



European Union All ACP Commodities Programme
Caribbean Region

Jamaican Agriculture Sub-Sector Strategy

Fruits & Vegetables, Herbs & Spices

Roots & Tubers

Lead technical Agency



Under the Championship of the Ministry of Agriculture and Fisheries

Kingston, Jamaica

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Note to the readers and purpose of this document

As part of the EU funded All ACP Agriculture Commodities Programme (AAACP), the Ministry of Agriculture and Fisheries (Jamaica) and more than 120 sector stakeholders undertook the development of a Comprehensive Sector Strategy for Agriculture with specific reference to the Fruits and Vegetables, Roots and Tubers and Herbs and Spices sub-sectors. This was done in collaboration with the International Trade Centre (ITC) in Geneva, Switzerland.

The emphasis on these sub-sectors came out of the EU/AAACP Caribbean Kick-Off Workshop held in Montego Bay in April, 2008, where the European Union sought to determine the type of external assistance necessary to help build the capacity of Caribbean agricultural stakeholders all along the value chain and to implement value chain based commodity strategies.

The Sector Strategy for Roots & Tuber, Fruits & Vegetables and Herbs & Spices became an Agricultural Sub-Sector strategy and was developed by a private sector led Coordinating Committee using ITC's market-led participatory approach.

The strategy focuses on food import Substitution and Export Development and is aligned to the Vision 2030 Jamaica and to other plans such as the National Export Strategy of Jamaica. It also contributes to the nation's achievement of the Millennium Development Goals.

The emphasis for the design and implementation is on the revitalisation of the Fruits and Vegetables, Roots and Tubers and Herbs and Spices industries through the value-chain approach. The parties concerned in the design and in the implementation are farmers, private sector enterprises, processors, buyers, policy makers and support institutions.

Under the ACP programme, World Bank, FAO and UNCTAD provided support to ITC and the sector stakeholders for the development of this strategy.

The purpose of this document is to guide and support the development of the R&T, F&V and H&S industries by providing a plan and a management framework that articulates value chain actors, private sector, existing resources, development activities and donor support.

Vision for the Agricultural Sub-Sectors

To quadruple the output and value of Jamaican food products from locally grown fruits, vegetables, herbs, spices, roots and tubers by 2020 and to contribute in a sustainable manner to the achievement of Jamaica's Vision 2030 National Development Plan.

Mission

To attain sustainable economic growth by becoming a leading producer and agro-processor and by providing services such as:

1. Agricultural and agro-processing competitiveness and farm to market linkages
2. market driven production, post-harvest practices and value addition
3. Finance and small and medium agri-business promotion,
4. Research and product development
5. import substitution linkages and export promotion,
6. food safety and quality programs.

Acknowledgements

A full list of participants in the development of this strategy is included in Annex 1. In addition, special thanks go to the following individuals and institutions:

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Executive Summary

More than 120 sector stakeholders representing private sector (Farmers, Processors, Banks), Government support Institutions and Ministries have developed this strategy in a participatory way using the value chain approach. The fundamental principle behind the strategy development and content is that it has been led by private sector and has enabled a sector specific platform for public-private partnership for decision making.

This was done in partnership as part of the EU funded All ACP Agriculture Commodities Programme (AAACP) with the leadership from the Ministry of Agriculture and Fisheries and the International Trade Centre (ITC).

The target clients of the strategy are expected to be private sector including farmer associations, Government Institutions; Business and Trade support organizations; development agencies and funding partners.

Jamaican horticulture and agro-processing suggest immense potential and opportunity waiting to be unlocked. However the biggest hurdle to be overtaken is related to industry mistrust, scepticism and lack of long-term partnership amongst all the value chain players (farmers, marketers, extension services, agro-processors, banks and the ministries).

There is also a strong perception of lack of supply competency and capability from the customer and buyers. The best example of this is the fact that the tourism industry on the island imports 52% of all its fresh produce requirements and sources very little locally or that Agro-processors can hardly get year round supply (in the case of hot-peppers for sauces only 40% of the total needs is produced locally).

On the other hand, farmers perceive there is no transparent market for their produce and their main buyers— an uncoordinated and independent network of thousands of *higglers* and middle men- do not provide volume, crop type/quality, timing planning or price information.

The Jamaican agriculture related business success stories appear to be either corporate, well established family businesses and/or progressive individuals who have pursued horticultural production, packing, processing and marketing with a commercial bias motivated by profit.

This strategy is looking into capitalizing on the undoubted opportunity and potential for the sector by including the beneficiaries and stakeholders' right from the design phase to drive the industry and create market linkages between domestic and international buyers and the sector.

It is anticipated that the implementation of the Agricultural sub-sector strategy will benefit Jamaican people as a whole together with the agro-processing sector and more than 200 000 smallholder farmers involved in horticulture.

Importance of the sub-sectors

In 2009 Jamaica's unemployment rate was in average approximately 11.4% and 19% of Jamaican people were living below the Jamaica Bureau of Statistics poverty line. There is a direct link between agriculture and the improvement of the economy and the sustainability of rural livelihoods.

Jamaica's agricultural sector is an important contributor to the national economy and accounted for marginally over 5.4% of GDP contribution in 2009 representing around 28 billion Jamaican dollars. The sector employs 20% of the labour force and is a source of income for a large segment of the population, particularly the rural poor.

Jamaica is no exception among the Caribbean countries in relation to the main challenges facing the agricultural sector development.

These challenges include land tenure, irrigation, availability of quality planting material, fragmented production and supply base, Inefficient marketing and market linkages, lack of consistency in production and post harvest handling, insufficient research and development policies and overall lack of competitiveness in the domestic and international markets (often against subsidized products and cheap imports).

In Jamaica, agriculture and agro-processing also represent a major contributor to rural development affecting more than 80% of the population in a direct or indirect manner.

The implementation of the current strategy represents a paramount opportunity to contribute to decreasing the expenditure in fresh and processed food imports, increasing overall revenue inflows and reducing dependency on the remittances and on the traditional sectors such as tourism, sugar and the Alumina/Bauxite (which in itself has constituted on average 63% of total exports 2002 to 2008).

Anticipated Impact

Agriculture remains vital with regard to national food and nutritional security and is the foundation of traditional rural life.

The last agricultural census showed approximately 200,000 small-scale farmers occupying some 77% of agricultural land holdings. As such, farmers are the direct beneficiaries of this strategy and will be the key actors for implementation.

The implementation of this strategy aims to impact significantly on economic and social development by providing sustainable employment and incomes in the rural areas, by reducing population and unemployment pressure in Kingston and by increasing the competitiveness of the small and medium agro-processing industry.

Strategic Options and target markets:

The Strategy identifies two main market priorities

- Import substitution and development of domestic market for Fresh and processed foods (The Food import bill accounted for approximately 886 USD million dollars during 2008)
- Export development for current and niche products

Stakeholders and buyers examined linkages with the tourism and hospitality industry, the opportunity for increasing the variety and quality of locally processed food products and the competitiveness of current and potential exports.

After prioritising target products and segments according to market demand, supply side capacity and potential for value addition a list of priority products has been defined. In particular stakeholders have agreed to concentrate the strategy efforts towards:

- Fresh fruit and Vegetables for domestic consumption
- Pepper Mash and sauces
- Concentrates, pastes and Pulps including beverages and industrial ingredients
- Convenience Foods (food preparations, snacks, roots and tubers)
- Ackee based products (food and medicinal)

The Strategy Response and objectives:

As a by-product of globalization, food supply systems are increasingly being driven by consumer preferences. Much of the modernization that remains to be achieved in Jamaican agro-business sector involves the re-orientation from the long legacy of “supply push” to systems that are fulfilling consumer expressed and implied needs and preferences, so called “demand pull” systems.

This strategy is a comprehensive response to addressing the critical factors that impact on the development of the Jamaican Roots & Tubers, Fruits & vegetables and Herbs & Spices sectors. It seeks to reduce the gap in performance of Support Institutions, Private Sector and Government based on the above stated market opportunities.

In Jamaica, it is important to adopt a “system” perspective when considering the identified opportunities and constraints for agro-enterprise development.

System approach is required because the diverse productive activities are broadly distributed over an extended geography and to maximise the timely interaction of separate value-adding steps throughout the value chain (Develop and deliver material input to the farming sector; Produce

primary commodities; Collect, handle, preserve FFV; Process, semi-finished or finished agro-based products; Transport, market, and distribute agro-based products to consumers).

The strategy is proposing a holistic approach that will lead to a successful system: articulate the entire chain from a critical link viewpoint. These changes will not come overnight but first fundamental steps can be undertaken rapidly.

The Implementation Plan is constituted of 6 strategy objectives and is targeting social, economic and productive development.

It identifies four key areas for the private sector actors (farmers, processors and buyers)

(i) Access to market Information; (ii) Access to Finance; (iii) Supply (Production – Pre & Post Harvest) and (iv) Processing and Value Addition.

It also identifies two cross-cutting support areas for institutions and Government:

(i) Sector Governance and Policy making (ii) technical Support and Research and Development.

The 6 main strategy objectives are listed below:

1. Establish a private public coordination mechanism for the management of the strategy implementation
2. Increase availability of supply and demand related information to allow informed decision making by private sector and policy makers
3. Increase raw material supply from small-scale farmers by 400% by 2020 by organising and training farmers through agronomic services
4. Provide access to low-cost funding and risk management mechanisms to 70% of the targeted farming population and processors by 2015
5. Increase the production of processed food products by 150% by 2020 and improve overall value adding operations to achieve industry competitive advantage
6. Provide access to low-cost, high-value planting material (seeds, seedlings) for fruits, vegetables, herbs & spices and roots & tubers to 95% of the 220,000 farmers by 2015 and enhance agronomic support

Priorities and Implementation progress

An overall prioritisation of the sub-objectives was undertaken by the Coordinating Committee.

The main priority areas are.

Objective 1 “Establish a private public coordination mechanism for the management of the strategy implementation”

Objective 3 “Increase raw material supply from small-scale farmers by 400% by 2020 by organising and training farmers through agronomic services

Objective 5 “Increase the production of processed food products by 150% by 2020 and improve overall value adding operations to achieve industry competitive advantage”

The coordinating committee has started to implement key activities under objective 5 with an identified core group of beneficiaries including buyers, processors and farmers. Successful experiences and results will be replicated with other groups of beneficiaries as implementation rolls out.

Additionally partner Organisations such as the FAO and the World Bank have committed to assist with the implementation of Objective 4 related to management of risk and finance. USAID has also developed a program that responds to Objective 2 and Christiana Potato Growers Association is developing a response to Objective 3. EU, CIDA and IDB are also currently developing programmes that are in line with the Agricultural Sub-sector strategy,

Anticipated outcomes and resources needed

As per the detailed costing of activities in the implementation plan it is anticipated that the total amount of funding needed for the implementation of this strategy is **US\$ 16 Million** over a 5 year period. Detailed costing per strategy objective and activity can be consulted in the resources needed chapter.

As highlighted in the vision statement it is anticipated that the overall throughput from the farms will increase by 400% and that the total agriculture and agro-processing sector contribution to GDP will increase to **approximately 20%** over the next 10 years.

However because the impact will be at the rural and subsistence level it is expected to be substantially greater on MDGs. **(Please refer to annex reflecting the impact on MDG goals by strategy objective)**

Strategy Implementation Managing and Monitoring Framework

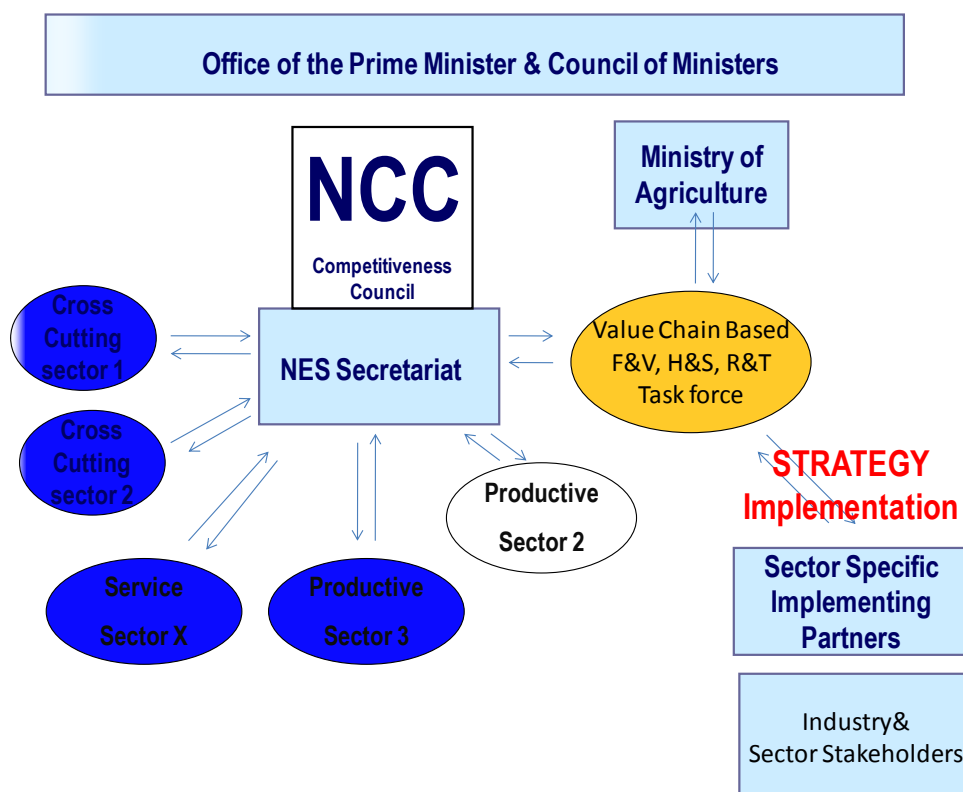
In the strategy development workshops the Sector stakeholders (including support institutions, Government, farmers and processors) have decided that for successful implementation and impact the strategy implementation framework needed to follow the same value chain participatory based principles used in the design phase.

