





# All ACP Commodities Programme Pacific Region

# Fruit & Vegetables SECTOR STRATEGY for SAMOA

July 2009 Apia, Samoa





#### Note to the readers and purpose of this document

As part of the EU funded All ACP Agriculture Commodities Programme (AAACP) for the Pacific Region, the Ministry of Agriculture of Samoa and the sector stakeholders in collaboration with the International Trade Centre (ITC) in Geneva, Switzerland, have undertaken the development of a Comprehensive Sector Strategy for Fruits and Vegetables.

The emphasis on Fruit and Vegetables came out of the EU/AAACP Pacific Kick-Off Workshop held in Samoa in February 2008, where areas and sectors of priority were identified to implement sustainable commodity strategies.

Representatives from the agricultural sectors in the Pacific countries including farmers, processors, retailers, government officials and regional institutions selected Fruits and Vegetables for Samoa based on factors such as market demand and potential, developmental impact, existing development initiatives already focusing on sectors and motivation of stakeholders.

The Sector Strategy for F&V was developed by a stakeholder run Coordinating Committee and by the Ministry of Agriculture. This was done by using ITC's market-led participatory approach. It focuses on domestic, regional and international market and social development objectives and is aligned to existing initiatives such as the Strategic Development of Samoa or the National Export Strategy for Samoa. The F&V will also be an integral part of the Agricultural Sector Plan currently being developed by the Ministry of Agriculture.

The emphasis is on revitalising the fruits and vegetable industry through the value-chain approach thus targeting farmers, private sector enterprises, processors, buyers, policy makers and support institutions.

Under the ACP programme, Food and Agriculture Organisation of the United Nations (FAO) based in Rome provided support to ITC and the sector stakeholders for the development of the current strategy. The World Bank also contributed with information and support form specialist.

The purpose of this document is to guide and support the development of the Fruit and Vegetable industry by providing a framework and a plan and by articulating value chain actors, private sector, existing resources, development activities and donor support.

This document has not been formally edited and is intended to provide an overview of the Fruit and Vegetable Sector Strategy for Samoa. The implementation plans and work programme have been submitted to Cabinet on March 2009.

#### **Acknowledgements**

A full list of contributory participants is included in Appendix 2. In addition, the Government of Samoa wishes to thank the following institutions and individuals

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## **VISION** for the Fruit and Vegetable Sector

A competitive and sustainable sector growing the future for a healthy and wealthy Samoa

## **MISSION**

To establish the fruit and vegetable sector as a major economic vehicle in achieving the objectives of the Samoa Development Strategy by 2012 and enabling it's Millennium Development Goals by 2020

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#### **Executive Summary**

#### **Impact and Beneficiaries:**

The 2005 agricultural survey identified 17,829 agriculturally active households in Samoa, as those who are involved in agriculture of some sort. This represents 77% of the total households surveyed and is the basis for the opening assumption that over 50,000 people and their dependants rely in some measure on the productivity of the agriculture sector. In terms of impact, this implies that at least one third of the population derives at least part of their income from farming.

The economic benefits of a successful fruit and vegetable sector are obvious and all Samoans will see their life style improved both socially and materially through the successful development of the fruit and vegetable sector.

#### **Global and Sector Situation:**

Samoa is not exempt from the current global economic environment. Overall consumption is forecast to drop by 4.1% in 2009 due to falls in earned incomes including a drop in remittances resulting from the global recession, weak employment in New Zealand and Australia, workforce reduction in the tuna cannery industry in American Samoa and the automotive wire factory in Apia<sup>1</sup>.

In light of the expected impact of the above forecasts, the fruit and vegetable sector takes on a renewed importance as a key economic driver and in ensuring ongoing food and nutritional security.

Economic reforms during the 1990's placed Samoa among the fastest growing Pacific Island economies. Currently, the Samoan economy is experiencing an increasing balance of payments deficit as a result of a liquidity squeeze and reduced growth. Samoa's economic performance remains highly vulnerable to economic shocks and natural disasters. Additionally, private sector growth is restricted, constrained by a narrow resource base, high inflation, limited infrastructure, a shortage of investment, isolation, dependence on fuel imports, a lack of skilled labour and a small domestic market.

Samoa's primary industries are an important contributor to the national economy, accounting for over 50% of total exports and contributing to 10 % of GDP. With 77% of the country's households being agriculturally active, the primary industries are also very important for national food security and are the foundation of traditional community life.

The Strategy for the Development of Samoa (SDS) is the overarching multi-year plan (2009-2015) for the country based on the long-term vision of 'improved quality of life for all'. Agricultural and rural development figures prominently in the SDSs<sup>2</sup>.

The fruit and vegetable sector offers a diverse range of produce to develop a stronger fresh and processed food industry that shall contribute significantly in positioning Samoa as the leading economy in the Pacific.

http://www.mof.gov.ws/uploads/budget\_address\_2009-2010.pdf

<sup>&</sup>lt;sup>2</sup> The ADB estimated that in 2004 20% of the population was below the Basic Needs Poverty Line and 9% below the Food Poverty Line, and that 6% lived on less than US\$1.0 per day. Of the 34,000 living below the Basic Needs Poverty Line 73% were found in rural areas.

#### The Strategy response and objectives:

This strategy is a comprehensive way to address critical factors that impact on the development of the Samoan fruit and vegetable sector. It identifies target markets and associated value chain issues that impede efficiency and growth. In order to reduce the gap in performance, prioritised response activities have been developed and categorized into seven objectives.

The seven key objectives are:

- 1. Improve coordination in the sector to successfully implement the Fruit and Vegetable Strategy
- 2. Improve market intelligence, promotion and dissemination across the whole value chain
- 3. Build a supply sub sector that can guarantee consistent quality and supply of fresh fruit and vegetables
- 4. Build a sector that is well trained and supported by a comprehensive and properly executed capability plan
- 5. Improve financial situation of sector farmers and enterprises
- 6. Promote Integrated Management of resources to ensure sustainability of the fruit and vegetable sector
- 7. Strengthen Samoa Association for Manufacturers and Exporters (SAME) to provide services that will increase returns and overall value addition for sector

#### The target Markets:

The strategy covers the development of the domestic and export markets to create demand to meet increased supply that will become available as a result of the actions that result from the activity plans.

As a first priority, target market segments include local hotels, supermarkets and restaurants particularly for crops and products that are currently being imported but could be produced locally.

The 2009 market demand survey that was prepared by USP as an input to the strategy workshop 1 clearly identified that over 80% of hotels and restaurants surveyed will stop buying imported product if locally produced competitively priced, similar quality alternatives are made available.

Additionally, niche exports to the regional markets, and the Pacific Rim are key to ensuring long-term sustainability and commercial viability of the sector. Development of an export sector will be achievable based on a more stable domestic market. The main areas of focus for exports are Organic fruits and vegetables and specialty produce such as tonic juices.

The timeframe foresees strategy implementation in five years 2009- 2014. It is expected that it will create a platform for future growth in the sector beyond the period of the plan.

#### **Implementation of key activities**

The inconsistency of supply, quality, volume and price variations of fruit and vegetables is the reason for the lack of growth and local consumption in the fruit and vegetable supply chain.

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.

As decided in the stakeholder workshops priority has been given to developing a value chain that shall be based on consistent and quality fruit and vegetables supplied into the market through a pilot grading and quality centre that will provide logistical (pick up, post harvest handling, grading, sorting, delivery) services to farmers and buyers and in turn provide additional support services such as finance, training and agronomic support.

#### **Expected outcomes**

If the F&V sector strategy is implemented it is anticipated that the overall sector contribution to GDP will increase to approximately 10% over the next 5 years.

However its impact on MDG's will be substantially greater because the economic impact will be at the rural and subsistence level.<sup>3</sup>

#### The Strategy Management Framework

The Fruit and Vegetable Strategy Development Coordinating Committee was appointed by stakeholders and is composed by representatives from the value chain including farmers, processors, and tourism industry, NGO's and the Ministries of Agriculture and Finance.

The Coordinating Committee has been responsible for the development of the strategy and has articulated communications with stakeholders, Government Authorities and Implementing Partners. In March 2009 Cabinet has confirmed the role of the committee in managing implementation and monitoring progress.

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<sup>&</sup>lt;sup>3</sup> The impact on MDG's has been estimated and categorized for each of the relevant activities in the implementation plan and can be consulted in the Strategy Document.

#### Message from the Ministry of Agriculture

Agricultural development continues to be a key focus area for the Strategy of the Development of Samoa (SDS) for 2005-2008 and 2008-2012 and the Millennium Development Goals (MDG's). The Development of the Fruit and Vegetable Sector Strategy is therefore an achieved Milestone as it provides direction to the Ministry and the private sector in accelerating economic growth and sustained macroeconomic stability.

In order for Agriculture to grow in a sustainable manner, there is a need for an increased emphasis on commercial production with associated value addition and well-managed supply chains. Such a concept is fully recognized in this Strategy.

At present, there is a substantial amount of unused arable land that is available for cultivation. Somewhere between 160,000 and 200,000 hectares of Samoa's total land area is assessed as suitable for agriculture and the 1999 Agriculture Census indicates that only about 53,400 hectares (including fallow land) were in use with low levels of productivity. The latter can be improved with numerous technologies and agronomic practices that are available to farmers.

The Ministry of Agriculture and Fisheries (MAF) is to provide full support in the implementation of the activities in partnership with the Private sector and the Coordinating Committee.

#### **Message from the International Trade Centre**

The EU funded All ACP Agricultural Commodities Programme was launched in the Pacific in a Regional Kick-Off Workshop held in Samoa in February 2008. Less than a year later, more than 120 Fruit and Vegetable sector stakeholders in cooperation with the Government of Samoa accomplished the development of a comprehensive market led strategy and implementation plan.

The International Trade Centre (ITC) wishes to acknowledge and commend all the effort put into the development of this strategy and implementation plan. The process has already begun to show sprouts particularly in the area of fostering private-public partnerships and in achieving improved articulation and organisation of value chain actors through the Coordinating Committee.

Beneficiaries have been included from the design phase and have directly interacted with the ACP Programme Implementing Partners in determining priority activities and delivery mechanisms. Furthermore, the strategy has also enabled stronger coordination and linkages with regional organisations and other donor bodies outside of the ACP Programme but most important the strategy is actually responding to market potential and will increase overall sector performance.

