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A Value Chain Analysis of St Vincent and the Grenadines Banana Industry

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Abstract

The banana industry played an important role in the economy of St Vincent and the Grenadines (SVG) since it was established in the 1950's. The industry has contributed to the country's economy by providing employment and development for rural households. St Vincent and the Grenadines has the highest income dependency percentage (22.3%) among the Windward Islands and has traditionally exported bananas to the United Kingdom (UK) under a preferential treatment marketing import system.

Preferential access ceased in 1995 when WTO trade rules were implemented. Currently, the EU has eliminated its quota system and has reduced preferential access to its markets. At present, banana from St Vincent and the Grenadines is exported under the Fairtrade label which guarantees a stable price per box.

This research examines the SVG banana industry value chain under a new EU marketing and pricing regime. It focuses on the current economic status of the banana industry and the contributions of the major Stakeholders along the chain. A critical analysis was done of the cost of production and the value potential of bananas in both the UK and regional market.

Results indicate that the banana industry's contribution to the economy has declined significantly in the last few decades. The study also found that most of the value is added after the fruit leaves the farmgate, with Winfresh making the highest contribution to value in the chain. Interestingly, while the volume of exports to the UK has been declining, exports to the regional market has been increasing. Further, the value per tonne of banana sold in the regional market has been increasing since 2004. From a marketing perspective it suggests the need for a closer examination of the attractiveness of regional markets, not just Trinidad and Tobago, for SVG bananas.

Key words: banana, Fairtrade, critical analysis, cost of production, St. Vincent and the Grenadines

Background

The agricultural landscape globally is undergoing a major transformation due to many factors such as, intense competition

for land, the impact of climate change, changed marketing arrangements and fickle consumers many of whom talk with their wallets. The picture in St. Vincent and the Grenadines (SVG) is no different as we

witness the decline of the banana industry, the urban drift and its concomitant rise in the demand for convenience foods. As this transformation occurs producers and other stakeholders in SVG must evaluate their options as they seek viable alternatives to bananas. However, by understanding what was involved in the banana industry provides a sound basis for evaluating alternatives.

The banana industry played an important role in the economy of SVG since it was established in the 1950's. The industry has contributed to the country's economy by providing employment, foreign exchange earnings and the general development of rural households (CTA Factbook). SVG had the highest income dependency level for the Windward Islands in 2008 based on data from UNCTAD, as is illustrated in Table 1. At 22.3% level of dependency SVG is more than three times as dependent on banana as Guatemala.

Table 2 illustrates agriculture's and banana's contribution to Gross domestic product (GDP) of SVG at basic prices, in constant dollars 2006 for the period 2000-2009. Agriculture's contribution has shown a steady decline with the 2009 contribution being only 84% of 2000. Similarly, banana's contribution to GDP also declined from 2.59% in 2000 to 0.95% in 2009.

With the loss of preferential access to the EU market in the 1990s the industry's contribution to the economy has declined. Figure 1 indicates that the volume of banana exports has declined steadily since 1992. Not only did the volume of the bananas exported decline, but the number of active farmers dropped from 7,855 in 1992 to 1,001 in 2009 – a 87.3% decline. Further, prior to the 1990s the EU was the main market, however, efforts to penetrate the regional market are now being actively pursued.

Presently, banana from SVG are being exported to the UK through WINFRESH (formerly known as Windward Island

Banana Development Export Company (WIBDECO)). WINFRESH controls the shipping, marketing and distribution of Windward Island banana in the UK (Torgerson 2007). Banana from SVG are also shipped to the regional market; however, this is done primarily on individual business arrangements, with Trinidad and Tobago being the main market.

This research attempts to examine the cost of production with a view to identify possible areas to improve the competitiveness of the industry, the returns from the exportation of bananas from SVG to Trinidad and Tobago, and the UK for the period 2004 to 2009, and the value chain to the UK market. The major cost centers in the cost of production are identified. The value chain is analyzed and the contribution of each of the activities from farm to retailer is calculated. The returns from the regional market versus the UK market are also analyzed and some conclusions and recommendations are presented to improve the performance of the industry.