The fact that the implementation of many of the strategy objectives and activities require close collaboration among different Ministries, agencies, implementing partners and sector stakeholders also represents a major challenge.

In subsequent consultations with the Strategy Development coordinating Committee, the Ministry of Agriculture and Fisheries, the Ministry of Industry and Commerce and the Ministry of Finance the need to align all the various ongoing initiatives and to have a legitimated body with authority was determined as the upmost priority.

The most relevant cross-cutting initiatives are the Economic Commission chaired by the office of the Prime Minister and the National Competitiveness Council which includes the National Export Strategy.

The diagram below shows the recommended implementation framework structure. The underlying principle being a centralised secretariat providing coordination and logistical support to a series of sub-sector cross industry units or task force with the mandate of managing the implementation and development of the different productive, service and cross-cutting sectors in the country.



In the case of the Agricultural sub-sectors covered in this strategy (Fruits and Vegetables, Herbs and Spices, Roots and Tubers all of them both fresh and processed) the sector stakeholders and coordinating committee have recommended that implementation is directly managed by a task force composed of the following institutions:

Ministry of Agriculture and Fisheries	Derrick Deslandes Marc Panton Don. McGlashan
Christiana Potatoe Growers Association	Alvin Muray
Private Sector Representative (Farmer)	To be nominated
Jampro / JTI	Dana Morris
Ministry of Finance	Dr. Wayne Henry
Scientific Research Council	Dr. Audia Barnett
Jamaica Exporters Association	Dr. Vitus Evans
Jamaica Agro-Processors Association	Michael Ming

This task force represented by the above institutions and by the orange bugle in the diagram will be mandated to interact with implementing partners, Government, sector stakeholders, financial institutions, buyers and with the cross-cutting sector tasks forces to achieve the implementation of the present strategy. It is envisaged that periodical reporting is done to the office of the prime minister through the Secretariat and the Ministry of Agriculture and Fisheries.

End of Executive Summary.

Introduction

Jamaica faces challenges such as rising unemployment, brain drain and urban crime. The main strengths of Jamaica's economy are its political stability, endowment of natural resources, and its proximity to its largest trading partners.

However annual economic growth averaged 1.6 percent during 2002-2007 and much of this weak growth performance is attributed to a combination of oil price shocks, declining export prices, natural disasters, and the financial crisis.

Growth prospects have further weakened over the last two years due to internal and external shocks. During FY07/08, GDP growth decelerated to 0.9 percent from 2.5 percent over the prior year due to the adverse impact of Hurricane Dean in the agricultural sector.

The Government in dialogue with the Private Sector has formulated a medium-term strategy aimed at putting the island on a path of robust growth while reducing poverty and unemployment.

The Government's main objectives are to achieve:

- Reduced public debt/GDP ratio by fiscal consolidation and elimination of budget deficit by 2010/11. (debt absorbs 13% of GDP)
- Private sector led growth through the expansion of capacity in the manufacturing and export industries and ultimately boosting job creation;
- Prudent monetary policy to reduce inflation expectations and maintenance of adequate foreign exchange reserves to underpin confidence in national currency;
- Social sector priorities including the Millennium Development Goals (MDGs) and targets on human development/opportunity, as well as law and crime;
- Enhanced business climate and a reformed system to increase efficiency and effectiveness, thus higher revenue collection;
- Further improvement in the quality of governance through better public sector management and a trimmed bureaucracy.

From a social perspective, Jamaica has made substantial progress in poverty reduction since it began monitoring living conditions in 1988. The poverty rate has fallen from 30.4 percent in 1989 to 16.9 percent in 2004. Poverty in rural areas declined from 22 percent in 2004 to 19.8 percent in 2006.

However, food expenditures represent a large portion of the budgets of the poor¹ and rural poverty remains a major challenge for Jamaica, with the rural poverty rate twice the level of Kingston.

Though the agricultural sector produces only 5.4% percent of GDP (2009), it employs 20% of the labour force. This not only reflects the importance of the agricultural sector as a source of income for a large segment of the population, particularly the rural poor, but also the relatively low level of productivity compared to other sectors.

Purpose of the strategy

The purpose of this document is to guide and support the development of the R&T, F&V and H&S industries by providing a plan that articulates existing resources, development activities and donor support.

This Strategy constitutes a contribution to Vision 2030 Jamaica "Planning for a secure and prosperous future". It will also contribute to the achievement of Jamaica's Millennium Development Goals and is aligned to ongoing initiatives such as the Agricultural sector plan and the Jamaican National Export Strategy.

¹ World Bank (2009)

The time frame for implementation of the strategy is 5 years ending in 2015. Regular implementation progress report meetings to Cabinet and sector stakeholders will take place every three months and the strategy will be reviewed and adapted as needed.

The strategy document is also a response to:

- The impact of the global crisis on Jamaica: recession, decline in tourism and in Diaspora remittances
- The forecasted overall downward trend in the bauxite and mining industry;
- Volatility and forecasted decline of contribution to GDP of traditional export crops such as banana and sugar
- Rural development and overall industry competitiveness
- The need to adopt policy measures and align to regional level activities

Users of the strategy are expected to be:

- Government
- Farmer Associations, Processors, Banks and other private sector actors
- National Business and trade support organizations
- Development agencies and Donor Partners

The strategy addresses three Agricultural sub-sectors which contribute significantly to the Jamaican GDP and which also represent non-traditional exports which have great potential for expansion into foreign markets inclusive of the Jamaican diaspora:

Roots & Tubers

Roots and Tubers are especially important as a source of employment and income as well as a source of food for the rural and urban poor and as such can play a vital part in contributing to the improvement of food security and eradication of poverty

Fruits & Vegetable

Fruits and vegetables are very essential for the nutrition security of the peoples of the Caribbean. Accordingly, the Governments of the Region have identified them as part of the 'Regional Food Basket' and for which efforts are dedicated towards achieving 'food sovereignty'. Jamaica therefore, attaches similar importance to the development of the fruits and vegetables agricultural sub-sector.

Herbs & Spices

Jamaican Herbs and Spices have a high potential for expansion of the food processing and export industries. All Jamaican and regional recipes use at least one spice. Additionally, many herbs and spices have medicinal value. The agro-industry thrust has seen Jamaica emerging as a major producer of value added spices and condiments based products, exploiting niche markets, both at home, in the region and internationally

Specific Goals anticipated impact and beneficiaries

The overall development goal of the strategy is to improve the livelihood, health and economic situation of the Jamaican farmers. The last agricultural census showed approximately 220,000 small scale farmers occupying some 77% of agricultural land holdings.

The main beneficiaries are therefore small farmers who supply the informal markets, supermarkets, processing enterprises and exporters. The farmers will also be the key actors for implementation.

Direct beneficiaries are also agro-processors, buyers (Supermarkets, Hotels, restaurants inclusive of Fast Food Chains, Exporters).

Contribution of strategy objectives to achieving vision 2020

The table below indicates the linkages between the anticipated output of each strategic objective and the National outcomes under Vision 2030.

Vision 2030 Outcome	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6
National Outcome 1: A healthy and sustainable population.	X	X	X			X
National Outcome 2: World class education and training.		X	X		X	X
National Outcome 7: A stable macro economy.	X		X		X	
National Outcome 8: An enabling business environment.		X		X	X	
National Outcome 12: Internationally competitive industry structures (Agriculture).		X	X		X	X
National Outcome 13: Sustainable management and use of environmental and natural resources.	X	X	X			X
National Outcome 14: Hazard risk reduction and adaptation to climate change.	X		X	X		X
National Outcome 15: Sustainable urban and Rural development.	X		X		X	X

Additionally it is expected that the implementation of the strategy significantly contributes to the achievement of the United Nations Millennium Development Goals for Jamaica as portrayed in Appendix 4 – progress towards MDGs.

Strategy Targets

The specific targets by strategic objectives are listed below:

Objective 3: Increase raw material supply from small-scale farmers by 400% by 2020

Objective 4: Provide access to low-cost funding and risk management mechanisms to 70% of the targeted farming population and processors by 2015

Objective 5: Increase the production of processed food products by 150% by 2020

Objective 6: Provide access to low-cost, high-value planting material (seeds, seedlings) for fruits, vegetables, herbs & spices and roots & tubers to 95% of the 220,000 farmers by 2015

As shown in the Target market chapter of this document, the strategy will target products and segments which have been determined both by comparing supply side capacities and market potential (domestic and international).

As shown in the table below, the strategy is targeting to substitute 25% of all the imported fresh and processed products and to increase exports by 20% in by 2015.

Target	Target %
Import Substitution (fresh and processed F&V, H&S, R&T)	25%
Export Growth (fresh and processed F&V, H&S, R&T)	20%

Existing Projects and Resources available

In addition to the Ministry of Agriculture and Fisheries and to the Ministry of Commerce and Industry the most active implementing partners in relation to the Jamaican agricultural sector are:

- EU Delegation
- Canadian International Development Agency
- Inter-American Institute for Cooperation on Agriculture
- USAID
- IDB
- Food and Agriculture Organisation
- World Bank
- International Fund for Agricultural Development
- Inter-American Development Bank.

Appendix 2 shows a detailed implementing partner and development activity map summarizing the main projects and their focus in relation to the present strategy.

Additionally, the summary below reflects other key activities and projects related to the ongoing implementation of the Fruits and Vegetable, Herbs and Spices and Root and Tubers Strategy:

EU funded Food Facility program

The EC Food Facility was set up by the European Commission in response to the Global Food Security Crisis of late 2007 and 2008. In Jamaica, the Food Facility is focused on boosting production to improve their food security status. The project will focus on three areas: increased availability and use of local food crops through enhanced agricultural production and productivity; market driven small stock production; strengthening data collection systems to monitor food prices and agricultural production.

The project will be implemented over a two year period and financed by a grant of €5.8 million.

EU funded All ACP Agricultural Commodities Programme Common Fund for Commodities

The Caribbean Agricultural Research and Development Institute (CARDI) is the executing agency for two Caribbean Regional projects aimed at developing the roots and tubers, herbs and spice and vegetable subsectors.

The project will be initially implemented in Jamaica over a three year period commencing February 2010. The main components are Increased Production of Vegetables and Herbs through the use of Protected Agriculture with approximately 2.8 million USD funding and Increased Production of Roots and Tubers through the introduction of improved marketing and production technologies with approximately 3.4 million USD funding.

**EU funded All ACP Agricultural Commodities Programme
Food and Agriculture Organization**

FAO is currently focusing in building capacity in farmer organizations and through CAFAN is concentrating on roots and tubers for the whole Caribbean region. Additionally, FAO has contributed with a survey analyzing the existing supply constraints regarding financial institutions and access to finance for small holder farmers.

**EU funded All ACP Agricultural Commodities Programme
World Bank**

In Jamaica, the World Bank is currently working on building capacity in institutions promoting agricultural innovations, competitiveness, and diversification; particularly along value chains with potential for domestic and external markets.

In line with the strategy the Bank is looking at backward linkages of agriculture to the tourism industry. The focus is in substitution of imports by developing local commercial agriculture produced in small holder-based farms.

Additionally, the World Bank has contributed to the strategy by undertaking a pre-feasibility study for the establishment of a parametric insurance system for weather related risks and is now looking into the possibility of either extending the coverage of CRIF to cover agricultural production or designing a new scheme that would provide such a coverage.

Rural Economic Development Initiative Project (REDI) and (JSIF),

The REDI project is funded by International Bank for Reconstruction and Development and by the World Bank. This project focuses on 'productive alliances', whose aim will be to encourage smallholders to enter into partnerships with other downstream agents in the value chain.

**EU funded All ACP Agricultural Commodities Programme
International Trade Centre**

In cooperation with the Coordinating Committee and with the Scientific Research Council as the lead counterpart, ITC has started the implementation of Strategy Objective 5.

ITC's main contribution has been to provide direct support to agro-processing enterprises for improving their competitiveness. The enterprises were selected according to the strategy target markets and segments. The enterprise ability to articulate with and to develop their network of local suppliers (farmers) was also a key factor.

The selected enterprises for the first phase are:

Agro-Processor enterprise	Products
Southern Fruits & Food Processors	Fruit Juice and pulp, pepper mash, ackee, sauces and other condiments & drinks
Central Food Packers Ltd.	Ackee and calaloo in brine, breadfruit in cans, Bammy sticks made of cassava and Jams.
Touregon Food Processors Ltd	Vacum packed yams and convenience foods
Spur-Tree Spices Jamaica Ltd	Sauces, seasoning and convenience foods
Canco Ltd.	Ackee and Calaloo in brine, Canned soups and Jams and jellies
Livy's Food Ltd	Bread fruit and sweet potatoe baked and frozen in vacuum plastic bags, Tamarind rolls mixed with sugar in sealed plastic bags

The selected five enterprises were considered to be of particular relevance to the Jamaican agro-sector due to their size and nature of operation.