The Coordinating Committee presented the strategy outputs to Honourable Tuilaepa Prime Minister and Cabinet members on 18<sup>th</sup> March 2009 and on the official launch event hold in July 9<sup>th</sup> 2009. This also reflects success in securing high-level support and in addressing the crosscutting needs of the strategy.

The Challenge ahead is to successfully implement and coordinate of activities is the challenge ahead to ensure a meaningful impact in the development of the farming community villages as well as Samoan industry. The strategy and implementation plan developed by Samoa is a solid tool that will allow the Coordinating Committee and Government to do so.

#### Purpose of the Strategy and time frame

The strategy has been designed based on current and future market potential using the International Trade Centre's Participatory methodology. Value chain Diagnosis against market and buyer requirements has been the basis to design response activities to improve overall sector performance.

The Strategy has three main overall objectives, targeting productive, social and health areas.

- 1. To enable the sector to become a more significant contributor to the Samoan economy by better capitalizing on existing and future market opportunities and attracting direct investment
- 2. To articulate and implement value chain actors to address the main issues and challenges faced by the sector in order to respond to market requirements
- 3. To engage and mobilise Government and Development and assistance partners for support in the implementation of the strategy.

The time frame for implementation of the strategy is of 5 years ending in 2014. 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.

#### Specific Goals, Impact and Beneficiaries

#### **Overall Development goal and beneficiaries**

The overall development goal is to improve the livelihood, health and economic situation of the Samoan people by raising the production and consumption levels of fruit and vegetables and its value added products. Annex 4 has classified each one of the Strategy objectives and relevant activities regarding its contribution to the Millennium Development Goals.

#### **Targets**

If the F&V sector strategy is implemented it is anticipated that the overall sector contribution to GDP will increase in approximately 10% over the next 5 years.

However its impact on MDG's will be substantially greater because the economic impact will be at the rural and subsistence level.<sup>4</sup>

The implementation of the sector strategy targets to improve delivery and quality of fruits and vegetables not only for the consumers who will benefit from a wider range choices on offer contributing to improvements to health and nutrition needs, but also the processors by increasing returns from exports and improved sustainable development options for Samoa.

<sup>&</sup>lt;sup>4</sup> The impact on MDG's has been estimated and categorized for each of the relevant activities in the implementation plan and can be consulted in the Strategy Document.

#### **Overall Targets**

Target	2009-2015
Increase in commercial production output	50%
Increase in number of commercial farmers	By 100% (Mixed cropping from 10,000 ha
and land utilisation	to 20,000ha)
Import substitution for fresh	85% of current imports of F&V produced
	locally (excluding produce that does not
	grow)
Increase in Processing activities	15% of total processed foods consumed
	produced locally
Increase in Exports	50 Million Tala (FOB)
Decrease of Lifestyle diseases (NCD's) by	Decrease of NCD's related to healthier
improved diets	eating by 2015

#### **Productive targets**

- Increased rural employment opportunities by 2014
- Improved village and rural economies through increased production and therefore gate and specific market sales by 2014
- 15% reduction in processed fruit and vegetable imports by 2014
- 25% reduction in fresh fruit and vegetable imports by 2014
- SAT\$50 million in fruit and vegetable export earning by 2014

#### **Social targets**

- Increase fruit and vegetable consumption by halving the percentage of people who at less than 5 of the combined servings from 33 to 15% within the next 3-5 years.
- Reduction in non-communicable diseases
- Reverse the current prevalent trend of obesity among the men (quadrupled) and women (doubled) in Samoa within the next 3-5 years.

#### **Anticipated Impact of strategy implementation**

A more productive fruit and vegetable sector and industry will enhance the economic well being of Samoa.

Farmers, their families and their villages will enjoy diversified income streams. Individually and collectively, they will be able to negotiate more effectively with both suppliers and their customers. They will be able to better plan and finance their planting and harvesting cycles. They will be better organised both individually and collectively to meet the challenges in providing their customers with what they want, when they want it.

Processors will benefit similarly. They will be better placed to source fruit and vegetables locally. They will be better able to specify grades of quality and delivery schedules. They will be able to plan their inputs and resource needs, as well as access to funding.

Buyers will benefit from being able to plan their activities and promotions around a more secure supply of fruit and vegetables. The 2009 market demand survey that was prepared by USP as an input to the strategy workshop 1 clearly identified that over 80% of hotels and restaurants surveyed would stop buying imported product if a satisfactory locally produced competitively priced alternatives were made available.

The national economy will benefit through increased production in the sector due to at least 50% reduction of foreign exchange losses for sector products from import substitution. Increases in government revenue will additionally be sourced through taxation earnings with increased domestic employment using GST, employee, and company taxes from both farmers and secondary processors. Increased exports will also provide support in foreign reserve earnings.

Consumers will benefit economically from a regular, lower cost supply of fresh fruit and vegetables which will provide added health and social benefits.

#### **Social Benefits**

On a social level as returns to farmers improve every level of society that has an interest in agriculture will feel more secure and better able to plan for the future. Increasing value of property (e.g. fruit trees and taro plants) provides land holders a sense of security. Samoa has traditionally had a robust social structure that provides for community needs and protection. The ability of families to contribute resources to this system both sustains the system but helps ensure security for all within it.

Increased opportunities to earn cash in agriculture will also encourage young people to remain in the village further strengthening family and social structures and reducing the social pressures in town areas created by urban drift. Employment opportunities would also be diversified with work created in cultivation, harvesting and post-harvest activities, which expands the range of opportunities available to young people.

#### **Health Benefits**

These diseases are now the leading cause of death in Samoa as obesity rates have grown from 25.5% in 1978 to 67.5% in 2001, among the highest rates in the world. As a result, Government has identified health as one of its priority focus areas in the last two triennia covered by the SDS. The strengthening of health promotion and primordial prevention is also an important strategic area in the SDS 2008-2010'

Samoa is burdened by rapidly increasing levels of food and nutrition related diseases (including diabetes, hypertension, obesity, coronary heart disease), which impact negatively on the health system, families and the national economy.

The impact on the overall health of Samoans of increased regular consumption of fresh fruit and vegetables cannot be under-estimated. Campaigns to encourage increased daily intake of fruit and vegetables are under way all over the world. The Samoan government has already put in place programmes along these lines and this strategy will contribute strongly to the existing campaigns.

#### Sustainable land use

By ensuring appropriate agricultural technologies are utilised, the entire value chain will benefit due to sustainable land use. This will ensure higher crop yields over the long term, increasing farmer incomes and sustaining the value chain into the future.

# The current situation: F&V Sector Background<sup>5</sup>

#### **Snapshot of the Macro Situation**

Gross Domestic Product (GDP) has shown signs of contraction for the first time in over a 10-year period. Imports have slowed down resulting in a 15% downward revision of revenues expected for 2009/10. Import prices and inflation rates have continued to climb while re-manufactured exports have declined due to reduced demand in the auto industry in Australia.

Samoa's macroeconomic performance remains vulnerable to economic shocks and natural disasters. Continued growth in the economy will be linked to the continued development of the agricultural sector. Samoa remains heavily dependant on overseas development assistance (US\$30.8 million in 2004) and remittances (US\$248 million or 25 % GDP in 2005). Official GoS debt stood at US\$157 million in 2004 or 35% of GDP. Multilateral and bilateral loans account for over 90% of this debt.

Agriculture's contribution to GDP has decreased in recent years from 14.9% in 1995, to 6% in 2007. The ongoing decline of the agricultural sector's importance has been accompanied by a restructuring of the sector, as the coconut and taro sub-sectors are no longer as dominant as they were in the past.

The 40% of the population that lives in and around Apia generate 70% of the GDP thereby creating significant urban/rural disparity.

Agriculture still provides a livelihood to 77% of the population, and Samoa displays a high level of food security. Coverage of national food requirements however is decreasing and food imports are rising (rice, mutton flaps, chicken wings, eggs, etc.). The situation could be reversed since the country can produce a wide array of animal and plant food products. The degree of food self-sufficiency could be greatly increased given the national potential and that agriculture is one of the pillars of traditional community life.

The 2005 agricultural survey identified 17,829 agriculturally active households in Samoa, as those who are involved in agriculture of some sort. Other recent estimations account for 37000 smallholder farmers and 960 commercial farmers.

There is limited processing of fruit and vegetables in Samoa. Taro and banana chips are produced. As at March 2009, the main success of this sector is the export of Noni juice to Japan and the USA.

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<sup>&</sup>lt;sup>5</sup> Section developed using information available in the World Bank Mission Report submitted to Ministry of Agriculture in June 2009 and in the ITC / FAO preparatory information report submitted to sector stakeholders during workshop 1.

Significant amounts of fruit and vegetables are imported into Samoa. For the year 2007, according to ITC statistics, the value of imports of fresh and processed fruits and vegetables was approximately USD1.5 million. According to the Samoa Central Bank 2007 report, the imports of vegetables and fruits was just under SAT\$4 million and SAT 1.8 million, respectively.

Table 2: Brief Context on Global and national economy<sup>6</sup>

Land Area (km²): 2,820	Population (No.): 180,741 (2006)
	21% in Apia urban area
Density (inhabitants/km2): 65 (2004 estimate)	Rural Population (% of total population): 78
GDP (US\$ million): 532.0 (2006)	GDP per cap (US\$): 2,872 (2007)
Budget allocation agriculture (2008/09):	Primary Sector GDP (% of total GDP):
SAT12.37 million (US\$ 4.95 m)	11.4 % (2006)
% of Total Budget 1.8%	Ag 6.7 %

#### The Fruit and Vegetable sector situation

#### Land Use

Only 80,500 ha or about 28% of the total land mass is under regular agricultural or livestock production. An FAO funded GPS Mapping Study of Samoa completed in 2004 provides details on land use and gives the following distribution of the total land mass across land use categories:

- 53,000 ha or 18.6% is under (sole) plantation crops;
- 10,000 ha or 3.6% is under mixed cropping;
- 17,500 ha or 6.2% is classified as grassland;
- 192,000 ha or 68% is classified as forestry, secondary forestry or scrub
- 10,800 ha or only 3.2% has no agricultural potential being either urban land, barren land (lava) lakes or wetlands.

