## 

Support to Agricultural Policy Analysis in the Caribbean

**Agricultural Sector Support in Suriname**

**2016 Report**

FINAL VERSION

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# 1. Introduction

In 2012, the Inter-American Development Bank (IDB) carried out a study of the overall support to the agricultural sector in Suriname based on the OECD’s Producer Support Estimate Methodology (PSE) covering the period from 2006 - 2011.[[6]](#footnote-6) The present document provides an updated analysis of the effect of the public policy framework on the agricultural sector.

The relative importance of agriculture in Suriname’s economy has declined over the last two decades. While agricultural output showed strong fluctuations, the country’s economic growth was boosted by development in the mining and services sectors. However, agriculture is still of significant socio-economic relevance, as it is a major provider of employment in rural areas, earns 5% of foreign exchange[[7]](#footnote-7) and is a key contributor to food security through the production of rice, the population’s main staple food.

The Government of Suriname has repeatedly recognized the importance of developing the agricultural sector by increasing its productivity and competitiveness. In its 2010 statement ‘Crossroads – to better times together’, the Government of Suriname states that it gives ‘high priority to a set of programmes that aim to fulfil 85% of Suriname’s domestic food needs, and of which at least 40% of production is for export.’ The interest of the Government in the sector is also reflected in the agricultural policy support mechanisms it applies. These include trade protection, price policies, subsidies, as well as other instruments.

The PSE approach focuses on two main elements of support: (i) the impact of government policy on prices received by agricultural producers, and (ii) the support provided through budgetary transfers to the sector. The result of the analysis is a set of indicators that allows for comparison of support levels between years as well as commodities, and that could serve as a baseline against which the effects of agricultural policy reforms could be measured. In addition, the level of agricultural support in Suriname is compared with other countries in the region. The current report covers the period 2012 - 2014, since more recent production, price and budget information was not yet available. Therefore, the effects of the recent economic and financial crisis in Suriname are not yet reflected in these indicators. Once the results are validated, these will become part of the IDB’s Agrimonitor platform, a country-level database for Latin American and Caribbean countries of PSE indicators that enables policy makers and policy analysts to track agricultural policies and to assess and measure the composition of the support to agriculture.

In 2011, revenues from the sale of oil, bauxite and gold accounted for 88 percent of exports and 40 percent of government revenue. In 2015, government revenue and foreign exchange generation had become perilously dependent on these three commodities. When commodity prices dropped mid-2014 and Suriname’s aluminium refinery stopped operating late-2015, the Surinamese economy weakened significantly, with low growth and large fiscal and trade deficits. Foreign exchange reserves declined and the Surinamese Dollar (SRD) depreciated from SRD 3,25 to SRD 6,8 to the US Dollar between June 2015 and June 2016.

To address the deficits, the Government of Suriname requested the support of the International Monetary Fund (IMF). In May 2016, the IMF signed a 2-year Stand-by Arrangement with the Government of Suriname of USD 478 million, based on conditions enshrined in the country’s Stabilization and Recovery Plan (“Stabilisatie - en Herstelplan”) prepared by the Government of President Bouterse. It should be noted that the depreciated exchange rate and the changed macroeconomic situation and outlook may significantly affect the indicators presented in this report.

Before presenting the results of this quantitative analysis, a brief overview is given of the policies applied by the Government of Suriname to the agricultural sector as a whole as well as to different subsectors. The overview covers both the country’s trade policy framework as well as its domestic policies related to prices, marketing and taxation.

The last section of the report presents an overview of policy recommendations that are based on the analysis presented. These recommendations are meant to serve as inputs for evidence-based dialogue on potential policy changes that could strengthen the competitiveness of the agricultural sector in Suriname and render the policy framework more conducive to agricultural investment. This should result in agricultural growth and diversification of the economy, so to make it less dependent on the mining sector.

Updated descriptions of the key agricultural value chains of rice, bananas and poultry are also provided. These analyses give a more in-depth overview of the incentives and disincentives faced by producers of these commodities, and an indication of whether the observed distortions are the result of policies or specific value chain characteristics.

# 2. Overview of agricultural policies

## Economy of Suriname

***Suriname experienced a long period of stability and growth***

Suriname is a small middle-income country on the Northeast Coast of South America, covering an area of 164,000 sq. km, 80% of which is covered by tropical rainforest. About half of the country’s population of 538,200 (WDI, 2014) live in Paramaribo, the capital city.

The country is well-endowed with natural resources and its broadly open economy is largely dependent on the extractive industries, in particular, gold and oil (and previously bauxite). The agricultural sector represented a relatively small share of 7% of GDP in 2013[[8]](#footnote-8), though it remains important because of its contribution to employment and foreign exchange generation .

Following a period of highly volatile growth and near hyper-inflation in the 1990s, the economic outlook of Suriname had stabilized and the economy registered steady annual growth rates that averaged 4.1% between 2006 and 2012. In 2013, GDP growth reduced to 2.84%, and slowed further to 1.8% in 2014.

Table 1: Key economic indicators of Suriname

|  |  |  |
| --- | --- | --- |
| **Indicator** | **Unit** | **2013** |
| GDP (constant 2007 prices) | SRD bn | 10.147 |
| GDP growth | % | 2.84 |
| GDP per capita (constant prices) | $’000 | 19,21 |
| Population | ‘000 persons | 538.2 |
| % population in Urban Areas | % | 66.14 |
| Share of Agriculture in GDP | % | 7.00 |
| Share of Agriculture in Employment | % | 3.20 |
| Food Exports (% of Merchandise Exports) | % | 2.34 |
| Food Imports (% of Merchandise Imports) | % | 11.32 |
| Agri-Food Trade Balance | US$000 |  |
| Trade (% of GDP) | % of GDP |  |
| Agricultural land | sq. km | 832 |
| Share of Arable Land | % of land area | 38.46 |
| Share of Irrigated Land | % of agric. Land | NA |

Source: WDI

***In 2015 the economy went into a crisis as a result of falling commodity prices***

As a result of the high commodity prices, exports of natural resources oil, bauxite and gold had become increasingly important for the generation of foreign exchange and revenues. In 2015, mining revenues contributed to 15% of government revenue compared to about 40% in 2011. Following the drop in commodity prices and the cessation of operations of the country’s alumina refinery during 2015, Suriname was faced with significant fiscal and trade deficits. In 2015, the fiscal deficit reached 8.8% of GDP, and in the first four months of 2016 foreign exchange reserves strongly declined by 30% compared to December 2015. In March 2016, consumer inflation reached 37 percent as a result of pass-through from the fall in currency value and higher utility costs from the increase in electricity and water tariffs. At the same time, export revenue per capita decreased by 25.4 per cent between 2015 and 2010, while per capita imports increased by 53,5 per cent. The sustained low commodity prices and the closure of the alumina company in late 2015 pushed the economy into a severe recession and the government embarked on an economic adjustment program through a 2-year IMF Stand-by Arrangement (SBA). [[9]](#footnote-9)

Under the SBA, the IMF will provide Suriname with USD 478 million of BOP assistance over a 24-month period. The agreed programme aims to restore Suriname’s macroeconomic stability and confidence, and pave the way to economic recovery.

The agreed programme will consist of the following key components:

* Fiscal reforms, including the phasing out of electricity subsidies, wage restraints for the public sector and increases in fuel taxes, among others. This should bring down the fiscal deficit to 1.4 per cent of GDP in 2018.
* Increased social cash transfers to ensure that the negative impacts of the adjustments are softened for low-income households.
* In the field of monetary and foreign exchange policy, a transition to a floating exchange rate. This should increase the country’s foreign currency reserves and bring inflation down to single digits.
* Finally, structural reforms to improve the business environment, with a particular focus on enhancing the productivity and competitiveness of the agricultural sector.

***The Stabilization and Recovery Plan refocuses on agricultural exports***

The details of the reforms are set out in the Government’s Stabilization and Recovery Plan, which was presented in the National Assembly on the June 1st, 2016. The two-year (2016 – 2018) Plan clearly recognizes the need for Suriname to adjust its economy by increasing production and changing the structure of imports from consumption to investment goods.

Table 1 provides an overview of the key measures of the Plan that may affect the agricultural sector in Suriname.

Table 2: Key Measures of the 2016 - 2018 Recovery and Stabilization Plan

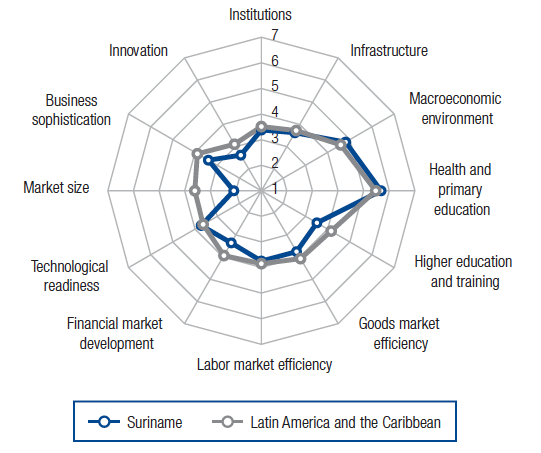
|  |  |  |
| --- | --- | --- |
| Fiscal Measures | | |
|  | Introduction of Value-Added Tax | |
|  | Termination of subsidies on water, energy and gas | |
| Monetary Measures | | |
|  | Introduction of currency auctions started in March 2016 | |
|  | Introduction of a floating, marketed-determined exchange rate | |
| Urgent Investment Measures | | Amount |
|  | Transforming the company registration and licensing regulations to improve the investment climate | SRD 35,750,700 |
|  | Investment in growth and diversification of export in agro-processing, wood processing and fisheries | SRD 3,575,000 |
|  | Rehabilitation and restructuration of Alliance | SRD 32,282,738 |
|  | Development of the livestock sector | SRD 289,347,500 |
|  | Rehabilitation of Wageningen Pumping Station | SRD 197,632,500 |
| Short Term Growth Investment Measures | | |
|  | Rice parastatal SML (Stichting Machinale Landbouw) will be sold to a private investor through a transparent process led by an international financial institution | |
| Medium Term Growth Investment Measures | | |
|  | Development of cocoa production in Suriname | SRD 588,250,000 |
|  | Development of coco production in Suriname | SRD 568,831,227 |
|  | Establishing 20 ha of production of aloe barbadensis to be processed to aloe gel | SRD 12,969,476 |

Source: Republic of Suriname, Stabilisatie en Herstelplan 2016-2018

***Overall competitiveness remains low***

Overall competitiveness of the economy of Suriname remains indeed a key issue limiting economic growth. On the Global Competitiveness Index of the World Economic Forum (WEF), Suriname ranks 110 out of 144 countries analyzed. As shown in Figure 1, the country scores below the average for Latin America and the Caribbean in areas such as financial market development, business sophistication and innovation. According to the WEF, the most problematic factors for doing business in Suriname include inefficient government bureaucracy, corruption and limited access to finance.

Figure 1: Competitiveness in Suriname



Source: Global Competitiveness Index, World Economic Forum, 2014

In the 2016 Doing Business Indicators of the World Bank, Suriname ranks 156 out of a total of 189 countries analysed. The country is particularly notorious for its lengthy and numerous procedures to start a business and its relatively slow judicial system. Nonetheless, progress was also made in 2015 when the automated customs data management system (ASYCUDA) became fully operational in Suriname. This will allow businesses to complete all customs procedures electronically, which will reduce the cost for exports of key agricultural commodities such as rice and bananas.

## Role of the Agricultural Sector

Against the backdrop of a challenging macro-economic situation that brings about high levels of economic uncertainty, the overall prospects for the country’s agricultural sector are mixed. Throughout the last decades, the share of agriculture in the economy fell significantly from levels around 15% of GDP in the mid-1990s to 7% in 2013. The subsectors of rice and bananas, Suriname’s most important crops, are facing challenges to improve their cost structures and remain competitive. The banana industry, which produces the second most important commodity in terms of value of production and the country’s most important agricultural export, faces strong competition from other Latin American producers as a result of changes to the EU’s preferential tariff regime and is confronted with high costs of production, low labor productivity and crop diseases. At the same time, rice producers are increasingly calling for government support to reduce the high cost levels of inputs and transportation that undermine their competitiveness in international rice markets[[10]](#footnote-10).

Still, Suriname remains a country with strong potential for agricultural development. Of the country’s total 1.5 million ha that are considered suitable for agricultural production, it is estimated that only 120,000 ha are currently used for crop cultivation and pastures.[[11]](#footnote-11) Approximately 85% of the suitable agricultural land is located in the country’s coastal plains, which also boast the main production areas in the districts of Nickerie, Coronie, Saramacca and Commewijne.[[12]](#footnote-12)

Figure 1 provides an overview of the value of production of agricultural commodities in Suriname. Besides rice and bananas, other important crops produced in Suriname are vegetables, plantains, citrus, fruits, and cassava. The main livestock products include poultry meat, beef, and pork, as well as milk and eggs.

Figure 2: Value of production of main agricultural commodities in Suriname (in million SRD and share of total), 2006 - 2013

Source: FAOSTAT

Although the relative importance of agriculture in the economy has decreased, agricultural exports have demonstrated a mostly upward trend over the period since 2007. As shown in Figure 3, total agricultural exports increased from USD 69 million in 2007 to USD 115 million in 2013. The total value of banana exports more than doubled from USD 16.6 million in 2007 to over USD 34 million in 2011. Nonetheless, banana production is now decreasing again. Together, rice and bananas are not only the major crops in terms of production, but also consistently continue to represent over 50% of agricultural exports throughout the period under review.

Figure 3: Value of main agricultural exports, 2007 - 2013, in million USD

Source: FAOSTAT and LVV

## Introduction to Agricultural Policy

In its 2010-2015 government statement ‘Crossroads – Together towards better times’, the Government of Suriname stated that increasing food production was among the key priorities of its policy agenda, and that the agricultural sector should focus both on food production for local consumption as well as to supply international (and, in particular, regional) markets[[13]](#footnote-13). In the same document, it was also announced that the Government would prepare a number of white papers to set out its priorities for development and growth in the country’s main agricultural subsectors.

The general government policy for the agricultural sector is laid down in the Policy Note (“Beleidsnota”) LVV 2010 – 2015. That policy note builds on the 2005 – 2010 Agriculture Sector Programme (ASP) that focused on three main objectives, 1) food security and safety, 2) income generation and 3) contribution to the economy. The programme was financed through an Agricultural Sector Fund that relied heavily on resources from the Netherlands, committed under the Dutch-Suriname Treaty on Development Assistance. As a result of the treaty’s phase-out in 2010, the ASP could not be extended beyond mid-2009[[14]](#footnote-14).

The Beleidsnota LVV 2010-2015 has been the principal policy document for the Ministry of Agriculture, Animal Husbandry and Fisheries (LVV) and was drafted in just three months after the installation of the first Government of President Bouterse[[15]](#footnote-15). The note expands the number of strategic objectives of agricultural policy from the former three to seven:

1. To guarantee the food security of the population of Suriname;
2. To secure agricultural health and food safety;
3. To develop a sustainable agricultural sector;
4. To transform the agricultural sector into the food producer and supplier of the Caribbean region;
5. To increase the contribution of the agricultural sector to the national economy;
6. To create the spatial conditions for sustainable development of the agricultural sector; and
7. To manage the preconditions and risks regarding the implementation of agricultural policy.

In addition to the sector-wide Policy Note, White Papers were drafted for the following subsectors: Rice; Bananas; Livestock; Horticulture; Fisheries and Aquaculture; Agribusiness; Agricultural Health and Food Safety; and Agricultural Development of the Interior.

Despite the fact that the Beleidsnota and the White Papers were initially prepared for a five-year period, since 2015 no new agricultural policy documents have been drafted. The Ministry of LVV indicated that the Directorate of Planning is currently working on a new strategic policy plan for the agricultural sector for the period until 2020.

***LVV is the main implementer of agricultural sector support***

The Ministry of Agriculture, Animal Husbandry and Fisheries (LVV) is the main institution responsible for the administration of public sector programmes and projects of Suriname’s agriculture, fisheries and livestock sectors. The Ministry is politically directed by the Minister of Agriculture, while the civil service is headed by a Permanent Secretary. The Ministry consists of five departments: (i) crops, (ii) livestock, (iii) fisheries, (iv) research, marketing and processing and (v) administrative services. The directors of these departments, together with the Permanent Secretary, make up the management team of the Ministry[[16]](#footnote-16).

