 18,128 | 23,886 | 22,191 |
| 17. Export value rice products | **SRD1000** | **33,260** | **24,742** | **32,017** | **42,853** | **90,477** | **58,950** | **105,213** |
| 18. Total export (11+14) | **tons** | **52,280** | **35,877** | **41,462** | **52,500** | **52,641** | **51,941** | **89,412** |
| 19. % Export Cargo | % | 34.2 | 58.5 | 26.4 | 31.6 | 53.3 | 55.5 | 40.7 |
| 20. % Export white rice | % | 65.8 | 41.5 | 73.6 | 68.4 | 46.7 | 44.5 | 59.3 |

*Source : Agricultural statistical data 2004-2009*

Table 12 provides a clear overview of the paddy production (wet and dry paddy) and their breakdown into components.

The processing chain of paddy is as follows:

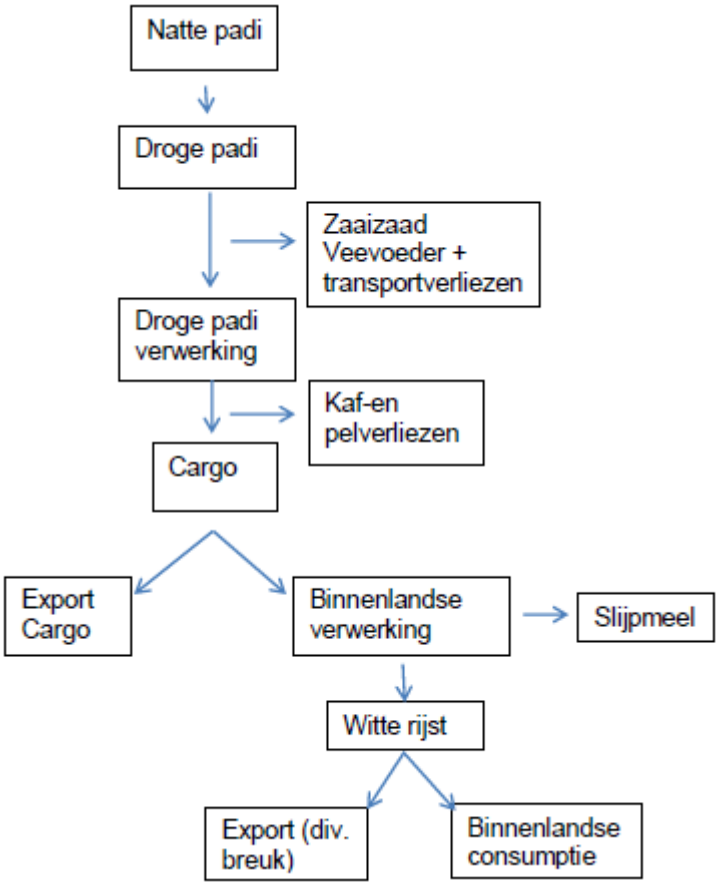



Figure 16: paddy processing chain

## 2.3 Export quantities and values of rice and export quantities according to destination country

Table 13: overview of the export quantity (in tons) and the export value (in Srd) of paddy products in the period 2005-2009

| DESCRIPTION | UNIT | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|
| **QUANTITY:** | | | | | | | |
| White rice | tons | 13,974 | 30,136 | 31,733 | 24,217 | 22,597 | |
| Broken rice | „ | 911 | 385 | 4,200 | 355 | 495 | |
| Cargo rice | „ | 20,992 | 10,941 | 16,567 | 27,199 | 28,758 | |
| Parboiled rice | „ | - | - | - | 870 | 91 | |
| **TOTAL** | **tons** | **35,877** | **41,462** | **52,500** | **52,641** | **51,941** | |
| **VALUE:** | | | | | | | |
| White rice | SRD1000 | 10,461 | 23,945 | 28,912 | 41,376 | 27,009 | |
| Broken rice | „ | 905 | 536 | 2,123 | 850 | 1,162 | |
| Cargo rice | „ | 13,376 | 7,536 | 11,818 | 46,725 | 30,606 | |
| Parboiled rice | „ | - | - | - | 1,526 | 173 | |
| **TOTAL** | **SRD1000** | **24,742** | **32,017** | **42,853** | **90,477** | **58,950** | |
| **AVERAGE EXPORT VALUE/ TON** | | | | | | | |
| White rice | SRD | 749 | 795 | 911 | 1,709 | 1,195 | |
| Broken rice | „ | 993 | 1,392 | 505 | 2,394 | 2,347 | |
| Cargo rice | „ | 637 | 689 | 713 | 1,718 | 1,064 | |
| Parboiled rice | „ | - | - | - | 1,754 | 1,901 | |

*Source : Agricultural statistical data 2004-2009*

Table 13 shows that the export quantity of white rice has fallen in the past years while cargo rice exports increased. Broken rice and parboiled rice are a small part of the export quantity. At the time of drawing up of this report the data for the year 2010 were not yet available.

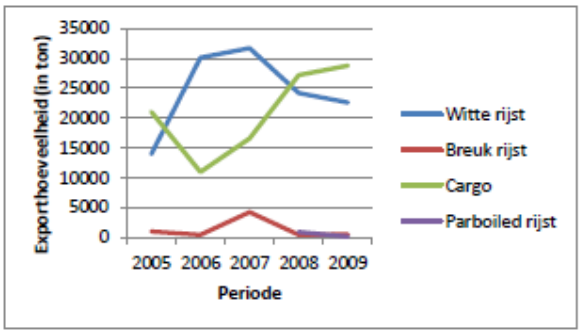



Figure 17a: development of the export quantity (in tons) for the various paddy products in the period 2005-2009

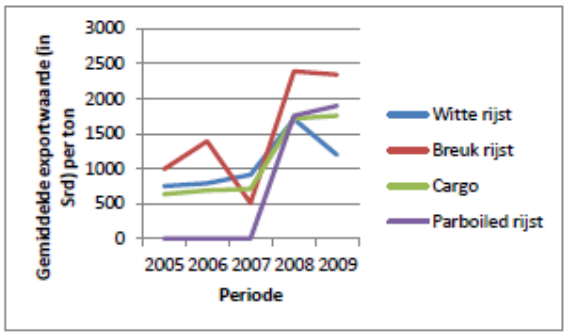



Figure 17b: overview of the average export value (in Srd) for the various paddy export products in the period 2005-2009

Figure 17a and 17b show the development of the export quantity in tons and export values in Surinamese dollars in the period 2005 to 2009.
From Table 13, Figures 17a and 17b can be concluded that although more white rice is exported than broken rice, the average export value of broken rice is still higher, almost twice as high as white rice.