The main areas covered by ITC's implementation are:

- To train and transfer operational knowledge and skills to the lead counterpart (Scientific Research Council, Jamaica Exporters Association) for the replication of the direct support to enterprises
- To improve the competitiveness of recipient enterprises and articulate their supply chains for local purchasing;
- To contribute to the development of the strategy selected agro processing sub-sectors (Pepper Mash and Sauces, Pulp and Concentrates, Convenience foods) impacting positively on the overall business environment by encouraging import substitution and/or wealth creation.

Companies which produce products, like Ackee, Pepper mash for jerk seasoning; tomato paste for ketchup, concentrated mango puree for juices are of particular importance because these products have good market potential and allow smaller producers to add value and export, without the need to import the main ingredients.

Improvement activities in these companies are likely to generate impact in terms of export or import substitution, and poverty reduction.

Ministry of Agriculture and Fisheries: Production and Productivity Programme

The Ministry has embarked on a Production and Productivity programme to boost production and productivity and enhance food security. This will be achieved through the application of good agricultural practices, technology transfer, and pest management for the selected vegetables and food crops. In addition, the productivity improvement is being supported by soil testing to determine the best fertilizer regime and training of farmers in best practices.

The main crops targeted are Carrot, Onion, Irish Potato, Ginger, Hot Pepper, Sweet Potato, Dasheen, Yellow Yam, Negro Yam, Sweet Yam, Escallion and Cassava.

**Ministry of Agriculture and Fisheries:
Financial Access for Responsible Members (FARM)**

The Ministry of Agriculture and Fisheries embarked upon a programme titled Financial Access for Responsible (F.A.R.M.) in October 2009. In line with Objective 4 of the strategy, this programme seeks to assist farmers in accessing financial resources from participating Approved Financial Institutions (AFIs). These include: Jamaica National Small Business Loans Limited, Nation Growth Microfinance Limited, National People's Cooperative Bank of Jamaica and most recently Jamaica National Commercial Bank.

**Ministry of Agriculture and Fisheries:
Caribbean Development Bank loan Programme**

In line with objective 4, the project aims at providing small farmers with the requisite credit to fund productive capacity enhancement in order to increase agricultural production and competitiveness. It is anticipated that this intervention will result in increased employment and farm incomes and assist in reduction of poverty in the rural areas.

**Ministry of Agriculture and Fisheries:
Input Supplies Project**

In line with objective 3, the Input Supplies Project is a grant funded initiative through the Venezuelan Petro Food Fund. This project is in keeping with the Government's effort to mechanize the small tool and medium farming sector through the utilization of appropriate technologies in addition to assisting farmers to access the basic agricultural inputs (fertilizer, tools, machinery).

**Ministry of Agriculture and Fisheries:
Post Harvest Initiative**

In line with objective 3 and 5 in the strategy the Ministry of Agriculture and Fisheries in collaboration with private sector partnership facilitated the upgrading of Yam Facility in Trelawny and the establishment Packaging Centre in Houselow St. Elizabeth. In addition there is also the drive to establishment pepper mash facilities to encourage the use of local raw material in peppers and sauces.

**Ministry of Agriculture and Fisheries:
Gustav Rehabilitation Project**

Against the background of tropical storm Gustav's negative impact on the agricultural sector, the United States Agency for International Development (USAID) has approved a grant of US\$3.2 million to assist the Government of Jamaica (GOJ)/Ministry of Agriculture and Fisheries with the tropical storm Gustav sector recovery. The project aims to assist in the rehabilitation of the Jamaican agricultural sector through improvement in rural road infrastructure and in the production and productivity of targeted crops.

CIDA funded Improving Jamaica's Agricultural Productivity Project (IJAP)

The Improving Jamaica's Agricultural Productivity Project (IJAP) will focus on two areas, namely: the Green house industry, and the Capture Marine Fisheries sub-sector. The greenhouse component seeks to increase the productive capacity of Jamaican agriculture through the use of greenhouses in vegetable production. In line with objective 3 and 5, the project will establish agricultural clusters involving a number of small farmers around a packaging facility. The packaging facility will be private sector-driven, and responsible for the sorting, grading, packaging and logistics management, as well as marketing to end-users.

USAID funded MAJIC project

In line with objective 2, 3 and 5 in the strategy the project aims to increase the volume and value of Jamaican agricultural commodities marketed profitably and competitively, leading to improved farm income, strengthened food security and expanded small-scale rural enterprises. Pepper and Pepper mash has been selected as a priority area as determined by the strategy.

The Current Sector Situation

The sector has experienced numerous challenges that have resulted in an overall decline in output and direct contribution to GDP over recent years. The value of Jamaican agricultural production at farm gate was of approximately 28 billion Jamaican dollars in 2008 which represented a contribution of 4.8% to the country's GDP.

Jamaica is a country of small farmers with 76 % of its 220,000 farmers cultivating on 1 hectare of land or less. In 2009, Only 140 farmers were cultivating on 200 hectares or more.

The splintering of lands, fragmented supply and lack of volume has a major impact on productivity levels and on the overall farmer ability to compete. This is especially so due to the insufficiency of support to organize productive resources and link them to markets.

The sector is extremely vulnerable to shocks including weather conditions, pest infestations, impact of natural disasters, changes in export market prices and also trading regimes. There is a lack of agricultural insurance products and farmers are currently absorbing all the natural disaster related risk.

The revitalization of the agricultural sector and its increased contribution to the national economy is contingent on the reorganization of the sector on the basis of modern technology and management, in order to achieve greater efficiency and competitiveness.

In addition, over the past decade, there has been a contraction in the goods producing sector and an expansion in the service sector. This was a result of greater economic liberalization, which led to greater competition for local producers. The Government's tight monetary policy and demand driven management practices also resulted in increased interest rates on credit, thereby negatively affecting impacting the agriculture sector.

Jamaica continues to be heavily dependent on imports. In 2007, Jamaica's total food and drink import bill was US\$730million and in 2008, it rose to US\$886.3 million (These imports include Animals, cereals, fruits and vegetables, spices and also processed foods in addition to other foods).

Along those lines, Imports of fresh fruit, vegetables, and herbs and spices amounted to approximately US\$36 million in 2008 (26,000 tons). If the value of agro-processed food import is added, the total bill amounts to USD 400 million (2008).

Agro-processing of fruit and vegetables in Jamaica represents a significant part of the sector in value although over the past decade, imported rather than locally produced raw materials have become the dominant norm. Grace Industries, Appleton and Red Stripe beer are two of the biggest players in the Caribbean Region and a big disparity exists between their operations and the rest of the processing enterprises, which are considered to be small and medium.

While there is significant potential for the sector, investment, skills training and transfer remain limited effectively constraining the development of agricultural production and the value-added downstream operations for both fresh and processed products.

As identified in the strategy, raw material scarcity is the single largest problem for both agro-processing companies and local enterprises such as restaurants, hotels and supermarkets.

This is mainly due to 4 reasons, Fragmentation of farmers and no sustainable link to markets, Inefficiencies in collection and significant post harvest loss, farmer business mentality, lack of planning and inefficient agronomic support services and irrigation.

From the farmers's perspective the biggest problem is lack of sustainable and mutually beneficiary business partnerships with buyers and the perception of no market.

Lack of trust is the other key element that needs to be unlocked to secure profitable farmer organisation partnerships or vertical partnerships along the value chain. Lack of information, quality planting material, irrigation, agronomic practice training and access to finance are also other key areas of constraints.

Summary of main Issues affecting the Value Chain

Jamaican horticulture suggests immense potential and opportunity waiting to be unlocked. However as anticipated above, the biggest hurdle to be overtaken is related to industry mistrust, scepticism and criticism amongst all the value chain players (farmers, marketers, extension services, agro-processors, the ministries).

Finally, there is also a strong perception of lack of supply competency and capability from the customer and buyers, the best example of which is the fact that the tourist industry on the island almost exclusively imports all its fresh produce requirements and sources very little locally.

In addition to the issues specified above, the value chain analysis performed by stakeholders in the participatory workshops identified and validated the following challenges with regards target market requirements:

Market and commercialisation issues

- Lack of good up to date market information (upstream/downstream)
- Lack of stable production markets throughout the year (peaks and gluts) and no pricing information throughout the whole value chain
- No demand estimation or aggregated planning of quantities, quality and volumes needed
- Low Market development skills
- No branding of Jamaican products or appropriate marketing support
- Lack of sector vision and difficulty to coordinate players
- No available information on market access barriers and opportunities

Processing sector issues

- No Steady flow of good quality agricultural raw materials, supplied in a timely manner
- Difficulty in complying with market requirements particularly for export
- Heavy dependence on imported inputs due to low or no availability locally
- Cost of finance and availability of agriculture targeted finance schemes
- Low Product development skills
- Lack of information on appropriate post-harvest and processing technologies
- Lack of HACCP/quality/standards information
- Lack of packaging technologies and equipment
- Lack of alternative energy and high cost of electricity
- Lack of information on new technologies
- Scepticism regarding government or development agency projects and interventions

Farmer and supply side issues

- Lack of aggregated production planning and management
- Inadequate technical assistance to impact farmers' productivity, and produce quality;
- Farmers' lack of capability for marketing and vertical integration approaches;
- Lack of development and operational capacity within existing farmers' organizations and inadequate farmers' organizations;

- Inadequate access to Good Agricultural Practices (GAP)
- Lack of strong business and farmer support institutions that can create a conducive enabling environment
- No plant species discrimination
- Threat of inappropriate seed varieties being introduced (Imported seeds are generation 5 and there is no linkage with market needs) & Lack of affordable seed facilities for small farmers & lack of high quality planting materials
- No appropriate finance schemes targeting farmers
- Cost differential on inputs for small farmers
- Access to land/land tenure
- Lack of mechanization/technology
- High cost of casual labour
- Improper post harvest handling
- Aging profile of farmers (mostly elderly)
- Lack of education on quality and standards issues

Overall value chain cross cutting National Issues:

- Mistrust among value chain stakeholders particularly in the linkage with farmers
- No sector or industry association covering the whole value chain
- Quality and reliability of Information from supply side
- No identification of productive constraints across Jamaica's regions (micro-climatic, agronomic, human)
- Market access compliance
- Low Management and business skills along the value chain
- Cost of energy and transport
- No agricultural insurance and a lack of risk mitigation measures
- Lack of affordable access to credit for agriculture at all value chain levels
- Access to productive land
- Youth not interested in Agriculture
- Lack of irrigation and drought mitigation schemes

Issues concerning Support Institutions

- Lack of coordination among technical agencies, donors and different government ministries
- Perceived difficulty to align Government agencies strategic plans with the private sector and farmer priorities

Brief analysis on the domestic Crop Production

The main categories of domestic crops in Jamaica include vegetables, legumes, fruits, plantain, roots & tubers, cereals and condiments.

Domestic Crop Production 2004-2008 (tonnes)

Food Crops	2004	2005	2006	2007	2008
Yam	136,167	107,295	123,005	113,124	102,284
Vegetables	138,468	145,718	167,050	149,173	144,595
Legumes	4,700	4,905	5,499	5,644	4,457
Condiments	22,680	27,082	30,089	28,871	26,281
Fruits	35,235	34,661	45,889	39,619	42,257
Cereals	1,601	1,929	1,895	1673	1897
Plantain	17,760	8,952	21,986	19,087	15,035
Potatoes	25,143	32,966	36,027	33,531	30,725
Other Tubers	32,436	27,575	35,625	35,834	31,871
Sorrel	598	624	738	749	703
Total	414,788	391,707	467,803	427,305	400,105

Source: ESSJ 2008 (Table 10.8, Pg 10.8)

The parishes that contributed most significantly to domestic crop production during the period were St. Elizabeth, Trelawny, Manchester, Westmoreland and Clarendon. St. Elizabeth remained the largest contributor to domestic agriculture in 2008 despite a 5.5% drop in production when compared to 2007; notwithstanding the decline the parish accounted for 21.6% of the island's total domestic crop production.

The data in Table 6 shows the performance of each category of domestic crops for the period under review. For the period 2004-2008, total domestic crop production experienced a marginal decline by 3.5% with significant fluctuation in production over the period. 2006 was the most favourable year with production increasing to high of 467,803 tonnes. Production however declined to 427,305 and 400,105 tonnes for the years 2007 and 2008 respectively, due to the effects of Hurricane Dean and Tropical Storm Gustav.

The Fruits category recorded a 19.9% increase in production representing the highest for the period; this was followed by Condiments (15.87%) and vegetables (4.4%). On the other hand, yam production declined for the period from 136,167 tonnes in 2004 to 102,284 tonnes in 2008, representing a decline of 24.8%.

For the year 2006, domestic crop production experienced an overall increase of 12.7% when compared to 2004. This was due mainly to the favourable weather conditions and also initiatives by the Government, which moved to increase budgetary allocation for the sector and initiated technological advancement through improved planting materials and the promotion of greenhouse construction and the use of hydroponics. The most common constraints to production during the period included lack of irrigation in many productive and potentially productive areas, high levels of praedial larceny, badly damaged farm roads, high cost of planting material and other inputs and inefficient farming methods leading to low productivity and high crop losses.

The major factors affecting production in 2008 were the hurricane of 2007 and the tropical storm in mid year. Other factors included unseasonably heavy rains in late 2007, high fertilizer cost and badly damaged farm roads which limited the transportation of inputs and outputs to and from farms. In an

attempt to remedy the challenges faced, the Government worked assiduously to amend the fertilizer problem by the granting of a major subsidy on retail price, as well as embarking on an initiative to import the commodity at a significantly lower price.