Annex 5 provides more details on the land use in Samoa.

#### **Agricultural Practices and Farming Systems**

Agriculture in Samoa is a smallholder activity, practiced using labour intensive technologies.

Farm size is typically less than 10 acres. Soils are of volcanic origin and generally very fertile. Farmers use a variety of mixed cropping techniques for ground crops (e.g., taro with other crops), ground crops in association with tree crops (e.g., taro under bananas), or 'stage' cropping of tree crops (typically cocoa under coconut); cattle raising is often integrated with tree crops (typically cattle grazing under coconuts trees).

The above practices combine with the ubiquitous presence of boulders and rocks due to past volcanic activity to hinder mechanization.

<sup>6</sup> Sources: SDS 2008-20012; Samoa Census of Population and Housing 2006; Samoa Budget Statement 2008/09; Asian Development Bank 2005. Key Indicators of Developing Asian and Pacific Countries (ADB); Central Bank of Samoa Bulletin, March 2008

The recent increase in the prices of agricultural chemicals and imported food items is encouraging the return of village communities to traditional ways of cultivating land and favouring the consumption of local vs. imported foodstuffs. This trend is an asset for organically certified agriculture that has great potential for expansion on niche markets overseas.

The downside is the availability and cost of labour. With young people migrating to Apia or overseas, and typically showing a lesser interest in farming activities, labour is becoming a constraint. The incentive for increasing agricultural productivity will be an adequate remuneration of labour in the context of the manual labor intensive technologies used.

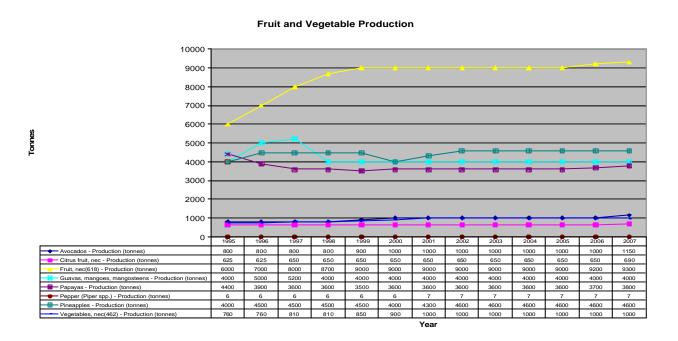
Of the 17,829 rural households, 14,000 households produce entirely or mainly for home consumption. An increasing fraction of farmers are becoming market oriented and about 2,500 households (11%) are deemed commercial or semi-commercial producers.

Farmers increasingly need to meet cash requirements to pay for basic services (e.g., electricity) and basic amenities and foodstuffs that they buy from the market. This has had a positive impact in getting farmers connected to the market. However, the fact that farmers can cover their cash needs through remittances gives them an incentive to market their surplus production only to the extent that prices cover their reservation wage (or opportunity cost of their labour in terms of other potential economic activities and/or leisure time).

#### **Production**

The production figures below from FAO's FAOSTAT are based on projections from the last agricultural census in 1999. While these projected figures did not foresee a great increase in production for both fruit and vegetables into the 2000's, what has been observed over the last 10 years challenges these projections.

Figure 1: Fruits and Vegetable Production from 1995-2007



Though production being sold may not have been consistently increasing over this period, Fugalei market sales nevertheless indicate some increase in production and in the diversity of varieties being produced.

Data on production yields and area harvested of fruits and vegetables in Samoa is limited. Information on fruit and vegetables grown and sold in the local market was not specifically measured in the 1999 census and 2002

and 2005 agricultural surveys. However, an agricultural census planned for November 2009 should provide more information specific to the sub sector.

There are systemic issues which impact on production, for example access to land for commercial farming. Traditional and cultural considerations can discourage land clearance for new plantings and this has contributed to a lack of product diversification until very recent times.

#### **Organic Production**

The organic agriculture sub sector has grown from zero in 1999 to 204 certified farms as of March 2009, with another 150 expected to enter the certification system by mid 2009. The number of suppliers for the pilot domestic "Organic Farmers Market" which happen last Friday of every month and a weekly "Organic Basket" delivery programme has also grown from zero in December 2007 to 36 farmers in May 2009.

Currently demand exceeds supply for the Farmers market and Basket service and these pilots are expected to expand as production increases. Exports crops and products include cocoa, coconut and coconut products, nonu and bananas. Unpublished data showed tangible impacts of this growth such as home improvements, people going back to the land instead of seeking paid employment in town, regular income, better management and use of remittances to focus on socio cultural commitments while income earned funds daily needs such as school fees, food and electricity.

#### Value addition

There is limited processing of fruit and vegetables in Samoa but high demand for processed products that is currently mainly satisfied through imports although there is scope for local production with minimum investment in some categories.

As of March 2009, the main success of this sector is the export of Nonu (*Morinda citrifolia*), juice to Japan and the USA. Exports peaked in 2005 at just above SAT\$8 million but have fallen to approximately half this value in 2008. As a measure of the success of this product, it represented 8% of total Samoan exports during the period from July 2008 to July 2009. Taro and banana chips are also produced. The strategy intends to increase availability of inputs enabling the further development of value added activities for the fruit and vegetable sector.

#### **Domestic market dynamics**

Samoa has grown fruit and vegetables since the islands were originally populated. There has been a stronger vegetable than fruit cultivation in the past. However, data show very clearly a dramatic decrease in the consumption of traditional foods, which include fruits and vegetables with the exception of taro and banana, which have experienced an increase of consumption from 1991 to 2003.

#### **Imports**

Significant amounts of fruit and vegetables are imported into Samoa. According to the Samoa Central Bank 2007 report, the imports of vegetables and fruits was just under SAT\$4 million and SAT 1.8 million,

<sup>&</sup>lt;sup>7</sup> Central Bank, National Export Strategy of Samoa

respectively. The substitution of imports by local production has been identified as a possible growth opportunity for the fruit and vegetable sector. Annex 7 and 8 provide values for the imports (2002-2008) by HS category.

Figure 2: Total vegetable imports into Samoa from 2002-2007

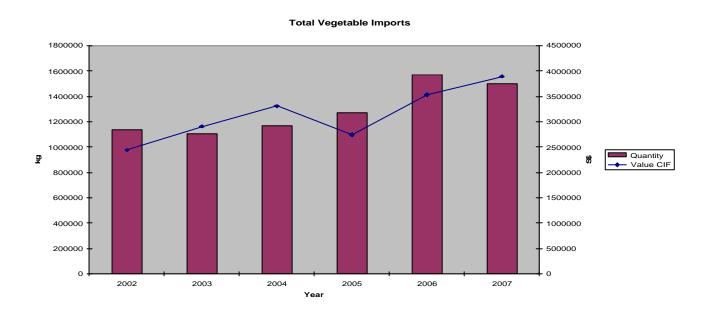
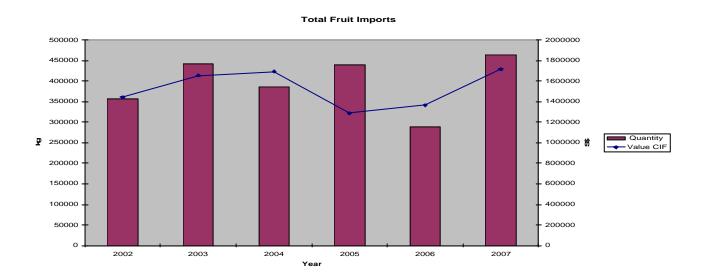


Figure 2: Total fruit imports into Samoa from 2002-2007



#### **Issues Affecting the Sector Value Chain**

Issues constraining development of the Fruit and Vegetable sector were identified<sup>8</sup> at all points of the value chain from production inputs and land resource issues through financing and marketing access to consumer education and preference. Annex 6 provides Value chain maps from the workshops.

Many of these issues are interlinked and interdependent and are related to the market and buyer requirements. Hence the need for a comprehensive and holistic strategy and a broad based cross sector approach to addressing these issues.

The issues that were identified fall into broad categories and are identified below.

- 1- Inefficient Trade Facilitation and high transport costs
- 2- Limited market access (distribution channels for fresh produce)
  Lack of market information: grade & standards, prices, buyer requirements, quantities, etc
  Low level of awareness and compliance for market standards
  No investment in branding and few marketing or promotion skills
- No policy alignment with private sector priorities and business objectives
   Low levels of farmer organisation
   No coordinated management of natural resources such as water, arable land and tourism use.
- 4- Ineffective agronomic support services
  Seed production and sourcing not linked to market variety requirements
  Inconsistent supply of raw material and inputs and fragmented farmer base
  No access to quality inputs and no packaging material produced on the island
- 5- Lack of access to Finance due to high interest rates and inability to use customary land as collateral Lack of adapted appropriate technologies at all levels (esp. packaging)

  Cultural systems defeating/discouraging entrepreneurial culture in rural communities

High cost of vegetables restricting the amount of vegetables included in the local diet despite awareness of contribution to healthy eating

Little awareness of healthy eating and nutrition.

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<sup>&</sup>lt;sup>8</sup> During the strategy development workshops, by the stakeholder run working groups and through the value chain analysis studies.

## Existing Projects and Resources Available<sup>9</sup>

Foreign technical assistance to the sector has been focused until now on improving fundamental supply side capabilities. The strategy aims to develop a stronger link between market and business development objectives and requirements and supply activities. Furthermore, developments programs relevant to the agricultural sector have acknowledged the need for institutional capacity building, key technical support, private sector promotion and environmental matters.

The level of support on the part of the donor community (approximately US\$1-2 million per annum in recent years) has been limited as compared with the health and education sectors (and to a lesser extent telecom) that have received the majority of external funding.

In recent years, the MAF received substantial support for capacity building (AusAID Institutional Strengthening Project, 2002-2007). Currently, the bulk of the support to the agricultural sector is through support to the small business development (ADB Small Business Development Project, EU Micro-Projects, NZAID and UNDP Private Sector Support Facility).

Both the Government of Samoa and donors have acknowledged the need for more coordination in interventions in the agricultural sector and expressed interest in a programmatic approach as framework for external aid in that sector.