It is notable that the average export value of white rice in 2009 is the lowest compared with the other products.

Table 14 shows that paddy products are being exported to the Caribbean, countries in South America, Europe, and a very small part to some countries in North and Central America.

Table 14: Overview of the export quantities (in tons) by country of destination

| **DESTINATION COUNTRY REGION AND COUNTRY:** | **UNIT** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** |
|---|---|---|---|---|---|---|---|
| **Caribbean** | | | | | | | |
| Aruba | tons | 94 | 1,072 | 2,241 | 143 | 141 | |
| Dominican Republic | „ | 225 | 50 | - | - | - | |
| Guadeloupe | „ | 253 | 276 | 923 | 1,993 | 542 | |
| Haiti | „ | 500 | 10,152 | 12,128 | 5,600 | 2,218 | |
| Jamaica | „ | 3,188 | 5,450 | 7,412 | 6,798 | 11,046 | |
| Martinique | „ | 1,056 | 748 | 792 | 354 | 313 | |
| The Netherlands Antilles | „ | 3,506 | 25 | 1,549 | 32 | 50 | |
| Trinidad | „ | 52 | 313 | 138 | 1,049 | 719 | |
| Other | „ | 1,625 | 200 | - | - | 24 | |
| **TOTAL** | **tons** | **10,499** | **18,286** | **25,183** | **15,969** | **15,053** | |
| **South America** | | | | | | | |
| Brazil | „ | 105 | 25 | 245 | - | - | |
| French Guiana | „ | 442 | 387 | 622 | 495 | 889 | |
| Guyana | „ | 1,503 | 11,740 | 8,006 | 7,000 | 11,910 | |
| Other | „ | - | - | - | - | - | |
| **TOTAL** | **tons** | **2,050** | **12,152** | **8,873** | **7,495** | **12,799** | |
| **North and Central America** | | | | | | | |
| Belize | „ | - | 50 | - | - | - | |
| US | „ | - | - | - | 250 | - | |
| Other | „ | 2,230 | - | 20 | - | - | |
| **TOTAL** | **tons** | **2,230** | **50** | **20** | **250** | **0** | |
| **Europe** | | | | | | | |
| Belgium | „ | 303 | 50 | - | - | 175 | |
| Germany | „ | - | - | 626 | 25 | - | |
| France | „ | 1,260 | 1,986 | 1,402 | 1,274 | 1,696 | |
| The Netherlands | „ | 10,317 | 7,406 | 13,570 | 18,684 | 21,174 | |
| Portugal | „ | 8,092 | 1,457 | 69 | 8,515 | 46 | |
| Switzerland | „ | 253 | - | - | - | - | |
| Other | „ | 125 | 75 | 653 | 300 | 998 | |
| **TOTAL** | **tons** | **20,350** | **10,974** | **16,320** | **28,798** | **24,089** | |
| Other regions | tons | 748 | 0 | 2,104 | 129 | 0 | |
| **GRAND TOTAL:** | **tons** | **35,877** | **41,462** | **52,500** | **52,641** | **51,941** | |

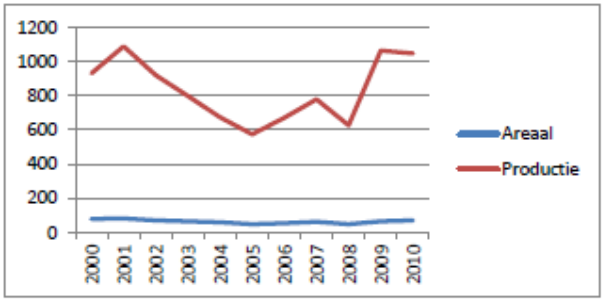
*Source : Agricultural statistical data 2004-2009*

# 3 VEGETABLES

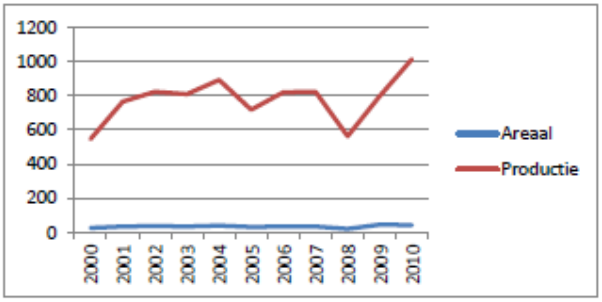
This part of the report will highlight specifically the following vegetables in respect of the area under cultivation and the production in the period 2000-2010:

- tomato
- cabbage
- beans
- string beans
- tayerblad (arrowleaf elephant ear)
- Amsoi (*Brassica chinensis*), kaisoi (*Brassica juncea*), paksoi (*Brassica campestris var. chinensis*)
- eggplant
- cucumber
- pumpkin
- sopropo, bitter melon (*Momordica charantia*)
- okra
- antruwa (*Solanum macrocarpum*)
- Other vegetables

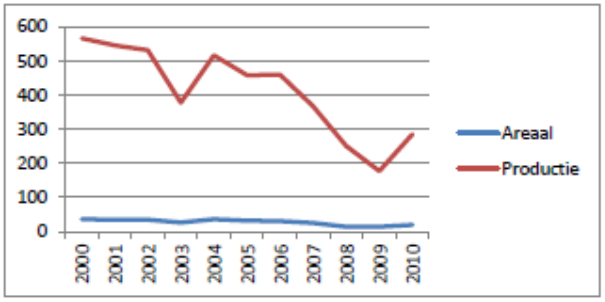
## 3.1 Area under cultivation, production and export of vegetables