The Ministry also carries the administrative responsibility for a set of foundations and state-owned companies that are active in the agricultural sector. The most important of these are listed in Table 1. In the budget of the Ministry, the profits (or losses) from these parastatals are not individually recorded, but only collectively. In 2014, parastatal enterprises’ contribution amounted to a mere SRD 230,000 on a total of SRD 7.071 million non-tax income, which also includes income generated from the delivery of services by the Ministry. The majority of non-tax revenues collected by the Ministry therefore comes not from parastatals, but from animal slaughtering inspection and certification (in 2014: SRD 2.64 million) and commercial fishing licenses (in 2014: SRD 3.168 million).

Table 3: Overview of key public sector foundations and enterprises under administrative responsibility of the Ministry of LVV

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Activity** | **Legal status** | **Remarks** |
| Centrale voor Vissershaven in Suriname (CEVIHAS) | Central fishing port | Joint Stock |  |
| Innovative Agro Processing Indsutries (IAP NV | Cassava processing | Joint Stock |  |
| Landsbedrijf Alliance (ALLIANCE) | Fruit plantations | Special Law |  |
| Melkcentrale Industrie | Milk production and import | Joint Stock |  |
| Surinaamse Amerikaanse Industriemaatschappij (SAIL) | Shrimp fishing and processing | Joint Stock |  |

Source: Roseboom (2012), World Trade Organization (2013) and LVV (2016)

Compared to the earlier analysis of Agricultural Sector Support, two important changes to parastatals under the Ministry of LVV should be noted. First, the privatization of the former state-owned banana company Stichting Bananenbehoud Suriname (SBBS), which was concluded in 2014. Second, in 2015, the cassava processing company Innovative Agro Processing (IAP) NV came under responsibility of the Ministry.

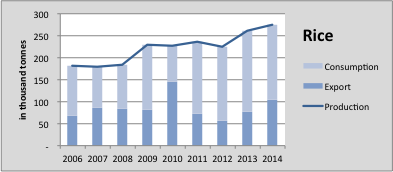
The total budget of the Ministry of Agriculture, Animal Husbandry and Fisheries showed significant fluctuations. The total budget in 2014 amounted to SRD 271,56 mln, of which 15% (SRD 40,38 mln) consisted of administrative costs, while the remaining 85% (SRD 231,18 mln) was budgeted for programme costs.

## Commodity Specific Measures

#### Rice [[17]](#footnote-17)

Rice is Suriname’s most important agricultural crop. It is the product with the highest share in total value of agricultural production and it is the population’s main staple food. The importance of rice in the Surinamese diet is greater than in many other countries in the region, including Jamaica, Brazil and Venezuela. In 2011, rice consumption in Suriname amounted to 69 kg per head, representing an energy supply of 638 kcals per day (just over 23% of total per capita calorie intake). In addition, it is the second most important agricultural export in value terms after bananas. Since 1990, the subsector has witnessed significant variability in total production, mainly because of fluctuations in the area harvested. Total production reached a peak of 327,000 tons in 1985, before dropping to levels between 150,000-170,000 tons in the 2000 – 2004 period. Higher costs of inputs, poor infrastructure and reduced access to finance were considered as the main reasons of the decline in rice production[[18]](#footnote-18). Currently, rice production is showing an upward trend with paddy production returning to levels consistently above 200,000 tons since 2009 (see Figure 5). This growth is driven primarily by higher domestic consumption levels, while exports have hovered between 50,000 and 100,000 tons throughout the last four years.

Figure 4: Rice production, consumption and export in Suriname, 2006 - 2014, in thousand tons



Source: Ministry of Agriculture, Agricultural Statistics, 2015

Rice production is strongly concentrated in the western coastal districts of Nickerie, Coronie and Saramacca. The Nickerie district alone represents approximately 80% of the area under cultivation.[[19]](#footnote-19)

Given its key economic importance, the rice subsector is the main focus of Suriname’s agricultural policy and has been the subject of various policy measures, including direct payments to producers, fuel subsidies, export taxes, and government support to irrigation, water management, access to inputs and rice research. The policy objectives of the Government for the rice sector include the improvement of infrastructure, access to inputs, higher levels of product quality and increased access to finance for producers and processors. The basic document that lays down the policy priorities of the Government for rice is the rice subsector White Paper.[[20]](#footnote-20)

*An export tax is levied on all rice exports*

The tax on all rice exports amounts to SRD 10 per ton and is levied at the border. The tax is generally referred to as an inspection fee. Of the SRD 10, the amount of SRD 6 is used as a funding source for the Anne van Dijk Rice Research Centre. The remaining SRD 4 is captured by the Ministry of Agriculture and is included in its budget as a non-tax revenue.

*In 2013, all rice farmers received an incentive based on output*

In 2013, the Government paid rice farmers a subsidy (usually referred to as ‘incentive’) of SRD 2,13 per bag of 79 kg of wet paddy rice, in order to compensate rice producers for the increased tax on fuel that was introduced by the new Government in 2011, the so-called “Government Take”. Though initially the subsidy was planned to take place as an area payment of SRD 130 per hectare planted, the Ministry of Agriculture decided to convert the payment to a production subsidy paid out on the basis of bags of paddy rice produced. This meant that farmers with higher productivity levels benefited more than less productive farmers. The subsidy was eventually paid out to farmers in March 2013 through the banking system to promote that, where applicable, the subsidy was used to settle overdue debts and increase producers’ credit standing.

The compensation payment for high fuel costs – which represent 10-15% of the total cost of production for rice[[21]](#footnote-21) - was not new; in the period 2003 - 2006, rice farmers benefited from the reimbursement of the Government Take on fuel up to a limit of 125 litres per hectare. The funds for this fuel subsidy were provided by the Ministry of Finance, while the Ministry of Agriculture implemented the measure by keeping required records and arranging payments to farmers. For the year 2006, a total sum of USD 1.7 million was paid in support to producers. Approximately 1270 farmers benefited from this support measure with an average payment of SRD 1340 per farmer.[[22]](#footnote-22)

*In 2014 and 2015, small & medium-sized farmers received support based on acreage*

Though the payment to rice farmers was labelled by the Government as an ad-hoc policy measure, assistance was provided repeatedly in the consecutive years. In 2014, small and medium-sized farmers with 1 to 200 hectares in production received an area payment of SRD 480 per hectare. For this payment, no differentiation was made between farmers based on productivity. The payment was funded from the “export promotion” budget line of the Ministry of LVV and the total cost of the support for the Government budget amounted to SRD 12 million.[[23]](#footnote-23) An area payment was suggested in the 2013 Agricultural Sector Support report as a more effective measure to reduce the debt-burden of producers than a payment based on output. Namely, farmers with low productivity levels need liquidity most, as they require it for productivity-enhancing investments. However, a payment based on output primarily benefits those farmers that already have relatively high productivity. In addition, a direct income payment based on acreage is less price distorting.

In 2015, the Minister of LVV reached an agreement with the Association of Surinamese Paddy Farmers and other farmers organizations for a total support of SRD 431 per hectare. This support consisted of an area payment of USD 60 (SRD 230) per hectare, a bag of NPK and a bag of Ureum. However, in September 2015, LVV had to withdraw from this agreement when the budget of LVV did now allow for an area payment of USD 60. [[24]](#footnote-24)

Given LVV’s budget cuts for 2016, it is not expected that any support payment will be provided to rice farmers this year.

Another important element of government support to the rice subsector is offered through the para-statal National Rice Research Foundation, in particular the Anne van Dijk Rice Research Centre (ADRON). Its budget is covered by the sector through the 60% share of the export tax, which is allocated to ADRON. The main focus of ADRON’s research program is on seed development, pest and disease control and crop management.

Under the EU support programme for the competitiveness of the rice subsector in African, Caribbean and Pacific (ACP) countries, EUR 9.25 million was allocated to Suriname for the 2008 – 2013 period. These funds were used for capacity building, credit provision through the Rice Fund, and rehabilitation of infrastructure.

I would have also included a line or two on RICE and the PSE calculations. Evidentially rice is important and so this section was needed, but here we treat the support given as external to the same support outlined in the PSE calculation…but the payments by ha etc is actually direct support. I am sure this is explained better later, but in the interim we do not want persons to start thinking that the support discussed in this section is unrelated to what is discussed later.

#### Bananas

Bananas are Suriname’s most important agricultural export product. However, the sub-sector is currently witnessing a number of major problems that are threatening the long-term sustainability of banana production in Suriname.

*From 2002 until 2013, the banana sector was state-owned*

Though the cultivation of bananas goes back to the 1960s, the subsector witnessed a dramatic collapse of production following the bankruptcy of the state-owned banana company Surland N.V. in 2002. Before the collapse of Surland, production hovered around 40,000 tons per year. Given the importance of the banana subsector for Suriname’s economy in general and its foreign exchange earnings in particular, the Government decided to implement a restructuring plan for viable long term development of the banana subsector that could compete in a liberalized world market. The assets and activities of Surland were brought under the Stichting Behoud Bananen Sector (SBBS), a newly established state-owned banana company.

External stakeholders, SBBS management, and the Government repeatedly stated that privatization of SBBS was the only sustainable way to ensure a future for the company. In 2005 and 2009, attempts to privatize SBBS were unsuccessful and the company remained under state ownership. In a letter to the European Union in June 2012, the Government of Suriname reaffirmed its commitment to privatization, and a third attempt to transfer SBBS’ ownership to the private sector was launched.

*Privatization was completed, but banana company struggles*

The takeover was finalized in 2014, when the Belgian group Univeg became owner of SBBS under the new company name Food and Agriculture Industries (FAI) N.V. Since the privatization, production dropped by 20% from 80,559 tons in 2013 to 62,937 tons in 2015. In addition, FAI recorded losses of up to USD 10 mln in 2014 and USD 13 mln in 2015. The reasons for these losses were both internal and external.

Table 4: Key Indicators Bananas



Source: FAI, 2016

Externally, FAI suffered from the relatively high value of the US dollar compared to the Euro, as most costs of the company are expressed in USD while its income is generated in Euros (nearly the entire production is sold in the European Union). In addition, contrary to expectations, world market prices of bananas have also gone down. As a small player in the global market for bananas, FAI is price taker.

Internally, a key factor affecting banana production is the fact that the estate in Jarikaba, the largest of the two estates, is affected by the banana crop disease moko. According to FAI, the disease was already known by the Government before the privatization but never reported during the due diligence period. As a result, FAI claims it has paid too high of a price for SBBS.

In order to decrease labour cost, the total workforce of the company has been brought down to under 2000 staff in early 2016 (down from 2,600 at the time of the acquisition). With this figure, however, FAI still remains the second biggest employer in Suriname after the Government.

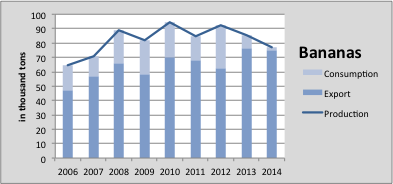
In order to re-capitalize FAI, the company has requested the Government to provide USD 9 mln worth of shareholder loans, and/or to provide guarantees to commercial banks so that it could take out loans. This capital would be used to improve the efficiency of the company’s operations and enhance its competitiveness by investing in new cableways and improving irrigation and drainage on the farms.

In 2015, FAI’s exemption of import tax on petroleum has been revoked. This resulted in USD 250-300k of additional fuel costs.

Finally, the competitiveness of the second estate in Nickerie also remains limited. Though the farm is not affected by moko disease, the distance from Paramaribo results in high transportation costs. These could be reduced if the mouth of the Nickerie River was to be dredged, so that banana boats would be able to access the port of Nickerie. The additional trucking costs related to the absence of a functioning port in Nickerie that can be used to ship banana produce, are estimated to amount approximately to USD 1 million per year.

As part of the 2010 Geneva Agreement on Trade in Bananas, Suriname received an additional EUR 9.3 million over the period 2012 - 2016, allocated to investments in infrastructure as well as to improve the social and environmental conditions on the estates. This should result in lower costs, increased productivity and higher production quality to improve the sector’s market position and competitiveness in the international market. The additional multi-annual support compensates the Surinamese banana subsector for the reduction in the preferential margins for ACP countries to access the European banana market from EUR 3,26/box in 2010 to EUR 1,38/box in 2020. Under the EU’s Banana Accompanying Measures, the company expects that of the total amount of EUR 9 million that the EU had allocated to Suriname to increase the competitiveness of the Surinamese banana sector, EUR 7 million will be disbursed.

Figure 5: Banana production, consumption and export in Suriname, 2006 - 2011, in thousand tons



Source: Ministry of Agriculture, Agricultural Statistics, 2015

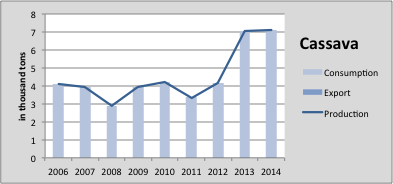
Besides the state ownership up to 2014, there is no explicit export policy that affects the banana subsector, and domestic (farm-gate) prices are not available, as the value chain for bananas is integrated and only FOB prices are recorded. As a result, market price support to bananas in the analysis was set to zero. Further detail can be found in the Annexes to this report, which include a more specific overview of the characteristics and costs of the banana value chain in Suriname.

#### Cassava

Historically, cassava has been mainly produced as a staple food in the interior of Suriname. Currently, however, cassava production has received increased interest from the Government of Suriname and private investors alike. In 2010, the Government initiated a cassava initiative to boost production of cassava for processing into flour. Cassava flour could be used to produce bread, thereby reducing the wheat import bill. In addition, the 2010 Beleidswitboek Veeteelt (Policy White Paper for Livestock) mentions cassava as a possible crop to be processed into animal feed, in order to reduce Suriname’s dependency on imported feed. Furthermore, private company Unifood Suriname has started the production of cassava for export as block and grated fresh cassava (frozen) to the European market. Finally, the agricultural research institute CELOS is running a long-term cassava improvement programme.

The main component of the cassava initiative was the establishment of a cassava processing factory for flour near Zanderij, funded through a Government-backed loan, by Innovative Agro Processing Industries NV (IAP). The processing capacity of the plant, which was opened in December 2012, is 30 tons of raw cassava per day. It was announced that the fresh produce would be procured from small producers at a ‘guaranteed’ purchasing price of USD 0.60 per kg, which is higher than the international market price. Also, reported farm-gate prices are significantly lower that USD 0.60 per kg, and were SRD 1,22, or USD 0,37 on average in 2014. One year after finalization of the plant, its ownership was transferred from IAP to the Government for a symbolic sale price of SRD 1. Initially, the factory was incorporated in the budget of the Ministry of Foreign Affairs and then the Ministry of Finance. This goes against the Government’s stated objective of reducing the state-ownership of agricultural enterprises. However, the Ministry of Finance indicated that the decision was justified as “the Government had identified a chance and sought to promote it as part of its responsibility to enable revenue generation and increase employment.” In 2014, the Ministry of Finance provided a SRD 2,4 mln loan to IAP for the procurement and processing of cassava. News reports repeatedly indicated that the factory was not or hardly operating. According to LVV, however, in the period 2013 – 2015, the plant procured a total of 328 tons of cassava at USD 0,60 per kg. This does not seem to be supported by the production statistics of cassava presented in Figure 8. Though cassava production doubled, the Ministry’s agricultural statistics indicate that in 2013 and 2014, total volume hovered around 7,000 tons per annum.

Figure 6: Cassava production, consumption and export in Suriname, 2006 - 2014, in thousand tons



Source: Ministry of Agriculture, Agricultural Statistics, 2015

In September 2015, the processing plant was put under the responsibility and budget of LVV and the Minister announced an investigation into IAP’s operations. A key message was that the procurement price of USD 0,60 per kg was no longer feasible and that a more plausible price would be in the range of USD 0,48-0,50 per kg.[[25]](#footnote-25)

Since it is not clear to what extent any subsidies have been given to the cassava sector, neither the guaranteed purchasing price nor the loans to IAP have been included in the PSE calculations.

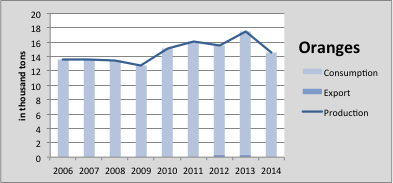
Despite the fact that some contacts between the research center CELOS and the Government’s Cassava Initiative were established, surprisingly Suriname’s primary agricultural research institute has not been involved in the initiative in a structural manner. At the same time, private sector stakeholders mentioned to the research team that information from CELOS regarding its cassava breeding program was not readily available. Though initially the role of LVV in the coordination of the cassava initiative seems somewhat unclear and limited, it is now expected to become actively involved in IAP’s operations and the training of cassava farmers. Already in 2012, approximately 50 officers of the Ministry’s agricultural extension department have been trained in propagation of cassava planting material and cultivation of cassava to guide small and medium growers in setting up their cassava plantations. In 2013, approximately 800 farmers received training on cassava cultivation nation-wide.