Cost of Production

Table 3 provides a summary of the cost of production for an acre of banana in SVG in 2008, revenue per acre and return on investment. The total labor cost was observed to be the largest cost item, consequently, if labor productivity could be increased, there is a strong possibility that it can significantly reduce the cost of production. Given the fact that labor productivity is to a large extent under the control of the authorities and other industry stakeholders this is clearly an important area for intervention for the improvement of the banana Industry.

On many occasions the high cost of chemical inputs have been cited for the limited returns to farmers in the industry, as Table 3 shows non-chemical inputs

contributes more than chemical inputs to the cost of production. Combined, chemical and non-chemical inputs, do contribute the major cost to production (56%). Hence, the producers and industry stakeholders have little or no control over these costs.

Value chain analysis

Value chain analysis has regained prominence in recent times as firms in this hypercompetitive environment recognize that they need to collaborate if they are to gain and sustain market share. Competition in the contemporary agrifood sector is no longer between individual firms but rather between chains since no individual firm seems to have all the competencies to successfully move a product from “farm to fork” (Fischer 2010). The special characteristics of a highly perishable product, such as banana, require the careful control of all activities from growing to distribution – the value chain. Liu (2009) states that: “The benefits that developing countries can reap from exporting bananas depend to a large extent on the value chain within which their growers and exporters operate and who controls it”. So value chain analysis permits us to determine the costs and profitability of different stages along the chain.

Banana value chains have been put into four broad types (Liu, 2009):

- (a) Traditional chain
Grower → Packer/Exporter → Importer
→ Ripener → Wholesaler/Distributor → Retailer
- (b) Integrated conventional chain
Grower → Trading company
(Packing/Exporting/Importation/Ripening/Distribution) → Retailer
- (c) Highly integrated conventional chain

- Fruit company
(Growing/Packing/Exporting/Importation/Ripening/Distribution) → Retailer
- (d) Integrated fair-trade or organic chain
Grower group
(Growing/Packing/Exporting) → Specialized importer
(Imports/Ripens/Distributes)
→ Retailer

Presently, the banana exported from SVG to the UK fit the integrated Fairtrade model. Figure 2 illustrates the breakdown of the costs in Eastern Caribbean Dollars (EC\$). If we assume the chain is operating efficiently then the difference between the input cost and the output price received at each stage along the chain represents the value added. An examination of the costs along the chain shows with a cost of production of EC\$0.35/lb and a certification cost of EC\$0.01/lb 73% of the costs in the chain is added after the farmgate. Further, from this simple analysis it is clear that marketing and distribution adds the largest costs – 41%.

Table 4 represents the value added in percentage terms, i.e. the difference between output price and input cost as a percent of input cost, at the major points in the chain. WINFRESH adds the most value – 117% while the retailer adds the least – 15% (Table 4). The value added by WINFRESH is consistent with modern marketing theory which sees the marketing and distribution functions as being critical elements in food value chains. The farmer’s value added is 25%, while WINFARM adds 47% of value.

Who controls the SVG banana value chain? In the contemporary agrifood sector power no longer lies with producers, the consumer is “King” and the retailers who are closest to them are often in control of the value chain. In this regard the retailers are often the most knowledgeable of the consumers’ wants and needs and try to drive the value chain from a Supply-driven to a Demand-driven orientation. In the

fresh fruit sector outside of the sanitary and phytosanitary requirements which are mandatory requirements of the importing country the other specifications (grades and standards) are usually dictated by the retailer (Giovannucci 2008). So in essence the retailer drives the banana value chain. However, in the SVG banana value chain Winfresh appears to be a major player.

Regional and UK Market Comparison

Figure 3 illustrates the exports of banana from SVG to the UK and regionally for the period 2004 to 2009. As is observed in this figure the volume of exports to the UK decreased while the exports to the regional market increased. On a volume basis the exports to the UK in 2009 were 34% of the 2004 level. On the other hand, the exports to the regional market in 2009 showed a 177% increase over the 2004 volume.

Figures 4 and 5 illustrate what has been happening with the value of a tonne of banana in both markets. As is observed in these figures the value decreased in the UK market while it increased in the regional market for the period. Based on the slope of the trend lines on Figures 4 and 5 one can deduce that the value is decreasing faster in the UK market than it is increasing in the regional market. If all things remain the same then at present the UK will be less attractive than the regional market from a value per tonne basis. From a marketing perspective this is vital information for planners and strategists to have as the attempt to position their products in the most attractive markets.