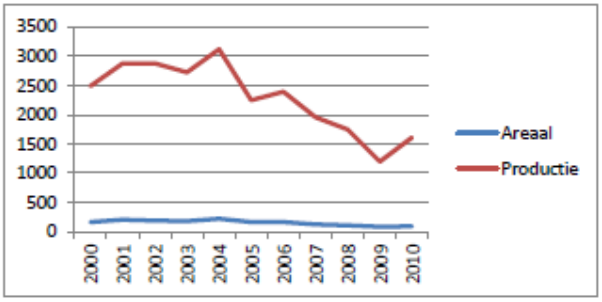

Figuur 18: overzicht van beplant areaal en productie voor het gewas *tomaat*



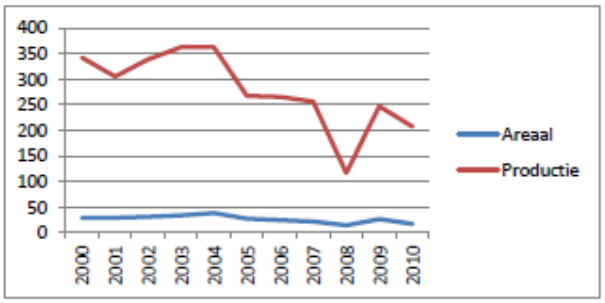

Figuur 19: overzicht van beplant areaal en productie voor het gewas *kool*



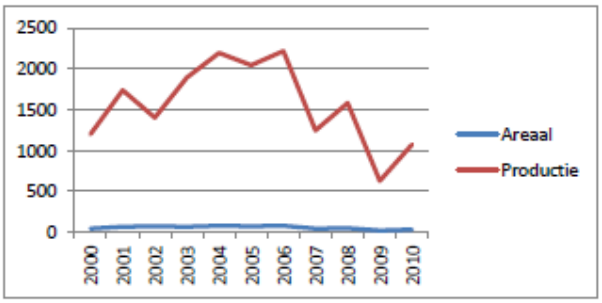
Figuur 20: overzicht van beplant areaal en productie voor het gewas *snijbonen*



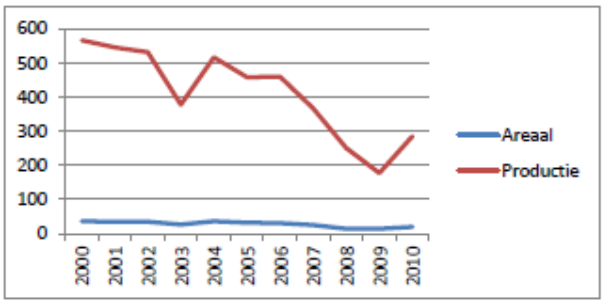
Figuur 21: overzicht van beplant areaal en productie voor het gewas *tayerblad*



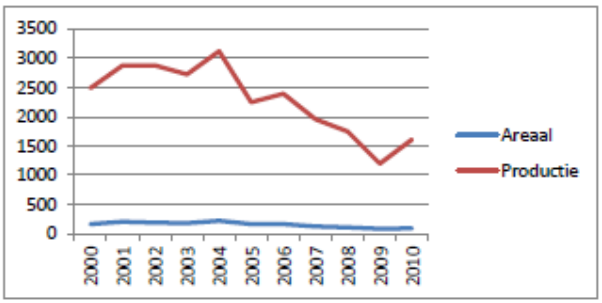
Figuur 22: overzicht van beplant areaal en productie voor het gewas *amsoi, kaisoi en paksoi*



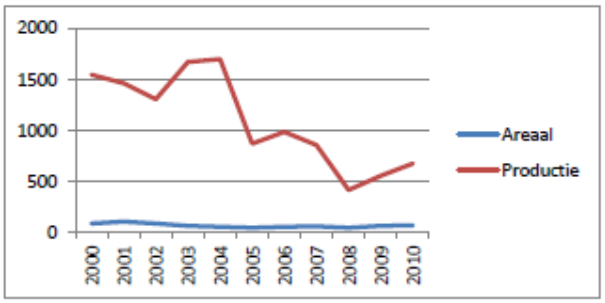
Figuur 23: overzicht van beplant areaal en productie voor het gewas *boulanger*



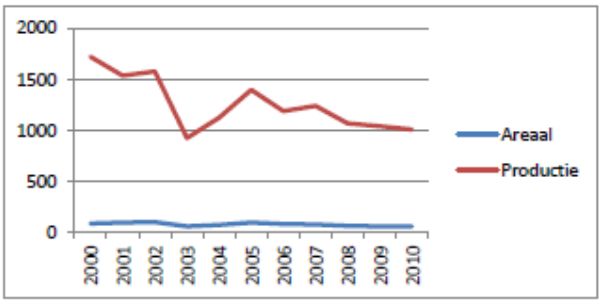
Figuur 24: overzicht van beplant areaal en productie voor het gewas *komkommer*



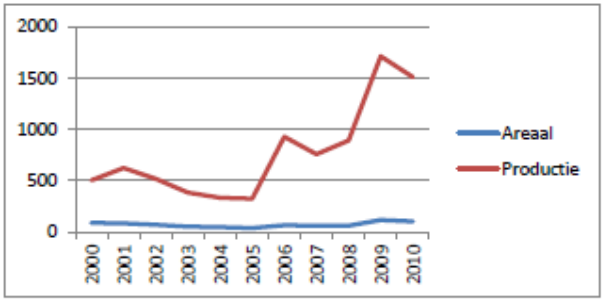
Figuur 25: overzicht van beplant areaal en productie voor het gewas *peper*