#### Oranges

In general, fruits and vegetables are grown by small and part-time producers on a total of approximately 1,000 ha, with small farm sizes ranging from 0.5 – 2 ha. Oranges, and citrus-fruits in general, are produced in Suriname almost entirely for domestic consumption, as can be seen in Figure 9. During the period under review, production remained largely stable.

Production of citrus fruits also takes place on the estate of Alliance, a former sugar cane plantation in the Commewijne district that is now owned by the Government – operating as a parastatal – and that is entirely focused on citrus production. Early 2013, reports emerged that retail prices of oranges spiked to almost 5 SRD per orange as a result fruit shortages following years of neglect of citrus production.[[26]](#footnote-26)

Figure 7: Orange production, consumption and export in Suriname, 2006 - 2014, in thousand tons



Source: Ministry of Agriculture, Agricultural Statistics, 2015

In January 2016, LVV announced that it had started to grow orange tree cuttings on 10 ha of the State Farm in Wanica. In 2018, the orange trees of the pera-type will start to carry fruit and will be sold to private farmers in an effort to boost citrus production. [[27]](#footnote-27) For the same purpose, the Alliance plantation will be rehabilitated under the 2016 – 2018 Recovery and Stabilization Plan.

#### Meat

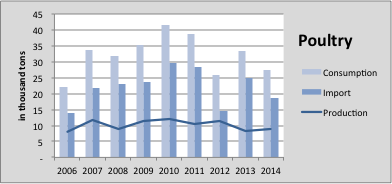
In the early 1990s, Suriname’s self-sufficiency rate for livestock products was around 100%; today Suriname is a net importer of all livestock products, as the current production levels do not meet the domestic demand for these products. Overall, the sector attracts low levels of investment compared to crops. In various subsectors, including meat cattle, dairy cattle and poultry, the number of farms has been decreasing. In the vast majority of farms, animal husbandry is a part-time economic activity. In addition, the absence of domestic feed production has driven up the cost of production of most meat products, and the processing industry is weakly developed.[[28]](#footnote-28)

Poultry meat[[29]](#footnote-29) is the most popular source of animal protein in Suriname. With a consumption level of almost 50 kg per capita, the Surinamese are among the countries in the world with highest poultry per capita consumption.

The macro-economic imbalances and foreign exchange shortages of the 1980s and 1990s have had a strong effect on the Surinamese poultry subsector. Given the sector’s high dependency on imported feed, in the early 1990s farmers were confronted with limitations to the availability of foreign exchange to finance chicken feed and medicines, which together constitute the main cost component of poultry production. This led to a scarcity of poultry meat and high consumer prices. In order to ensure the availability of affordable chicken for the population, the Government lifted the import ban for poultry meat and the first bulk of leg quarters was imported in 1992. This resulted in benefits for consumers who pay lower market prices for poultry, also in comparison to other countries in the region that maintain high protection levels for poultry (such as Jamaica, which has in place a 260% tariff, Barbados 184% and neighbouring Guyana at 100%). The growing demand for lower-priced imported chicken was reflected in a solid growth of the share of imported poultry meat. The total consumption of chicken is covered by imports for approximately 75-80%. As described in the value chain study on poultry in Annex III, however, the poultry market in Suriname remains divided; imported products are not considered perfect substitutes for domestically raised chicken. Consumers have a strong preference for domestic chicken, which sells at a premium of around 100% over poultry meat imported from the United States.

The low competitiveness of the sector vis-à-vis imports from Brazil and the US seems to be taking its toll on poultry production. In the period under review, overall poultry production went down from 7 mln slaughtered animals in 2012 to 5.2 mln slaughtered animals in 2014. During the same period, poultry meat imports increased by nearly 50% from 12.408 tons to 17.960 tons. As a result of the current financial crisis and decreasing exchange rate, local poultry farmers may be better able to compete with imports which are becoming more expensive in the Surinamese market.

Figure 8: Poultry production, consumption and import in Suriname, 2006 - 2014, in thousand tons



Source: Ministry of Agriculture, Agricultural Statistics, 2015

As can be seen in Figure 10, beef consumption in Suriname has been growing steadily until 2009 and then stabilized. The subsector is relatively small; though the Ministry of Agriculture lists around 1,000 cattle farms, only 24 of those farms have 50 or more cattle, and just six farms exist that boast a herd of more than 200 animals. The total number of animals is decreasing gradually. In 2012, the total herd counted 57,136 heads. In 2014, this has reduced to 36,138 heads. Pork production is even more concentrated, as pig breeding takes place in around 150 farms in the districts of Wanica, Saramacca and Coronie. The total number of animals is practically stable at around 32-36,000 heads.

As shown in Figure 11, pork consumption also follows a slowly growing trend. Both pork and beef subsectors remain dependent on imported feed components that limit their competitiveness and capacity to compete with beef and pork meat imports. The dependency on imported feed components for cattle is related to the average farm size. In Suriname, cattle is mostly held in a semi-intensive way in which the animals are provided with additional feed. Particularly animals bought from other farms are fattened for beef production through supplementary feeding, while cattle that originates from the farm is more often grass-fed. [[30]](#footnote-30) A lower dependency on imported feed, achieved for example through more extensive farming and pasture-based production, would increase the competitiveness of the cattle subsector. Under the current depreciation of the local currency, the sector is becoming better able to compete with imports as these become more expensive. However, farmers will also be faced with increased feed costs.

Figure 9: Beef production, consumption and import in Suriname, 2006 - 2015, in thousand tons

Source: Ministry of Agriculture, Agricultural Statistics, 2015

Figure 10: Pork production, consumption and import in Suriname, 2006 - 2014, in thousand tons

Source: Ministry of Agriculture, Agricultural Statistics, 2015

#### Milk

The milk subsector is the most regulated subsector of the Surinamese agriculture. The Melkcentrale Paramaribo (MCP) is a parastatal that is bound to buy all raw milk offered by farmers at a fixed price. It is estimated that approximately 580, or almost 60% of all dairy farmers, sell to MCP, and the processing plant produces 80% of all domestically produced milk. The total raw milk sold to MCP has been steadily declining throughout the 2012 – 2014 period. In 2014, the MCP purchased 4.07 mln liters of farm milk again 4.80 mln liters in 2012 and over 5 mln liters in 2011.

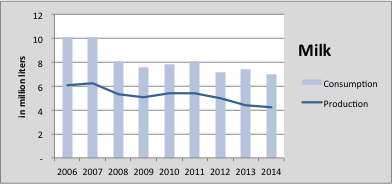
The raw milk constitutes approximately 60-70% of total production of MCP, while 30-40% consists of imported milk powder, primarily from The Netherlands, but the share of milk powder is increasing. In 2014, 40% of MCP’s production came from processed milk powder, while in 2012 the share was 30%. The other three, non-state owned dairy processors do not respect the obligation to buy raw milk from farmers and only process imported milk powder. The fixed price of milk has increased significantly over the last years. The most recent increase took place in 2016, when the retail price per litre moved to SRD 4,95.

The price of milk, both at retail and farm gate levels, is set by the Ministry of Agriculture and the Ministry of Trade and Industry. The farm gate price is largely based on the cost price of milk. This cost price, on its turn, is determined by a committee which has the above-mentioned ministries, as well as the Union of Dairy Cattle Farmers and the Association of Surinamese Dairy Farmers (VSMB) as its members. The official minimum price for farmers has been increased to SRD 2,75 in April 2016, after being set at SRD 2,5 per litre for several years including the entire 2011 – 2014 period.

In the medium term, the price policy in the milk subsector is unsustainable as it keeps unproductive and unprofitable farms in operation and reduces the need for producers to make productivity-enhancing investments. The lack of productivity in milk production is confirmed by various reports.[[31]](#footnote-31)

Despite the Government’s regulation of the subsector through price policies and state ownership of the Melkcentrale, experts have indicated that the subsector needs to modernise to survive, mainly by improving product quality through better feed, joint procurement of inputs by farmers, more efficient milk collection and improved quality control. This should bring down the costs of production of milk in Suriname and should allow the Government to abandon its price setting policies. [[32]](#footnote-32)

Figure 11: Milk production and consumption a in Suriname, 2006 - 2014, in million liters

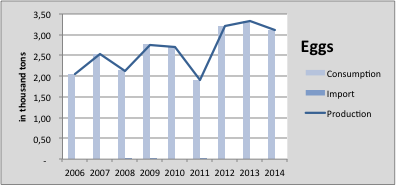


Source: Ministry of Agriculture, Agricultural Statistics, 2015

#### Eggs

All eggs consumed in Suriname are domestically produced, and Suriname has been self-sufficient in egg production for all years in the period under review. The total number of broilers in the country amounted to 214,000 in 2009. The main challenge for the production of eggs remains the high cost of feed for broilers, as most feed components for poultry are imported.[[33]](#footnote-33)

Figure 12: Egg production, consumption and import in Suriname, 2006 - 2014, in thousand tons



Source: Ministry of Agriculture, Agricultural Statistics, 2015

## Trade Regulations

#### General orientation of trade policy

The general trade policy orientation towards trade liberalization of Suriname is aimed at improving efficiency and identifying Suriname’s key strengths as an open economy with vast natural resources. The Government acknowledges that in a globalized and increasingly open market with less trade preferences and fierce competition, economic diversification and competitiveness are key. In order to benefit from economic opportunities in the international market, the country has recognized the need to increase the engagement of the private sector and shift the role of Government in economic development from a leading to a facilitating one. These challenges are also valid for the country’s agricultural sector. The Development Plan 2012 – 2016 highlights the importance of export growth as a crucial condition for development in the medium term.

The trade policy of Suriname is strongly influenced by its membership of the Caribbean Community (CARICOM) and the World Trade Organization (WTO). Suriname joined CARICOM in 1995 and entered the group’s single market one year later. The WTO indicates that Suriname appears to be well positioned to benefit from efforts to liberalize trade and to reduce international market distortions, given that for the major part of its exports it does not depend on non-reciprocal preferential treatment as it sells its minerals mainly in competitive markets. Exceptions of this are rice and bananas, which benefit from ACP trade preferences to enter the European market.

#### Measures affecting exports of agricultural products

All exports are subject to a consent fee of 0.1% and a statistical fee of 0.5%. These fees apply to exports to all destinations (including the CARICOM) and are calculated on the basis of FOB value.[[34]](#footnote-34)

Rice exports are subject to an implicit export tax in the form of an inspection fee. This tax amounts to SRD 10 per ton for the entire period under review. Of this amount, SRD 6 is used to fund the Anne van Dijk Rice Research Centre in Nickerie.

The Ministry of Trade and Industry has confirmed that the government does not grant any export subsidies to any sector.

#### Measures affecting imports of agricultural products

Under the Ministry of Finance, the Customs and Excise Department (CED) is responsible for implementation of customs and duty collection and processing.

Suriname grants duty-free access to all imports from the CARICOM area.

The tariffs that apply to agricultural imports from non-CARICOM countries are 20% for nearly all products, including meat products such as poultry. In the WTO, Suriname did not reserve the right to use the special agricultural safeguard or apply export subsidies. The applied tariffs vary strongly between products, but have a ceiling of 50% for certain prepared foodstuffs, while other products (mainly of basic need, such as wheat and maize flour) are duty-free.

Based on the Law on Turnover Tax 1997, a turnover tax of 10% is applied to most domestically produced as well as imported goods. For various food products, a rate of 0% applies. These include all products under review, such as rice, meat products, milk, eggs and fruits, as well as other agricultural commodities such as wheat and potatoes. The tax is levied at the point of sale by the manufacturer. For imports, the 10% tax is calculated on the basis of the import value of the goods (CIF) plus all other duties and charges.[[35]](#footnote-35)

#### Measures affecting production, trade and prices

A price control framework is in place for 44 products of basic necessity. This framework allows the Ministry of Trade and Industry to intervene and establish prices of any good on the list if it rises by more than 15%.[[36]](#footnote-36) During the food crisis in 2008, the Government negotiated with the business sector to restrict profit margins for both importers and retailers to 7%.[[37]](#footnote-37) The authority of the Ministry of Trade and Industry to apply price controls (on an ad-hoc basis) is based on a 1996 Price Setting Law. Price controls as well as band of allowed mark-ups at wholesale and retail levels can be enforced by the Economische Controle Dienst (Economic Inspection Service). The full list of products has not been obtained during the preparation of this report, but a 1999 report of ECLAC on Trade policy in the CARICOM mentions cheese, peanut butter, onion, beans, peas, tea, flour as some of the products. During the research conducted for this study, no cases of price setting by the Government were detected. However, there have recently been some calls for more intensive price controls (by consumer organizations as well as labour unions) on retailers’ mark-ups to lower the prices of basic food supplies.[[38]](#footnote-38)

* 1. Other Measures

#### Exchange rate policy

The local currency of Suriname is the Suriname Dollar (SRD). In 2011, the Central Bank of Suriname (CBvS) decided to carry through a devaluation of the local currency by 20%, from SRD 2.78 to SRD 3.35 per USD). In addition, a band of SRD 3.25 – 3.35 per USD was established within which all transactions have to take place. As a result, for the entire period under review of 2012 – 2014, the official exchange rate used in the calculations is SRD 3.25 per US Dollar. We could mention the current rate now just to show the scope of where the country is heading. 6.78 in 2016.

#### Subsidized credit

The Agricultural Credit Fund (AKF) was established in 2007 and was funded with EUR 2.3 million of capital from the Netherlands’ development assistance resources. It operates as a revolving fund and is managed by the Landbouwbank (Agricultural Bank). The Landbouwbank is a financial institution fully owned by the Government of Suriname, and is responsible for 5% of total supply of credit in Suriname. An additional EUR 1 million of capital was provided by the Government from the Fund for Economic and Social Structure Improvement (FESS) to the AKF, with a particular instruction to increase subsidized lending to the rice subsector. The maximum loan amounts for rice producers are SRD 500,000 and for non-rice farmers SRD 200,000. The interest rate for all loans is 6.75%, against a current market rate of 11-13%.[[39]](#footnote-39) The average grace period is 6 months. In July 2013, the portfolio of the AKF consisted of 191 loans for a total amount of SRD 19.4 million. Loans to the rice subsector represent 37%, or SRD 7.2 million of the total portfolio.

#### Tax Concessions

Companies in the agriculture, livestock and fisheries sectors are eligible for a partial exemption of import duties (90%) for import of capital assets with a minimum value of USD 1,000. In addition to the import duty exemption, eligible goods are also exempted from turnover tax and partially exempt from the statistical fee of 0.5% over the CIF value of imports.

In accordance with the Raw Material Regulation (Grondstoffenbesluit), which was introduced in 1997 to respond to the demand of the private sector to bring Suriname’s tax concession structure in line with other CARICOM member states, producers and manufacturers benefit from exemption of import duties on raw materials, inputs, semi-finished products and packing materials. The regulation states that these materials are only exempt from inputs if they are imported to be used in production processes in a number of sectors, including agriculture, livestock and fisheries.[[40]](#footnote-40)

#### Food subsidies

A baby food subsidy is in place to reduce the cost of baby food for consumers. The subsidy covers approximately 50% of the commercial retail price. In 2011, cans of subsidized baby food were priced at SRD 4,75 in 2011. In 2014, the Ministry of Health announced that the subsidy would be abolished but this decision was reversed by the President.[[41]](#footnote-41) However, for the years 2012 – 2014 this research was not able to track the total cost of the baby food subsidy in the Health budget. Further analysis is needed to include the subsidies in the calculations for these years.

# Estimates of Support to Agriculture

## Methodology

The application of the Producer Support Estimate (PSE) methodology by the OECD (OECD, 2010) provides a standardized quantitative method of measurement of support to the agricultural sector. It has officially been calculated by OECD for various countries since 1987. The IDB Agrimonitor initiative has applied the methodology since 2003 to 18 of its member countries in Latin America and the Caribbean.

Quantitative policy analysis is based on the comparison of the observed market conditions with the benchmark situation. The aggregated effect of the policy in the supply-demand model is measured by the price ratios in the “with” and without program” situations. Thus, output producers’ prices (farm gate prices) are compared with prices expected without policy interventions, e.g. market equilibrium or reference prices. The effect of public policy is measured by the difference between market and reference prices. If the difference between market and reference output prices is positive, policy causes benefits to producers, and if negative – policy leads to implicit taxation of the farmers.

The methodology measures support to producers (PSE and related indicators), consumers (CSE, CSCT), to the sector as a whole (GSSE) and total policy transfers to the agricultural sector (TSE). For three commodities the Effective Rate of Protection (ERP) indicators were also calculated in order to take into account the support policy along the value chain. See Annex 1 for the glossary of the indicators used in this section.