Conclusions

In the banana value chain a business undertakes many operations to provide a product to its customers and finally to the end consumer. Each of these operations

receives an input and transforms it into an output. The value added by each operation/business justifies its *raison etre* in the chain. Based on the mapping of the product flow, associated costs and value added along the chain, it is clear that the majority of the value is added after the farmgate. WINFRESH controls marketing and distribution which accounts for the largest percent value added. In a highly competitive and concentrated industry marketing is of vital importance and considerable resources are usually devoted to this activity.

From a farmer's perspective the return on investment (ROI) from banana production is only 19%. In SVG where the farmer has little influence on prices for such items as, fertilizers, herbicides and other inputs there is very little scope to reduce the cost of production by focusing on input costs. Efforts to improve the productivity of labor provide an excellent opportunity to reduce the cost of production. With many of the small farmers providing a large percent of the labor on their farms illustrating the need for increase labor efficiency is vital. Hired labor must also be provided with incentives to perform their tasks more effective and efficiently.

Market attractiveness is often analyzed as strategists seek alternatives to their present business. In the case of the banana industry in SVG, the regional market is being pursued, but how attractive is it? Several factors are generally used to assess a market's attractiveness such as market growth rate, market size, and projected profit possibility, to cite a few. As this study illustrates the projected trend in the value of a tonne of banana exported from SVG increased in the regional market while it declined in the UK for the period studied. Further, for highly perishable items, such as banana, proximity to market is of paramount importance. Clearly, further examination of regional markets must be undertaken in an effort to sustain

banana production in SVG and obtain the highest possible returns for the industry.

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Table 1: Banana income dependency rate for selected countries

| Country | Dependency level (%) |
|--------------------------------|----------------------|
| St. Vincent and the Grenadines | 22.3 |
| St. Lucia | 19.7 |
| Dominica | 18.1 |
| Panama | 10 |
| Ecuador | 9.3 |
| Costa Rica | 7.7 |
| Honduras | 6.8 |
| Dominican Republic | 6.8 |
| Guatemala | 5.9 |

Source: INFOCOMM

Table 2: Agriculture's and banana's contribution to GDP 2000- 2009

| | | |
|------|------|------|
| 2000 | 8.06 | 2.59 |
| 2001 | 7.41 | 2.14 |
| 2002 | 7.79 | 2.26 |
| 2003 | 6.90 | 1.43 |
| 2004 | 6.34 | 1.41 |
| 2005 | 6.30 | 1.21 |
| 2006 | 6.15 | 0.92 |
| 2007 | 6.60 | 0.96 |
| 2008 | 6.34 | 0.87 |
| 2009 | 6.78 | 0.95 |

Source: Ministry of Agriculture Forestry and Fisheries, SVG Statistical Unit.

Table 3: Costs, revenue and returns for an acre of banana in SVG 2008 (EC\$)

| Major cost items | Cost per acre | Percent of total cost |
|----------------------------------|-------------------|-----------------------|
| Plantlets | 700.00 | 7 |
| Non-chemical inputs | 3003.62 | 31 |
| Chemical inputs | 2392.00 | 25 |
| Labor excluding harvesting | 1937.25 | |
| Harvesting labor | 1575.00 | |
| Total labor | 3512.25 | 37 |
| Total cost | 9607.87 | |
| | 11452.25 | |
| Revenue per acre | | |
| Net returns per acre | 1844.38 | |
| Returns on investment | 19 percent | |
| Cost of production per lb | 0.35 | |

Source: Ministry of Agriculture Forestry and Fisheries Banana Unit

Table 4: Value added by stakeholder along the chain

| Value chain actor | Input cost (EC\$) | Output price (EC\$) | Value added (%) |
|-------------------|-------------------|---------------------|-----------------|
| Farmer | 0.36 | 0.45 | 25 |
| WINFARM | 0.45 | 0.66 | 47 |
| WINFRESH | 0.66 | 1.43 | 117 |
| Retailer | 1.43 | 1.65 | 15 |