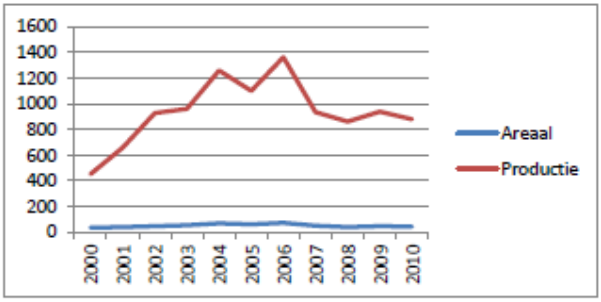
Figuur 26: overzicht van beplant areaal en productie voor het gewas *pompoen*



Figuur 27: overzicht van beplant areaal en productie voor het gewas *sopropo*




Figuur 28: overzicht van beplant areaal en productie voor het gewas *oker*




Figuur 29: overzicht van beplant areaal en productie voor het gewas *antroewa*

Figure 18 to Figure 29 show the production graphs of different vegetable crops.
All figures show that the size of the area under cultivation has remained virtually constant. All the more striking is that the production does show large fluctuations. Causes of these changes may lie in climatic conditions and poor or inefficient management in the field.
Only for the okra crop there is clearly an increasing trend, even though production was down in 2010.
In order to keep production constant, the Ministry of LVV started several years ago with the Surisombra greenhouse cultivation. Planting is still done in open ground, but somewhat sheltered. This has the effect of making weather conditions manageable.
Currently, a comparative study is being conducted into the cultivation in Surisombra greenhouses, hydroponic greenhouses and the traditional way.

## 3.2 Average consumer prices of agricultural produce

Table 15: overview of average consumer prices in the period 2000-2010

| DESCRIPTION | IN GUILDERS PER KG | | | | IN SRD PER KG | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| **VEGETABLES*** ** | | | | | | | | | | | |
| Cabbage | 1,316 | 2,434 | 3,224 | 3,964 | 3.72 | 5.32 | 4.56 | 4.89 | 6.40 | 5.93 | 7.13 |
| Beans | 2,258 | 2,781 | 4,067 | 4,577 | 5.48 | 6.60 | 6.76 | 8.14 | 7.21 | 8.99 | 10.51 |
| Tomato | 4,099 | 4,594 | 6,123 | 6,217 | 4.37 | 7.43 | 8.71 | 7.79 | 7.54 | 9.44 | 10.27 |
| Antruwa (Solanum macrocarpum) | 644 | 698 | 1,031 | 2,398 | 2.89 | 4.23 | 6.01 | 5.82 | 4.32 | 4.41 | 6.68 |
| Cucumber | 776 | 1,306 | 1,650 | 2,898 | 2.86 | 2.42 | 2.45 | 2.54 | 2.20 | 2.48 | 2.66 |
| Eggplant | 979 | 730 | 1,678 | 2,304 | 2.74 | 3.93 | 3.47 | 4.04 | 3.79 | 4.33 | 5.55 |
| Pepper | 3,085 | 3,915 | 7,302 | 5,694 | 6.82 | 5.20 | 7.04 | 10.26 | 7.04 | 9.17 | 18.20 |
| Pumpkin | 770 | 671 | 1,198 | 1,548 | 1.58 | 2.03 | 2.51 | 2.60 | 2.79 | 2.44 | 3.28 |
| Sopropo, bitter melon (*Momordica charantia*) | 885 | 996 | 2,269 | 2,180 | 2.30 | 3.64 | 3.39 | 2.97 | 3.04 | 3.53 | 4.34 |
| Okra | 1,312 | 979 | 1,623 | 1,698 | 2.41 | 3.13 | 4.80 | 4.26 | 4.70 | 7.26 | 9.93 |
| String beans | 1,027 | 1,127 | 2,366 | 2,777 | 3.52 | 5.13 | 6.19 | 6.18 | 5.98 | 7.83 | 10.47 |
| Amsoi, Paksoi and Kaisoi | 1,058 | 1,868 | 2,062 | 2,267 | 2.82 | 4.26 | 4.77 | 6.03 | 6.88 | 7.33 | 7.44 |
| Tayerblad (arrowleaf elephant ear) | 1,127 | 3,298 | 3,893 | 4,101 | 4.59 | 5.55 | 6.60 | 5.87 | 7.23 | 9.83 | 9.23 |
| Other leafy vegetables* | 847 | 1,000 | 1,273 | 1,914 | 2.64 | 3.86 | 5.00 | 5.65 | 4.87 | 5.19 | 6.65 |
| Other annual crops** | 640 | 700 | 1,186 | 1,717 | 4.75 | 5.35 | 4.98 | 5.54 | 6.44 | 7.05 | 8.59 |

* Bitter greens, American nightshade, Chinese water spinach and red spinach
** Bottle gourd, Chinese okra, lablab bean
***Average consumer prices of the Central Market in Paramaribo

*Source : Agricultural statistical data 2004-2009*

Table 15 provides an overview of consumer prices charged for the various vegetables in the past ten years.

In the period 2000 to 2003, the local currency was the Surinamese guilder which changed in 2004 to the Surinamese dollar. The value of one Surinamese dollar was 1000 Surinamese guilders.

From the above table it can be concluded that the price increased for most vegetable crops over the course of the years. The price of the cucumber crop has remained fairly stable while the price of pepper doubled in the last year.
Consumer prices for fruits, see Table 16, show here and there some fluctuations. The price of the banana crop remained stable over three consecutive years. For bananas, a decrease can be seen of about 31%, while pineapple shows a decrease and then an increase of 23 %.
For citrus , there are small fluctuations ranging from 7 % to 11 %.
For the rice crop the consumer price shows a decline since 2008 with 6% in 2009 and 12% in 2010.