#### Selection of commodities

This report updates and builds up on the IDB-FAO study of agricultural policy in Suriname carried out in 2013.[[42]](#footnote-42) Since the PSE indicators are commodity-specific, a commodity selection was carried out to ensure Suriname’s most important products are covered by the analysis and to maximize its policy relevance. The commodity selection attempted to include both pre-defined, standard MPS commodities, as well as the country’s most potentially competitive commodities.

The methodology of the OECD prescribes that all commodities with a less than 1% share in total value of agricultural production are excluded from the estimations of support, while the goal of the commodity selection process is that sum of the values of production of the commodities included covers at least 70% of the total value of agricultural production over the previous three years.

Despite their recognized growth potential, fresh vegetables have not been included in the analysis as this group also consists of a broad mix of different products that make it unsuitable for domestic and international price comparison. In addition, the share of the individual vegetable products in total value of agricultural production was relatively low and volatile across years. Therefore, no vegetable products were selected.

The commodities selected for estimation of PSE in Suriname are the same as in the previous study and are listed in Table 8.

Table 5: Overview of selected commodities, according to trade status

|  |  |
| --- | --- |
| Selected export commodities | Selected import commodities |
| Rice | Poultry |
| Bananas | Beef |
| Oranges | Pork |
| Cassava | Eggs |
|  | Milk |

The average share of MPS commodities in total value of Suriname's agricultural production of these commodities equalled 76% during the 2012-2014 period. Crops selected for MPS calculation averaged 72% of total crop production in 2012-2014, while livestock commodities covered 99% of total livestock production in Suriname.

Figure 13: Selection of MPS commodities, share in total value of agricultural production 2012-2014, in %

Source: author's estimations based on LVV data

As follows from Table 6 most of the selected crops are exported, while all livestock commodities are imported. Rice and bananas are the main agricultural exported commodities and each contribute around 40% to the total agricultural exports of Suriname. However, their share in the total value of exports of the country represents only 1.3-2% each, as the export sector has been dominated by gold and oil. The export of fruits and vegetables has been emerging but is not stable. Though the government has tried to pursue the development of the cassava subsector, this has not yet been successful and export of cassava is almost negligible.

All selected livestock commodities, including poultry, beef, pork, eggs and milk, are net imported, meaning that domestic consumption exceeds production for poultry, beef, pork, eggs and milk. Poultry is a particularly popular source of protein in Suriname, and per capita consumption of chicken ranks among the highest in the world. It is also the largest agricultural import, followed by non-locally produced products such as wheat, maize, wheat flour, processed foods, sugar and non-alcoholic beverages. Import substitution remains one of the policy goals in this sector.

#### Description of data used

The main source of agricultural statistics in Suriname is the Ministry of Agriculture, Animal Husbandry and Fisheries. The Ministry’s Department of Planning and Development annually publishes a detailed compendium of production, trade and price data. The departments of Livestock and Fisheries each have their own unit in charge of data collection and analysis for their respective subsectors. Additional sources for statistics are the international databases, particularly FAOSTAT and UN COMTRADE.

#### Domestic prices

Domestic prices for all commodities are farm-gate prices as collected and reported in the Agricultural Statistics Compendium of the Ministry of LVV.

#### Reference prices and margin adjustments

Reference prices are calculated in different ways depending on the trade status of the product. For exported commodities (rice, bananas, cassava and oranges) the reference prices are average export unit values, adjusted for processing, transportation and handling costs to make them comparable with domestic farm gate prices.

Table 9 provides an overview of the data used in the calculation of the PSE indicators, including the source of the international reference price and the adjustments applied to obtain comparable prices.

Table 6: Overview of data used, exported commodities

|  |  |  |  |
| --- | --- | --- | --- |
| Commodity (exports) | Reference Price | Margin Adjustment | Other Adjustments |
| Rice | Average export unit value (FOB) price for cargo rice. Cargo rice was chosen for better comparability with farm-gate commodity.  (Source: Agricultural Statistics, LVV) | As reported by the Association of Rice Exporters (VRE), the Association of Surinamese Paddy Farmers (SPBA), N.V. Sun Rice and logistics company CMA CGM Suriname N.V. All costs have been modified to refer to paddy rice using the quantity adjustment factor when relevant. | Quantity adjustments are made to take into account production of paddy rice and exports of milled rice.  Sell of by-products in the country is discounted from reference price. |
| Bananas | Average export unit value (FOB) price of bacoven.  (source: Agricultural Statistics, LVV and Food and Agriculture Industries N.V. (FAI) | No adjustment was made; domestic farm-gate prices for bananas are not available and no policy distortions in the banana value chain were identified. For that reason, the support was set to zero. |  |
| Cassava | Reference price is FOB export average unit value for cassava root  (Source: UN COMTRADE) | Margin adjustment for cassava includes 20% storage, handling and transportation costs and 2% port expenses. | Through interviews with stakeholders in the cassava subsector it was confirmed that no cassava is currently used for animal feed. As all cassava produced is used for human consumption, no feed adjustments has been applied. |
| Oranges | Reference price is FOB average export unit value.  (source: Agricultural Statistics, LVV) | Adjusted for 30% storage, handling and transportation costs (data from the PSE report for Jamaica) and 2% port expenses. |  |

Table 7: Overview of data used, imported commodities

|  |  |  |  |
| --- | --- | --- | --- |
| Commodity (imports) | Reference Price | Margin Adjustment | Other Adjustments |
| Poultry | Unit value of imports from Brazil for HS 02.07.12 “Meat of fowls of species gallus domesticus, not cut in pieces, frozen”. | Based on the marketing costs as reported by the Association of Surinamese Poultry Farmers and container company CMA CGM Suriname N.V. | Quality differences and consumer preferences for domestic chicken taken into account based on retail price ratios between domestic poultry and imported poultry from Brazil |
| Pork | Average import unit value CIF price, adjusted for processing calculated as % of border price  (Source: LVV) |  |  |
| Beef | The reference price is based on the Australian saleyard cow price, Queensland, minus by-product value, plus processing cost, plus transport cost. This reference was also used by the OECD for Mexico and by the IDB for some of the LAC countries. | No adjustment needed as the reference price is at farm-gate level. Transportation costs from Australia to the USA were used as a proxy of transportation costs to Suriname . | *Remark: due to low volumes of trade and lack of reliable trade statistics, the reference price for beef and eggs were taken from the largest world producers and adapted to take into account processing, transport and margins, in accordance with OECD and IDB practice in other countries in the region.* |
| Milk | Fresh milk is not a tradable commodity. Therefore, the border price of milk is a calculated implicit value, calculated from the prices of butter and skimmed milk powder, using the components: milk fat non-fat-solids contained in raw milk, butter and skimmed milk powder respectively (sources: fat content of milk – Ministry of LVV, non-fat solids content – estimations from other LAC countries, import values of butter and milk powder – Ministry of Trade and Industry)[[43]](#footnote-43) | The reference price of milk at farm gate is the implicit milk border price adjusted for processing costs (average of processing costs in 4 main milk producing countries (Australia, EU, New Zealand, US). |  |
| Eggs | Eggs are considered non-tradable. Domestic production covers 99% of consumption. US farm-gate price was taken as a reference, and adjusted subtracting production subsidies and adding insurance and freight US-Suriname (=30 USD/t (  Source: data from Peru). Because of the non-tradable status, the price US farmers receive for their output was used as reference. |  | *Remark: due to low volumes of trade and lack of reliable trade statistics, the reference price for beef and eggs were taken from the largest world producers and adapted to take into account processing, transport and margins, in accordance with OECD and IDB practice in other countries in the region.* |

#### Excess Feed Costs

Through interviews with stakeholders in the cassava subsector it was confirmed that no cassava is currently used for animal feed. As all cassava produced is used for human consumption, no feed adjustments has been applied.

#### Budget data

Government budgets are available for the years 2009 - 2016, for all ministries. These budgets contained the actual expenditures of the years 2009 - 2013 that were used in the analysis. The 2016 budgets of some Ministries (including LVV) did not include actual expenditures of 2014. In those cases, additional information on the budget execution was requested. For earlier figures of 2006 – 2009, no budget data was available.

The following organizations' budgets were included in PSE/GSSE calculations: Ministry of Agriculture, Animal Husbandry and Fisheries;, Ministry of Public Works;, Ministry of Spatial Ordenation, Land and Forestry;, Ministry of Regional Development; and the Ministry of Education.

The budgets include both administrative and development components. However, administrative costs of implementing agricultural sector support programs and policies – such as salaries or travel expenses – do not produce any transfers to producers. Therefore, these costs are not included in the PSE and GSSE calculations and the Budgetary Transfers are based on the development component only.

The Suriname budget provides descriptions of the programs, however, the programs are generalized and most of them include various types of transfers in terms of PSE/GSSE classification. If the program is mostly designed to provide on-farm services to producers, it was included in PSE, even though part of budget costs of the program might include general services component. The budget expenditures on livestock programmes was allocated 25% to PSE (small ruminants support, breeding cattle purchases and on-farm inspections and training) and 75% to GSSE (Research and Development and Inspection Services).

It has been assumed that the budget is evenly spent during the year, and thus spending was redistributed to obtain calendar year data.

Table 8: Components of PSE included for the different years

|  |  |  |
| --- | --- | --- |
| Year | Market Price Support | Budgetary Transfers |
| 2006 | X |  |
| 2007 | X |  |
| 2008 | X |  |
| 2009 | X | X |
| 2010 | X | X |
| 2011 | X | X |
| 2012 | X | X |
| 2013 | X | X |
| 2014 | X | X |

## Results: Level and Structure of Support to Producers

The Producer Support Estimate (PSE) is the major indicator used by OECD and other international organizations to estimate the effect of the policy interventions on the welfare of agricultural producers, and it provides an indication of the level of support of public sector support to food and agriculture in a given country.

The annual national PSE in Suriname over the 2012-2014 period has been SRD 98 mln in 2012, SRD 128 mln in 2013 and SRD 67 mln in 2014. The PSE as a percentage of total farm receipts (PSE%) was 13% in 2012, 17% in 2013 and dropped to 8% in 2014.

Figure 14: National PSE for Suriname, 2009 -2011, in million SRD and %

Source: Author’s calculations

As in most developing countries, the main component of PSE in Suriname is market price support. Budget transfers generally represent between 2% and 10% of total PSE, with the exception of 2014. Market Price Support represented 98% of PSE in 2012, 95% in 2013 and 77% in 2014, as is shown in Figure 15. This means that throughout the 2012 – 2014 period, producers were supported mainly because they received prices above the international reference (the price they would get in the absence of policies). Due to its importance in the value of agricultural production and in the agricultural sector in Suriname in general, changes in the results for rice have a relatively strong effect on the national PSE levels. The negative support in 2011 is largely the result of the wide price gap between domestic farm-gate prices and reference prices for rice in that year.

In overall terms, however, one has to take into account the relatively good price transmission observed for a number of commodities. While the PSE results show a rather significant price gap resulting from public policy interventions as well as from the deficiencies of market infrastructure, the patterns and domestic prices' movements follow those on world agricultural markets. Thus, the price dynamics for rice (excluding 2011), bananas, cassava, beef and poultry generally follow the world price pattern. This is the result of the Government of Suriname mainly using for these commodities policy instruments that do not affect price transmissions.

Figure 15: Shares of Budgetary Transfers and Market Price Support in total PSE, 2012 - 2014, in %

Source: Author’s calculations

Table 9: Overview of Sector Support in Suriname, 2012 - 2014

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Units | 2012 | 2013 | 2014 |
| **I. Total value of production (at farm gate)** | | mn SRD | 763,15 | 757,44 | 799,02 |
| I.1. of which, Share of MPS commodities (%) | | % | 78,52 | 81,03 | 68,18 |
| **II. Total value of consumption (at farm gate)** | | mn SRD | 798,64 | 932,52 | 894,37 |
| Value of consumption (farm gate): Standard MPS commodities | | mn SRD | 627,10 | 755,60 | 609,79 |
| **III.1 Producer Support Estimate (PSE)** | | mn SRD | 98,30 | 128,06 | 66,89 |
| ***A. Support based on commodity outputs*** | | mn SRD | 96,52 | 122,03 | 51,63 |
| *A1. Market Price Support* | | mn SRD | 96,52 | 122,03 | 51,63 |
| *Rice* |  | mn SRD | -44,91 | -60,51 | -81,50 |
| *Cassava* |  | mn SRD | 8,33 | 5,38 | 1,81 |
| *Bananas* |  | mn SRD | 0,00 | 0,00 | 0,00 |
| *Oranges* |  | mn SRD | 40,14 | 73,57 | 33,48 |
| *Milk* |  | mn SRD | 12,10 | 10,77 | 10,32 |
| *Beef* |  | mn SRD | 18,58 | 20,07 | 20,87 |
| *Pork* |  | mn SRD | 12,51 | 11,95 | 8,21 |
| *Poultry* |  | mn SRD | -0,05 | 14,23 | 14,04 |
| *Eggs* |  | mn SRD | 29,09 | 23,42 | 27,97 |
| Non-MPS commodities |  | mn SRD | 20,73 | 23,15 | 16,43 |
| *A2. Payments based on output* | | mn SRD | 0,00 | 0,00 | 0,00 |
| ***B. Payments based on input use*** | | mn SRD | 1,78 | 6,03 | 15,25 |
| *B1. Variable input use* | | mn SRD |  |  |  |
|  | Stimutating private sector | mn SRD | 0,00 | 0,00 | 0,13 |
| *B2. Fixed capital formation* | | mn SRD | 1,21 | 5,06 | 13,83 |
|  | State Company Alliance | mn SRD | 0,90 | 1,09 | 1,60 |
|  | Promotion agriculture |  | 0,01 | 2,08 | 12,07 |
|  | Livestock: Fixed capital | mn SRD | 0,30 | 1,89 | 0,16 |
| *B3. On-farm services* | | mn SRD | 0,57 | 0,97 | 1,42 |
|  | Foundation for Agricultural Development Commewijne (SLOC) | mn SRD | 0,15 | 0,28 | 0,40 |
|  | Foundation National Rice Institute | mn SRD | 0,39 | 0,70 | 1,02 |
|  | Education | mn SRD | 0,03 | 0,00 | 0,00 |
|  | Domestic Agricultural Development | mn SRD |  |  |  |
|  | Pilot development of chains in horticulture and ornamental plants |  |  |  |  |
| ***C. Payments based on current A/An/R/I, production required*** | | mn SRD |  |  |  |
| ***D. Payments based on non-current A/An/R/I, production required*** | | mn SRD |  |  |  |
| ***E. Payments based on non-current A/An/R/I, production not required*** | | mn SRD |  |  |  |
| ***F. Payments based on non-commodity criteria*** | | mn SRD |  |  |  |
| *F1. long-term resource retirement* | | mn SRD |  |  |  |
| *F2. a specific non-commodity output* | | mn SRD |  |  |  |
| *F3. other non-commodity criteria* | | mn SRD |  |  |  |
| ***G. Miscellaneous payments*** | | mn SRD |  |  |  |
| **III.2 Percentage PSE** | | % | 12,85 | 16,77 | 8,21 |
| **IV. General Services Support Estimate (GSSE)** | | mn SRD | 83,31 | 96,14 | 145,03 |
| ***H. Research and development*** | | mn SRD | 1,81 | 7,22 | 5,45 |
|  | Foundation National Rice Institute |  | 1,57 | 2,78 | 4,08 |
|  | Gender |  |  |  |  |
|  | Institutional Design |  | 0,01 | 3,01 | 1,25 |
|  | Livestock: Research | mn SRD | 0,23 | 1,44 | 0,12 |
|  | CELOS | mn SRD |  |  |  |
| ***I. Agricultural schools*** | | mn SRD |  |  |  |
| ***J. Inspection services*** | | mn SRD | 0,45 | 4,33 | 0,86 |
|  | Institutional Design | mn SRD | 0,01 | 1,50 | 0,63 |
|  | Livestock: Inspections | mn SRD | 0,45 | 2,83 | 0,24 |
| ***K. Infrastructure*** | | mn SRD | 81,06 | 84,59 | 138,72 |
|  | Infrastructure maintenance | mn SRD | 8,89 | 29,45 | 38,87 |
|  | Multipurpose Corantijn Project | mn SRD |  |  |  |
|  | Land Reclamation | mn SRD | 0,50 | 0,65 | 0,00 |
|  | Reactivation of Water Boards | mn SRD | 5,00 | 7,36 | 0,00 |
|  | Agricultural Infrastructure and export promotion | mn SRD |  |  |  |
|  | Maintenance irrigation and drainage works | mn SRD | 5,53 | 6,90 | 0,00 |
|  | Improvement irrigation and drainage works | mn SRD | 54,60 | 38,44 | 90,25 |
|  | Verkaveling | mn SRD |  | 0,00 | 7,50 |
|  | Land Registration and Information System GLIS | mn SRD |  |  |  |
|  | Maintenance of roads and irrigation | mn SRD | 6,54 | 1,78 | 2,10 |
| ***L. Marketing and promotion*** | | mn SRD |  |  |  |
| ***M. Public stockholding*** | | mn SRD |  |  |  |
| ***N. Miscellaneous*** | | mn SRD |  |  |  |
|  | Agricultural Census | mn SRD |  |  |  |
|  | Waterboards | mn SRD | 3,50 | 6,80 | 6,83 |
| **V.1 Consumer Support Estimate (CSE)** | | mn SRD | -115,62 | -196,71 | -155,09 |
| ***O. Transfers to producers from consumers (-)*** | | mn SRD | -107,19 | -139,72 | -92,35 |
| Transfers to producers from consumers of which, MPS commodities | | mn SRD | 84,17 | 113,21 | 62,96 |
| ***P. Other transfers from consumers (-)*** | | mn SRD | -14,18 | -64,82 | -59,96 |
| Other transfers from consumers of which, MPS commodities | | mn SRD | 11,13 | 52,52 | 40,88 |
| ***Q. Transfers to consumers from taxpayers*** | | mn SRD | 7,63 | 10,00 | 0,00 |
| Q.1.Commodity specifc transfers to consumers | | mn SRD |  |  |  |
| Q.2.Non-commodity specific transfers to consumers | | mn SRD | 7,63 | 10,00 | 0,00 |
|  | School feeding |  | 7,63 | 10,00 | 0,00 |
|  | Babyfood Subsidy |  |  |  | 0,00 |
| ***R. Excess feed cost*** | | mn SRD | -1,89 | -2,17 | -2,78 |
| **V.2 Percentage CSE** | | % | -14,62 | -21,32 | -17,34 |
| **V.3 Consumer NAC** | |  | 1,17 | 1,27 | 1,21 |
| **VI. Total Support Estimate (TSE)** | |  | 189,24 | 234,20 | 211,92 |
| ***S. Transfers from consumers*** | |  | 121,37 | 204,53 | 152,31 |
| ***T. Transfers from taxpayers*** | |  | 82,05 | 94,49 | 119,57 |
| ***U. Budget revenues*** (-) | |  | -14,18 | -64,82 | -59,96 |