External grants are projected to increase to \$152 m representing a rise of 37% over 2008/09. The Agriculture Sector is allocated a budget of approximately \$11.11 million Tala.

The Government is also consulting closely with the World Bank on a substantial investment of US \$18.0 million to revitalize Agriculture.

While it is difficult to specify an amount that is allocated specifically to fruits and vegetables, the nature of farming in Samoa would suggest that the approximate amount of development resources available to the Fruit and Vegetable Sector is approximately 10 million USD.

<sup>&</sup>lt;sup>9</sup> Section developed using information made available by the Ministry of Agriculture and extracted from the World Bank Mission Report submitted to MAF in June 2009 and from the ITC / FAO preparatory information report submitted to sector stakeholders during workshop 1

Below is a brief description of the donor programs in the agriculture sector. More details are provided in the annex 3: Past, current and proposed agricultural projects with external donors and implementing partners

- Ausaid: Agricultural Sector Development Strategy 2005-2007: Under the 2005-2007 SDS strategies to enhance the growth of the agricultural sector were identified and implemented. These strategies included: (i) enhancing food security; (ii) promoting commercial investment and diversification of crop production, including high value perishable products for both domestic market and exports; (iii) supporting commercial investment in livestock and fisheries production; (iv) promoting the sustainable use of forestry resources; and (v) strengthening of the Ministry of Agriculture's capacity for planning, budget management and Monitoring & Evaluation under the AUSAid supported Institutional Strengthening Program (ISP, 2002-2007).
- EU (i) support to export promotion of crops through the *High Temperature Fast Air* (HFTA) quarantine program (completed); (ii) Micro-projects (SR12 million, ongoing); multi-sector including and prominently agriculture production and agro-processing; and (iii) Implementation of the fruits and vegetables strategy, ongoing through the International Trade Centre (ITC) under the Agricultural Diversification for the African, Caribbean and Pacific countries (AAACP);
- **FAO**(i) country support under the regional food security program (\$170,000); (ii) TA to assist the Research and Development Institute (RDIS) for horticulture and food technology; (iii) Technical Cooperation Program (TCP to assist MAF in the preparation of the Agriculture Sector Re view and (v) telefood program.
- ADB: Small Business Development Project (US\$4.1, completed, emphasis is on rural sector enterprises;
- **NZAID** (NZ\$250,000) & UNDP (US\$95,000): Private Sector Support Facility (PSSF), with emphasis on agriculture commercial value chains;
- **GEF**: Small grant scheme (US\$400,000), community-based projects including organic farming activities.
- **SPC:** FACT project

#### The future for the F&V sector

#### **Target Markets**

The committee and sector stakeholders have reviewed current supply and demand patterns of both fresh and processed F&V products and identified the following areas listed below as targets for the strategy:

#### **Domestic market and Import Substitution**

Priority number one is related to import substitution particularly of fresh and processed fruits and vegetables. This would see improvements in the sustainable delivery of product and improved quality assurance. The current imports of fresh fruits and vegetables are about \$5,800,000 per annum. In addition there is a growing market as the Tourism sector has continued to grow in the current global environment. At present in the first 3 months of 2009 the market has expanded 27% over the same period during 2008.

Processors also need to reduce the reliance on processed food imports that can be viably and sustainably replaced by local equivalent produced products. This market accounts for 20% of total imports.

#### **Export**

Existing export markets need to have improved supply chains with stringent quality assurance processes to enable continued improvements in their niche market access. Fresh fruit and vegetable market access protocols have enabled development of markets for organic fair trade products with Europe and New Zealand. The Fair Trade market has grown by 70% in New Zealand under the period march 2008 to March 2009.

Exports of processed fruits and vegetables have increased over the second half of 2008 and have continued to grow sustainably in the first half of 2009. The growth potential for enhancing and developing this market has been addressed in this strategic plan in order to ensure the distribution of wealth down the value chain.

The processors are also pursuing diversification of processed products to enable sustainable development of the products and improved market linkages.

#### Market segments

Focus	Phase 1	Phase2
	2009-2011	2012-2014
Domestic market	Supermarkets, hotels, restaurants, school	
Fresh	canteens, markets, institutional catering	
Domestic market	Supermarkets, hotels, restaurants, school	
Processed	canteens, markets, institutional catering	
Exports Fresh	Tokelau, American Samoa, Cook Island,	New Zealand & USA,
	Australia, New Zealand (Samoan	Australia (general),
	community)	
Processed exports	USA (incl American Samoa), Japan,	New Zealand, USA
	Tokelau, Tonga, Fiji, Australia, New	Australia, EU
	Zealand (Samoan community)	

In consultation with the local buyers and consumers the following list of products was established for the local markets. The markets were also separated in terms of volumes required and modes of delivery. Some of these products are currently the focus of commodity chain studies to further ensure sustainability of supplies.

During the strategy development workshops and follow up meetings the importers and wholesalers also identified the products having high potential for processing in Samoa including the quantities needed.

#### **Potential product opportunities**

Focus	Phase 1 2009-2012	Phase 2 2013-2014
Domestic market Fresh	Eggplant, cabbages, citrus, potatoes, lettuce, herbs, tomatoes, capsicums, mangos, pineapples, papaya, cucumber, banana, breadfruit	Onions, carrots, garlic, apples, oranges, celery, mangosteen
Domestic market Processed	Chutneys, Honey, Jams, Snack foods & Chips, Dried fruit,	Fruit Juices Frozen potatoes and vegetables, dried vegetables, Bottled & Canned fruit, sauces, Chilli & Tomato Sauce
Exports Fresh	Organic (Bananas, Coffee, cocoa, coconut), cabbages, tomatoes, lettuce, cucumbers, capsicums, limes, pomelo, grapefruits	Organic and exotic high value fruit, organic herbs
Processed exports	Noni Juice, coconut oil, coconut water, Snack foods & chips, fruits (banana, pineapple), flour	Organic line extensions, sauces, canned and frozen fruits and vegetables dried fruits, desiccated coconut, vacuum pack taro and yams

The strategy covers a period of five years and is divided into 2 phases:

#### Phase 1: 2009-2011

This first phase will end at the same time as the completion of the current SDS plan. This phase will commence with a major demand (buyer quantities and requirements) and supply (availability of produce) information-gathering exercise that will set the strategy in motion. It will also identify systemic and sectoral fundamentals such as access to land, water and transport.

The existing business will be complemented by increased fresh and processed exports to Pacific neighbours. A thorough review of the strategy is foreseen for the end of phase one.

#### Phase 2: 2012-2014

This phase will see a stronger focus on expansion to new markets, in particular niche or specialty in New Zealand and Australia. This phase will see a consolidation of the activities from the first phase.

#### Strategic Objectives and interventions

In order to respond to the demands and needs of the identified markets, the implementation plan included in a later section in this document has identified strategies, concrete actions and their corresponding implementing partners.

This section will provide a brief overview of each of the 7 objectives in the strategy by describing each of the sub-objectives and detailed activities in them. It is important to note that in this section the objectives, sub-objectives and activities and are shown in a logical order but not in a priority order.

The Annex 1 shows the activities in the order of priority together with their estimated cost for implementation (a three-year rolling budget developed).

# Objective 1: Improve coordination in the sector to successfully implement the F&V Strategy

Currently, the fruit and vegetable sector is dependent on a series of individual spheres that often are not well related to each other and thus the need for improved coordination across Ministries, development agencies and other stakeholders.

The first task will be to communicate the way forward to stakeholders and implementing partners. It is expected that government policy will be aligned across government agencies as well as the private sector. The private sector will have greater input into the setting of government policy to create better enabling environment, to allow the strategy to achieve its goals. The strategy implementation will be closely monitored at all stages.

Sub Objectives in the Implementation plan:	Anticipated results from development activities	
<ul> <li>Communication to stakeholders</li> </ul>	<ul> <li>The majority of individual farmers can articulate why and how they have changed their working practices by end 2010</li> </ul>	
<ul> <li>Set up monitoring and implementation framework for the Strategy</li> </ul>	<ul> <li>A framework is in place and working by January 2010, respected by major donors and government agencies as a mechanism for monitoring and implementation coordination</li> </ul>	

Policy coherence and linkages to other initiatives	The strategy is used as a basis to ensure coherence between policy design, social & economic development and market aspirations of the private sector at least between 2009 and 2012.
Capacity building for policy design and implementation	National fruit & vegetable chain stakeholders and donors use the strategy as an input to national and regional development planning and policy-making – recognised by adequate government and donor backing at least between 2009 and 2012.

# Activities under Objective 1 listed below

	1.2	After strategy endorsement by cabinet and launch, organise 2 stakeholder meetings in Upolu and in
ion to ers		Savaii to encourage ownership and communicate objectives to farmer communities
Communication to stakeholders	1.3	Select potential opportunities for presenting strategy in existing government forums (e.g. World Food Day, MWCD meetings, Environment Week, Measina forum) to successfully coordinate and promote the implementation of activities
Cor		Plan for periodical update of strategy implementation progress to stakeholders using media and communication tools such as brochures, DVD, internet, radio, tv)
ig and in the		Create or adopt an implementation and monitoring framework to enable Coordinating Committee to evaluate and follow up on implementation of the strategy and make required changes in light of the evolving sector
Set up a monitoring and implementation framework for the strategy		In cooperation with the Aid Coordinating Unit of MoF and MAF, develop an operative budget for the implementation of the strategy and validate list of existing and potential donors and partners for implementation
Set up a imple frame s		Table progress reports on the implementation of the Fruit and Vegetable Sector Strategy and highlight key issues that require cross ministerial support and involvement at the Trade, Commerce and Industry Development Board (TCI) meetings and/or Cabinet Development Committee on a regular basis
er		F&V coordinating committee to engage Ministry CEO's (MCIL, Health, MAF, MOF, MNREM) to achieve and sustain cross ministerial support and involvement
age to oth	1.9	Analyze current legislations, policies, regulations, and any strategies that impinge upon Fruit & Vegetable Sector and determine areas of conflict and potential synergies. (national, regional, international)
d link /es		Investigate alternative formulations (if need be) that will contribute positively to the success of the F&V strategy implementation.
ince and lii initiatives	1.10	Align F&V strategy with the overall strategy for the development of Samoa (SDS)
Policy Coherence and linkage to other initiatives		Ensure link between the Fruit & Vegetable Sector Strategy with the Agricultural development plan, the National Export Strategy and SROS Plan, Health Sector Plan, MWCSD Sector Plan, Water Sector Plan and MNRE Cooperate Plan.
Policy		Ensure sector priorities are represented in the Improving Policy Development and Coordination Reform Program (Ref: PO44)
		Strengthen mechanisms for dialogue with private sector and other governments in the region for integration into bilateral and regional policy processes related to fruit and vegetable sector
Cap acity build ing	1.12	Conduct a needs assessment on the requirements regarding capacity building to formulate and implement policy measures for the sector

1.13 Conduct tailored national level training to strengthen capacity of government officials and private sector to contribute to policy formulation

Link capacity building to the use of PITIC national and regional tools and services (trade commissioners, SOPAC,SPC, USP, PIFS etc)

# Objective 2: Improve market intelligence and dissemination across the whole value chain

The type of information needed has been identified through value chain studies and market research. Data collection and analysis are crucial to build an accessible pool of knowledge for the fruit and vegetable sector.