Table 16: overview of consumer prices of fruits in the period 2000-2010

| DESCRIPTION | IN GUILDERS PER KG | | | | IN SRD PER KG | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| **FRUITS*** ** | | | | | | | | | | | |
| Bananas | 388 | 537 | 638 | 2,195 | 2.04 | 1.56 | 1.68 | 1.71 | 1.31 | 1.13 | 1.13 |
| Plantain | 1,146 | 1,132 | 1,091 | 2,430 | 1.75 | 2.02 | 2.57 | 2.40 | 2.61 | 3.39 | 2.33 |
| Pineapple | 626 | 599 | 1,038 | 1,971 | 3.53 | 4.13 | 8.66 | 7.66 | 7.65 | 6.60 | 8.55 |
| Passion fruit | 913 | 1,018 | 993 | 2,884 | 2.46 | 2.79 | 3.67 | 4.53 | 4.46 | 6.72 | 6.58 |
| Coconut | 527 | 708 | 812 | 1,052 | 1.76 | 1.93 | 1.30 | 1.41 | 2.60 | 2.63 | 2.69 |
| Oranges | 1,037 | 932 | 1,333 | 2,443 | 1.95 | 2.96 | 4.09 | 3.47 | 3.63 | 4.75 | 4.38 |
| Mandarin | 1,289 | 1,530 | 1,703 | 2,878 | 2.68 | 4.40 | 5.29 | 4.53 | 6.58 | 6.55 | 6.61 |
| Grapefruit | 573 | 689 | 821 | 1,685 | 1.78 | 2.25 | 3.27 | 3.32 | 2.80 | 2.26 | 2.46 |
| Lime | 1,352 | 2,345 | 2,829 | 3,937 | 5.48 | 6.15 | 6.10 | 9.76 | 10.22 | 12.35 | 11.51 |
| Other citrus fruits | 592 | 639 | 769 | 1,713 | 1.90 | 2.78 | 3.43 | 5.32 | 7.10 | 6.70 | 5.90 |
| Papaya | 957 | 1,518 | 992 | 1,669 | 1.36 | 2.64 | 4.33 | 6.26 | 5.30 | 5.78 | 4.29 |
| Avocado | 614 | 625 | 725 | 2,002 | 3.39 | 4.13 | 9.25 | 8.95 | 10.87 | 9.07 | 9.03 |
| Mango | 830 | 676 | 939 | 2,276 | 3.88 | 5.65 | 5.81 | 6.31 | 5.30 | 4.56 | 4.98 |
| Watermelon | 439 | 614 | 764 | 1,074 | 1.39 | 1.87 | 1.90 | 2.70 | 3.60 | 2.86 | 2.58 |
| **RICE*** ** | | | | | | | | | | | |
| White rice | 298 | 589 | 788 | 1,008 | 1.05 | 1.10 | 1.32 | 1.31 | 2.78 | 2.59 | 2.27 |

* Bitter greens, American nightshade, Chinese water spinach and red spinach
** Bottle gourd, Chinese okra, lablab bean
***Average consumer prices of the Central Market in Paramaribo

*Source : Agricultural statistical data 2004-2009*

# 4 BANANAS

## 4.1 Acreage under cultivation and production of bananas

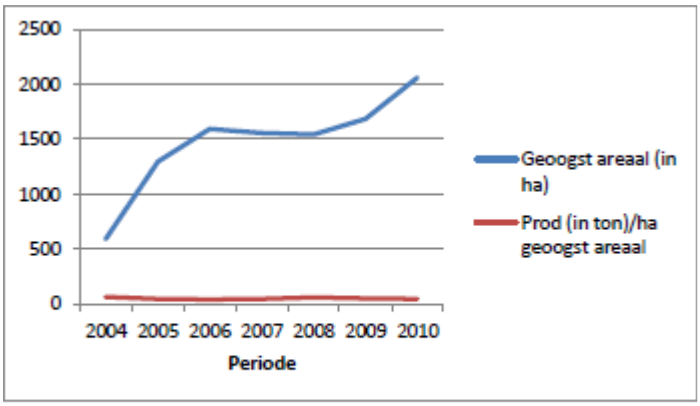
As already indicated, the banana crop makes up a significant part of the agricultural sector in Suriname. This crop was in 2010 responsible for around 38% of the export value of agricultural products.
The banana sector in Suriname is mostly in the hands of the Foundation for the Preservation of the Banana Sector (SBBS). Production takes place at Jarikaba and in Nickerie.
The bulk of the production is exported to Trinidad.

Table 17: overview of the acreage under cultivation (in ha) of banana in the period 2004-2010

| DESCRIPTION | UNIT | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|
| **AREA UNDER CULTIVATION** | | | | | | | | |
| - Small-scale agriculture | ha | 76 | 70 | 58 | 52 | 36 | 35 | 43 |
| - Factory farming of which | ,, | 1,419 | 1,587 | 1,854 | 1,855 | 1,813 | 1,928 | 2,038 |
| - Jarikaba | ,, | 723 | 781 | 880 | 880 | 865 | 957 | 1059 |
| - Nickerie | ,, | 696 | 806 | 974 | 975 | 948 | 971 | 979 |
| **TOTAL AREA UNDER CULTIVATION** | **ha** | **1,495** | **1,657** | **1,912** | **1,907** | **1,849** | **1,963** | **2,081** |
| **PRODUCTION** | ,, | | | | | | | |
| - Small-scale agriculture | tons | 1,527 | 1,430 | 1,105 | 769 | 620 | 821 | 872 |
| - Factory farming of which | ,, | 33,771 | 56,400 | 63,450 | 70,315 | 88,104 | 81,446 | 93,400 |
| - Jarikaba | ,, | 18,834 | 22,200 | 22,842 | 32,960 | 43,983 | 41,186 | 44,300 |
| - Nickerie | ,, | 14,937 | 34,200 | 40,608 | 37,355 | 44,121 | 40,260 | 49,100 |
| **TOTAL PRODUCTION** | **tons** | **35,298** | **57,830** | **64,555** | **71,084** | **88,724** | **82,267** | **94,272** |
| **HARVESTED ACREAGE** | ha | 589 | 1,296 | 1,593 | 1,554 | 1,542 | 1,682 | 2,061 |
| Prod/ha of harvested acreage | tons | 59.9 | 44.6 | 40.5 | 45.7 | 57.5 | 48.9 | 45.7 |

*Source : Agricultural statistical data 2004-2009*

Table 17 provides an overview of the area under cultivation in hectares and the production of bananas in tons. The banana production was in 2004 in the hands SURLAND which was experiencing great problems around 2003. The production that year was nil. After reorganization of the company into SBBS a new start was made with the production.
Figure 30 shows the variation of the harvested area and the production per hectare of harvested area. The harvested area has increased over the years while production per hectare has remained almost stable. The total production has increased which is reflected in Table 17.