#### International comparison of PSE indicator levels

As can be seen in Figure 22, the average PSE level of Suriname in 2012-2014 (12.7%) was similar to the PSE percentage observed between 2009 – 2011 and slightly lower than the average of OECD member countries, and close to that of Peru and Colombia. Several other countries in the region, such as the USA, Ecuador and Brazil have much lower PSE levels, while Jamaica, the closest regional reference for Suriname, had significantly higher levels of support. The high PSE indicators for Jamaica are influenced by the country’s high tariffs to shield its poultry subsector from cheap imports, resulting in strong Market Price Support.

Figure 16. Producer Support Estimate (Percentage) in Suriname and selected countries\* in 2012-2014, %

##### source: author’s estimations

#### Market Price Support

As mentioned above, the Producer Support Estimate indicator is composed of two elements: Market Price Support (MPS) and Budgetary Transfers (BT).

MPS is the component of support that is based on the differences between domestic and international prices and, therefore, affects production decisions and terms of trade. Gaps between domestic farm gate prices and reference prices can emerge as a result of trade policies, including tariffs and non-tariff trade barriers, or as a consequence of excessive costs and inefficiencies along the value chain. Policy interventions that affect MPS are considered to be among the most trade distorting measures of support (OECD, 2011). They are also less effective means of support to producers, compared to direct income payments, per hectare payments and similar support measures, which are not related to the production levels. [[44]](#footnote-44)

Negative Market Price Support means that, as a result of policy or structure of the value chain, prices received by producers are lower than they should be on the basis of the international market price of the commodity. This results in a disincentive for producers. Keeping prices low could be an implicit policy to retain competitiveness of Surinamese rice on the international market, for example, and to increase market shares. For an export commodity such as rice, the reasons for the disincentives could be explicit or implicit policies (such as export taxes or inspection fees) or value chain inefficiencies (such as monopsonies or excessive profit margins during processing, transport or handling).

Most commodities in Suriname receive positive transfers resulting from government's agricultural policy, which is demonstrated by positive levels of MPS (see Figure 23). However, MPS for rice has been negative for most recent years. Implicit taxation of rice means that in absence of policy interventions and value chain inefficiencies, producers would be able to receive higher prices for their output, than they actually get.

Poultry and oranges were the most supported commodity during the whole study period in absolute terms, however, producers of pork, eggs and milk also received relatively high levels of positive Market Price Support as share of their respective value of production. This means that producers for these commodities received higher prices than they should get in the absence of policy and in an efficient value chain environment. It is not uncommon to observe high positive transfers for imports, as it is consistent with the policy objective of import substitution.

Figure 17. Positive and negative Market Price Support in Suriname, 2006 – 2014, in million SRD

Source: Author's estimations

When markets are perfectly competitive and integrated, Market Price Support is the exclusive result of direct and indirect policy interventions. In developing countries, however, this is not the case; MPS also captures the effect of market infrastructure deficiencies, asymmetric information, lack of storage and excessive market power in the value chain (Barreiro-Hurlé and Witwer, 2013).

Figure 18. Contribution of value chain inefficiencies to the levels of Market Price Support

Reference

price

Producer's

price

Marketing margin

Reference

price

Producer's

price

Marketing margin

Efficient value chain

Non-efficient value chain

Source: Author’s elaboration

As is shown in Figure 24, at the same level of prices, benefits are differently distributed between domestic producers and marketing margin, which includes inefficiency of processing, market power of processors, losses in transportations due to poor road infrastructure or costs of overcoming bureaucratic obstacles. Given that the World Bank ranks Suriname among the lowest countries in terms of ease of doing business (ranked 164th in 2013), it is probable that farmers are also affected by the high costs of complex administrative procedures. These costs increase the marketing margin and the PSE, and result in an overestimation of producer support. If Suriname wishes to increase the competitiveness of its agricultural sector, it is therefore of key importance to address structural factors that increase marketing margins.

#### Budget transfers

The second component of producer support consists of transfers by the public sector to agricultural producers. Unlike the market price support, which is financed by consumers who pay higher prices to producers, these so-called Budget Transfers (BT) are financed by taxpayers – through the government budget. The level of BT often depends on the countries’ general fiscal policy and capacity. Budget transfers to agricultural producers also include subsidized loans to farmers as well as the transfers resulting from tax concessions that create revenue foregone in support of the agricultural sector at the expense of taxpayers.

Budget transfers to the agricultural sector in Suriname, creating transfers to individual producers, are included in PSE.

As demonstrated in Figure 19, budget transfers to individual producers mostly consist of the transfers in the form of fixed capital formation, such as financing of state companies' capital, rice farmers' machinery park replacement, vegetables and fruit plant material supply, investment in breeding centers, greenhouses and nurseries. Transfers based on on-farm services include veterinary inspection services, training and extension. As there was no detail on the allocation of the funds to individual commodities, they were allocated to All Commodity Transfers, excluding National Rice Research Foundation programs, 80% of which was allocated to GSSE (Research and Development) and 20% to PSE, as it also provides services to producers, such as information dissemination and seed distribution. The PSE part of this program was allocated to Single Commodity Transfer for rice.

The Agricultural Credit Fund, which was created in 2007, provides loans to farmers at reduced interest rates (6.75% per annum, while average regular loan interest rate was 11-13%). As the majority of loans are short term financing with an average of 8 months maturity, this interest rate subsidy was considered to be used more for variable input purchases than for investments in on-farm capital assets. For that reason, the subsidy was allocated to the transfers to producers based on variable input use rather than to fixed capital formation.

Figure 19. Suriname: Budget Transfers in PSE, mn SRD

Source: author’s estimations

## Indicators of support to individual commodities

The level of support by commodity is measured by so-called Single Commodity Transfers, in particular the Producer SCT% (MPS plus transfers from taxpayers in the form of budget transfers as a share of gross farm receipts of a specific product). The Producer SCT%s for Suriname are presented in Table 10.

Table 10: Single Commodity Transfers by Commodity for Suriname, in percentage

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Rice | (11) | 5 | (55) | (23) | (28) | (41) |
| Cassava | 40 | 39 | 51 | 70 | 43 | 21 |
| Bananas | 10 | 10 | 0 | 0 | 0 | 0 |
| Oranges | 60 | 58 | 70 | 75 | 85 | 74 |
| Milk | 50 | 59 | 70 |  |  |  |
| Beef | 43 | 38 | 41 | 50 | 58 | 60 |
| Pork | 67 | 60 | 75 | 64 | 61 | 36 |
| Poultry | 28 | 22 | 7 | 0 | 15 | 14 |
| Eggs | 57 | 60 | 62 | 66 | 60 | 66 |

Source: Author’s estimations

***Crops***

Figure 20: Single Commodity Transfers for crops, 2012-2014, in mln SRD

Source: Author’s estimations

Figure 20 shows the Single Commodity Transfers for crops in SRD terms. As shown, support to **rice** is increasingly negative. Though it is not uncommon for developing countries to tax their exported agricultural commodities as a source of revenue generation, in Suriname there are no policy measures in place that explain the levels of negative support observed. Though an SRD 10/ton export tax exists (1-2% of the producer price), the reasons for the negative levels of SCT are in the inefficiencies of the value chain, which create negative Market Price Support in 2012, 2013 and 2014. One of the main aspects is the low capacity utilization in the processing industry. Millers transfer the high costs resulting from the under-utilization of capacity to farmers. This is also confirmed by the Stabilization and Recovery Plan which states that “pooling of production equipment is limited, reducing the competitiveness of the sector”.

During the period under review, the **bananas** subsector was not taxed or supported by domestic policy that affected prices. As the value chain is integrated, no domestic farm-gate prices exist. To determine its profitability, SBBS (in 2012 and 2013) and FAI (in 2014) aim to produce at a cost that is lower than the reference price (FOB price). During the literature review and interviews with sector stakeholders, no policies that affect international market price transmission were identified, and Market Price Support was zero. Regarding budget support, under the EU’s Banana Accompanying Measures a total of 9.3 mln euro[[45]](#footnote-45) were allocated to Suriname for increased investment in the banana sector. However, in 2016, these investments were not yet realized.

Cassava producers received support throughout the period of analysis, which is mainly the result of the procurement prices of the IAP processing factory (USD 0.60 per kg) which were above world market prices. This has served as an incentive for cassava production. At the same time, higher domestic prices for cassava could disadvantage the livestock producers as they limit the possibilities to use cassava for animal feed at low prices. However, support levels may change now that IAP’s owner, the Ministry of LVV, has indicated that the high procurement prices are not expected to continue.

Oranges are mainly produced for the domestic market and are almost not traded. Producers of oranges benefit from domestic prices that are significantly higher than reference prices. This is mainly caused by the high cost structure for the orange market, due to the low degree of professionalization in the sector. In addition, small budgetary support is provided through public funding for distribution of planting materials and establishment of nurseries.

***Livestock***

Producers of all types of livestock commodities benefit from agricultural policy, as is shown in Figure 24. Those sectors produce potentially import-substituting commodities and therefore are protected by import duties. They are excluded from the tariff liberalization schedule in CARICOM.

Figure 21: Single Commodity Transfers for livestock, 2012-2014, in mln SRD

Source: Author’s estimations

The **poultry** subsector is supported by Government policy. Increased poultry demand over the last five years has been fulfilled by growing imports, and not by increased domestic production. Domestic prices in Suriname overall follow the pattern of international poultry prices, however, a price gap exists in all years with the exception of 2012, when poultry support was neutral. The support observed can only be partially explained by the tariff that is in place. High importers margins are identified as another source of the high domestic prices that prevail. This suggests that the Government’s objective of keeping poultry prices low for domestic consumers is not realized, as consumers continue to pay relatively high prices for their chicken.

The **milk** market is the most regulated market of all livestock commodities. The state-owned dairy processing plant Melkcentrale purchases milk from farmers at administratively fixed prices above the border price level. As a result, the higher prices received by farmers are reflected in high SCT for milk. This policy supports farmers in the short run, but harms the sector in the longer term, as it reduces the incentive to invest in productivity increases and more efficient production methods. In addition, consumers pay a milk price that is far above the price they should pay on the basis of the price level observed in the international market. Still, according to LVV and the Association of Milk Farmers (VSMB) of Suriname, the cost of production is higher than the current fixed price of SRD 2.5 per liter established by the Milk Regulation. Therefore, it is foreseen that the milk price will further increase.

For both pork and beef, farmers were overall supported throughout the period under review as they receive prices that are above the reference.

***Effective Rate of Protection for Selected Commodities***

The Effective Rate of Protection **(ERP)** is estimated for the commodities for which detailed value chain studies were conducted. These are: rice, banana and poultry. The set of inputs included in the analysis was determined by the available information on the farm gate cost structure. The following purchased inputs were included in the analysis. For rice: urea and NPK fertilizers, fungicide, insecticide and herbicide; for banana: agrochemicals; for poultry: corn.

Suriname has a clear and fairly evolved custom duty system which can be easily consulted through the internet. The system lists the various import duties and levies per category. All products imported from CARICOM receive a zero percent import tax. However, the Suriname Custom Authorities do impose levies and stamp duties for a total of 12.2% on all CARCOM import products. There is no differentiation of import duties and levies between the various agricultural inputs and, as they are assumed to be imported from CARICOM, the 12.2% is applied on inputs.

For rice, the inputs are estimated to represent 24% of the total cost price based on the detailed information provided by the Suriname Rice Farmers Association. And for banana, the use of agrochemicals is estimated to cover 40% of the production cost price based on industry average for banana production in the tropics.

The results of ERP estimations for rice and banana are provided in Figure 21.

Figure 22: Effective Rate of Protection for Rice and Banana

The ERP for both rice and bananas was positive and is in theory protected against imports from their neighboring countries, which would be beneficial for supply into the domestic market. Domestic producers benefit by ultimately facing reduced competition in their home market, which leads to lower supply levels and higher prices for consumers. While at the same time the tariff is not beneficial for export oriented producers, because these commodities rely so strongly on imported inputs, (for rice 24% and for banana 40% of the production cost price). The imposed duties are undermining their competitive position in the global commodity market. Finally the sharp fall in ERP for bananas is directly related to the fall of the farm gate price from SRD 1.25 in 2012 to SRD 1.11 in 2014.

## Estimates of support to general services

A major part of budget transfers to the agricultural sector in Suriname is allocated in the forms that create transfers not to individual producers, but to the agricultural sector in general. However, as budget expenditures are not reported in detail but only at the programme level, it has not been possible to analyse the data at a disaggregated level. Therefore, the GSSE results for Suriname may overestimate support to general services. This is particularly true for expenditure related to irrigation and drainage infrastructure maintenance and rehabilitation financed by the Ministry of Public Works. Equally, no data was yet available on the budget of the agricultural research institute CELOS for the years 2012 – 2014. Once included, this will increase the percentage of GSSE for research and development.

Figure 23. Suriname: components of General Services Support, total for 2012 - 2014

Source: consultant's estimation

The share of support that is provided to agriculture in the form of general services is over 40% of the total transfers to agriculture (including Market Price Support), which is higher than in most Latin American countries, and close to the levels of Chile and US. Investment in general services, and especially in market and rural infrastructure, enhances competitiveness of domestic production, stimulates more efficient production decisions and promotes long-term economic growth. However, in Suriname these areas still need more attention, as underdeveloped infrastructure (irrigation and drainage, roads, as well as soft infrastructure, such as access to credit and information), lack of research and development, as well as issues in animal and plant health remain important constraints to agricultural growth.

## Estimates of support to consumers

The Consumer Support Estimate is the common indicator of support that quantifies how agricultural support policies affect the consumers of agricultural commodities. Negative national CSE means that there are transfers from consumers to producers of agricultural commodities. This is the case in most Latin American and Caribbean countries.

In Suriname, transfers from consumers to producers are the case for all the livestock commodities. The negative CSCT indicators[[46]](#footnote-46) for all these products mean that support to farmers in these sectors originated primarily from the transfers from consumers who pay higher prices for their products. The producers of these commodities are supported mainly at the expense of domestic consumers, who pay higher prices for their milk, poultry meat, beef, pork and eggs. This is reflected in the negative level of the country’s national CSE.