The information has to be made 'user friendly' and readily available by more traditional means as well as electronically. This sharing of information will include promotional campaigns both at international and domestic levels. In Samoa the objective is to reinforce the current work by the Ministry of Health through a campaign to increase the consumption of fruit and vegetables, which will improve the dietary habits of the nation.

#### **Sub Objectives:**

- Determine data needs
- Improve data collection and analysis
- Improve information dissemination
- Promotion of Fruits and Vegetables

	2.1	Map the Value Chain for representative fruits and vegetables (including processed product chains) to determine key market intelligence requirements
		Check past census/surveys for unused/unreported data and revisit existing databases
Determine data needs		Potential information requirements: -Market analysis and buyer requirements (identification of market potential and returns); types of varieties and product forms, consumer taste, (eg seasonal requirements, quality standards, post harvest standards & quarantine requirements) -Supply capacity, number and location of farmers (Crop type/variety production data, area planted, yields, monthly production volumes, commercial and households production) -Market monitoring (real-time price, volumes information) / Market Information -Directory of existing support services and of existing funding or grants mechanism and exporters
De	2.2	Develop an action plan for the provision of market intelligence in cooperation with Statistic department, Samoa Central Bank and Ministry of revenue, MAF
		Identify existing government agencies or sector associations that could collect, maintain and/or disseminate components of database information.
pul	2.3	Assess possibility of private sector provision of data and collection, maintenance and/or dissemination and select potential partners
ction a	2.4	Adapt existing census questionnaires and create additional targeted surveys to wholesalers and commercial farmers to create baseline information.
Improve data collection and analysis		Improve Frequency of agricultural census to 5 years and of pest and disease database to 2 years
	2.5	Conduct demand & supply studies for a range of existing and potential products and gather information in: Local hotels, restaurants and supermarkets, Regional and international markets
dwl	2.6	Conduct annual workshop for key stakeholders for building capacity in data collection/dissemination and analysis

# Continuation of Objective 2 Activities

_	2.7	Develop dissemination techniques to reach farmers using radio and community meetings
Improve information dissemination		Identify targeted and simple information for improved production planning and linkage to market
Im info		Improve dissemination of market intelligence to domestic buyers, wholesalers and exporters through email and internet
	2.9	Based on market information (local and international) set up a promotion strategy for each targeted market segment (Domestic and Export)
getables	2.10	Develop promotional point of sale materials to be displayed in hotels, restaurants, Supermarkets, F&V markets and stalls to communicate contribution of fruit and vegetable sector to farmer community livelihoods, promotion of healthy eating and import substitution
ts and Ve	2.11	Encourage Chefs and food and beverage mangers to try local foods and adapt their procurement practices and recipes including traditional and exotic Samoan produce.
Promotion of Fruits and Vegetables	2.12	Develop and conduct a campaign to promote the consumption of fruits and vegetables as part of a healthy diet: TV health and cooking programmes(including O le Kuka Samoa and the Challenge) School and work place canteen and lunch program Ministry of Health Exercise programs
romc	2.13	Promote backyard gardening for consumption of fruits and vegetables
ш.	2.14	Incorporate the Samoan quality standard Logo (Loto nuu) to promote fruit and vegetable fresh and processed produce

# Objective 3. Build a supply sub-sector that will guarantee consistent and continuous supply of fresh fruit and vegetables

The need for markets to get supplied consistently with quality fruit is the reason for the lack of growth and local consumption in the fruit and vegetable supply chain. This objective is proposing a two tiered approach to the issue tackling Community / Smallholder and Commercial Farmers.

**Service oriented Collection Points:** The development shall be based on consistent and quality supplied fruit and vegetables into the market through a pilot grading and quality centre. A feasibility study for developing private sector based service centre is currently being undertaken. It is envisaged that this centre would provide support and services to farmers and buyers covering the value chain from production to market.

The establishment of this commercially driven system is certainly the pivotal point for most of the activities and objectives in the strategy. In a way this objective has the potential to drive the implementation of the others: for the commercial service centre to work at a profit and deliver to market it need to articulate Finance, Information, Training, GAP and Agronomic Support, Soil and farming system management and coordination across actors.

Several ad-hoc meetings between the Coordinating Committee, Interested buyers (restaurants, hotels, processors, supermarkets and exporters) have been to define the modus-operandi for the implementation of this objective.

The produce shall be picked up from the village farmers through the local village stores and from the Commercial farmers and then graded and offered to the hospitality, retail and processing industry.

This objective will be piloted by the Coordinating Committee with initially a group of selected farmers and a group of selected buyers based on selected crops and products. If the business model is successful, then it is envisaged that it will be replicated and expanded.

The main services provided will be related to Information dissemination (price, quantities needed, quality, transport availability) through mobile phones; cooling, grading, and sorting. One of the most capital services to be provided is the pick-up and delivery. Such support would enable farmers to meet customers' quality requirements and allow appropriate planning for planting.

The grading process provided by the service centre will create and enforce strict quality standards on all produce agreed to with the buyers. The service centre will have the opportunity to negotiate better prices for lower or processing grades with processors thus also becoming a channel for fruit that would otherwise remain unsold or rot.

On a second phase, the services provided would relate to providing finance, inputs and agronomic service support in cooperation with extension officers.

Improvement of Production and Agricultural Practices: Conventional Agriculture is completely inappropriate for the shallow topsoil's in Samoa. Initial Value Chain Study inspections of farms have determined capacity limitations and identified deficiencies in the conventional agricultural practices currently in use. Land usage technologies developed in countries such as New Zealand and Australia which have the advantage of much deeper topsoils (6-15 feet) destroy the Samoan topsoil within very short periods. Consequently agronomic services catered under the strategy implementation will be adapted.

One of the key suggestions in implementation is to explore the use of raised beds using artificial soil mediums to ensure less cost of production (tilling and clearing the land) and higher and more consistent yields. A model farm has also been established in line with Objective 4 of the current strategy.

It is also important to strengthen the farmers associations and groups collaborate to achieve this objective.

# 2 S)

#### **Sub Objectives:**

- Viability of collection points or service centres/ and their potential roles explored to reduce post harvest loss.
- Strengthen farmer associations to improve production and market linkages
- Quality compliance and standards
- Access to appropriate Inputs for sustainable cropping
- Improve Research and development

Explore Viability and Pilot collection points or service centre reduce post harvest loss
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- 3.1 Assess the feasibility of commercially driven pack houses and post harvest service centres defining clearly the roles of and type of services that will be provided to Value Chain operators and the structure in which these centres will be operated and managed (farmer associations and / or NGO's and / or private sector)
- 3.2 If feasibility study is positive define and agree with Ministry of Agriculture the potential role and type of services that could be provided to farmers, processors and buyers.

Core services provided could include: Collection, cooling, grading sorting, packing, distribution, manage hubbing and bulking of production outputs. Also finance and admin support services

Expanded services could include: Marketing of produce, training for farmers on quality and management, information collection and dissemination, Finance/credit lines and collateral provision, common sourcing of supplies, bulk buying of inputs, seeds and packaging and inviting technical (national/regional/international) consultants in the field of growing, post harvest handling

Longer term functions: 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 co

- 3.3 Determine the best mechanism for funding the centers to cover costs while not charging users excessively (e.g. commissions perceived from successful commercial operations and annual contribution by farmer members and buyers)
- 3.4 Determine the potential for small holder and community farmer collaboration, ownership and use of services and possibly distribute shares of centre to farmers based on production volumes
- 3.5 Based on farmer and buyer agreements, determine the most appropriate location for one pilot centre in Upolu

Pilot the service Centre model Starting with a pilot run with a selected group of 10-20 farmers and selected buyers to enable the development of a viable framework or contract that can be used effectively between suppliers and buyers who will be using the centres.

Develop and define appropriate contractual arrangements adapted to the Samoan context

	3.6	Provide start up operational funding to the farmers association office (ie for computer
Đ		facilities and overheads)
Į		
o imp		Strengthen management capacity of farmers associations by providing targeted training (i.e. "institutional strengthening programme")
ons to		Support the development of a members database including production area, crops, soil, water, seasonalties
Strengthen farmer associations to improve production and market linkages	3.9	Strengthen farmer groups and networks (in cooperation with MAF, villages, private sector and potential buyers) to implement sharing of equipment, experiences and knowledge through service centre and market visits
on an		Encourage the formation of farmer associations in rural locations of Samoa. Support network coordination through an umbrella organization.
then fa roducti	3.10	Improve farmer associations' capacity in post-harvest handling practices at the farm and use service centres to distribute to markets.
Streng	3.11	Improve linkages and cooperation between farmers associations and crops division advisory services
		Develop a system of field attachments for extension officers
ס	3.12	Promote and apply national food safety standards and operational procedures including
an Is		CODEX and good agricultural practices across the whole value chain
Quality compliance and standards		Strengthen implementation of current programs for standards/quality assurance (international certification requirements to increase compliance)
com		Put in place mechanisms to Identify different market opportunities across the Value Chain based on quality produced
to ate or ble	3.13	Determine farm inputs required and tender for agricultural input suppliers to better align based on market requirements (including imported supplies)
Access to appropriate Inputs for sustainable cropping	3.14	Review the role of the agricultural store and propose restructuring
0	3.15	Produce information on and apply suitable technologies to extend season and thereby window of opportunity (de-greening of citrus)
and	3.16	Evaluate options for development and multiplication of fruit and vegetable seeds/rootstock
rch		appropriate for Samoan agriculture
sea pm		Undertake a feasibility study for commercially driven propagation and nurseries
Improve Research Development	3.17	Link educational and scientific institutions to farmers, farmer groups, and service centres in order to promote on farm research
Impro		Initiate mobile farmer field training for improved replication of seed propagation techniques

# Objective 4. Improve performance by building a sector that is well trained and supported by a well developed and properly executed capability plan

Every stakeholder in the supply chain identified training as a key requirement. This objective calls first for an audit of training needs for the productive and government implementing partners. Following the audit, the training providers will be identified to understand what can and should be made available. Once the needs are established, a menu of training options will be offered to the sector. However the underlying principle of the strategy needs calls for practical training at all levels using model farms and very concise modules that can be delivered on site (for example in farms or factories).