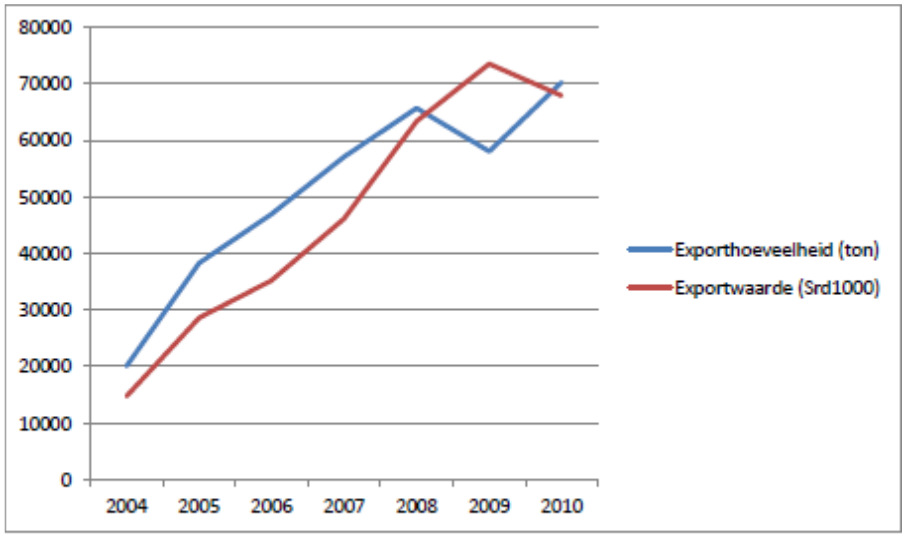
Figuur 30: verloop van het geoogst areaal (in ha) en de productie (in ton) per geoogst areaal

## 4.2 Export of bananas

Table 18: quantity (in tons) of exported bananas and the value involved (in Srd)

| DESCRIPTION | UNIT | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|
| Quantity | tons | 20,121 | 38,388 | 47,005 | 57,135 | 65,750 | 58,132 | 70,239 |
| Value | SRD1000 | 14,759 | 28,664 | 35,196 | 46,219 | 63,447 | 73,608 | 67,987 |
| Export value per ton | SRD | 734 | 747 | 749 | 809 | 965 | 1,266 | 968 |

*Source : Agricultural statistical data 2004-2009*



Figuur 31: verloop van de hoeveelheid geexporteerde bacoven (in ton) en de bijbehorende exportwaarde (in Srd 1000) in de periode 2004-2010

Table 18 and Diagram 31 clearly show that the quantity of exported bananas has increased over the years by approximately 10,000 tons per year. Only in 2009 a decrease occurred. It is striking that especially in 2009, despite the decrease, the export value was higher.

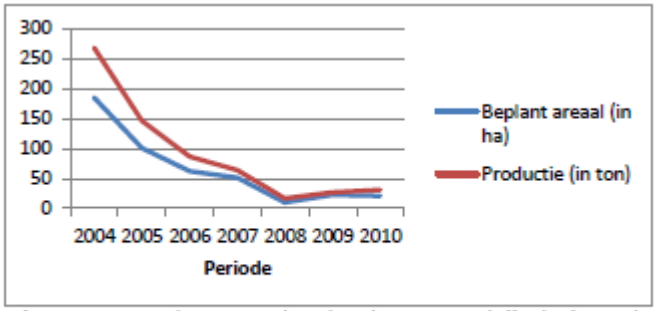
# 5 PEANUTS

Table 19: production and import data of the peanut crop in the period 2004-2010

| DESCRIPTION | UNIT | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|
| Area under cultivation | **ha** | **185** | **101** | **62** | **51** | **10** | **23** | **21** |
| Husked production | **tons** | **268** | **146** | **87** | **64** | **17** | **27** | **31** |
| Production value | **SRD1000** | **1,072** | **548** | **357** | **266** | **103** | **169** | **186** |
| **(Control)** | | **1,072** | **548** | **357** | **266** | **103** | **169** | **186** |
| Value per ton | SRD1 | 4,000 | 3,753 | 4,103 | 4,156 | 6,059 | 6,259 | 6,000 |
| Production per ha** | kg | 1,449 | 1,446 | 1,403 | 1,255 | 1,700 | 1,174 | 1,476 |
| **including in SARAMACCA** | | | | | | | | |
| Area under cultivation | ha | 150 | 75 | 45 | 34 | 5 | 17 | 15 |
| Husked production | tons | 225 | 113 | 68 | 42 | 9 | 20 | 22 |
| Production per ha** | kg | 1,500 | 1,507 | 1,511 | 1,235 | 1,800 | 1,176 | 1,467 |
| Farm gate prices (husked) | **SRD/kg** | **4.00** | **3.75** | **4.10** | **4.15** | **6.04** | **6.26** | **6.00** |
| Consumer price (Central Market) | ,, | 8.00 | 7.50 | 8.20 | 8.30 | 10.10 | 10.44 | 10.10 |
| **IMPORT:** | | | | | | | | |
| Peanuts - quantity | tons | 324 | 290 | 347 | 275 | 289 | 345 | 378 |
| - value | SRD1000 | 994 | 938 | 951 | 800 | 1,113 | 1,035 | 1,201 |
| Import value per ton | SRD | 3,067.9 | 3,234.5 | 2,740.6 | 2,909.1 | 3,851.2 | 3,000.0 | 3,177.2 |
| Peanut butter - quantity | tons | 243 | 313 | 411 | 367 | 432 | 203 | 380 |
| - value | SRD1000 | 1,140 | 1,574 | 2,105 | 2,118 | 2,390 | 1,464 | 2,502 |

*Source : Agricultural statistical data 2004-2009*

Table 19 provides an overview of the area under cultivation of peanuts, the production and several price data of the crop involved.
The drastic decline can be clearly seen. As the curves have almost the same development, it could be stated that the production per hectare remained almost the same. However, because of less sowing less yields were obtained.