Negative CSEs affect the economic access of households to food, as consumers pay more for their food products than they should on the basis of the prices that prevail in the international market. In Suriname, the share of the population that is food insecure amounts to 11.4% in 2010-2012 (FAO, 2013 State of World Food Insecurity).

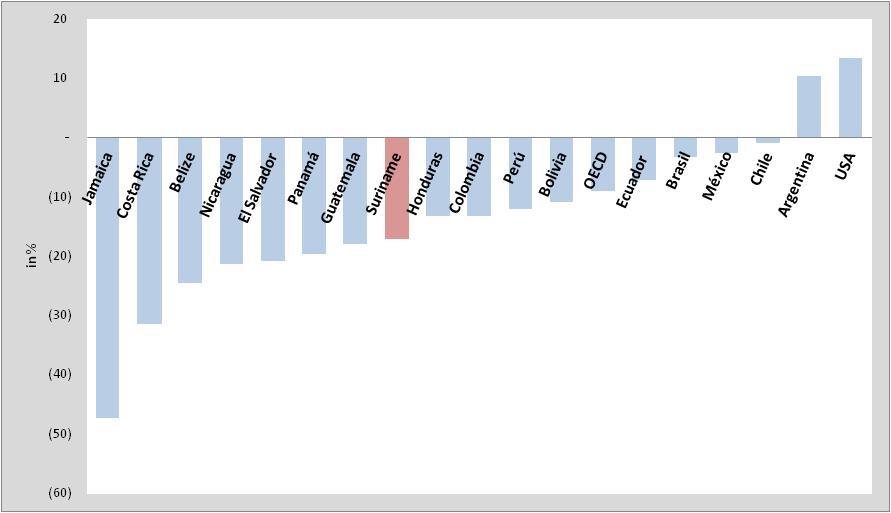
The negative consumer support is consistent with trends observed in other middle-income countries. In low-income countries, governments often tax their agricultural sectors by suppressing food prices, as concerns for the welfare and food security of (urban) consumers is considered more important than farm incomes. When incomes grow, however, middle income countries tend to provide more support to agricultural producers at the expense of consumers. In addition, middle-income countries have more financial resources to support their agricultural sector. Most emerging economies monitored by the OECD provide positive support to farmers.[[47]](#footnote-47)

At the same time, CSCTs for rice in 2006-2011 was positive, indicating that the consumers of the main staple commodity are protected by agricultural policy measures.

In most OECD countries the consumers are taxed as well, but they usually are partly compensated for it by budget transfers through food assistance programs. In the United States, for example, food assistance programs outweigh the transfers from consumers to producers and the consumer support becomes positive. In Suriname, there are two main programs creating transfers to consumers from taxpayers: school feeding program and baby food subsidy. However, these transfers do not outweigh negative transfers from consumers to producers due to the higher prices on domestic market, mainly for livestock commodities.

Relatively high MPS levels lead to taxation of domestic consumers in Suriname, but at levels similar to the Central American countries, including Guatemala and Honduras, as follows from Figure 24.

Figure 24. Consumer Support Estimate (Percentage) in Suriname and selected countries\* in 2009-2011, %



\*Belize-2008,

Bolivia, Columbia, Costa Rica, Honduras, Panama, Peru - 2008-2009,

Jamaica, Guatemala, Ecuador, Brasil - 2008-2010

El Salvador, Nicaragua - 2009-2010

Source: consultant's estimation, IDB database, OECD PSE database

## Estimates of Total Support to the Agricultural Sector

The Total Support Estimate (TSE) is the sum of the support to producers, general services and consumers, and reflects all the transfers that result from agricultural policy. The TSE is usually estimated in percentage form as a share in GDP to demonstrate the burden of agriculture-related transfers on the economy.

In 2012, the Total Support to agriculture in Suriname reached SRD 189 mln, and increased to SRD 234 mln in 2013 before decreasing again to SRD 211 mln in 2014 (see Figure 25). The latest reduction of TSE was primarily caused by a decrease in Market Price Support in 2014.

Figure 25. Suriname: Total Support Estimate, 2012-2014, mn SRD

Source: consultant's estimation

Though Market Price Support is the key driver of support to the sector in 2012 and 2013, in 2014 GSSE played a large role. This is a sign of efficiency of distribution of the budget funds for support to agriculture, as this kind of transfer has proven to be most effective in developing long-term competitiveness.

In the international perspective, TSE as a percent share of GDP in Suriname was 1.37% on average between 2012 – 2014 (up from 1.31% in the 2009 – 2011 period), which is higher than in OECD, EU, Brazil, USA and Ecuador, and close to the levels of Colombia.

Figure 26. Total Support Estimate (Percentage) in Suriname and selected countries\* in 2012 - 2014, %

Source: author’s estimations

# Conclusions

The Government of Suriname employs various policy instruments in support of the agricultural sector, including trade policies and supportive public expenditure measures. This results in overall levels of support to the agricultural sector in Suriname that are positive throughout the period under review and in line with the average for the Latin American and Caribbean region. In other words, agricultural policy in Suriname results in support to producers, who are getting higher prices and budget transfers that increase their gross receipts.

As far as the composition of the PSE, most of it comes in the form of Market Price Support. Though overall support to producers exists, the differences between subsectors are significant.

Rice producers in Suriname receive negative price support in all years under review and the levels of disincentives for rice producers are deteriorating. Overall support to rice remains negative, also when budget transfers are taken into account. However, much of the support that is classified as support to general services, actually primarily benefits the rice sector. In other words, the negative price gap that producers face is largely offset by government expenditure to the sector, particularly in areas that generate long-term effects and positively affect its competitiveness. In general, livestock products receive higher levels of support than crops.

Support to general services, creating transfers to the agricultural sector in general, and not to individual farmers, is provided in the forms of infrastructure development (rural roads and irrigation and drainage, inspection services (food safety, phytosanitary and veterinary health protection measures), as well as research and development and education and training. The share of support provided to agriculture in the form of general services in the 2012 – 2014 period amounted to 48% of total transfers to agriculture, which is higher than in most Latin American and Caribbean countries. Investment in general services, and especially in market and rural infrastructure, enhances competitiveness of domestic production, stimulates more efficient production decisions and promotes long-term economic growth. It must be noted though that irrigation infrastructure represents an extremely large share of the general services support and this may result in a mis-representation of general sector support, as not all irrigation and drainage infrastructure works may be directly benefiting agriculture.

The Total Support estimate, or overall value of the transfers created as a result of national agricultural policy, reached SRD 189 million in 2012, and increased to SRD 234 million in 2013 before falling back to SRD 211 million in 2014. The average annual level of support amounts to 1.37% of Suriname’s GDP for the 2012-2014 period, which is in line with the average among the countries of the Latin American and Caribbean region, and which is similar to the level observed in Colombia.

# Policy Recommendations

The agricultural sector of Suriname is at a crossroads. For the last decade, Suriname witnessed a period of robust economic growth and rising government revenues. Though throughout that period agricultural development remained a stated policy objective, public investment in product diversification and competitiveness of the agricultural sector remained modest and primarily focused on the rice sector. Also, several public investments were delayed are not completed, including the abattoir in Nickerie and the cassava processing plant in Para.

Now that the Government is faced with contractions of GDP and revenue, it is re-valuating the agricultural sector as part of the solution to Suriname’s narrow economic base. Through the Stabilization and Growth Plan, the Government will seek to strengthen the rice sector, further develop citrus production, enhance livestock production systems and establish production of coco and cocoa. In addition, the Government has committed itself to improving the overall business environment and reducing bureaucracy.

During the period under review, the Government of Suriname used a variety of policy instruments that affected the country’s agricultural sector. The instruments applied include traditional trade policy measures, such as import tariffs, but also area payments for rice producers, state ownership, tax exemptions for inputs, subsidized credit, price policies and government support for rural infrastructure, irrigation, research and training.

In order to increase the coherence of Suriname’s agricultural policies, it is recommended that:

* the Government reduces the dependence of the rice sector on subsidies. If subsidies are provided, these should be clearly marked in the LVV budget and not be included under other budget lines such as “export promotion”;
* the Government develops a medium-term plan for the rice sector which focuses on better collaboration between stakeholders, more efficient allocation of production and processing equipment, increased access to credit for small- and medium-sized rice farmers and increased research capacity;
* the Government should make improvements in ensuring animal and plant health in order to increase productivity levels;
* the Government is advised to improve the enabling environment for the banana sector which is faced with agronomic, economic and market constraints, such as crop disease, low labor productivity, high rates of sick leave and low prices;
* avoid increasing the import tariff on poultry as planned by the Government. Rather, the Government is advised to seek innovations to promote the emergence of local feed production to reduce dependency on (increasingly expensive) imports, for example by using cassava for animal feed;
* develop a strategy for the milk sector, working towards a more flexible milk price;
* invest in diversification to reduce the sector’s over-dependence on rice and bananas for agricultural exports.

Table 11. Overview of applied policy instruments and suggested improvements

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Commodity** | **Instrument** | **Planned objective** | **Recommendations/Suggested changes** | **Potential effects or intended benefit** | **Beneficiaries** | **Other effects** |
| **Rice** | Subsidy (area payment), sometimes focused on small and medium sized farmers. | Compensation payment for high production costs. | Gradually reduce subsidy payments and dependence of the sector on Government. Invest in general services (in particular: seed research, water infrastructure and improved accessibility of port of Nickerie). | Increased competitiveness in medium and long term. | Rice farmers | Better research capacity and infrastructure also benefits other subsectors. |
| **Banana** | Privatization | Enhance efficiency and long-term sustainability of the banana sector in Suriname. | Privatization of the SBBS has been completed.  Investment in Port of Nickerie to lower transport costs from the Nickerie Estate. | Increase competitiveness and lower costs in banana subsector;  Improve long term sustainability. | Employees of SBBS (2,000) | Rural employment; Improved fiscal position; Generation of foreign exchange earnings. |
| **Milk** | Price policy | Compensate high cost in milk production chain and fierce competition from milk powder imports. | The Government plans to increase the minimum milk prices, which should be avoided. Rather, invest in improving the cold chain and breeding for better quality products. | Reduce subsector inefficiencies;  Lower consumer/retail prices;  Increase milk farmers’ productivity; Reduce stagnation in milk production. | Consumers  Tax payers  Milk producers in the long term | This sector is highly dependent on Government intervention. Reduce government-dependency; Increase the subsector’s innovation capacity |
| **Poultry** | Import Tariff | Protect domestic producers. | Government should avoid increasing the import tariff, as proposed by producers. Instead, it should increase public investment in research for domestic production of feed components, e.g. in partnership with international partners such as EMBRAPA, to lower feed costs; Enhance quality control to maintain consumer premiums for (high-quality) local chicken. | Lower poultry farmers’ cost of production; Strengthen quality of locally produced chicken. | Producers  Consumers |  |
| **Cassava** | State ownership | Develop a new agricultural value chain; Increase cassava production, processing and consumption; Reduce wheat imports. | The Government acquired private processing company IAP in 2013 and brought it under the responsibility of LVV in 2015. It is recommended to develop an exit strategy for IAP as this report advises against long-term state ownership of agro-processing. | Create increased demand for fresh cassava. Create a new source of income for rural families. | Consumers  Cassava producers | Positive: Increased private investment and entrepreneurship in cassava subsector; Growth of agribusiness sector.  Negative: Losses of IAP will need to be covered from the budget and can deteriorate the fiscal position. |
|  | Subsidized Credit (Government-backed loan) | Develop a new agricultural value chain; Increase cassava production, processing and consumption; Reduce wheat imports. | Sources suggested that the Government acquired ownership of cassava-processor IAP. This report recommends to avoid state-ownership. | Provide IAP with sufficient cash to procure cassava for processing. | Cassava producers | See above |
|  | Informal Price Policy | Increase cassava production; Increase cassava producers’ incomes | Avoid any guaranteed fixed price for raw cassava. | Ensure sustainability of cassava production and processing.  Avoid penalization of consumers through high cassava-flour prices. | Consumers  Cassava producers (long term) |  |

Source: Author’s elaboration

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# Annex I: Overview of the PSE Methodology and Definitions

#### General introduction to the methodology

The estimates of support to the agricultural sector in Suriname are calculated using the methodology of Producer Support Estimates (PSE). The PSE methodology was developed by the OECD in the 1980s and has been applied in both OECD member and non-member countries since 1987. It serves as an instrument for estimating the level of domestic support to agriculture and to compare support internationally and over time. Because of their quantitative nature, information can serve as evidence to monitor and evaluate developments of agricultural policies and as a common base for policy dialogue. For that reason, the PSE methodology is also used by a wide range of international organizations and financial institutions (including the WTO, FAO, the World Bank and the IDB).

For calculating levels and composition of public sector support to agriculture, the PSE focuses on two main components:

* Market Price Support (MPS) is measured as a gap between domestic and reference prices.
* Budget Transfers (BTs)

Positive PSE means that farmers are benefiting from government policy providing support to agriculture, but, at the same time, also indicates that market distortions exist. Negative levels of PSE mean that implicit taxation of domestic producers occurs as a result of agricultural policy or market distortions.

The list of definitions used in PSE, Consumer Support Estimate (CSE) and Total Support Estimate (TSE) is presented in Box 1.

Box 1. Definitions used in Producer Support Estimate, Consumer Support Estimate and Total Support Estimate

**Producer Support Estimate – PSE**: the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm-gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on farm production or income.

**Percentage PSE (PSE%)** – PSE as a share of gross farm receipts.

**General Services Support Estimate - GSSE**: the annual monetary value of gross transfers to general services provided to agricultural producers collectively (such as research, development, training, inspection, marketing and promotion), arising from policy measures that support agriculture regardless of their nature, objectives and impacts on farm production, income, or consumption. The GSSE does not include any transfers to individual producers.

**Consumer Support Estimate – CSE:** the annual monetary value of gross transfers from (to) consumers of agricultural commodities, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on consumption of farm products.

**Percentage CSE (CSE%) -** CSE as a share of consumption expenditure (measured at farm gate) net of taxpayer transfers to consumers.

**Total Support Estimate – TSE**: the annual monetary value of all gross transfers from taxpayers and consumers arising from policy measures that support agriculture, net of associated budgetary receipts, regardless of their objectives and impacts on farm production and income, or consumption of farm products.

**Percentage TSE (TSE%)** – TSE as a share of the GDP.

**Single Commodity Transfers - SCT**: the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policies linked to the production of a single commodity such that the producer must produce the designated commodity in order to receive the transfer.

**Percentage Single Commodity Transfers - SCT%:** the commodity SCT as a share of gross farm receipts for the specific commodity.

**Market Price Support (MPS):** the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, arising from policy measures that create a gap between domestic market prices and border prices of a specific agricultural commodity, measured at the farm gate level.

Source: OECD, 2010.

The value of budgetary support of general services to producers is measured by the GSSE indicator. The GSSE refers to the support provided to agricultural producers collectively, such as expenditure related to agricultural extension, research, technical assistance and infrastructure. The support or taxation of consumers of agricultural commodities is measured by the Consumer Support Estimate (CSE). Together the three indicators PSE, GSSE and CSE compose the Total Support Estimate (TSE), i.e. the total transfers from consumers and taxpayers to agricultural producers associated with agricultural policy. The TSE can be used to indicate the total level of public sector support to agriculture in a given country.

PSE and CSE, as well as PSE components, are often measured in a percentage form, as a share of total farm receipts (receipts from output and budget transfers).

The Market Price Support (MPS) component of the PSE is taken as the difference between the observed domestic price received by farmers, and the international reference price that represents the value of the commodity in the international market. The reference price is considered to be the price that domestic producers could have received for their products in the absence of any domestic or trade policy affecting this commodity's market. Usually, these reference prices are usually calculated on the basis of border prices of imports (Cost, Insurance and Freight - CIF) and exports (Free On Board - FOB). If no reliable border prices are available, it is also possible to use specific border prices in close neighbour countries or in the countries playing a major role in international trade of the commodity, or the prices that prevail on international commodity exchanges.

Reference prices and producer's prices for MPS calculations must be measured at the same point in the value chain. In order to make the two prices comparable, the reference (border prices) must be adjusted for marketing margins in order to become comparable with farm-gate producer prices. This adjustment means that the costs of processing, handling and transportation to the market where domestically produced commodity meets the commodity from the foreign market, must be deducted from the reference price. In addition, quantity or quality adjustments could be applied to ensure that the traded good is comparable with the product as it is sold by the farmer.