Vegetables

The Vegetable group remained the largest contributor to domestic crop production for the period 2004-2008 representing an average of approximately 35.4% of total domestic crop production. The production of vegetables experienced an overall increase of 4.4% during the period under review. The vegetables that accounted for the largest increases in production for 2004-2008 are Pumpkin (10.8%), Carrot (8.2%), and Tomato (3.9%); on the other hand, production for Cucumber, Cabbage and Callaloo declined by 18.2%, 8.9% and 3.0% respectively.

Yams

Yams are the second largest contributor to domestic agriculture. The major yam-producing parishes are Trelawny, Manchester and Clarendon. During the period 2004-2008, Yellow, Negro and Lucea Yam accounted for 61.9%, 10.1%, and 9.2% respectively of total yam production. The export earnings from yam increased from US\$ 15.2 Million in 2004 to US\$ 24.4 Million in 2008. The major constraint to yam production during the period was the high cost of inputs such as fertilizer and labour costs.

Other Tubers

This group comprises dasheen, cassava and coco. The average production of other tubers during 2004-2008 amounted to approximately 32,668 tonnes. However, 2005 accounted for the lowest production of 27,575 tonnes. This was due mainly due to several hurricanes that affected the island in 2004.

Fruits

Pineapple, Watermelon and Papaya accounted for the Fruits category. Fruit production fluctuated significantly during the period. In 2004, production stood at 35,234 tonnes, rising to 42,257 tonnes in 2008 or an increase of 19.9%. Pineapple production accounted for an average of 47% of total fruit production. Watermelon production increased by 46.46% from 8,350 tonnes in the year 2004 to 12,230 tonnes in 2008. In 2004, papaya production stood at 7,618 tonnes, however in 2008 declined to 7,156 tonnes, a decrease of 6.06%. This decrease can be attributed to lingering effects of Hurricane Dean and Tropical Storm Gustav and high cost of inputs.

The Future for the sub-sectors

This section is portraying the strategic response needed to overcome the challenges and to revitalize the sector so that the strategic vision is achieved. The response is seeking to articulate the industry's value chain.

The main chapters under this section are:

- **Market options and targets**
- **Strategic objectives and activities under Implementation Plan**
- **Resources needed**
- **Implementation framework.**

Market opportunities and Targets

The Committee and sector stakeholders have reviewed the current situation with regards to the supply and demand patterns of both fresh and processed Roots and Tubers, Herbs and Spices and Fruit and Vegetable products and have identified two main market priorities:

- 1. Food Import Substitution (hospitality industry, processing and retail)**
- 2. Export development for niche products (Caribbean Diaspora mkt & niche exotic)**

In both cases the priority products include both fresh and agro-processed. The target products and segments have been determined by market potential both at the national and international levels. In line with the National Export Strategy for Jamaica, significant potential exists for products targeting the Caribbean Diaspora and the exotic fruit segment overseas.

The stakeholders and buyers have prioritized the following:

- **Fresh fruit and Vegetables for domestic consumption**
- **Pepper Mash and sauces**
- **Concentrates, pastes and Pulps including beverages and industrial ingredients**
- **Convenience Foods (food preparations, snacks, roots and tubers)**
- **Ackee based products (food and medicinal)**

1. Domestic Market and Import Substitution

The first priority from a commercial and social development point of view is the Import Substitution of food (fresh and processed).

As stated earlier, despite the present downturn in tourism arrivals (approximately 1,700,000 guest in 2008), the tourism sector is a major consumer of fresh and processed fruits and vegetables and this demand is expected to increase as the Government continues to aggressively boost its marketing activities in an effort to attract new and return visitors to the island. (See Appendix 3 for list of estimated tourism demand for tourism products).

The total value of the fresh fruits and vegetables, herbs and spices and roots and tubers purchased by hotels in Jamaica amounted to USD 177 million in 2008. Out of this, 48% was purchased locally and 52% imported, mainly from the US.

Locally Purchased produce:

The following 2 tables below show the aggregated hotel purchasing data for 2008 with a list of products that hotels are purchasing locally. The first table shows the top 17 products locally purchased per total value (quantity times average price) and the second one shows the top 17 products purchased locally per quantity.

LIST OF LOCAL PRODUCE Sorted Per Value	Hotel Consumption per Year /Kg	Avg. Price Per KG	Total USD Value 2008
Tomatoes Cherry	521,220	\$ 13.98	\$7,286,655.60
TOMATO ON THE VINE RED	694,960	\$9.62	\$6,685,515.20
TOMATOES	781,830	\$7.72	\$6,035,727.60
LETTUCE ICEBERG	891,552.06	\$ 6.63	\$5,914,556.37
CANTALOUPE	1,129,310	\$ 4.58	\$ 5,172,239.80
HONEYDEW MELON	868,700	\$4.58	\$3,978,646.00
Carrot	1,389,920	\$ 2.43	\$3,377,505.60
YAM	1,042,440	\$ 3.04	\$3,169,017.60
Watermelons	1,216,180	\$ 2.14	\$2,602,625.20
SWEET PEPPER GREEN	521,220	\$ 4.58	\$2,387,187.60
SWEET SOP	1,216,180	\$1.76	\$2,140,476.80
TOMATO SLICING	1,216,180	\$1.76	\$2,140,476.80
Plantain Green	1,693,965	\$1.22	\$2,066,637.30
Plantain Ripe	1,303,050	\$ 1.52	\$1,980,636.00
Cauliflower	275,069.89	\$ 6.98	\$1,919,987.83
Pineapples	1,389,920	\$1.38	\$1,918,089.60
LEMON GRASS	1,042,440	\$1.83	\$1,907,665.20
TOTAL TOP 17 (per USD value)	17,194,137	-	\$ 60,683,646

Of particular interest in the table above are the tomatoes and lettuce which represent the biggest spending area for the hospitality market (tomatoes approximately 20 million USD and lettuce approximately 6 million USD)..

If the list of locally purchased produce is sorted out by quantity plantain, mangoes, pineapples, bananas and watermelon account for the largest volumes as shown in the table below.

LIST OF LOCAL PRODUCE Per Quantity	Hotel Consumption per Year /Kg	Avg. Price Per KG	Total USD Value 2008
Plantain Green	1,693,965	\$1.22	\$2,066,637.30
MANGOES	1,476,790	\$0.69	\$1,018,985.10
Carrot	1,389,920	\$ 2.43	\$3,377,505.60
Pineapples	1,389,920	\$1.38	\$1,918,089.60
Bananas Ripe	1,389,920	\$1.03	\$1,431,617.60
Plantain Ripe	1,303,050	\$1.52	\$1,980,636.00
Watermelons	1,216,180	\$2.14	\$2,602,625.20
SWEET SOP	1,216,180	\$1.76	\$2,140,476.80
TOMATO SLICING	1,216,180	\$1.76	\$2,140,476.80
ORANGES	1,216,180	\$0.69	\$839,164.20
CANTALOUPE	1,129,310	\$4.58	\$5,172,239.80
YAM	1,042,440	\$3.04	\$3,169,017.60
LEMON GRASS	1,042,440	\$1.83	\$1,907,665.20
LETTUCE ICEBERG	891,552.06	\$ 6.63	\$5,914,556.37
HONEYDEW MELON	868,700	\$ 4.58	\$3,978,646.00
PAWPAW LOCAL	868,700	\$0.63	\$547,281.00
TOMATOES	781,830	\$ 7.72	\$6,035,727.60
TOTAL TOP 17 (per quantity)	20,133,257	-	\$ 46,241,348

Imported Produce

The following 2 tables below show the aggregated hotel purchasing data for 2008 with a list of products that hotels are importing. The first table shows the top 13 products imported per total value (quantity times average price) and the second one shows the top 13 products purchased locally per quantity.

The first table portrays that the hotel's biggest imports per value are mushrooms, strawberries, lettuce and carambolas. The fact that mushrooms, strawberries and carambolas can be grown in Jamaica is of particular interest.

LIST OF IMPORT PRODUCE Per Total Value	Hotel Consumption per Year /Kg	Price	Total USD Value 2008
MUSHROOM BUTTON	434,350	\$ 45.98	\$19,970,561.00
BERRY STRAWBERRY PREMIUM	781,830	\$7.71	\$6,031,732.00
LETTUCE BOSTON	825,265	\$7.20	\$5,941,908.00
GRAPE GREEN SEEDLESS LARGE	694,960	\$7.76	\$5,393,638.00
CAROMBOLA (STARFRUIT)	260,610	\$20.28	\$5,285,171.00
MUSHROOM PORTABELLA	347,480	\$13.83	\$4,806,343.00
GRAPE BLACK	694,960	\$6.42	\$4,462,757.00
GRAPE RED GLOBE	521,220	\$6.57	\$3,422,359.00
BROCCOLI 14 CT	694,960	\$4.43	\$ 3,076,835.00
LETTUCE ROMAINE HEARTS 12/3 CT	781,830	\$3.86	\$3,017,864.00
TOMATO YELLOW BEEFSTEAK LARGE	521,220	\$5.35	\$ 2,788,527.00
LETTUCE ROMAINE WOOD CRATE	694,960	\$3.99	\$2,772,890.00
ARTICHOKE 18 CT	130,305	\$19.17	\$2,497,947.00
TOTAL TOP 13 (per value)	7,383,950	-	\$ 69,468,532

The second table below also shows that in terms of quantity, potatoes lettuce and berries are the main components of imported produce. Just the Hotel segment alone, without including the fast food chains imports 1.3 million USD per year for potatoes.

LIST OF IMPORT PRODUCE Per Quantity	Hotel Consumption per Year /Kg	Price	Total USD Value 2008
POTATO IDAHO 100 CT	1,303,050	\$1.05	\$1,365,787.00
LETTUCE BOSTON	825,265	\$7.20	\$5,941,908.00
BERRY STRAWBERRY PREMIUM	781,830	\$7.71	\$6,031,732.00
LETTUCE ROMAINE HEARTS 12/3 CT	781,830	\$3.86	\$3,017,864.00
APPLE GOLD X-FANCY 72 CT	781,830	\$3.16	\$2,471,602.00
GRAPE GREEN SEEDLESS LARGE	694,960	\$7.76	\$5,393,638.00
GRAPE BLACK	694,960	\$6.42	\$4,462,757.00
BROCCOLI 14 CT	694,960	\$4.43	\$3,076,835.00
LETTUCE ROMAINE WOOD CRATE	694,960	\$3.99	\$2,772,890.00
APPLE RED PREMIUM 88 CT	694,960	\$3.41	\$2,370,730.00
SQUASH YELLOW FANCY	694,960	\$2.06	\$1,433,944.00
GRAPE RED GLOBE	521,220	\$6.57	\$3,422,359.00
TOMATO YELLOW BEEFSTEAK LARGE	521,220	\$5.35	\$2,788,527.00
AVOCADO HASS RIPE	521,220	\$4.44	\$2,314,217.00
TOTAL TOP 13 (per quantity)	10,207,225	-	46,864,790

2. Export Markets

The uniqueness, competitiveness, quality and flavour of our Jamaica's products have resulted in a rising demand for them in foreign markets. However to secure our niche, farmers and processors must seize the opportunity to become compliant with industry standards for food safety and market access.

The key to capitalize on export market potential is the continued development of value-added products both fresh and processed. This is imperative so that profitability is increased and it implies a need to move away from exporting the product in 'commodity' form.

For export consideration, farmers need to be made aware of the more common standards and requirements to facilitate compliance.

The opportunity now exists to generate new products from non-traditional commodities, stimulate growth in the agricultural sector and create added value and additional.

Export Market niches representing real opportunities include:

- the “health conscious” consumer market;
- the “home meal” replacement market;
- “e-commerce gift” market;
- “ethnic cuisine” market;
- “organics and nutraceutical” and
- “speciality foods” market.

Currently, the “health conscious” and “nutraceutical” niches are presenting great opportunities for all members of the value chain as our indigenous plants, fruits and roots are proving to have exceptional medicinal values and taste which make them extremely competitive.

The table below is the overall summary for the targeted products and markets based on market potential and stakeholder workshops:

FRESH	Cabbages, Tomatoes, Sweet Peppers, Hot Peppers, Strawberries, Carrots, Onions, lettuce, Mangoes, Breadfruits, Pineapple, Ginger, Ackee, Cantaloupe Yams, Sweet Potatoes, Potatoes, Arrowroots	DOMESTIC Hotels Supermarkets Restaurants
FRESH	Exotic Fruits Yams, Sweet Potatoes, Arrow Root, Ginger, Scallion,	EXPORT Jamaica Diaspora market in Canada, UK, USA, Regional market
PROCESSED	Frozen and convenience foods Juices and pulps Pepper Mash, Spices & Essential Oils Preserves	DOMESTIC Supermarkets Industrial (Confectionary)
PROCESSED	Pulps and Concentrates Spices and Essential Oils Convenience Foods	EXPORT Region USA,UK

Strategic Objectives and Interventions

To tap the undoubted opportunity and potential there must be a national strategy and drive to re-develop the industry with 100% buy-in from all stakeholders, with defined guidelines and timetables.

As a by-product of globalization, food supply systems are increasingly being driven by consumer preferences. Much of the modernization that remains to be achieved in Jamaican agro-business sector involves the re-orientation from the long legacy of “supply push” to systems that are fulfilling consumer expressed and implied needs and preferences, so called “demand pull” systems.