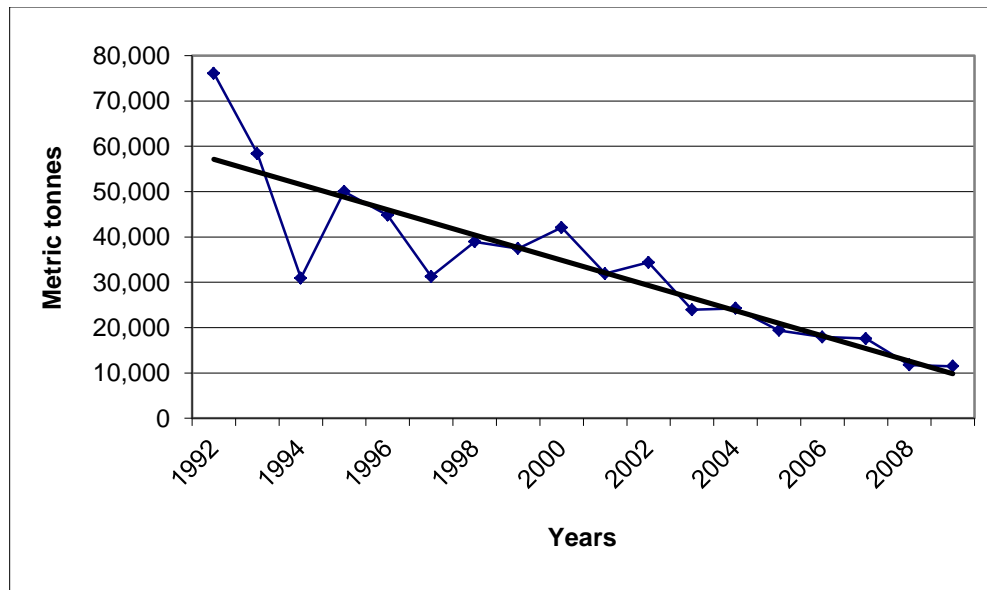


Figure 1: St. Vincent and the Grenadines banana exports (metric tonnes) 1992 to 2009