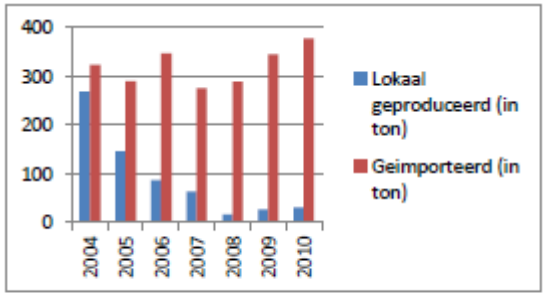



Figuur 32: verloop van het beplant areaal (in ha) en de productie (in ton) van het gewas pinda in de periode 2004-2010

Figure 32 shows the production development as well as the overview of the area under cultivation during the past seven years.

The drastic decline can be clearly seen. As the curves have almost the same development, it could be stated that the production per hectare remained almost the same, but because of less sowing there was less yield.

Figure 33 provides an overview of the quantity of peanuts that are locally produced and the quantity that is imported.




Figuur 33: overzicht van het aantal ton geproduceerde en geimporteerde hoeveelheid pinda in de periode 2004-2010

It goes without saying that the import of peanuts is many times higher than the local production. This indicates that there is indeed a demand for this crop. It is recommended to determine the cause of the low local production and how the government can anticipate on this.
Surinamese peanut farmers should in fact be able to easily supply the local market for 100% On the other hand, the interests of the peanut importers of course, also play a role.

Figure 33 also shows that more and more peanuts were imported in the past four years, excluding the import of peanut butter.

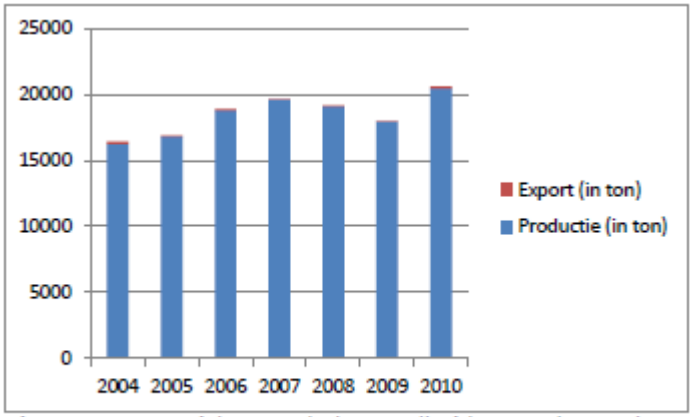
# 6 CITRUS FRUITS

Table 20: overview of production and import data of the citrus fruits in the period 2004-2010

| DESCRIPTION | UNIT | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|
| **AREA UNDER CULTIVATION:** | | | | | | | | |
| Oranges | **ha** | **1,252** | **1,307** | **1,280** | **1,321** | **1,216** | **1,420** | **1,414** |
| Grapefruit | **,,** | **114** | **117** | **113** | **107** | **110** | **105** | **113** |
| Pomelo | ,, | 89 | 131 | 140 | 151 | 125 | 123 | 120 |
| Mandarin*** | ,, | 72 | 60 | 69 | 74 | 44 | 40 | 37 |
| Lime | ,, | 10 | 8 | 15 | 28 | 24 | 23 | 22 |
| Tangelo | ,, | 24 | 24 | 24 | 23 | 35 | 38 | 39 |
| Other citrus fruits** | ,, | 122 | 177 | 173 | 194 | 160 | 153 | 141 |
| Total citrus fruits (exclusive of orange and grapefruit ) | **,,** | **317** | **400** | **421** | **470** | **388** | **377** | **359** |
| **TOTAL AREA UNDER CULTIVATION** | **ha** | **1,683** | **1,824** | **1,814** | **1,898** | **1,714** | **1,902** | **1,886** |
| **PRODUCTIVE ACREAGE** | **ha** | **1,500** | **1,612** | **1,630** | **1,690** | **1,370** | **1,435** | **1,415** |
| **PRODUCTION:** | | | | | | | | |
| Oranges | **tons** | **12,400** | **13,039** | **13,610** | **13,651** | **13,454** | **12,709** | **15,138** |
| Grapefruit | **,,** | **974** | **927** | **921** | **879** | **1,141** | **1,252** | **1,314** |
| Pomelo | ,, | 780 | 743 | 1,301 | 1,746 | 1,543 | 1,253 | 1,216 |
| Mandarin | ,, | 648 | 600 | 690 | 676 | 440 | 400 | 411 |
| Lime | ,, | 141 | 93 | 215 | 428 | 392 | 368 | 316 |
| Tangelo | ,, | 240 | 240 | 240 | 230 | 351 | 380 | 566 |
| Other citrus fruits** | ,, | 1,068 | 1,174 | 1,824 | 2,007 | 1,799 | 1,607 | 1,517 |
| Total citrus fruits (exclusive of orange and grapefruit ) | **,,** | **2,877** | **2,850** | **4,270** | **5,087** | **4,525** | **4,008** | **4,026** |
| **TOTAL PRODUCTION** | **tons** | **16,251** | **16,816** | **18,801** | **19,617** | **19,120** | **17,969** | **20,478** |
| **EXPORT CITRUS FRUITS** | | | | | | | | |
| Export quantity | tons | 172 | 80 | 92 | 69 | 43 | 11 | 159 |
| Export value | SRD1000 | 152 | 74 | 99 | 74 | 72 | 15 | 195 |
| Export value per ton | SRD | 883.7 | 925.0 | 1,076.1 | 1,072.5 | 1,674.4 | 1,363.6 | 1,226.4 |

*Source : Agricultural statistical data 2004-2009*

Table 20 demonstrates that the area under cultivation of citrus trees has changed little or not over the past years. The area under cultivation increased by approximately 10% in 2010 compared to 2004.
The production in 2010 increased by approximately 20% compared to 2004.
Figure 34 shows the distribution of the quantity of citrus fruits produced and the export quantity in the period from 2004 to 2010.