In Jamaica, it is important to adopt a “system” perspective when considering the identified opportunities and constraints for agro-enterprise development.

System approach is required because the diverse productive activities are broadly distributed over an extended geography and to maximise the timely interaction of separate value-adding steps throughout the value chain (Develop and deliver material input to the farming sector; Produce primary commodities; Collect, handle, preserve FFV; Process, semi-finished or finished agro-based products; Transport, market, and distribute agro-based products to consumers).

The strategy is proposing a holistic approach that will lead to a successful system: articulate the entire chain from a critical link viewpoint. These changes will not come overnight but first fundamental steps can be undertaken rapidly.

Implementation Plans

The Implementation Plan is constituted of 6 strategy objectives and is targeting social, economic and productive development.

It identifies four key areas for the private sector actors (farmers, processors and buyers)

(i) Access to market Information; (ii) Access to Finance; (iii) Supply (Production – Pre & Post Harvest) and (iv) Processing and Value Addition.

It also identifies two cross-cutting support areas for institutions and Government:

(ii) Sector Governance and Policy making (ii) technical Support and Research and Development.

The 6 main strategy objectives are listed below:

1. Establish a private public coordination mechanism for the management of the strategy implementation
2. Increase availability of supply and demand related information to allow informed decision making by private sector and policy makers
3. Increase raw material supply from small-scale farmers by 400% by 2020 by organising and training farmers through agronomic services
4. Provide access to low-cost funding and risk management mechanisms to 70% of the targeted farming population and processors by 2015
5. Increase the production of processed food products by 150% by 2020 and improve overall value adding operations to achieve industry competitive advantage
6. Provide access to low-cost, high-value planting material (seeds, seedlings) for fruits, vegetables, herbs & spices and roots & tubers to 95% of the 220,000 farmers by 2015 and enhance agronomic support

Key activities under each objective will be piloted with an identified core group of beneficiaries including buyers, processors and farmers. Successful experiences and results will be replicated with other groups of beneficiaries as implementation rolls out.

Implementation of Objective 5, “Improve overall value-adding operations to achieve industry competitive advantage” has already begun with seven agri-processing enterprises participating in the pilot project.

Objective 1: Establish a private public coordination mechanism for the management of the strategy implementation

There is an imperative need for improved co-ordination across the spectrum of all stakeholders involved in the strategy and implementation process. Absolute ‘Buy-In’ or synergy between all participants is essential for the success of the strategy. Similarly, co-ordination and ‘team-work’ too is vital to ensure that there is no duplication of roles and responsibilities and that the implementation is focussed and driven.

The way forward, the process and plan must be expressed and communicated concisely and formally to the stakeholders and implementing partners, and must include measurable deliverables with deadlines.

The co-ordination of the strategy implementation and its different objectives must ‘dove-tail’ and run in parallel as all will have varying priorities and time scales. It is important that this is managed concisely. It is also a ‘living and evolving’ objective involving individuals and personalities so needs to be reviewed and consolidated on a regular and consistent basis.

The first task however will be to design and implement an ongoing communication strategy to ensure that all stakeholders are aware of the way forward being employed and of results anticipated over time.

The sub-objectives under objective 1 together with the anticipated output are listed in the table below:

#	Sub-Objective	Anticipated outputs
1.1	ENSURE COMMUNICATION TO STAKEHOLDERS	The majority of sector stakeholders including individual farmers and different ministries are aware of the strategy and can articulate what needs to be done and how by end 2010
1.2	ESTABLISH AN IMPLEMENTATION FRAMEWORK AND ALIGN EXISTING PROJECTS TO STRATEGY	A framework attached the Economic Development Committee and the Ministry of Agriculture is in place and working by end of April 2010. The framework is shared with NES and is respected by major donors and government agencies as a mechanism for monitoring and implementation coordination
1.3	STRENGTHEN LINKAGES AND COLLABORATION WITH KEY MINISTRIES	The strategy is used as a platform to determine ministerial work plans and budget allocation by all relevant ministries.
1.4	REVIEW AND ALIGN RELEVANT POLICIES TO FACILITATE IMPLEMENTATION	National stakeholders and donors use the strategy as an input to national and regional development planning and basis to ensure coherence between policy design.
1.5	ACCESS ADDITIONAL PRODUCTIVE LAND	A complete mapping and inventory of lands fit for agriculture by end of 2011 and a land tenure regulation by end of 2012.

The activities under objective 1 are listed below:

1.2	ESTABLISH AN IMPLEMENTATION FRAMEWORK AND ALIGN EXISTING PROJECTS TO STRATEGY	<p>Establish Monitoring and implementation framework to implement sector strategy using the implementation plan as a guide.</p> <p>Define oragnisational structure for impelmentation coordination body and select new members based on competencies needed to coordinate and implement the strategy. Include NES, Ministry of Finance, Ministry of Agriculture and Fisheries, Ministry of Investment Industry and Commerce, Private sector and Farmer representatives</p> <p>Present strategy and implementing plan to cabinet and validate role of committee as coordinator for implementation</p> <p>Undertake dialogue with implementing partners to present F&V, H&S, R&T strategy and coordinating committee's role</p> <p>Undertake a bi-monthly coordination meeting with implementing agencies and donors to ensure there is synergy of activities and no unnecessary overlaps.</p> <p>In consultation with main actors of each sub-sector and with buyers: Agree on specific targets and objectives related to production increase, export increase, import substitution for each sub sector</p> <p>Develop or complete a map of existing funding and potential implementing partners acting at community, national, regional and international level.</p>
1.3	STRENGTHEN LINKAGES AND COLLABORATION WITH KEY MINISTRIES	<p>Facilitate linkages and collaboration from other key ministries including Ministry of Tourism, Minsitry of Finance, Ministry of Commerce, Ministry of Transport by organising a quarterly meetig with project coordinators and planning division staff from different ministries</p> <p>Cost and Introduce the activities under the current implementation plan into the corresponding Minsitries budget for 2011/2012</p>
1.4	REVIEW AND ALIGN RELEVANT POLICIES TO FACILITATE IMPLEMENTATION	<p>Document and compile existing policy initiatives that affect the implementation of the Sector Strategy Create a comprehensive list of involved ministries at national levels and identify overlap in policies.</p> <p>Identify gaps in policy and areas for improvement and develop a plan to link policy to strategy and private sector priorities. Harmonize sector related policy making across national ministries</p> <p>Provide information on the sectors main priorities at national and regional levels to negotiators and policy makers through business and farmer associations.</p> <p>Organise a quarterly meeting with F&V, R&T, H&S sector stakeholders to discuss policy implications on the strategy and implementation</p>
1.5	ACCESS ADDITIONAL PRODUCTIVE LAND	<p>Support the current efforts of the Land Administration and Management Programme across all parishes in Jamaica in order to address land tenure and registration issues with a view to issuing land titles</p> <p>Undertake a comprehensive inventory of all lands owned by government prioritising the regions fit for Agriculture</p> <p>Dialogue with the National Land Agency and other entities to ensure that lands that are leased for agricultural production are used for the intended purposes .</p>

Objective 2: Increase availability of supply and demand related information to allow informed decision making by private sector and policy makers

The type of information needed has been identified through value chain studies and interactive workshops and meetings with all participants in the process. Appropriate data collection, analysis and collation are crucial to build an accessible pool of knowledge for the sub-sectors. This information has to be made 'user friendly' and readily available by more traditional means as well as electronically.

The sourcing of such information must be focussed in terms of being current, relevant, concise and available to those stakeholders that require it. Up to date and accurate information availability is integral to the progress and ultimate results of the strategy implementation.

Dissemination of this information amongst all participants giving real-time access to data that is necessary and applicable to their function in the process is also critical. Without such a system and/or structure decision making will be at best delayed and at worst wrong.

Existing systems like the RADA Agricultural Business Information System (ABIS) or the Jamaica Trade and Invest market news service need to be reinforced so that the sector needs expressed above are met.

The sub-objectives under objective 2 together with the anticipated output are listed in the table below:

#	Sub-Objective	Anticipated outputs
2.1	DEFINE DATA NEEDS	By end of 2010 and after participatory consultations with stakeholders all relevant ministries and agencies agree on information needed. Existing information systems align and data needs are in line with Private sector needs.
2.2	CO-ORDINATE AND BUILD COLLECTIVE ORGANISATIONAL CAPACITY TO COLLECT, ANALYSE AND DISSEMINATE INFORMATION	By end of 2011 an information intelligence mechanism that regularly sources information from value chain stakeholders is in place. Accuracy and relevancy of information collected is increased.
2.3	DESIGN STRATEGIES FOR INFORMATION ACCESS AND DISSEMINATION	By the end of 2011 a dynamic information dissemination system that reaches the majority of farmers and business is in place. Government and business decision making is supported by information.
2.4	DESIGN AND IMPLEMENT BOTH LOCAL AND INTERNATIONAL MARKET PROMOTIONAL ACTIVITIES	A national branding campaign for agriculture and agro-processed products results in increased consumption of F&V, H&S, R&T products and in consumer awareness both in export and domestic target markets abroad.

The activities under objective 2 are listed below:

DEFINE DATA NEEDS	<p>Undertake participatory consultations with farmers, buyers and processors to determine and document the informational needs of the sub-sectors</p> <p>Identify the informational needs for the subsector and the characteristics of the information required (i.e. frequency, format etc.)</p> <ul style="list-style-type: none"> - identification of trends relative to each sub-sector (roots and tubers, fruits and vegetables, spices) - market potential and demand (export, regional, domestic) - market and buyer requirements (varieties, demand, price, standards, quality, packaging) - consolidated information on production and supply side: Harvest times, Seasonality, varieties, Quantities produced and sold for export, regional and domestic markets - Prices at farm gate, wholesale and retail
CO-ORDINATE AND BUILD COLLECTIVE ORGANISATIONAL CAPACITY TO COLLECT, ANALYSE AND DISSEMINATE INFORMATION	<p>Identify the existing information and data sources and select most appropriate ones based on data needs</p> <ul style="list-style-type: none"> - Identify gaps in information needs and assign collection and analysis responsibility to appropriate organisations - Develop a plan on how to work and provide information through the coordination of appropriate organisations <p>Explore a mechanism to deliver regular updates on:</p> <ul style="list-style-type: none"> Trend Analysis of each Agri sub-sector Identification of market potential, and demand (domestic, export, regional) Production Analyses Documentation of prices as they relate to farm gate, Municipal Markets, Retail and Wholesale End User Analyses Supply and Demand comparisons Crop forecasts Sensitivity Analyses Industry snapshots Develop Annual Agricultural Research & Development Plan and Annual Agricultural Marketing Plan Provide regional and International trade information <p>Support demand & supply studies in local (hotels, restaurants, supermarkets) and in regional and international markets for a range of existing and potential new products currently being grown/produced.</p> <p>Organise for a Delegation of coordinating/implementing committee members, Jamaican farmers and processors to participate in Fruit Logistica 2011 in Berlin</p>
DESIGN STRATEGIES FOR INFORMATION ACCESS AND DISSEMINATION	<p>Specific information: Utilize real time information exchange techniques to collect and distribute information via SMS</p> <p>Reinforce existing electronic platform for local sharing of information and exchange related to:</p> <ul style="list-style-type: none"> Quantities Demanded and prices Standards and buyer requirements Standards Financing and payment mechanisms Availability of transport and Logistics <p>Information and dissemination: Define a governance structure for the information dissemination organisation. Link existing organisations across ministries and use JTI JBOS and ABIS.</p> <p>Explore options for setting up a network to provide distributed information via SMS (existing cell phone operators or wi-fi distributors or autonomous cell phone operators)</p> <p>Provide training to farmers and use farmer associations to communicate benefits</p> <p>Identify early farmer adopters and set up a pilot to test system</p> <p>Mount an awareness initiative to recruit and provide training to brokers traders, stock inspectors, receipt issuers, shipping agents</p>

DESIGN AND IMPLEMENT BOTH LOCAL AND INTERNATIONAL MARKET PROMOTIONAL ACTIVITIES

<p>Provide information to exporters, sme processors and farmers regarding regional and international trade and industry fairs and arrange visits to complementary production and processing sources.</p>
<p>In market support to be provided in key markets by Jamaican embassies regarding advice on legal framework, contracts of sale and buyer track records to be made available</p>
<p>Provide technical information regarding product differentiation and collaborate in product promotion activities, training for participation in trade fairs, basic market research and market orientation tours (Recipients: Farmers, Processors, Exporters)</p>
<p>Implement the promotion and communication plan domestically and internationally</p> <p>At a domestic level:</p> <ul style="list-style-type: none"> -Establish formal agreements with the tourism industry and promote exotic and Jamaican food products for visitors tour opportunities and merchandise - Increase public awareness on the importance of buying Jamaican for increased food security and import substitution through informal and retail sector campaigns <p>At an International level:</p> <ul style="list-style-type: none"> - Support the efforts under the National Export Strategy in liaison with the F&V, R&T, H&S sector priorities - Attend strategic international trade shows and food fairs visit to cultivate existing markets and as market penetration activities. - Facilitate outward to and inward missions from targeted markets - Advertise on industry specific websites

Objective 3: Increase raw material supply from small-scale farmers by 400% by 2020 by organising and training farmers through agronomic services

The key buyer requirement for the markets to be supplied consistently with quality product is perhaps the factor contributing most to the decline in local Jamaican production, an increase in importation, and the lack of exploitation of regional and international export markets.