Source: Ministry of Agriculture Forestry and Fisheries Statistical Unit

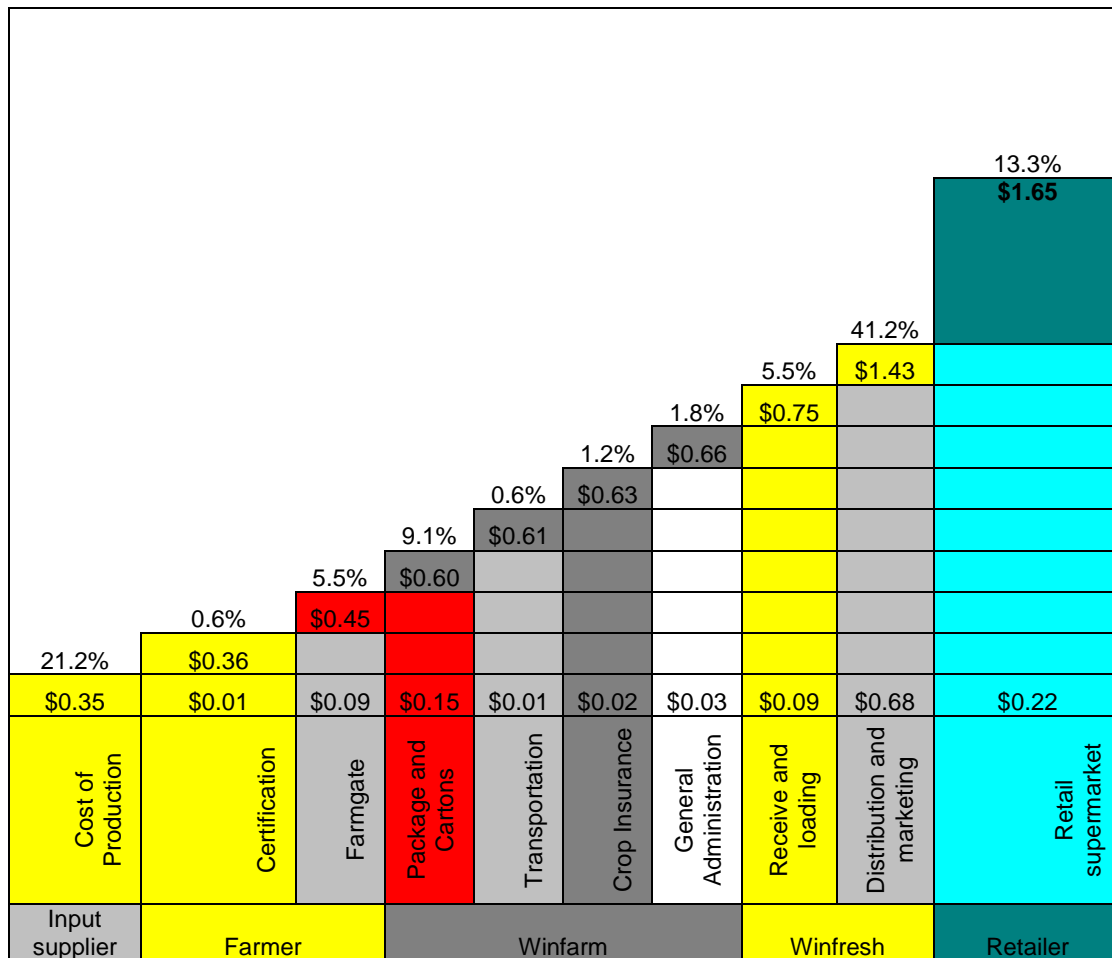


Figure 2: Banana Value Chain

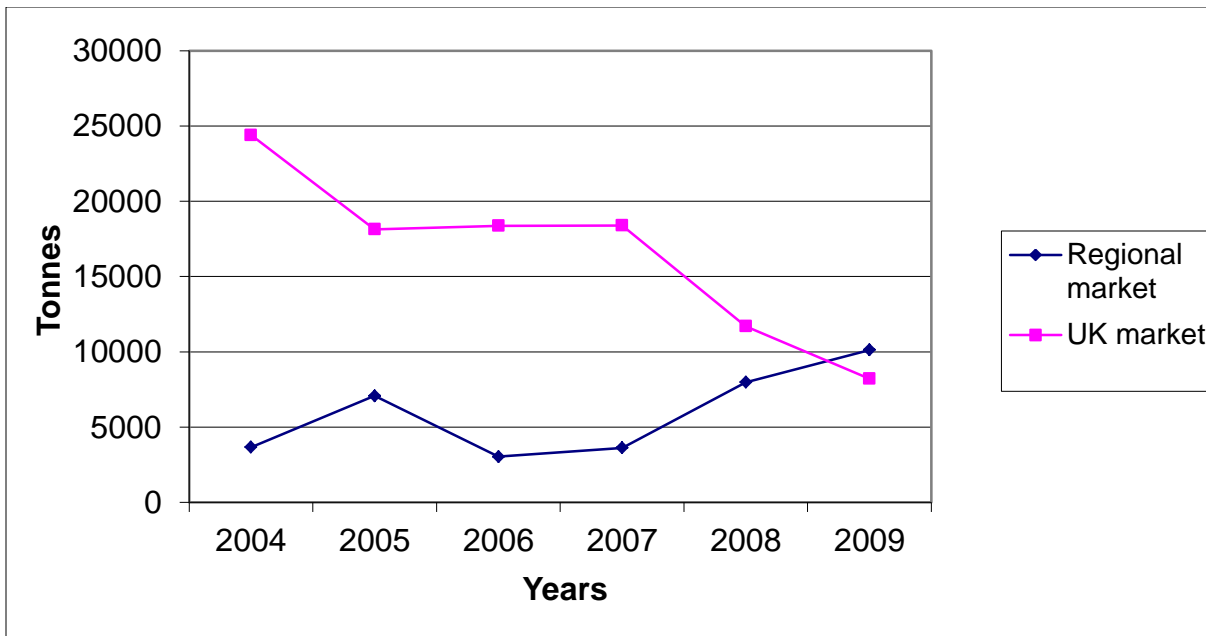


Figure 3: Exports of bananas from SVG for the 2004 – 2009 period to UK and regional market