#### **Sub Objectives:**

- Identification of training needs
- Delivery of Training at support service level
- Delivery of training at farmer level
- Delivery of Training at Cross cutting level
- Delivery of Training at Processor level

Identification of training needs	4.1	Conduct a comprehensive needs assessment of training requirements for the fruit and vegetable sector based on market and buyer requirements, for the entire value chain from producer to buyer and consumer.  Identify successful training institutions and approaches and explore opportunities for replication.  Identify which government and relevant agencies require specialized training to deliver market driven services
	4.2	Develop a training and capacity building action plan per segment (farmer, extension, processor, buyer, cross cutting).  Estimate resources needed and identify support service providers for delivery of training.  Segment training activities according to short term and long term modules and include both theory and practical hands on material.
Delivery of training at farmer level	4.3	In cooperation with the MAF, villages, private sector and buyers, develop or improve approach towards a more commercially driven hands on methodology for training farmers
	4.4	Identify a group of farmers for pilot testing training.  Reinforce on site training at the farms & provide basic management skills including record keeping.  Specific on-field training on pest disease management and planting and on post harvest handling,  Training on choosing the best varieties, seeds and inputs and what effect it can have on your yield and income.  Ensure close follow up by extension officer / service centre: before fertilizer is applied, before harvest and when pest is detected.
	4.5	Identify and commit successful farmers to serve as a model to disseminate experience and training to inspire other farmers.

Delivery of	4.13 4.14	In cooperation with International accreditation bodies, design short term training programmes addressed to enterprises and laboratories to reinforce testing capacities where needed  Provide opportunities for specialized training and preparation support for farmers, exporters, processors in marketing skills, Branding and commercialization as well as management (accounting record keeping, distribution / logistics, operations)
Delivery of Training at Cross cutting lev	4.12	Provision of Supply-chain Management training:  Improved sourcing to allow processors to benefit from a steady flow of good quality agricultural commodities  Familiarize growers with contract farming
	4.11	Introduce HACCP standards and compliance training throughout the whole value chain (farmers, processors, hotels, restaurants)  Reinforce training and certification for compliance for organic standards and eurepgap
evel Delivery of Training at Processor level	4.10	Use "field trips" as a delivery method and organise visit of growers, buyers, processors to each others farms/companies to understand each others issues and requirements
	4.90	In collaboration with processors develop and disseminate proper training manuals and training tools such as Visual aids / videos to be developed.
	4.80	Provide training on  Technology and processing techniques: Help enterprises progress in elaborating better recepies, which match consumer's needs, are compatible with the use of existing equipment and reduce production costs. Distribute information on technologies & best practices for processing  Improvement of processing ratio and production performance (increased volumes and quality, reduction of losses).  Sales and marketing: To calculate precisely the cost of goods and margin (fixed costs, variable costs and contribution margin of each SKU) to analyze the profit potential and pricing of the product portfolio. Elaboration of a relevant marketing strategy and business plan, establishment of a customer satisfaction index to make sure that the final product satisfies "expressed and implied customer needs".  Management: To collect on a daily basis, operational data in order to generate key performance indicators allowing management to get
Delivery of Training at support service level	4.7	Deliver capacity building through modular training with practical on-factory and classroom content.  Agree on number and development of modules (Quality, Management, GMP, HACCP Food heath and hygiene standards, processing techniques, operations, sales and marketing, Packaging)  For each module use a combination of 2 trainers: from University and successful processors and businessmen
	4.6	Put in place a programme designed to train officers, relevant government agency officials and service providers on:  - How to work with and respond to demands from farmers, businesses and exporters on compliance with market and buyer requirements / standards.  - Training on new technologies based on market opportunities  - How to train new officers in the field in order to expand base and reach support to farmers
ining at se level	4.6	Develop a performance incentive mechanism based on <u>study tours</u> , <u>exchange programmes</u> , scholarships and other education awards in fields that will contribute to the strengthening of extension and support services for the fruit and vegetable sector

#### Objective 5. Improve financial situation of sector enterprises 10

This objective calls first for an audit of existing financing options for the fruit and vegetable sector because the actual financing mechanism available are not specifically catered to solve the needs (conditions, interest rates, repayment terms, and risk evaluation) of the sector and the stakeholders.

The objective also foresees special recognition of the needs of the fruit and vegetables sector such as long time lags from planting to harvest with some crops. The objective is targeting smallholder finance as well as working capital finance and export finance.

Training is foreseen to up-skill farmers and enterprises in making requests for finance. It will include advice on how to assess risk from a commercial perspective. There will be a disaster risk profile for Samoa to plan contingencies.

Additionally promotion for Foreign Direct Investment and national private sector investment is also a priority.

**The overall situation:** A credit information system and a law that protects lenders and borrowers rights is not yet operational in Samoa. This is an essential element to stimulate formal credit to the agri-business sector. The Banks also need to take into account the high risks associated with the nature of this sector. These risks have contributed to a high rate of default loans, which at end of fiscal year 2007 represented 68% of total default loan repayments.

The share of loans by commercial banks to the agricultural sector has progressively decreased in the last decade from 2 to 1.5 percent of total loan amount, against a significant increase of the construction sector and "other activities" which are mainly loans to private individuals<sup>11</sup>.

Currently the Central Bank of Samoa has estimated that a wide proportion (75 million Tala) of the money available for loans is not being currently used or disbursed into loans by the financial institutions. <sup>12</sup>

In order to solve the current lack of commercial funding and the high cost of it, the strategy is proposing to provide funding to farmers using innovative mechanisms and concentrating in the buyers and input suppliers as imbedded actors in the value chain capable of taking a financial scheme management role.

Access to Finance and Collateral: Apart from the lack of experience of commercial banks to provide loans to the agriculture sector stakeholders the lack of collateral is one of the key issues. A contract (subscribed by a farmer or a farmer association), to deliver a certain amount of produce at an agreed date and with specific quality requirement, could be considered by banks as an income generating activity/transaction that increases the probability of repayment of credit by the farmer in the future.

Currently the Development Bank of Samoa guarantees for loans and there aren't any fixed criteria that regulate the release of guarantees. The lack of selection criteria among loans reflects on the significant default rate by clients, especially the agriculture and fishery sector.

<sup>&</sup>lt;sup>10</sup> As an Input to the strategy development FAO conducted a desk research study in Samoa: Supply chain finance and risk management for Samoa's fruit and vegetable sector: issues, constraints and potential solutions. Some extracts are used to describe this objective.

<sup>&</sup>lt;sup>11</sup> Pacific Economic Bulletin, 2007

<sup>&</sup>lt;sup>12</sup> Central Bank of Samoa, Press Release Observer newspaper July 2009

On the overall policy level this strategy is proposing to make credit to the economic sector more effective by reviewing and define objective criteria to be followed when approving a loan guarantee. This review will be done jointly by Private sector and the Samoa Development Bank.

Finally this objective is considering developing viable and sustainable livelihoods for the rural farmers by providing price stabilization on the products by providing stable prices based on profitability margins. Also direct credit lines will be made available for technology investment by processors and farmers.

Pilot of a delivery mechanism through the commercially driven Agri-business Centres (Objective 3): As explained above, the strategy will explore innovative schemes and mechanisms to provide funding to farmers. The commercially driven service centre will be imbedded in the value chain and will therefore have a trust / contractual relationship with both the farmers and the buyers. This would allow to run a profitable business and also to provide funding, for example through provision of inputs and credit to smallholders who would in term sell the produce to the centre. The Centre would also hedge different price risks by finding different markets (processing, export, fresh hotels, fresh and processed supermarkets).

**Weather Risk management**: The analysis of weather risk exposure and feasible tool shall be conducted at all levels: micro, meso and macro and for all risk layers. With reference to risk layers, a clear definition of the border between the risks that are insurable from those that are not insurable (because of their high frequency and the magnitude of losses they entail) will also be done.

The most viable solution to manage disaster risks -probably at a regional level is to conceive financing instruments that are a combination of national budgets with external financing (donors) together with private sector funding (international re-insurance companies).

#### **Sub Objectives:**

- Undertake Situational Analyses
- Develop and implement finance delivery mechanisms
- Improve access to finance
- Increase levels of investment
- Policy and legislative change
- Introduce Risk management facilities

rtake tional lysis	5.1	Conduct finance needs and risk exposure assessments for representative fruit and vegetable value chains, (including existing grant schemes)
Undert Situatic Analy	5.2	Together with the Aid Coordination Division and the MOF identify and consolidate a list of financing bodies or institutions targeting agriculture sector and SME finance at a national and regional level that can fund the different stages of the Value Chain
Develop and implement finance delivery mechanisms	5.3	For the selected products, develop appropriate finance tools (for example, using the contract as collateral and/or risk management products, programs such as factoring, the use of remittances and insurance products) for value chain stakeholders: Commercial farmers, Small holder farmers, SME processors/ exporters  On this basis, develop a SIMPLE and PRACTICAL model or template contract that would suit both the farmers and buyers (SBEC model)
	5.4	Explore using contract, solid business plans and micro-insurance (purchased by individual stakeholders) as collateral in order to guarantee better access to finance for individual farmers directly or through service centre or farmer association
	5.5	Create a flexible and operative system of low rate seasonal credit and simplify enterprise access to credit resources during peak periods for the purchase of inputs.