The price adjustments are carried out as follows:

*For imported commodity:*

CIF price + costs of transporting the product from the border to the internal wholesale market (T1) = price of imports at domestic market level - cost of transporting the product from the wholesale market to the farm gate (T2) - costs of processing farm product into imported product (S) = price of imports in farm gate equivalent.

*For exported commodity:*

FOB price - handling and transportation costs between border and domestic wholesale market (T1) - handling and transportation costs between wholesale market and the farm gate (T2) - costs of processing of farm product into exported product (S) = price of exports adjusted to the farm gate level.

The Budget Transfers (BT) component of the calculations consists of the public expenditure in support of the agricultural sector. In general terms, these expenditures consist of three main groups:

1. economic transfers from the government budget to agricultural producers (e.g. input subsidies)
2. financing of general services that support agriculture collectively (e.g. extension services or spending on agricultural research)
3. transfers to consumers (e.g. food aid or other food subsidies).

The transfers to agricultural producers are included in the PSE indicator, while public expenditure that benefits the sector as a whole is used in the GSSE. Finally, support to consumers is taken into account in the calculation of the CSE. A thorough analysis of the budget of the Government of Suriname has been carried out to obtain an understanding of the nature and characteristics of the public sector’s spending in support of the sector, and to distinguish the different types of budget support that the Government provides.

#### Assumptions and general approach to budget support PSE component calculations

A number of assumptions is applied to make sure the level of public sector support to the agricultural sector in Suriname is calculated correctly:

* Transfers to agricultural producers that benefit individual farmers or group of farmers must be included in the PSE. When the transfers benefit the agricultural sector as a whole, they are considered support to general services and, as a result, are included in the GSSE.
* Transfers to first consumers of agricultural production (agro-processors) and food aid programs are included in the consumer support indicator CSE. However, as primary agriculture is often the final beneficiary of the subsidies to agro-processing sector, these subsidies can be included in the PSE. The reasoning for attribution of those transfers to PSE or CSE is discussed below separately for each transfer, where this is applicable.
* Budgetary transfers to producers, which are part of the PSE, are presented as a matrix structure where PSE categories are presented along the vertical axis and PSE labels along the horizontal axis. Categories and labels indicate the way the policy program is implemented. The classification and labels of Budget Transfers are given in Table 13.

As shown below, categories indicate the base on which the transfer or subsidy is calculated, such as value of production, number of animals, input use, services provided, income or non-commodity criteria. Labels are used for each category and provide a more detailed understanding of the implementation of each policy measure.

Table 12: Classification of Budget Transfers in the PSE according to OECD methodology

|  |
| --- |
| **Categories** |
| *A. Support based on commodity output* |
| A.1. Market Price Support |
| A.2. Payments based on output |
| *B. Payments based on input use* |
| B.1. Variable input use |
| B.2. Fixed capital formation |
| B.3. On-farm services |
| *C. Payments based on current A (Area) /An (Animal number) / R (Receipts) /I (Income), production required* |
| C.1 Based on current receipts/income |
| C.2 Based on current area/animal number |
| *D. Payments based on non-current (historical or fixed) A (Area) /An (Animal number) / R (Receipts) /I (Income), production required* |
| *E. Payments based on non-current A (Area) /An (Animal number) / R (Receipts) /I (Income), production not required* |
| E.1. Variable rates (vary with respect to levels of current output or input prices, or production/yields and/or area) |
| E.2. Fixed rates |
| *F. Payments based on non-commodity criteria* |
| F.1. Long-term resource retirement |
| F.2. Specific non-commodity output |
| F.3 Other non-commodity criteria |
| *G. Miscellaneous payments* |
| **Labels** |
| -- With/without L (current commodity production limits and/or limits to payments) |
| -- With V/F rates (variable or fixed payment rates) |
| -- With/without C (input constraints). |
| -- With/without E (commodity exceptions). |
| -- Based on A/An/R/I (Area/Animal number/Receipts/ Income). |
| -- Based on SC/GC/AC (a single commodity, a group of commodities or all commodities). |

The second category of Budget Transfers are those that benefit the agricultural sector collectively. This expenditure on so-called general services has been separated from the PSE and is instead being calculated as a separate indicator, the General Services Support Estimate (GSSE). As can be seen from Table 14, the spending to general services is divided into seven broad categories.

Table 13. Classification of Budget Transfers in GSSE According to OECD Methodology

|  |
| --- |
| **Categories** |
| H. Research and development |
| I. Agricultural Schools |
| J. Inspection Services |
| K. Infrastructure |
| L. Marketing and Promotion |
| M. Public Stockholding |
| N. Miscellaneous |

Source: OECD, 2010.

# Annex II: Overview of the Rice Value Chain

**Background:** Rice (dried paddy) is the major crop in Suriname and has been growing steadily during the period 2011-2014, to a total of 62,000ha, covering 88% of the total agriculture production area (table 1). According to the Ministry of Agriculture the yield per hectare increased slightly, from a 4.1 tonnes per hectare in 2011 to a 4.4 tonnes per hectare in 2015. The production concentrates in the following districts: Saramacca, Coronie, and Nickerie with an area of 5,000 - 7.000 and 43,000 ha respectively.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table 1 : Paddy area under production and harvest | | | | | | |  |
|  | unit | 2011 | 2012 | 2013 | 2014 |
| Production area | ha | 56,930 | 51,379 | 58,274 | 62,211 |
| Total agricultural area | ha | 62,916 | 57,371 | 65,910 | 70,728 |
| Quantity harvested | ton | 235,298 | 224,127 | 262,029 | 275,851 |

Source: Ministry of Agriculture, Animal Husbandry and Fisheries.

**Prices**

The farm gate prices have been fluctuating over in the period 2010–2015 and were only slightly higher in 2014 compared to 2010 (Table 2).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 2 : Paddy prices | | | | | | |
| **Description** | **Average year prices (SRD/KG)** | | | | |
| **2010** | **2011** | **2012** | **2013** | **2014** |
| Farm gate wet paddy | 0.64 | 0.95 | 0.86 | 0.81 | 0.71 |
| Consumer prices | 2.27 | 3.08 | 3.13 | 3.00 | 3.00 |

Source: Ministry of Agriculture, Animal Husbandry and Fisheries.

**Export**

The export of rice products (white, broken, parboiled and cargo rice) has grown in volume and value from 90,000 tonnes in 2010 to 104,000 tonnes in 2014. (Table 4) The most important and reliable export destination for rice from Suriname is by far Jamaica. The export to Jamaica has grown from 36,000 tonnes in 2011 to a 65,000 tonnes in 2014. Export to the EU declined sharply since 2010. Suriname is not capitalizing on the introduction of the Economic Partnership Agreement (EPA) allowing duty free and quota free export to the EU since 2010. The decline in export to EU is partly because of the fierce competition from Asian high quality rice.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 3: Export quantity and value of rice products | | | | | | | | | | | |  | |  |
|  | **UNIT** | **2010** | **2011** | **2012 \*** | **2013** | **2014** |  |  |  |  |  | |
| Quantity | ton | 89,412 | 46,109 | 56,317 | 77,161 | 103,755 |  |  |  |  |  | |
| Value | SRD1000 | 105,213 | 99,664 | 103,155 | 132,114 | 179,814 |  |  |  |  |  | |

Source: Export figures - Customs (ASYCUDA)

**Employment**

Approximately, 1,400 farmers are employed in the rice sector. Approximately 8,000 families are directly dependent on the rice sector. The Nickerie district is the most important rice producing district and concentrates about 80% of all economic activity in the rice sector. An estimated 23 factories are involved in the processing of paddy rice.

**Organization of the sector**

The sector is fairly organized as a large part of the farmers are united in the Suriname Rice Farmers Association (SPBA). The SPBA has approximately 1,200 rice farmers as members. The biggest producer has 1,000 hectares and the smallest 2 hectares. Production can be sub-divided between independent farmers, contract farmers, and corporate farmers.

The Ministry has regular consultation with representatives of stakeholders in the rice sector, including farmers, processors, exporters, traders, banks and research institutes and the collaboration is enacted through the Implementation Unit Rice (IUR). Representatives of producers, processors / exporters, trade partners, banks, ADRON (research institute) and the Ministry of Agriculture sit in the IUR. The Rice Board is responsible for achieving the policy objectives for the rice sector. This body comes under the responsibility of the Ministry of Agriculture, Animal Husbandry and Fisheries.

**Information and research**

The research institute, Anne van Dijk Research Nickerie (ADRON) promotes improved seeds and provides training to producers and processors in the field of drying and processing of paddy, quality management, administration and financial management and crop management.

**The rice commodity chain and key challenges**

In describing the rice value chain, the information received from the Suriname Rice Farmers Association (SPBA) is used as primary source, combined with policy note of the Ministry of Agriculture 2010-2015 (“Beleidsnota”). Since the spring production is the most important one, information from this season is used in the farm gate price calculation. The rice value chain is not an integrated chain of the various companies active and can be summarized by Figure 1 below. As can be seen in Figure 1, the Suriname rice value chain is long and lacks strong market orientation or focus, resulting in inefficiencies and reduction in competiveness.

Figure 1: Suriname value chain

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input dealers. |  | Production |  | Millers  Small & Big |  | Distributor |  | Domestic retail | | |
|  |  | Feed factory |  |
|  |  | Importer |  | Foreign retail | | |
|  |  |  |  |  | | |
|  |  | Exporter |  | Importer |  | Foreign retail |
|  |  |  | Miller |

Source: The National Rice Conference, 2015

**Input dealers**

The supply of some key inputs is not always reliable for farmers, which results in production delay or loss. The rice sector is dependent on the following key inputs: seeds, fertilizer, chemicals, diesel, parts and machine services. Fertilizer is the most costly input, representing an average of 16% of the cost. According to the SPBA, to improve the sector competitiveness, the priority lies in reducing the cost of inputs (more efficient use, lower prices). Furthermore, SPBA indicates that rice seeds continue to be more prone to diseases. ADRON needs to invest more in seed innovation to introduce better yielding and disease resistant seed.

Table 4: Farm gate price calculation.

|  |  |  |  |
| --- | --- | --- | --- |
| Activities | cost in SRD for the years | | |
| 2014 | 2015 | 2016 |
| Land preparation | 1100 | 1100 | 900 |
| Slag insecticide | 31 | 31 | 45 |
| Beetle insecticide | 15 | 15 | 17 |
| Insect control labour | 10 | 10 | 10 |
| Seed | 260 | 260 | 210 |
| Sprout labour | 35 | 35 | 35 |
| Transport seed | 25 | 25 | 25 |
| Sowing labour | 90 | 90 | 90 |
| Peeling | 25 | 25 | 25 |
| Herbicides | 40 | 40 | 50 |
| Spray labour | 25 | 25 | 45 |
| Transport | 35 | 35 | 35 |
| fertilizer Urea | 623 | 630 | 625 |
| fertilizer NPK |  | 135 | 60 |
| Bug insecticide | 60 | 135 | 135 |
| Insect control labour | 15 | 15 | 15 |
| Irrigation pumps |  |  | 400 |
| cleaning drainage | 95 | 95 | 95 |
| Supervision | 175 | 175 | 175 |
| Provision | 250 | 250 | 250 |
| Fungicide | 175 | 175 | 210 |
| Interest | 210 | 210 | 210 |
| Family labour | 175 | 175 | 195 |
| Combine rent | 400 | 400 | 300 |
| Total production cost/ha | 3869 | 4086 | 4157 |
| Profit 15% | 580 | 613 | 624 |
| Farm gate price/ha in SRD | 4449 | 4699 | 4781 |
| exchange rate | 3.35 | 3.35 | 4.15 |
| Farm gate price/ha in USD | 1328 | 1403 | 1152 |

Source: Suriname Rice Farmers Association

**Key challenges in the rice value chain**

* **Infrastructure.** Maintenance of rice production infrastructure, like channels, pumps, drainage is key and requires a lot of attention. The Ministry of Agriculture, Animal Husbandry and Fisheries policy, has transferred the maintenance of agricultural infrastructure to water boards. According to Overliggend Waterschap MCP, OW MCP [[48]](#footnote-48)(the the overarching water board of Nickerei) and Wereld Water Net, a total of 14 water boards have been established, of which 13 in Nickerie district, the most important rice producing district. Directors for the Water Boards have been elected in 2013 for a period of 3 years.[[49]](#footnote-49) Sufficient fresh water is essential for rice cultivation in Nickerie and the Overarching Water Board pumps the water requirements from the Corentyne River to the rice fields through a 66 km long canal.
* **Water Boards functioning.** Water Boards indicate not having the authority (legal framework) nor the (financial) resources to implement and enforce the maintenance commitments. Therefore, maintenance depends on the central authorities, resulting in delays. Also, the SPBA is not satisfied with the performance of the Water Boards. The problem according to the SPBA is the enforcement of the maintenance commitments, as penalties to farmers who do not follow what the law requires are not issued, given their unpopularity. A possible solution is to make the Water Boards directly responsible for the water infrastructure, giving them the appropriate powers and resources.
* **Financing and credit.** SPBA indicates the delay in payment to the rice farmers as one of the key issues in the financing of the agricultural season, putting unnecessary pressure on the farmers. SPBA has calculated that some millers / processors have a combined debt of about SRD 3 million with over a hundred rice farmers. SPBA is obtaining legal counselling to enforce payment through the court. Payment delay puts extra pressure on the farmers, while the banks require on time repayment of their credit. So far, the agricultural credit (AKF) interest rate remains at 6.25%. The devaluation of the Suriname currency will lead to an interest increase of at least 1-2%
* **Fuel.** Oil prices have come down in the last year, lowering the cost of rice production. Lower oil prices, though, have not resulted in lower diesel prices in Suriname, deteriorating the international competitive position of the farmers. In September 2015, the Government of Suriname decided to introduce a solidarity per litre levy on the price per litre of petrol and diesel (SRD 0.40). Also, the electricity and water rates have increased.

The **Effective Rate of Protection (ERP)** is estimated for Rice. The ERP is gradually decreasing from 33% in 2012 to 31% in 2014. This decrease can be attributed to the decrease in farm gate prices. The Nominal Rate of Protection (NRP) is consistent at 20% over the same period. More detail on ERP is described in the main text, paragraph 3.3.

# Annex III: Overview of the Banana Value Chain

**Background**

Since the beginning of 2014 the banana production sector has been privatised and is now in the hands of the Belgium company Univeg, who took over 90% of the shares from the state owned company, Stichting Behoud Bananen Sector (SBBS). SBBS will continue under the name Food and Agriculture Industries (FAI), as a 100% subsidiary of Univeg and is the single and largest banana producer in the country. Small scale farming of banana does exist but with a total 186 hectares is small in size compared to the FAI estate of almost 2000ha. Small scale farming is growing and has more than doubled between 2011 and 2014. The area under production has been steadily growing from 1,963 hectares in 2009 to 2,160 hectares in 2014, when it stabilised (see Table 1). The production, however, is showing a gradual decrease since 2009 and is with 77,000 tons in 2014 even under the level of 2009. Consequently, productivity has fallen in the same period (2009 – 2014) with 25%, from 48 ton/ha in 2009 to 36 ton/ha in 2014.

**Food and Agriculture Industries (FAI).** Since FAI has taken over the operations of SBBS in 2014, it reported a loss of approximately USD 10million in 2014 and about USD 13million in 2015. According to FAI, there are both internal and external reasons for these huge losses. External reasons: (i) the USD has gained strength against the EUR in the last 2 years. With the cost of production in USD and the revenues in EUR (since the entire production is sold in Europe) a stronger USD against the EUR is negative for FAI. (ii) continued price pressure in the competitive European market as explained in more detail in the paragraph on prices. Internal reasons for the losses are: (i) one of the two plantations (in Jarikaba) is struggling with the moko disease, which was according to FAI not revealed in the due diligence process and subsequent negotiations. As a result of the virus, this plantation has lost 20% of its production capacity; (ii) management and labour issues with absenteeism going as high as 50% of the work force. Since June 2014 there is new management and the workforce has shrunk from 2,600 staff in 2013 to currently below 2,000; (iii) the labour productivity in Suriname is low and the staff is difficult to motivate.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table 1 Banana sector indicators | | | | | | | |
| **DESCRIPTION** | **Unit** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** |
| Area growing | ha | 1,963 | 2,081 | 2,044 | 2,051 | 2,173 | 2,164 |
| Qty harvested in tons | ton | 82,267 | 94,272 | 85,017 | 92,391 | 85,584 | 77,014 |
|  |  |  |  |  |  |  |  |
| Farmegate price | SRD/KG | 1.27 | 0.97 | 1.18 | 1.25 | 1.20 | 1.11 |
| Export Quantity \* | ton | 58,132 | 70,239 | 68,138 | 62,213 | 76,585 | 75,261 |
| Export value | SRD 1000 | 73,608 | 67,987 | 110,986 | 89,110 | 110,740 | 109,446 |
| Av. Consumer price | SRD/KG | 1.13 | 1.13 | 1.97 | 2.28 | 2.18 | 2.02 |
| Production per ha harvested area | ton | 47.9 | 45.7 | 41.6 | 45.4 | 39.5 | 35.7 |
| \* Total export: SBBS for (2009-2013), FAI for 2014 + Small scale farming.  Source: Customs (ASYCUDA) | | | | | | | |

**The Banana commodity chain and key challenges.**

In describing the banana value chain, information from the field visits to FAI and SBBS is used as primary source combined with the Government Policy Note 2010-2015. The banana value chain in Suriname is traditionally organised as vertically integrated. Companies control all operations along the chain - production, packing, shipping, importing and ripening - in order to keep hold of the offer and influence in the downstream market (Figure 1). Until the 1980s most fruit (banana) companies were organized in this (traditional) way.