Source: Ministry of Agriculture Forestry and Fisheries Statistical Unit

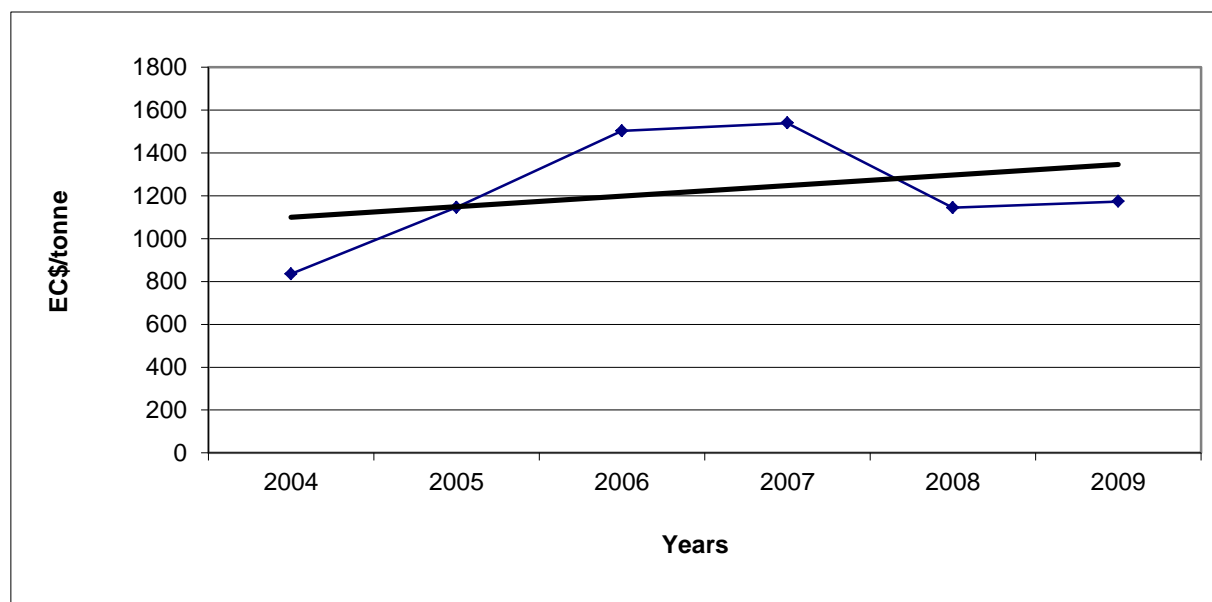


Figure 4: Value per tonne of bananas in the regional market for the period 2004 – 2009

Source: Ministry of Agriculture Forestry and Fisheries Statistical Unit

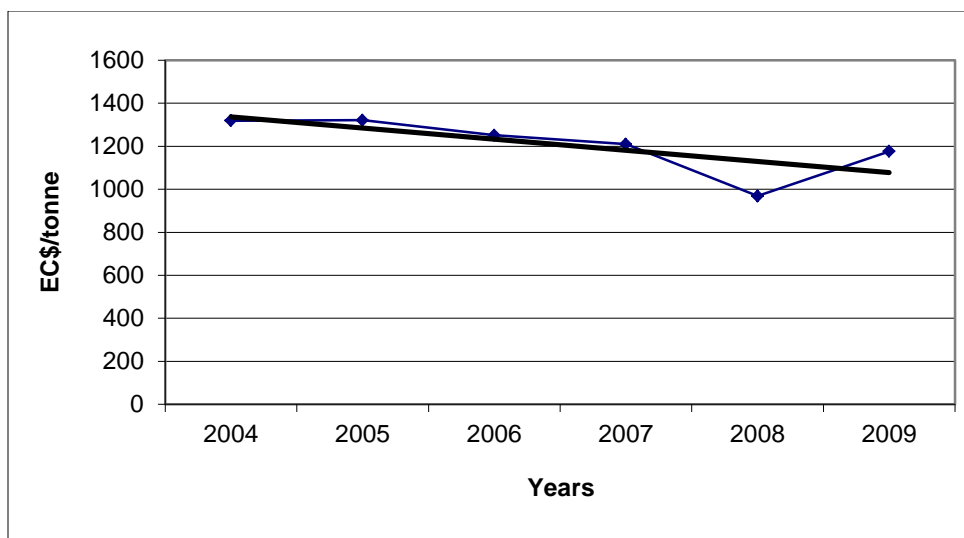


Figure 5: Value per tonne of bananas in the UK market for the period 2004 – 2009

Source: Ministry of Agriculture Forestry and Fisheries Statistical Unit