Objective 3 is the crucial piece in the holistic system the implementation plan is proposing. It is about organising and training small-scale farmers through agronomic services to ensure product volume and quality consistency.

A key and critically urgent priority, this, and Objective and 6 are those that will take the most time to implement, take effect and achieve the desired results.

This objective must first address the attitudes towards and perceptions of a career in agriculture. The status needs to be lifted to ensure a regular supply of qualified and competent new entrants, particularly enthusiastic young farmers to the profession. The underlying principle is that farming will attract newcomers both young and old only if it is associated with making profit, having a decent standard of lifestyle and not having high barriers to entrance.

To achieve this it is also important to re-develop and/or strengthen the farmers associations and interaction. The 'association's' structure, ownership, financing and member selection criteria needs to be established.

Similarly, training has been identified as a key requisite. The underlying principle of the strategy needs calls for practical training at all levels using model units, as well as exposure to regional and international production and post harvest practice trends.

Objective 3 sub-objectives and anticipated outputs are presented in the table below:

#	Sub-Objective	Anticipated outputs
3.1	STRUCTURE FARMER ASSOCIATIONS WITHIN VALUE CHAIN	By end of 2011 and after participatory consultations with stakeholders farmer driven/owned associations are structured to implement the strategy and to attain 400% growth in raw material supply
3.2	ACHIEVE GAP COMPLIANCE AND PROMOTE FARMING AS A BUSINESS	By end of 2012 level of agricultural produce quality is increased by 20%, farmer cost efficiency by 20% and farmer training centres are run by farmer associations
3.3	EFFICIENT PRODUCTION PLANNING AND MANAGEMENT	By the end of 2010 a dynamic planting programme with crop profiles in line with demand needs is implemented by farmer associations. Supply gap is reduced by 20% in 2011.
3.4	STIMULATE AND INCREASE THE INVOLVEMENT OF YOUTH IN AGRICULTURE	By the end of 2013 number of young farmers starting an agricultural based business increases by 30%.

The activities under objective 3 are listed in the table below:

STRUCTURE FARMER ASSOCIATIONS WITHIN VALUE CHAIN	<p>Categorisation of Farmers and selection of farmer leaders</p> <p>Perform a census of existing farmer associations and categorize farmers (Commercial, subsistence, size, amount of land, crops planted, location, age, historical performance, gender, production equipment, literacy)</p> <p>Elect the representatives per area based on the farmer categories through participatory approach with farmers</p> <p>Identify an appropriate Association development and management methodology to ensure targeted interventions/projects are having impact</p> <p>Establish farming groups and pilot a structure of representation.</p> <p>Based on categorization, establish different types of farmer groups</p> <p>Identify types of services to be offered by the association to its members</p> <p>Facilitate the establishment of associations providing capacity building as required</p> <p>Promote the benefits of joining associations for farmers through success stories and testimonials</p> <p>Coordinating committee to develop a sensitization campaign to promote farmer association as a viable production option and strategy</p>
ACHIEVE GAP COMPLIANCE AND PROMOTE FARMING AS A BUSINESS	<p>Train selected farmers in training techniques and establish model farms to undertake coaching of other farmers in the adoption of new techniques that are more profitable.</p> <p>Develop a schedule for farmer to farmer training through regular visits to farms led by farmers.</p> <p>Establish Good agricultural practices at farm level and a Model Farm for training purposes</p> <p>Develop GAP manuals and training programmes to build compliance</p> <p>Ensure farmers are informed and have access to the right seed variety based on buyers needs</p> <p>Encourage the documentation and maintenance of detailed 'group' production and post-harvest records.</p> <p>Train a group of service providers in the various communities to provide GAP training through a structured programme.</p> <p>Encourage Farming as a business</p> <p>Develop an incentive package to stimulate entrepreneurs to invest in agriculture.</p> <p>Develop investment profiles for the selected crops and present/promote investment opportunities as a viable business</p> <p>Educate farmers on the strategy of using different varieties for different markets and end uses</p> <p>Farmers to be trained in modern business practices such as record keeping, quality standards, project proposal development, pricing and marketing products.</p> <p>Develop a programme using selected group of farmers to build the capacity of other farmers in the following:</p> <ol style="list-style-type: none"> i) To determine cost of production and calculate profit margins based on mutually agreed industry yield norms and market price forecasts. ii) Market costing and Pricing Strategies iii) Cash flow management as a component of costing and pricing iv) Budget Development v) Farm Management vi) Proposal Preparation vii) Work Planning viii) Post-Harvest Practices ix) General techniques for effective marketing

EFFICIENT PRODUCTION PLANNING AND MANAGEMENT	<p>Determine Demand profile for priority crops Establish a demand profile by volume and time by using existing information and by conducting surveys with supermarkets, hotel association and restaurants (ie: cabbage Kg per week) and in cooperation with farmer groups ascertain production capacity</p> <p>Through agronomic service and extension establish the seasonality of crops and determine optimum period and location for growing Determine the acreage of land available for production and related estimated yields</p> <p>Develop a planting programme that matches demand taking the volatility out of the market and flattens out supply 'peaks and troughs' ensuring consistent returns and profitability</p> <p>In association with farmer communities establish a mutually agreed planting programme based on the multipurpose centre demand taking into consideration production in other regions, non-MPC committed produce and import competition.</p> <p>Encourage farmers to adopt a more commercial attitude and plant over a schedule to achieve consistency in supply and price hedging in glots</p> <p>Establish a communication strategy to build awareness at farmer level of what crops can be planted at what time, and how to improve quality</p>
STIMULATE AND INCREASE THE INVOLVEMENT OF YOUTH IN AGRICULTURE	<ol style="list-style-type: none"> 1. Lobby for the inclusion of Agricultural Science in all school curricula 2. Develop a national promotion campaign via mass media to highlight farming and agri-business as a profitable and successful career to attract youthful expertise and enthusiasm. 3. Showcase farming as a successful career as done by professionals 4. Establish scholarship, exchange student, and secondment programmes, (local, regional and international). 5. Maximise attraction of assurance of post study employment with agricultural educational options. 6. Re-energize the 4H club movement in schools and communities to re-kindle the interest of youth in farming activities as career choices.

Objective 4: Provide access to low-cost funding and risk management mechanisms to 70% of the targeted farming population and processors by 2015

Access to specific funding mechanisms targeted to smallholder and commercial farms, processors and exporters is extremely necessary in order to increase overall investment in the sector.

In addition to the lack of experience of agricultural (horticultural) financing and banking between all stakeholders the lack of collateral is one of the key issues. Accordingly to Objective 1, governmental policy and legislation with respect to land tenure and title will form an integral and pivotal part of this process.

In all probability for the foreseeable future 'contract based credit' may be one or the only alternatives. Such a contract (subscribed and/or underwritten by a farmer, farmer association or an agri-business facility), to deliver a certain volume and quality of produce within a specific time window may be considered by banks as an income generating activity/transaction that increases the probability of repayment of credit by the farmer in the future.

Regarding insurance and risk, the entire agricultural sector, including large integrated supply chains as well as small farmers, is absorbing all the climate risks, without any risk out-transfer mechanism - - neither publicly nor privately (re) insured. Undoubtedly, a parametric approach to agriculture risks would overcome some of the above-mentioned constraints. Nevertheless, the issue of basis risk with index insurance remains a challenge.

Currently, the demand for a systematic treatment of agricultural risk management techniques is being met through partnership with the World Bank which has been engaged by the Jamaican Government to devise a programme through which our farmers can be insured against destruction caused by natural disaster.

Objective 4 sub-objectives and anticipated outputs are presented in the table below:

#	Sub-Objective	Anticipated outputs
4.1	UNDERTAKE SITUATIONAL ANALYSIS OF FINANCIAL PRODUCTS AND SERVICES AVAILABLE	By the end of 2010 stakeholders and policymakers have a clear understanding of existing finance mechanisms, farmer financial needs and resulting gap in provision of services.
4.2	DEVELOP APPROPRIATE FUNDING MECHANISMS THROUGH INNOVATIVE FINANCIAL PRODUCTS	By the end of 2015 adapted financial services are available to 70% of the farmer population.
4.3	ESTABLISH A RISK MANAGEMENT PROCESS THAT IS BOTH PRAGMATIC AND ENFORCEABLE	By the end of 2015 a risk management policy is enforced and parametric insurance is covering 70% of farmer population.
4.4	CREATE AN ENABLING ENVIRONMENT FOR BOTH LOCAL AND FOREIGN INVESTMENT	By 2012 Government policy has resulted in a 25% increase of direct investment in agriculture and agro-processing.

The activities under objective 4 are listed in the table below:

<p>UNDERTAKE SITUATIONAL ANALYSIS OF FINANCIAL PRODUCTS AND SERVICES AVAILABLE</p>	<p>Review and compile existing information from various sources including studies that have analyzed the situation.</p> <p>Assess the financial service supply and demand needs based on beneficiaries (small holder farmers, commercial, processors, exporters)</p> <p>Develop a list of existing and potential funding partners (commercial banks, donor agencies, development banks and other)</p> <p>Supply side:</p> <ul style="list-style-type: none"> - Identify and consolidate a list of financing bodies or institutions targeting agriculture sector and SME finance at a national and regional level (loan conditions, funds available – short vs long term) - Composition of Portfolios - Banks Investment strategy in agri-sector (why they invest or do not invest in the sector) - Credit risk information - Survey of existing financial products - Interest rates + transaction costs - Collateral and other requirements (eg business plans) - Availability of Information on default and on clients in general - Review of the Ministry of Agriculture financing mechanism <p>Demand side:</p> <ul style="list-style-type: none"> -Issues and bottlenecks in accessing finance by stakeholder type. Analyse process and business risks that create or are the result of financing constraints (ability to repay loans). - -Administrative requirements -Collateral -Needs in terms of financing for technology acquisition -Design a farmer survey based on a representative sample of stakeholders -Conduct survey of farmers -Collect information from: Regional banks, national banks, Regulatory institutions, National export strategy, Poverty assessment report (CDB), <p>Establish a unit (2-3 persons max) dealing with finance and risk management in the Ministry of Agriculture. The unit should be in charge of identifying potential institutions that could play a leading role, liaise with them and with value chain stakeholders to promote innovations.</p>
<p>DEVELOP APPROPRIATE FUNDING MECHANISMS THROUGH INNOVATIVE FINANCIAL PRODUCTS</p>	<p>Establish a private-public regular consultation forum to discuss common approach and joint negotiating strategy for increasing the total number of financial products and credit lines available to farmers, processors and exporters</p> <p>Develop a dedicated agricultural financing and credit initiative to provide low interest rate and terms for loans and for agriculture and agribusiness comparable to the main trading partners</p> <p>Reorganize and strengthen the PC Banks and other agricultural credit institutions to improve their efficiency and effectiveness. Establish a revolving credit guarantee scheme, to be partly subsidized by the Government for famers with well-tested systems for recovering money.</p> <p>Lobby the Diaspora communities to establish a fund to invest in local value added development products</p> <p>Access to Credit</p> <p>Identify suitable farmer associations and agribusiness centres that could act as an intermediary on behalf of individual farmers in order to reduce the impact of default risk by individuals and therefore obtain interest rates reduction. (using the informal partner system as a model)</p> <p>Explore collective borrowing under a cluster or other collaborative entity as financing options.</p> <p>Explore the possibility of special loans channelled though farmers associations and micro/meso finance institutions as well as national banks.</p> <p>Define policies and regulations for lease financing, factoring, equity financing, especially for the purchase of tools and equipment</p>

	<p>Guarantees and Collateral:</p> <p>Explore defining alternative forms of collateral on the basis of: the types of commodities produced, it's potential markets and on the main sources of risks that affect the value chain for those particular commodities.</p> <p>Determine which assets may be used as collateral for financing and explore alternatives such as contracts between small farmers/farmers associations and other stakeholders</p> <p>Create a simple practical contract template and distribute to farmers and buyers and explore micro-insurance to be used to complement collateral.</p>
<p>ESTABLISH A RISK MANAGEMENT PROCESS INCLUDING ENHANCING AND MAINTAINING MITIGATION MASURES THAT IS BOTH PRAGMATIC AND ENFORCEABLE</p>	<p>Develop a risk profile of Jamaica in order to identify the magnitude of losses that can occur. Based on the profile design risk management tools to manage the different risk layers (national, meso and micro level).</p> <p>Based on the prefeasibility study done by Ministry of Agriculture and World Bank identify the main sources of risks per crop and per area and develop an action plan to prevent or respond to them</p>
	<p>Weather and natural disasters:</p> <p>- Strengthen extension services to provide guidance and advice on risk mitigation and prevention and support to the national agricultural disaster risk management programme</p>
	<p>Replicate the Blue Mountain coffee area parametric insurance scheme for farmers for Fruits and Vegetables and Roots and Tubers selecting pilot parishes</p>
<p>CREATE AN ENABLING ENVIRONMENT FOR BOTH LOCAL AND FOREIGN INVESTMENT</p>	<p>Provide incentives for SME's to purchase appropriate capital equipment and modernize technologies for primary processing and value addition through time-bound subsidized rate loans, (eg tax incentives)</p>
	<p>Establish a technology support fund, accessible to farmers, marketers, SMEs or export companies that have an identified or potential market and have identified the right technology to scale up production and improve the quality to international standards and take advantage of this market</p>
	<p>Organize business to business contacts, the systematic provision of information to promote joint ventures with buyers or investors and to attract LDI and FDI. Improve image, attractiveness and reputation of doing business in Jamaica</p> <p>Explore the feasibility of a venture capital fund to support agribusiness projects and provide support in business planning and project proposal</p>

Objective 5: Increase the production of processed food products by 150% by 2020 and improve overall value adding operations to achieve industry competitive advantage

The sub-objectives and their anticipated outputs are explained in the table below.