Today, the key worldwide players in the banana value chain have cut production out of their core business. Chiquita sources less than 40% of its bananas from its own farms, Dole mainly owns farms in Ecuador and Costa Rica (and an organic farm in Colombia), and Del Monte grows approximately 40% of its volumes in company-controlled farms (in Guatemala, Costa Rica, Cameroon etc.).

Figure 2: FAI banana value chain

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Banana fruit company  Food and Agriculture Industries (FAI) | | | | |  | Retail |
| Production / Packaging | Export | Import | Ripening | Retail |  |

Source: own elaboration

**Retail[[50]](#footnote-50)**

The European Union(EU) is the biggest importer of bananas in the world with the majority being sourced from Latin America. The import industry in the EU was traditionally dominated by vertically integrated companies that controlled all operations along the chain - production, shipping, importing and ripening. In the 1980s, five companies alone (Chiquita, Del Monte, Dole, Noboa and Fyffes) traded 80% of the world’s bananas. However, a major divesting by these companies of directly owned plantations and ships has reduced the main barrier to entry for businesses at both ends of the banana chain. A process which now sees Chiquita, Dole, Del Monte and Fyffes controlling only 39% of the banana trade in Europe. Instead, it is now the retailers who increasingly control value banana chains, with integrated fruit companies competing to be their ‘preferred suppliers’. In Germany and the UK, retailers are beginning to source directly. And Univeg, being a logistic fruit & vegetable supplier to EU retail markets is strategically securing its supply by taking over SBBS.

**Prices**

Consumer prices have stagnated or increased very slightly since 2001, except in the UK, where a banana price war between retailers has halved consumer prices[[51]](#footnote-51). In stark contrast, wholesale prices have decreased by almost 25%, whilst retailers have increased their share of the banana value in most countries (except the UK) to between 36% and 43%. This decline in import prices has been transferred to all major countries supplying the EU, where the value left at origin has fallen by 20% to 50% in real terms. This at a time of significant increases in both production and living costs. Inputs, such as fertilizers and pesticides, have risen by up to 130%, while the high costs of compliance with quality, sanitary and environmental standards for bananas entering the European market are incurred mainly by producers. For banana workers and farmers themselves, food, health, education and other living costs have rocketed in the period since 2001.

**Key challenges in the banana value chain**

* **Worldmarket price pressure.** If retailers continue to capture an increasingly excessive share of banana values, and buying prices are forced down to unsustainable levels, suppliers will struggle to survive. Smaller producers will be more vulnerable to extinction as a consequence.Furthermore, as producers supply European retailers, there is an increase in piece rates, short-term contracts, and the use of sub-contracting, making work more precarious, with a reliance on vulnerable migrant workers.
* **Weaker competitive position.** The competitive position of the sector and of FAI is under pressure because of a number of Government policies. These are: (i) FAI had negotiated an import duty exemption on petroleum. This exemption is withdrawn, increasing the annual fuel cost for FAI by 250-300k USD; (ii) the Customs Tariffs and Levies (inspection of containers and the like) rose by 15%; and (iii) ahead of 2015 government elections, three new social bills were approved, increasing the cost of labour by 20% for enterprises like FAI.
* **Exchange rates.** Since the entire production of FAI is sold in Europe and the cost of production is in USD, a stronger USD is negative for FAI, reducing their margins.

The **Effective Rate of Protection** (ERP) is estimated for the Banana commodity. The ERP is decreasing from 180% in 2012 to 98% in 2014. This sharp decrease can be attributed to the lower farm gate prices. The farm gate price decrease from USD 0.38 in 2012 to USD 0.33 in 2014, with more or less equal sales prices. The Nominal Rate of Protection (NRP) is consistent at 28% over the same period. More detail on ERP is described in the main text, paragraph 3.3.

# Annex IV: Overview of the Poultry Value Chain

**Background**

The trend in the livestock sector including Poultry is showing an increasing presence of economies of scale in production through the creation of bigger companies. There is also a trend of vertical integration between the various stages of the chain (production, processing, wholesale) in order to have better control and fast and adequate response to market demand. At the same time, the number of smaller companies is decreasing.

Poultry is the only livestock sector where national demand exceeds the production. The poultry sector remains reliant on the imported inputs, like maize for feed. The livestock sector has growth potential, but is currently not exporting. Better disease control should lead to higher production and, if combined with implementation of food safety measures, should open export possibilities.

The dominance of poultry in the livestock sector is clear from Table 1 below. This means that with the production of meat and eggs, the poultry sector supplies more than half of the animal protein and 68% of the meat supply. Poultry farming is highly dependent on imports of feed, medicines and hatching eggs and is therefore sensitive to foreign exchanges fluctuations.

The subsector produces 70,000 to 90,000 broilers per week. A third of the hatching eggs for broiler chickens is imported. Hatching eggs for laying hens are produced in Suriname.

**Table 1. Livestock sub sector**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sub-sector** | **No of companies** | **Animal stock** | **production** | **Value(SRD)** |
| Poultry (broiler) | 2200 | 500.000 | 8.140.000 kg | 61.864.000 |
| Poultry (layer) | 1500 | 240.000 | 45.000.000 piece | 15.750.000 |
| Cattle | 1000 | 36.000 | 1.882.000 kg | 21.643.000 |
| Dairy | 1000 | 18.000 | 6.500.000 liter | 12.350.000 |
| Pigs | 155 | 29.000 | 1.900.000 kg | 13.680.000 |
| Small livestock | 450 | 13.000 | 16.500 kg | 577.500 |
| **Total** |  |  |  | 125.864.000 |

**Organisation of the sector**

The sector is organized to some extent by the Poultry Association of Suriname (APSS) representing the interests of the sector. Until 1990 Suriname was self-sufficient in terms of chicken meat. With imports of cheap chicken drumsticks, the local poultry industry has lost a large part of the domestic market. Suriname imports chicken legs from the United States and both chicken legs and whole chicken from Brazil. Also whole chicken and chicken products enter the Suriname market from Caricom and in particular from Jamaica and Trinidad.

As a result of this direct competition, the poultry sector has declined to a 40% market share. Since 2010 meat production is increasing gradually thanks to the domestic preference for locally produced chicken meat. However to achieve further growth the price difference between imported chicken and the locally produced chicken (which is more expensive) should be smaller (Table 2).

**Employment**

The number of direct and indirect jobs for the commercial production is estimated at 2,000 FTE. Production takes place mainly in the district of Wanica. Nationally, there are about 4,200 poultry companies, of which about 2,200 companies with broilers, 1,500 with laying hens and approximately 500 companies with other poultry such ducks and geese.

Table 2. Poultry sector indicators

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Average price** | **UNIT** | **2010** | **2011** | **2012** | **2013** | **2014** |
| Farmgate chicken | SRD/kg | 9.80 | 10.77 | 9.85 | 11.45 | 11.16 |
| Farmgate Eggs | SRD/piece | 0.51 | 0.69 | 0.81 | 0.69 | 0.80 |
| Consumer price Chicken | SRD/kg | 13.77 | 14.85 | 15.80 | 14.63 | 14.46 |
| Consumer price Eggs | SRD/piece | 0.75 | 0.80 | 0.94 | 0.80 | 0.90 |
| Gross production value Chicken | SRD ‘000 | 117,443 | 113,494 | 112,162 | 96,558 | 99,335 |
| Gross production value Eggs | SRD ‘000 | 23,438 | 22,303 | 44,079 | 38,914 | 42,350 |
| Production |  |  |  |  |  |  |
| Total chicken and other poultry \*\* | 1000 pcs | 6,150 | 5,694 | 6,333 | 4,955 | 5,098 |
| Eggs | 1000 pcs | 45,956 | 32,323 | 54,418 | 56,397 | 52,937 |
| **SLAUGHTERED:** |  |  |  |  |  |  |
| Animals | 1000 pcs | 6,863 | 5,854 | 7,004 | 4,958 | 5,251 |
| Weight | ton | 11,984 | 10,538 | 11,387 | 8,433 | 8,901 |
| **IMPORTED:** |  |  |  |  |  |  |
| Chicken and other poultry - Qty | ton | 16,848 | 14,869 | 12,408 | 19,558 | 17,960 |
| Chicken and other poultry - value | SRD1000 | 48,237 | 59,560 | 50,898 | 74,260 | 79,629 |
| Average price imported chicken product | SRD/kg | 2.86 | 4.01 | 4.10 | 3.80 | 4.43 |

Source: Beleidsnota / policy note LVV 2010 – 2015

**Import**

The poultry sector is reliant on the import of chicken feed or feed ingredients, medicines and breeding eggs. As can be seen in Table 3, since 2010 the import of breeding eggs has fallen sharply, because of increased prices. The sharp fall in the import of breeding eggs is only partly compensated by an increase of local breeding eggs.

Chicken feed is produced in Suriname by VESU. In chicken feed, maize is the most important ingredient in terms of volume, representing almost 50% of the feed mix. Maize is not grown in Suriname and thus fully imported. Other, smaller in volume imported ingredients are soybean and premix concentrates.

Table 3 - Inputs

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Input** | **UNIT** | **2010** | **2011** | **2012** | **2013** | **2014** |
| Breeding eggs: |  |  |  |  |  |  |
| - Import | 1000 pcs | 2,734 | 2,229 | 2,707 | 308 | 161 |
| - Local | ,, | 6,148 | 6,133 | 6,366 | 6,611 | 7,001 |
| Import value breeding eggs | SRD 1000 | 2,679 | 2,786 | 3,384 | 706 | 328 |
| Import value per piece | SRD | 0.98 | 1.25 | 1.25 | 2.29 | 2.04 |
| Feed production |  |  |  |  |  |  |
| Broiler chicken feed | Ton | 33,305 | 24,773 | 22,978 | 29,543 | 24,529 |
| Layer chicken feed | ton | 7,110 | 9,428 | 8,765 | 11,270 | 10,781 |
| Feed ingredients |  |  |  |  |  |  |
| Corn\*\*\* | ton | 17,143 | 15,714 | 10,241 | 12,183 | 25,286 |
| Rice/grinding mill | ton | 6,122 | 4,469 | 7,162 | 7,164 | 7,637 |
| Soybean | ton | 5,485 | 5,748 | 8,066 | 7,180 | 5,359 |
| Concentrate | ton | 10,199 | 9,895 | 9,987 | 8,691 | 8,213 |
| Others | ton | 1,718 | 3,039 | 4,125 | 3,931 | 3,642 |
| Total | ton | **40,667** | **38,865** | **39,581** | **39,149** | **50,137** |

Source: Beleidsnota / policy note LVV 2010 – 2015

**The poultry commodity chain and key challenges.**

In describing the poultry value chain, the information gathered during the field visit at TOK NV is used as primary source and combined with the Government Policy Note 2010-2015. The poultry value chain in Suriname is only partly vertically integrated and that is because the slaughterhouse also distributes the meat to the retail (Figure 1). As can be seen in Figure 1 the chain of eggs is shorter than the meat chain.

Figure 1: Suriname poultry value chain

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input dealers & feed factory |  | Production & Packing |  | Distributor eggs |  | Domestic retail | | | | |
|  |  |
|  |  |
|  |  |  |  |  | | | |
|  | Transporter hens |  | Slaughter house | | Distributor |  | Domestic retail |
|  |  |

Source: own elaboration, 2016

**Key challenges**

* **Overdependence on imported maize.** The sector is over dependent on the import of maize in USD as key input for the chicken feed. This dependence involves risks when the price of maize rises and or when the SRD devaluates against the USD, making the import more expensive.
* **Disease control.** Better disease control should lead to higher production and a lower cost of production. These are the first steps to be taken if the sector wants to develop an export market.
* **Price competition**. Suriname is facing strong price competition from the United States, Brazil and Caricom nations. Although the local chicken is gaining in popularity the price difference between the local produced chicken and the imported chicken pieces is too big for the sector to grow further.

The **Effective Rate of Protection** (ERP) is estimated for Poultry. With an ERP of 2%, it is just about positive. The Nominal Rate of Protection (NRP) is consistent at 14% over the same period. More detail on ERP is described in the main text, paragraph 3.3.

Poultry is the only commodity (out of the 3 analyzed, rice, banana, poultry) which attracts import tax of a total of 22%. However the competition from Brazil and the US for chicken parts is very strong. Both countries are able to offer chicken parts in the consumer markets of Suriname at less than half the domestic farm gate price. True , chicken farmers in Suriname have a higher production cost price, partly because they rely for 50% of the their chicken feed needs on imported corn and concentrate which has the standard 12% CARICOM levies, which is not beneficial for the sector. Other factors are possibly even more important to consider when evaluating the competitive position. The highly segmented nature of the US market and its preference for breast meat and wings, forces the US to export at least 60% of leg quarters. Moreover, in the US and Europe, once meats including chicken have been frozen, there is a time limit after which they can no longer be sold for human consumption in their domestic markets, it has to be exported. The price for this kind of frozen meat gets progressively lower the longer the chicken remains frozen. These are factors which drive the supply of chicken up and consequently drive the price down.

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17. A more detailed analysis of the rice value chain and its cost structure is provided in annex I. [↑](#footnote-ref-17)
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30. Ministry of Agriculture, Animal Husbandry and Fisheries (2011) [↑](#footnote-ref-30)
31. Wouters (2010); Report of a mission to the Vereniging Surinaamse Melkveehoudersbedrijven Bond (VSMB), PUM Netherlands Senior Experts, 18 July 2012 [↑](#footnote-ref-31)
32. Report of a mission to the Vereniging Surinaamse Melkveehoudersbedrijven Bond (VSMB), PUM Netherlands Senior Experts, 18 July 2012 [↑](#footnote-ref-32)
33. Ministry of Agriculture, Animal Husbandry and Fisheries, Beleidswitboek Veeteelt, 2011 [↑](#footnote-ref-33)
34. Information provided by Ministry of Trade and Industry, 2013 [↑](#footnote-ref-34)
35. World Trade Organization, 2013 [↑](#footnote-ref-35)
36. World Trade Organization (2013) [↑](#footnote-ref-36)
37. Cable US Embassy (2008), viewed at <http://www.cablegatesearch.net/cable.php?id=08PARAMARIBO177> [↑](#footnote-ref-37)
38. See Dagblad Suriname, *‘Prijsstijgingen doen armoede toenemen’ (27 July 2013)*, <http://www.dbsuriname.com/dbsuriname/index.php/prijsstijgingen-doen-armoede-toenemen/> [↑](#footnote-ref-38)
39. Source: Interviews with Landbouwbank management, 2013 [↑](#footnote-ref-39)
40. Coffeng, 2010 [↑](#footnote-ref-40)
41. See http://www.srherald.com/suriname/2014/04/10/president-besluit-babyvoeding-te-blijven-subsidieren/ [↑](#footnote-ref-41)
42. Derlagen (2013) [↑](#footnote-ref-42)
43. [↑](#footnote-ref-43)
44. Anriquez et al (2016) [↑](#footnote-ref-44)
45. EU, 2012 [↑](#footnote-ref-45)
46. CSCT is calculated as: the transfers to consumers from taxpayers – (transfers to producers from consumers + other transfers from consumers) [↑](#footnote-ref-46)
47. OECD (2012b) [↑](#footnote-ref-47)
48. www.owmcp.org/ [↑](#footnote-ref-48)
49. www.wereldwaternet.nl/projecten/suriname/eu-project-owmcp-nickerie [↑](#footnote-ref-49)
50. Banana value chains in Europe and the consequences of Unfair Trading Practices, October 2015 [↑](#footnote-ref-50)
51. Banana value chains in Europe and the consequences of Unfair Trading Practices, October 2015 [↑](#footnote-ref-51)