Improve access to finance	5.6	Encourage banks to use value chain approaches to assess risk, and evaluate exposure, based on a complete understanding of the enterprise's position and linkages to other activities in the chain.
	5.7	Ensure provision of information, through SFA, MAF, Service providers, on how to access existing training on business planning, and funding proposal writing
Risk lent s	5.8	Based on the risk profile, design risk management tools and procedures to manage the different risk layers (national, meso and micro level) and facilitate credit uptake, respectively
oduce R anageme facilities	5.9	Conduct a study on the feasibility of creating a multi-sector disaster aid facility
Introduce Risk management facilities	5.10	Evaluate the establishment of a disaster risk management fund at a regional level to provide local and international insurance companies an incentive to insure the agricultural sector and to provide clear definition of the kind of risks that are being covered
	5.11	Provide price incentives or in kind incentives to small farmers to increase their investment in technology/quality inputs
tment	5.12	Make available direct credit lines and financial schemes to chain stakeholders at an affordable cost by reducing interest rates and improving repayment terms on loans from development banks.
Increase levels of investment	5.13	Encourage SME's to purchase capital equipment for primary processing and value addition using time-bound lower rate loans and tax incentives.  Investigate possibility of establishing mutual funds through Producer Organizations for larger investments
rease	5.14	Seek assistance for processors to explore relevant available technology and market development needed for appropriate follow-up, evaluation and information dissemination CDE/PSSF/PIFS/PITIC
lnci	5.15	Establish a technology support fund, accessible to farmers, SMEs or export companies that have an identified a potential market and the right technology to scale up production and improve the quality to take advantage of this market
e di	5.16	Engage farmers and private sector stakeholders in the next review of Development Bank of Samoa legislation in order to provide inputs relevant to improved access to finance
Policy and legislative change	5.17	Encourage access to finance through government policy and strengthen support to specialized finance agencies
	5.18	Together with the Aid Cooperation division and the MOF, develop a plan to engage regional & international commercial and development banks as potential funding partners for the implementation of the strategy

# Objective 6. Promote integrated management of resources to ensure sustainability of the fruit and vegetable sector

An efficient fruit and vegetable sector can only be established with an efficient enabling environment. This objective first addresses the attitudes of Samoans towards the career of farming and also seeks to support the entrepreneurial drive and risk aversion. The status needs to be lifted to ensure a regular supply of new entrants, particularly young farmers to the profession. The underlying principle is that farming will attract youth only if it is associated with making money, having a decent standard of lifestyle and not having high entrance costs (ie availability of lease land).

The objective also explores potential responses to basic needs for the sector such as access to arable land, security from theft, transport infrastructure and regularly available water and power. In Samoa, about 80% of land is under customary ownership, while 16% is owned by the Government, and about 4% is freehold. Traditionally, customary ownership is vested in the matai (elected head of an extended family) or a local chief. Tackling the problems of a customary system is difficult and highly sensitive, and it is not surprising that the Government has moved cautiously on resolving land issues.

Research into improvements in crop varieties based on market requirements needs to be increased. The involvement of both the public and private sectors in research activities is also key.

#### **Sub Objectives:**

- Access to land and improved utilisation
- Change of Mindset and ownership of farming
- Water supply and irrigation

of Mindset nership of ming	6.1	Develop an aggressive awareness campaign on the lifestyle and potential economic benefits of engaging in Agribusiness activities
Ainc ship	6.2	Include Entrepreneurship and leadership training in high schools and through NGO's
ge of Mil ownersh farming	6.3	Identify one pilot village to provide fencing based on potential and commitment
Change of Mindset and ownership of farming		Investigate how to provide free fencing and through which institution and what impact it will have
Ch		Establish a mechanism to repay fencing tied to profit and village council/project leader/government
ly and		Contribute and provide inputs to the development and implementation of the National water management strategy in relation to F&V sector needs (areas covered, water harvesting, water collection, water storage, water use, irrigation)
Water supply a irrigation		Document and monitor the volume of water use in fruit and vegetable production (irrigation, cleaning after harvest, cleaning of processing/packing area etc)
Wate	6.6	Pilot test water harvesting in pools to avoid water shortage during dry season
	6.7	Dialogue with Samoa Water Authority to find ways for improving processing firm access to potable water
ъ ⊆	6.8	Explore leasing of customary and government land for commercial fruit and vegetable production and processing
Access to land and improved utilization		Document comparative production and income figures from farms that have removed rocks and those that have not (helps promotion of good management tools in doing successful commercial farming); Develop a business model and include projection of income generation opportunities arising from the use /lease of land for fruit and vegetable production
Access		Pilot using alternative technology such as production above the ground in beds to reduce effort needed to remove rocks. If successful replicate and train other farmers
ΨË		Where customary land is used for commercial production of fruit and vegetables, draft a template contract between farmers and land owners for customary land to be signed by the lawyers to make it binding

# Objective 7. Strengthen Samoa Association of Manufacturers and Exporters to provide services that will increase returns and overall value addition for sector

The Strategic Development of Samoa document recognises that the private sector is the engine of growth.

Private sector involvement is key to the sustainable and successful development of market outlets for any surplus fruit and vegetable production particularly related to value addition through processing.

The capacity of SAME members to manufacture ranges of fruit and vegetable based products will be built up by an institutional strengthening programme. This will supply the domestic market and explore the offshore potential.

SAME's mandate needs to be reviewed and its resources strengthened to allow it to perform the tasks foreseen for it and most important to deliver the quality service Samoan processing SME's need.

#### **Sub Objectives:**

- SAME membership and services
- Funding of SAME
- Strengthening SAME's Capacity
- Pilot expansion of services
- Increase processing in Samoa

<del></del>		[5]
		Develop a mandate and vision for SAME in consultation with stakeholders and clearly
es		define core services in the strategic plan
<u> </u>		Services to be provided by SAME:
e l	7.1	Services to be provided by SAIVIE.
ρ		Distribution of information: Market information, Quality assurance processes (ISO), HACCP,
a		Direct enterprise support and hands on training (Production, Costing and Pricing,
흗		Occupational health and safety, Product development, advocating and lobbying for sector
rs.		interests
þe		Strengthen SAME by aligning / redefining its governance structure to its mandate and to the
e u	7.2	services to be provided (corporate plan)
SAME membership and services		Segment SAME's members in terms of services to be provided and intensity of support
Σ		required.
S A	7.3	(General members: Monthly review, market information and sector news, Core members:
		Intensive follow up and support in operations, market access and product development)
		Develop costing and pricing of SAME services and explore tying member contributions to
ing ME		results of SAME support (commission or fees pegged to increase of sales)
ndi SA	7.4	Explore tying SAME services to a commercially driven model of return where, if SAME
Funding of SAME		helps increase profit, then processors pay commission
		Develop a mid-term staffing programme and define Job descriptions and roles in order to
e s	7.5	deliver SAME services
Strengthe ning SAME's Capacity	7.0	deliver extracts
nin AN apg		
နှင့် လ	7.6	Enhance product development capacity built in SAME in cooperation with SROS.
0		
of of ces	7 7	Select a pilot group of processing firms and focus SAME's efforts in order to achieve
Pilot expansi on of services	7.7	maximum impact on those firms
e e		

# **Implementation Plans**

Please refer to the A3 version of the Implementation plan attached to this page.

#### **Resources Needed**

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 **52**, **234** Million US Dollars. The table below provides the detail per objective and year.

	Total	Year One	Year Two	Year Three
<b>Objective One:</b>	\$ 512,200	\$ 133.000	\$ 239,600	\$ 139,600
Objective Two:	\$ 696,000	\$ 515,000	\$ 88,000	\$ 93,000
Objective three:	\$ 4.580.000	\$ 2,085,000	\$ 1,260,000	\$ 1,235,000
Objective four:	\$ 3,284,000	\$ 1,980,000	\$ 652,000	\$ 652,000
Objective five:	\$40,992,000	\$13,697,000	\$13,615,000	\$13,680,000
Objective Six:	\$ 540,000	\$ 110,000	\$ 380,000	\$ 50,000
Objective Seven:	\$ 1,630,000	\$ 730,000	\$ 450,000	\$ 450,000
Total:	\$52,234,200	\$19,250,000	\$16,684,600	\$16,299,600

As discussed in the existing resources section in this document some resources are already available through existing development activities and projects.

The way forward for the successful implementation and resource allocation to this strategy is currently being discussed with the Aid Coordination branch of the Ministry of Finance.

The funding needs reflect the starting point for the fruit and vegetable sector and industry. As explained in the sector situation section of this strategy the F&V sector has received hardly any direct investment in the past and the funding allocated has not successfully delivered the expected results.

The funding requirements also reflect part –but not all- of what is needed to make the sector more competitive and to enable it to substantially contribute to the Government's and MDG goals. It is clear that one of the essential components needed is already existing and that is the private sector leadership together with the mobilisation of the sector stakeholders towards a common goal and market / development objective.

## Forecasts of evolution of Fruit and Vegetable market

The present uncertainty surrounding the global economic situation makes forecasting an inexact science.

**The Horizon one:** (2009-2012) scenario shows a dramatic slowdown in global demand of almost every non-essential purchase. This affects fruit and vegetables all around the world. Local and seasonal (i.e. low cost) produce seems to be still on shopping lists, but many previously popular imported or exotic produce has suffered major declines in sales and therefore prices.

In the short term, there will be fewer opportunities to develop a broad range of fruit and vegetable exports. The major exception at the present time appears to be the export of Noni juice, which occupied 8% of total Samoan exports in the period July 2008 – January 2009.

Additionally in the short term, availability of credit through the traditional banking system is under threat even more when the fruit and vegetable sector activities require specific financing tools.

The pressure on governments all over the world to prop up their local economies could potentially lead to reductions in overseas aid and assistance. Some governments are already realigning their priorities, which may, in this medium term, affect the amount of aid that is available to Samoa. Additionally in 2010, Samoa will be upgraded to 'developing country' status from the present category of 'least developed country (LDC)

**The Horizon two:** (2012-2014) scenario could be that the world economy starts to rebuild wealth and demand increases across the board and consumer confidence returns. A well executed programme of domestic market improvements in the fruit and vegetable sector in the earlier phases will set up a good platform for exports when the up-turn in demand returns.