Figuur 34: overzicht van de hoeveelheid geproduceerde en geexporteerde citrusvruchten in de periode 2004-2010

It is clear that only a small part of the quantity of citrus fruits produced is being exported.
The question then presents itself: what is done with the remaining production?
This because of the fact that locally, citrus fruits are scarcely or not found on the local market. It can be found, but at a relatively high price.

# 7 TUBERS

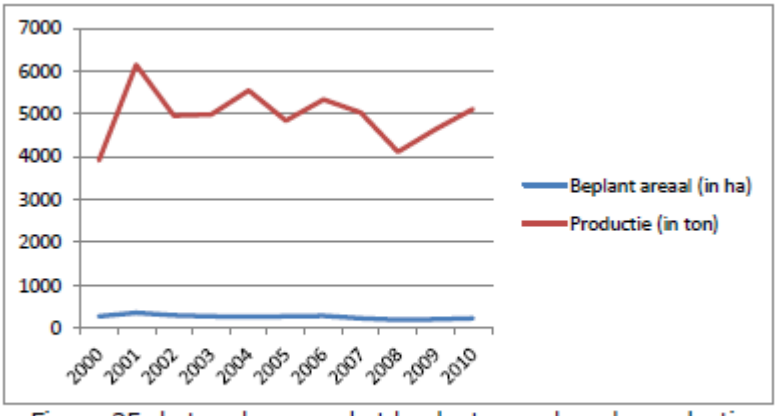
Table 21: overview of production data of tubers in the period 2000-2010

| DESCRIPTION | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AREA UNDER CULTIVATION (HA):** | | | | | | | | | | | |
| Sweet potatoes* | 15 | 13 | 13 | 18 | 16 | 49 | 43 | 45 | 41 | 7 | 24 |
| Cassava** | 192 | 265 | 225 | 200 | **199** | **187** | **206** | **155** | **115** | **142** | **168** |
| Pom tayer** | 46 | 48 | 50 | 40 | 37 | 22 | 19 | 12 | 15 | 25 | 17 |
| Chinese tayer (taro) | 11 | 14 | 9 | 9 | 9 | 10 | 10 | 12 | 14 | 20 | 14 |
| Purple Sweet Potato | 13 | 11 | 2 | 4 | 4 | 3 | 7 | 2 | 3 | 8 | 4 |
| **Total tubers (exclusive cassava)** | **85** | **86** | **74** | **71** | **66** | **84** | **79** | **71** | **73** | **60** | **59** |
| **TOTAL AREA UNDER CULTIVATION** | **277** | **351** | **299** | **271** | **265** | **271** | **285** | **226** | **188** | **202** | **227** |
| **PRODUCTION (TONS):** | | | | | | | | | | | |
| Sweet potatoes | 192 | 167 | 185 | 207 | 203 | 727 | 824 | 727 | 784 | 98 | 457 |
| Cassava** | 3,041 | 5,236 | 4,213 | 4,234 | **4,891** | **3,754** | **4,120** | **3,948** | **2,894** | **3,931** | **4,243** |
| Pom tayer** | 449 | 469 | 442 | 389 | 317 | 222 | 218 | 152 | 196 | 252 | 172 |
| Chinese tayer (taro) | 124 | 165 | 93 | 116 | 100 | 113 | 112 | 186 | 214 | 248 | 208 |
| Purple Sweet Potato | 109 | 110 | 26 | 36 | 41 | 30 | 65 | 22 | 31 | 121 | 41 |
| **Total tubers (exclusive cassava)** | 874 | 911 | 746 | 748 | **661** | **1,092** | **1,219** | **1,087** | **1,225** | **719** | **878** |
| **TOTAL PRODUCTION** | **3,915** | **6,147** | **4,959** | **4,982** | **5,552** | **4,846** | **5,339** | **5,035** | **4,119** | **4,650** | **5,121** |
| **PRICES (CENTRAL MARKET)** | **IN SF PER KG** | | | | **IN SRD PER KG** | | | | | | |
| Sweet potatoes | 1,271 | 713 | 1,313 | 2,887 | 2.43 | 4.18 | 4.85 | 4.86 | 4.79 | 5.27 | 5.17 |
| Cassava** | 1,330 | 883 | 581 | 2,709 | 1.38 | 1.85 | 3.37 | 3.21 | 2.96 | 2.75 | 2.47 |
| Pom tayer** | 1,166 | 1,628 | 2,280 | 3,245 | 3.51 | 3.46 | 6.18 | 5.03 | 3.88 | 4.19 | 9.42 |
| Chinese tayer (taro) | 891 | 1,085 | 1,493 | 3,484 | 2.72 | 3.39 | 4.89 | 4.95 | 7.52 | 9.60 | 4.08 |
| Purple Sweet Potato | 1,399 | 1,640 | 2,280 | 3,534 | 4.51 | 7.08 | 7.97 | 6.35 | 10.09 | 8.87 | 8.87 |

** Exclusively interior (Brokopondo, Sipaliwini, Marowijne-Interior)

*Source : Agricultural statistical data 2004-2009*

Table 21 shows that the price for pom tayer has drastically increased while that of Chinese tayer drastically fell.




Figuur 35: het verloop van het beplant areaal en de productie aan aardvruchten en de periode 2000-2010

Figure 35 shows that although the area under cultivation hardly differs in the past 10 years, the production of tubers fluctuates significantly.

# 8 SOURCES:


- Report: Doorrekening Fiscale voorzieningen voor de agrarische sector (2008).
- Annual Report LVV: 2005, 2006, 2007, 2008.
- Agricultural Statistics 2004 - 2009
- Statistical Analysis Fifth Agricultural Census Suriname 2008