#	Sub-Objective	Anticipated outputs
5.1	ESTABLISH AGRI BUSINESS CENTRE MODELS TO OPTIMISE LINKAGES BETWEEN FARM AND MARKET	Pilot agribusiness centre manages to structure supply and demand resulting in consistency, volume and quality for fresh and processed markets (by 2011).
5.2	REINFORCE 'GOOD MANUFACTURING PRACTICES' AND FOOD SAFETY ACROSS THE SECTOR	Processors become more competitive and quality is improved resulting in easier market access.
5.3	REINFORCE BUSINESS MANAGEMENT CAPACITY	Processing firms increase overall competitiveness resulting in cost efficiencies and better marketing strategies
5.4	MARKET ACCESS AND COMPLIANCE	Quality is improved resulting in easier market access.
5.5	ENHANCE RESEARCH AND PRODUCT DEVELOPMENT	New products developed increasing value addition in agriculture.

Value-adding is one of the strategies that will be employed in Jamaica to capture a larger share of the consumer 'dollars'. Value added products offer a higher return, open new markets, create brand recognition, and add variety to agricultural operations.

The focus, in the case of Jamaica, is made on the processing agro-enterprise because when the agro-enterprises are successful they pull the entire sector.

It is envisaged that the private sector (and farmer based associations) will driver in this objective. This private sector involvement and commercial focus is key to the sustainable and successful development of the market/s, value addition.

Objective 5 has one main sub-objective which is the establishment of several pilot Agribusiness centre or systems that will link farmer supply and demand.

Fragmented supply production is the current situation in Jamaica. For supplying little local fresh markets, size and fragmentation are not very important. But size is a key factor when the target markets are B2B or B2C with large volumes. Key business aspects (quality -with regard to specifications- consistency and cycle repeatability) are easier to ensure, to manage and to improve when a critical size is reached.

When the supply market is fragmented it is mandatory to rely on a "consolidating structure or system such as the agribusiness centres which will consolidate and bulk demand as well as supply.

While such an agri-business centre will ultimately offer a diverse menu of services, its primary and core function will be;

1. Production programming and scheduling.
2. Agronomic support.
3. Input procurement.
4. Distribution – (collection and delivery services).
5. Post harvest product handling and management.
6. Value-adding.
7. Sales and marketing.

In the existing fragmented supply environment, the development of agribusiness centres is of high value. The structure must be sized to reach a critical volume, but focused enough to allow the knowledge of customer's needs (quality, volume/periodicity).

Such dedicated facilities can only be justified and operate optimally once production is assured, consistent and of the requisite quality. Similarly, these post harvest facilities can only be identified, located, designed and commissioned once the necessary work on the production regions and capabilities have been determined.

Finally, Improving agro-enterprise competitiveness and export readiness is crucial. This means "satisfying customer expressed and implied needs". Indeed, customer satisfaction consists in turning out the right finished product (from a quality and safety view point), in the right quantity, at the right time, at the right price. This is what the other remaining sub-objectives are trying to reinforce.

The table below shows the activities in the implementation plan for each sub-objective.

ESTABLISH AGRI BUSINESS CENTRE MODELS TO OPTIMISE LINKAGES BETWEEN FARM AND MARKET	<p>Include and align existing plans from the Ministry of Agriculture to create a packaging centre with multipurpose centre initiative</p>
	<p>Identify possible SME clusters by certain criteria such as survey of the area (geographical) and commodities, size etc.</p>
	<p>Promote and create awareness on SME clustering as the best solution to pool production, marketing, source collectively and increase volumes and increase profitability.</p>
	<p>Create an operational and strategy plan for the centre and determine the best governance structure</p>
	<p>Identify a group of buyers (processors, hotels, restaurants, markets) willing to buy from pilot centre and to establish a contract. (willing buyer - willing seller" approach with a right-of-first-refusal clause applicable to both parties)</p>
	<p>Align the pilot centres with the needs of the industry and design a pilot test: One centre buying from a select group of farmers (10 to 20) and selling to specific buyers (hotel, restaurants, processors, supermarket).</p>
	<p>Establishing commercial and market driven post harvest multipurpose centres. Define the potential role and type of services that could be provided to farmers, processors and buyers. Prioritize the type of services (Post Harvest services) that can be provided and identify the constraints</p>
	<p>Implement the services:</p> <p>Core services provided could include: Collection, cooling, grading sorting, packing, distribution and marketing of produce, manage hubbing and bulking of production outputs, consolidation of container services for small exporters. Plus finance and admin support services - the timeliness and accuracy of which are imperative in terms of farmer payments, transparency etc etc.</p> <p>Expanded services could include: training for farmers on quality and management, information collection and dissemination, Finance/credit lines and collateral provision, common sourcing of supplies</p> <p>Other areas of impact: Increase overall volume and integrate independent farmers, Empower farmer community bargaining skills, Maximize efficiency by working together and sourcing commonly, Share market and buyer demand information, Encourage first stage food processing in communities (spices, sun dry, stir fry, soup mixes, juices, etc.) under food safe, clean conditions, Better control cold chain operations and reduce quality loss risks, Plan the best route to markets, establish cold chain shared networks, Small farmers to source collectively and access inputs at cheaper cost</p>
	<p>To ensure cost effectiveness and operational success</p> <p>(a) Review existing studies including Agricultural Marketing Corporation (AMC) model and other regional and international models.</p> <p>(b) Identify existing facilities e.g. Packing houses that can be rehabilitated to provide the additional services. Identify current investments geared to delivering post harvesting centres e.g. CIDA project.</p>

<p>(c) Develop the operational specifications for the centre identifying the objectives, range of services, infrastructure, institutional support required, identify the roles and responsibilities of key stakeholders (government agencies e.g. RADA and buyers) etc.</p> <p>(d) Determine the best ownership structure for the centre giving farmer members primary consideration and give consideration to how the profits of the Centre will filter back to the farmers that supply the centre;</p> <p>(e) Develop TOR for the undertaking of a business plan/feasibility study for the centre. The TOR should include recommending management structure; minimum sales required to make it feasible and should be done in consultation with the MOA to ensure alignment with existing plans by the Ministry of Agriculture to create a packaging centre with multipurpose centre</p> <p>(f) Hold a consultation on the completed study with other donor agencies to determine if there is any scope for collaboration in setting up the centres.</p> <p>(g) Develop a project document including the source of funding for the implementation/construction of a model multi purpose centre.</p>
<p>Select most appropriate locations</p> <p>(a) Plot on a map the distribution of the major markets for fresh produce in Jamaica;</p> <p>(b) On said map plot most productive agricultural areas on the island and document the diversity of crops grown;</p> <p>(c) Use the last agricultural census to document the areas with the highest population of farmers;</p> <p>(d) Based on the above identify and prioritize the best options and number of locations requires;</p> <p>(e) Evaluate the three top sites and prioritize them all things being considered to determine the best site for the pilot project.</p>
<p>Piloting of centres (see (e) under cost effectiveness and operational success)</p> <p>(a) Undertake a detailed diagnostic study of the proposed geographical region in which the Multipurpose Centre is to be established to document and define it's agricultural activities {demographics of agricultural community, diversity of crops, acreages currently cultivated and potential lands for expansion, yields, current markets, levels of processing, existing infrastructure, existing technical and institutional support, inventory of possible Multipurpose Centre members etc.};</p> <p>(b) Encourage the establishment of large scale plantations and orchards to secure volume and quality of supply</p> <p>(c) Conduct supply chain analysis for the core industries identified in (a) above.</p> <p>(d) Conduct a social network analysis to identify the key individuals in the geographic region who the potential Multipurpose Centre members collaborate with, go to for advice etc. Draft Multipurpose Centre framework;</p> <p>(e) Conduct a SWOT analysis of the geographical region which will provide strategic guidance for the Multipurpose Centre strategy team as it prioritizes action plans for the Multipurpose Centre;</p> <p>(f) Select Multipurpose Centre strategy team, project manager and Multipurpose Centre champions who will with the potential Multipurpose Centre members develop a vision of what the Multipurpose Centre should be in the next 5 years.</p>
<p>Funding of Centre:</p> <p>Initial funding using donor grants and farmer shareholder contribution based on production to ensure "commitment and loyalty" toward his 'investment'.</p> <p>Explore available resources from government and donors & determine the best mechanism for funding the centre including: Set up and initial overdraft costs, sustainability and everyday operations and lower interest rates.</p> <p>Operational funding: explore funding through commissions from successful commercial operations and annual contribution by members and buyers including PMOs</p>
<p>Develop and implement packaging technologies and equipment to be shared by processors</p> <p>Explore common sourcing of packaging materials</p>

REINFORCE 'GOOD MANUFACTURING PRACTICES' AND FOOD SAFETY ACROSS THE SECTOR	<p>Information sharing Create a generic harmonized database of standards and regulations to provide information on product, market and company standards and distribute information on technologies & best practices for processing</p>
	<p>Design and deliver short term practical training programmes addressed to enterprises. Train the trainer programme.</p> <p>Food Safety Management Systems Sales and marketing: calculation of cost of goods (fixed costs, variable costs and contribution margin of each SKU), analysis of profit potential of the product portfolio, elaboration of a relevant marketing strategy and business plan Customer satisfaction: alignment of production to satisfy "expressed and implied customer needs" and establishment of a customer satisfaction index Collection and analysis of operational data in order to generate key performance indicators, monitoring operational activities. Technology: choice of the right technology and elaboration of better formulations and reduce transformation costs. Improvement of their processing ratio and production performance (increased volumes and quality, reduction of losses, reduction of energy consumption). Maintenance of equipment (preventive maintenance planning and stock holding of critical spare parts) Supply-chain: Improved sourcing to reduce cost of inputs</p>
	<p>Direct Support to processing Enterprises Select a group of processing enterprises according to markets targeted by the strategy and pilot direct support to enterprises to improve overall operations Conduct and audit of individual enterprises and together with management draft company-specific improvement plans Based on company specific improvement plans establish a commercially viable funding plan Implementation of company improvement activities under the supervision, coaching and assistance of BSJ, SRC, RADA and Ebony Park in compliance with local and international standards Conduct interim audit visits to firms and follow up of progress</p>
	<p>Select enterprises to participate on pilot based on :</p> <ul style="list-style-type: none"> - Attitude: Willingness of management to address problems inside the enterprise (supply-chain, cost of goods, technology, maintenance, etc.) as opposed to problems in their business environment (taxes, duties, etc.) - Commitment: Commitment of management to nominate and empower an implementation team, which will be working on a regular basis with the ITC and the SRC, Ebony Park and RADA support resources. - Size and image Size, turnover and image should be in the higher spectrum of SME classification; - Technology: Enterprises already active, or willing to invest/progress in implementing value addition and processing of prime interest to the entire sector should be given priority; - Sub-sector: The enterprise is already transforming a range of commodities, which are of prime interest for the sector strategy (high value, import substitution, export potential, revenue generation at field level, etc.) More than 50% of inputs processed are grown in Jamaica
REINFORCE BUSINESS MANAGEMENT CAPACITY	<p>Identify the need for management training using the ISO9001, ISO22000 and the ISO14001 Develop a list of existing institutions that provide sector specific training (including vocational training), education and capacity building in management Build management capacity in relevant areas</p>
	<p>Assess the quality and relevance of training programmes offered and establish linkages with institutions to do factory (training) visits</p>
	<p>Explore possibility to develop secondment and exchange policy across the region for in factory learning work experience</p>
	<p>Increase logistical and handling overall efficiency by creating awareness at all stages on the importance of delivery lead time and its impact on quality, value added and buyer trust.</p> <p>Provision of training in operations to smaller regional distributor and middlemen</p>

MARKET ACCESS AND COMPLIANCE	<p>Determine which standards /regulations apply to the specified target markets and products</p>
	<p>Establish collaboration with Scientific Research Council and Jamaica Bureau of Standards for awareness regarding quality, grading etc, and provisions of the Processed Food Act (1959) and other relevant acts .</p>
	<p>Recommend and promote Quality Standards/ Guidelines for existing products and establish standards for new products</p> <p>Draft proper manuals and develop training tools such as Visual aids / video Harmonize and standardize the norms and standards for quality and inspection</p> <p>Collate list of current testing / auditing services offered by existing state and private laboratories in food technology (organoleptics, analytical and micro-biology chemical, global gap, ISO 22000, HACCP) and quality & health testing throughout the region.</p>
	<p>Investigate auditing capacity in Jamaica and certification offer from existing state and private laboratories in food iv) technology and quality & health testing throughout the region.</p> <p>Reinforce/increase testing capacities where needed and provide inputs support and coaching to laboratories to increase international accreditation levels.</p>
ENHANCE RESEARCH & PRODUCT DEVELOPMENT	<p>i) Identify which and where available agricultural crops that are not fully put to value ii) Prioritize based on market and production potential iii) Create/select an industry specific entity that would (a) identify market opportunities or potential market niches and development activities iv)Identify activities that will support value-added products and develop new products.</p>

Objective 6: Provide access to low-cost, high-value planting material (seeds, seedlings) for fruits, vegetables, herbs & spices and roots & tubers to 95% of the 220,000 farmers by 2015 and enhance agronomic support

Objective 6 is about maximising production potential by improving plant material development and enhancing agronomic support.

An efficient horticultural sector can only be established with an efficient and enabling foundation such as the availability of quality planting material and the efficiency of agronomic extension support. This objective will achieve the streamlining and professionalization of RADA as well as the efficiency in plan material production.

Alongside Objective 3 this is an urgent priority which will in all probability take the longest period to implement fully and successfully. Urgency is imperative, and regional and international technical support and co-operation is vital and will potentially shorten the processes.

An audit of all agriculturally productive regions on the island must be undertaken to establish optimum production capacity and capability by crop by area. This data may then be matched against specific crop cultivars and the appropriate planting material acquired.

In the short term and within the inaugural project there must be an element of plant material production, development, and testing. However, in the medium to long term with the required research and trials locally, regionally, and internationally plant material, and copyright cultivar development and production should form part of the national Jamaican agricultural strategy.

Regulatory framework and enforcement mechanisms relevant to the production, importation and exportation of seeds will be developed.

Below the Sub-objectives of objective 6 and their anticipated outcomes

#	Sub-Objective	Anticipated outputs
6.1	ALIGN RADA SERVICES AND SUPPORT WITH STRATEGY	RADA becomes a competitive service provider and supports achieve the strategy mission statement. More availability of quality production by the end of 2011.
6.2	IDENTIFY PRODUCTION CONSTRAINTS, CHALLENGES AND POTENTIAL IN JAMAICA'S PRODUCTION REGIONS	Stakeholders and policymakers clearly understand the constraints and opportunities per productive region. Decision making and policy recommendation is aligned.
6.3	OVERCOME PRODUCTION CONSTRAINTS TO MEET MARKET OPPORTUNITIES	Quality, Consistency and Quantity market requirements are met and domestic market is fully supplied resulting in decrease in fresh and processed imports.
6.4	PRODUCTION AND POST-HARVEST TRIALS AND COMMERCIAL EXPLOITATION	Successful production and post harvest Trials are replicated achieving quality planting material for 95% of farmers by 2015.
6.5	DEVELOP A NATIONAL PLANTING MATERIAL PROGRAMME	95% of Jamaican farmers have access to quality planting material by the end of 2015.

Below the Sub-objectives of objective 6 and their detailed activities

<p>STRENGTHEN RADA EXTENSION SERVICES</p>	<p>Using stakeholder participatory value chain approach to evaluate RADA performance and determine gaps.</p> <p>1. Improve management of RADA and professionalize staff.</p> <p>Develop a more commercially driven methodology for motivating RADA extension officers and increase accountability of their actions. Reinforce selection mechanism and increase capacity and numbers of RADA extension officers</p> <p>2. Continuous train and certification of RADA officers and other government agency officials on: How to work with and respond to demands from farmers, businesses and exporters on compliance with market and buyer requirements Organization and management of small farmer groups Disaster management and mitigation measures New and modern technologies Project and resource management Develop and implement agricultural internship programs</p> <p>3. Provide appropriate technology to RADA Implement the Agri-Business Information System (ABIS). Develop visual training tools such as videos and recordings to make training more effective Develop innovative extension methodologies for effective transfer of technology (e.g. farmer field school, web-based extension services)</p>
<p>IDENTIFY PRODUCTION CONSTRAINTS, CHALLENGES AND POTENTIAL IN JAMAICA'S PRODUCTION REGIONS</p>	<p>1. Update micro-climatic study in zones to incorporate soils in their current stage, rainfall, access to irrigation water, altitude and assess their suitability in terms of potential yield, volume and production cost for specific crops/cropping patterns.</p> <p>2. Identify constraints, notably soil contamination, water and labor shortages, in the above zones as to why potential yields, volumes or production costs cannot actually be reached; make propose solutions for lifting these constraints.</p> <p>3. Compare current production vs. climatic suitability in the above zones as against historic and traditional production trends.</p> <p>4. Zone productive regions with regards to optimizing crop yields, production and productivity.</p> <hr/> <p>Explore the potential of hill-top rainfall harvesting and gravity-fed irrigation schemes</p>
<p>OVERCOME PRODUCTION CONSTRAINTS TO MEET MARKET OPPORTUNITIES</p>	<p>Apply improved cultural practices relevant to local conditions and appropriate technological advances to meet market requirements in terms of required quality, volumes, delivery timing and price.</p>
<p>PRODUCTION AND POST-HARVEST TRIALS AND COMMERCIAL EXPLOITATION</p>	<p>Increase availability of improved planting material (establish tissue culture labs, nurseries for seedlings).</p> <hr/> <p>1. Match product and cultivar to specific local conditions with maximum management input and benchmarks.</p> <p>2. Select progressive farmers in each of the above defined zones willing to set up demonstration fields to carry out production trials with new cultural practices and improved planting material/cultivars</p> <p>3. Develop incentives to encourage farmers to participate in production trials</p> <hr/> <p>Provide training in post-harvest practices, like solar drying, grading and sorting.</p> <hr/> <p>Establish and/or re-invigorate government and private laboratory services for soil, leaf, fertiliser and chemical analyses with access to regional and/or international service providers as secondary cross reference and back-up</p>

DEVELOP A NATIONAL PLANTING MATERIAL PROGRAMME	<p>1. Develop a seed law</p> <p>1.1. Provide the regulatory framework and enforcement mechanism relevant to the production, importation and exportation of seed.</p> <p>Establish uniform seed quality standards (including seed health) for locally produced and imported seed.</p>
	<p>1. Preparation of a National Seed Plan identifying the short, medium and long term goals and objectives and the methodologies to achieve same. 1.1 Establishment of a National Seed Programme</p> <p>1.2. Establish and improve supervision of the national gene bank system; ensure collections of important crop species to safeguard against natural disasters.</p>
	<p>1.3. Increase capacity of government and private seed suppliers for rapid multiplication, distribution and commercialization.</p>
	<p>1. Capacity building and institutional strengthening</p> <p>1.1. Strengthen the Centre of Excellence to allow for the involvement and participation of farmers, seed processors to generate greater collaboration among research institutions, extension services, farmers, agro-chemical companies, seed producers and buyers.</p> <p>1.2. Train seed growers and encourage establishment of private seed processing companies.</p>
	<p>Establishment of a dedicated fund for agricultural research and development to increase productivity.</p>
	<p>Research and Development</p> <p>1. Targeted and focused research to provide improved varieties and conservation of important crop species.</p> <p>2. The availability of certified high quality planting material to all stakeholders.</p>

RESOURCES NEEDED and timeframe

In order to fully implement all the activities under the current strategy and implementation plan, a revolving 3-year budget has been prepared by the Coordinating Committee. The budget and the detail of costing per activity can be consulted in the Annex 1.

The total amount of funding needed accounts for **1.41** Billion JMD Dollars or the equivalent of 16 Million US Dollars (March 2010 exchange rate). The table below provides the detail per objective and year.

	Yr1	Yr2	Yr3	Total
Objective 1	190,740,000	182,230,000	181,000,000	553,970,000
Objective 2	107,840,000	67,930,000	60,930,000	236,700,000
Objective 3	28,000,000	14,000,000	14,000,000	56,000,000
Objective 4	45,800,000	24,000,000	23,000,000	92,800,000
Objective 5	66,093,000	64,055,000	64,055,000	194,203,000
Objective 6	152,615,000	65,040,000	63,000,000	280,655,000
Total	563,088,000	403,255,000	405,985,000	1,414,328,000

As explained in the existing resources chapter, some resources are already available through existing development activities and projects.

Implementation Framework

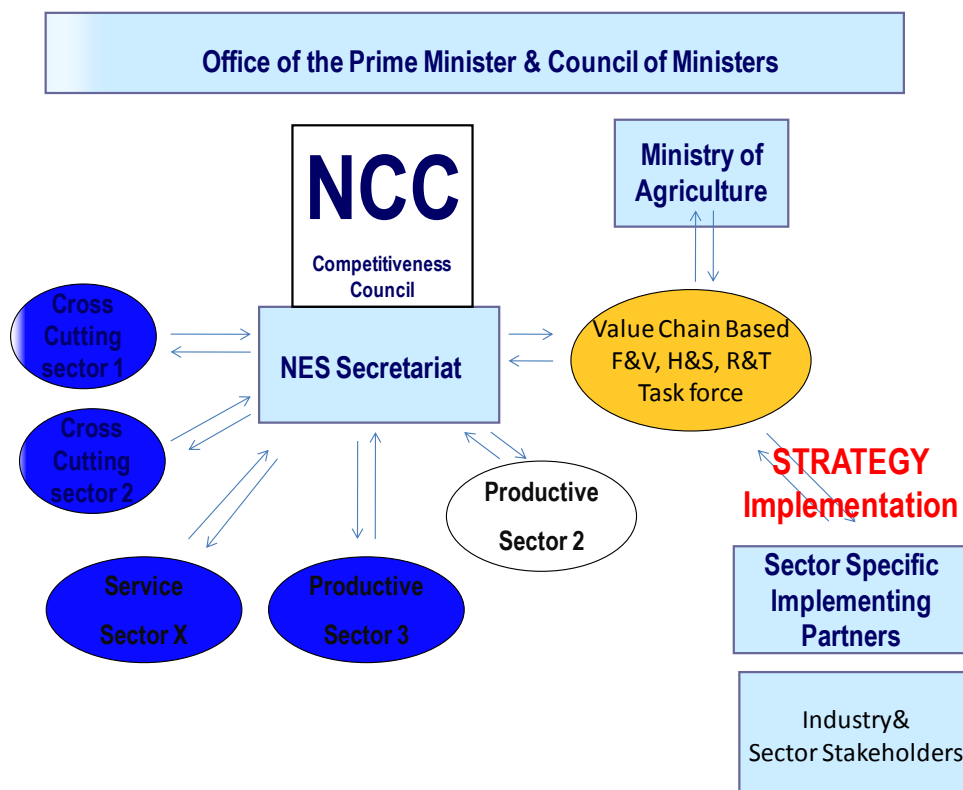
In the strategy development workshops the Sector stakeholders (including support institutions, Government, farmers and processors) have decided that for successful implementation and impact the strategy implementation framework needed to follow the same value chain participatory based principles used in the design phase.

The fact that the implementation of many of the strategy objectives and activities require close collaboration among different Ministries, agencies, implementing partners and sector stakeholders also represents a major challenge.

In subsequent consultations with the Strategy Development coordinating Committee, the Ministry of Agriculture and Fisheries, the Ministry of Industry and Commerce and the Ministry of Finance the need to align all the various ongoing initiatives and to have a legitimated body with authority was determined as the upmost priority.

The most relevant cross-cutting initiatives are the Economic Commission chaired by the office of the Prime Minister and the National Competitiveness Council which includes the National Export Strategy.

The diagram below shows the recommended implementation framework structure. The underlying principle being a centralised secretariat providing coordination and logistical support to a series of sub-sector cross industry units or task force with the mandate of managing the implementation and development of the different productive, service and cross-cutting sectors in the country.



In the case of the Agricultural sub-sectors covered in this strategy (Fruits and Vegetables, Herbs and Spices, Roots and Tubers all of them both fresh and processed) the sector stakeholders and

coordinating committee have recommended that implementation is directly managed by a task force composed of the following institutions:

Ministry of Agriculture and Fisheries	Derrick Deslandes Marc Panton Don. McGlashan
Christiana Potatoe Growers Association	Alvin Muray
Private Sector Representative (Farmer)	To be nominated
Jampro / JTI	Dana Morris
Ministry of Finance	Dr. Wayne Henry
Scientific Research Council	Dr. Audia Barnett
Jamaica Exporters Association	Dr. Vitus Evans
Jamaica Agro-Processors Association	Michael Ming

This task force represented by the above institutions and by the orange bugle in the diagram will be mandated to interact with implementing partners, Government, sector stakeholders, financial institutions, buyers and with the cross-cutting sector tasks forces to achieve the implementation of the present strategy. It is envisaged that periodical reporting is done to the office of the prime minister through the Secretariat and the Ministry of Agriculture and Fisheries.

Progress Monitoring and Reporting Schedule

The task force and the NES secretariat have the responsibility to coordinate and to monitor the strategy's implementation. The monitoring of the working plan progress will follow the schedule below:

Phase 1 2010-2012

Three monthly interim progress evaluations and an executive review should be made during the first and second year to ascertain if any slippage in delivery is taking place.

Phase 2 2012-2015

For Phase 2, the task force will update the implementation plan for the final three years. This will be done after the completion of the review of the key market indicators, the business environment and the effectiveness of activities implemented in Phase 1.

End of strategy document.

Appendices (To be included shortly)

Appendix 1: Implementation Plans

Appendix 2: Stakeholder/Participant Listing

Appendix 3: Existing Projects & Resources available

Appendix 4: MDG TABLE Progress towards MDGs and targets

Appendix 5: Priority sub-objectives

Appendix 6: Top 20 by US\$ Non Traditional Fresh Produce export value

Appendix 7: VC Diagnosis Roots & Tubers

Appendix 8 VC Diagnosis Fruits & Vegetables; Herbs & Spices

Appendix 9: 2008 Trade data – Agri imports from Hotels