The scenarios are based on a number of assumptions that are listed below.

# Optimistic scenario optimistic

- Increased investment in the production of fruits and vegetable productivity rises
- Fruit and vegetable farmers can be persuaded to invest in their business
- Fruit and vegetable farmers gaining access to and propagating the required basic planting material such as seeds, seedlings, fertilizers, herbicides, pesticides etc
- Fruit and vegetable farmers gaining the funding to support improved work practices
- Fruit and vegetable farmers become better organized and acquire better business management skills
- Fruit and vegetable farmers achieving improved working relationships with their customers to understand and meet their requirements
- Processors improve their operational practices and overall quality of production
- Processors improve their operational practices by investing in technological improvements
- Both farmers and processors gaining access to adequate funding on reasonable terms
- Buyers support the efforts of farmers and processors and buy local wherever feasible
- Lower cost vegetables become available to consumers, which combined with vegetable consumption promotion, will increase the level of vegetable consumption in the Samoan diet.

Table 7: Financial impact (optimistic) - SAT\$ pa

Focus	Phase 1	Phase 2
	2009-2012	2012-2014
Domestic market	SAT\$2.5million	SAT\$6.0million
Fresh		
Domestic market	SAT\$1.00million	SAT\$5.0million
Processed		
Exports Fresh	SAT\$250k	SAT\$1.0million
Processed exports	SAT\$1.0million	SAT\$5.0million
Total increase per	SAT\$4.75million	SAT\$17million
annum		

The optimistic projects of the financial impact resulting from the strategy foresee an annual increase of SAT\$17.0million per annum by phase two of the implementation process. It should be stressed that this figure does not represent a ceiling, as the actual result could be much higher. The fresh market will benefit from an extra SAT\$2.5million in the first period of the plan. Approximately 50% will come from a reduction in imports and the balance from increased domestic consumption.

By the end of the plan, under the optimistic option, imports will be reduced by SAT\$2.5 million, which is the total value of current fruit and vegetable imports in the categories, which can be grown in Samoa. The balance will represent a 25% increase in domestic consumption by value. In volume terms, the figure will be higher as consumption of homegrown produce is also expected to rise.

The figures for processed fruit and vegetables are even higher. They assume a very significant increase in the availability of processed grade fruit. This will give processors confidence to increase their operations and develop markets both in Samoa and overseas. A positive impact of SAT\$10million per annum is expected – 50% from both domestic and export sales. Import substitution of sauces and fruit juices and export sales of canned and/or frozen exotic fruit will represent the bulk of the increase in the processed sector. Present levels of imports suggest that there is SAT\$500k per annum available by way in import substitution for sauces and juices.

A marketing campaign for Samoan organic processed products will compliment a sister campaign for fresh organic produce for export. The figure of SAT\$1.0million for exports of fresh fruit and vegetable exports may seem less than ambitious. It is reasonable given the difficulties of exporting to regional overseas markets. To obtain this level on a sustainable basis will be a great achievement

#### Pessimistic scenario

- The quantity and quality consistency of fruit and vegetables does not improve within the expected time frames
- Fruit and vegetable farmers do not achieve improved returns from their land
- Fruit and vegetable farmers do not invest in training, new seeds and business practices
- Fruit and vegetable farmers stick to their old practices and remain fragmented and supply driven
- Processors do not invest in training and work practice or technological improvements
- Finance for investment in the growing and processing sector is either not readily available or it is too costly
- It is likely that neighbouring countries, which are overcoming these difficulties quicker than Samoa, will attract the bulk of foreign investments to the region

 Tax proceeds will reduce and unemployment in the city suburbs will increase leading to unrest and increased poverty

The result would be a weaker growing sector that would have both financial and social repercussions. Imports of produce, which could be grown in Samoa, would rise and inward investment in other areas could probably be negatively affected too.

We have taken the assumptions above and projected below the financial implications of the pessimistic scenario.

Table 8: Financial impact (pessimistic) - SAT\$ pa

Focus	Phase 1	Phase 2
	2009-2012	2012-2014
Domestic market	SAT\$1.0 million	SAT\$1.0 million
Fresh		
Domestic market	SAT\$250k	SAT\$250k
Processed		
Exports Fresh	Nil impact	Nil impact
Processed exports	SAT\$500k	SAT\$500k
Total increase per	SAT\$1.75million	SAT\$1.75million
annum		

The pessimistic projections assume an impact of just under SAT1.75million per annum by the end of the implementation period. Positive impacts come from a gradual reduction in the level of imports of fresh produce and some import substitution of processed foods and growth in export of this category. The domestic fresh market figures assume a contribution of approximately 50% from import substitution with the other 50% coming from local market consumption growth.

As far as processed fruit and vegetables are concerned, the pessimistic figures foresee an initial spurt in the manufacture and marketing of processed foods, largely driven by extra quantities of processed grade fruit and vegetables becoming available.

Fresh exports are seen as remaining very low and deriving no increase as a result of the implementation of the strategy. As with processed foods, increased quantities of processing grade fruit will allow a lower cost of fruit for use in preserves (organic or conventional). However, the pessimistic assumption is that there will be no marketing activity outside Samoa to stimulate demand and that product development will be slow.

This is likely to be the worst-case scenario if the strategy is implemented. The benefits are still worth having but should be evaluated against the likely results from the optimistic scenario.

**Possible external shocks:** The comment on the forecasts relates to the known issues and circumstances relating to the sector. However, the possibility of a severe shock to the fruit and vegetable sector in Samoa cannot be discounted. Some of these have occurred within recent memory. They can be divided into externally and internally caused and fall into three categories: Climate and environmentally driven – cyclones, drought, disease, pollution, earthquakes. Some fall back positions will be factored in activity 5.13 and in the Risk Management strategies that will be put in place.

## **NCCS & Implementation Framework**

The Fruit and Vegetable Strategy Development Coordinating Committee has operated on a voluntary basis and was appointed by stakeholders in July 2008.

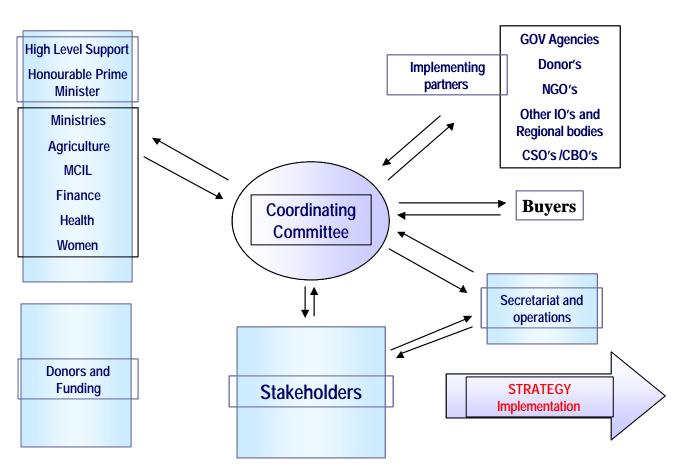
It is comprised of representation of farmers, processors, tourism industry, support services and the Ministry of Agriculture.

The Committee has driven the development of the strategy and ensured the necessary involvement of and communication with stakeholders, donors and authorities.

The Coordinating Committee was also responsible for the overall quality and relevance of the strategy as well as for maintaining and generating the necessary ownership among stakeholders for successful implementation.

Towards the implementation of the Strategy the Coordinating Committee has been assigned the role of managing the implementation and monitoring progress. This was a stakeholder decision backed by Cabinet.

### The proposed Implementation and monitoring framework is detailed below



#### **NCCS Committee Members**

Chairman of the Committee		
Samoa Association of		
Manufacturers and exporters	Grant Percival	percival@ipasifika.net
Vice chair of Committee		
Private Farmer	Edwin Tamasese	etamasese@gmail.com
Farmer Association	Ricky Westerlund	enidjjc@yahoo.com
Farmer Association	Jeff Atoa	tjexport@ipasifika.net
Women in Business		
Development Inc.	Karen Mapusua	karen@womeninbusiness.ws
Ministry of Agriculture	Afele Faiilagi	afelefaiilagi@lesamoa.net
Ministry of Finance		
Aid Coordination Division	Noumea Simi	noumea.simi@mof.gov.ws
Samoa Hotel Association	Nynette Sass	nsass@samoa-hotels.ws
Ministry of Agriculture	Frank FONG	frank.fong@maf.gov.ws

The Coordinating Committee will oversee the overall implementation of the activities under this strategy and will interact in cooperation with the Aid Coordination unit MOF (as shown in the diagram above) with all implementing partners and donors.

## **Key Sector Performance Indicators**

Below are a set of performance indicators that offer a framework for evaluation. They will be converted to more precise measurable indicators in the future .

- Number, potential and actual production capacity and employment in the enterprises in the sector
- Structure, quality and number of new investments in the fruit and vegetable products sector
- Demand for support services from farmers and Associations
- Demand for training courses and business mentoring activities
- Measurable quality characteristics across the sector's production
- Disbursement to enterprises of credit by registered development financing institutions
- Volume of new and top grade seed delivered to farmers
- Productivity of fruit and vegetable farmers per hectare and estimated profitability per hectare
- Increase in land under fruit and vegetable production
- Reduction in value and volumes of fruit and vegetable imports
- Increased domestic fresh fruit and vegetable consumption
- Appearance of fruit and vegetables at point of sale
- Acceptable price competitive
- Compliance with national and international standards
- Perceived quality of fruit and vegetables by consumers
- Export readiness

## **Progress Monitoring and Reporting Schedule**

As stated, the F&VSS Coordination Committee has 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 2009-2012

Three monthly interim progress evaluations and an executive review should be made after 12 months to ascertain if any slippage in delivery is taking place. The report will be sent to the Samoan Government (Ministry of Agriculture), to the ACP Programme Coordination Unit and to the ITC.

At the end of the first stage – upon completion of the first two years, the strategy monitoring team will present a detailed analytical report about the realisation of the measures foreseen in the strategy and the implementation plan. This will include achieved results, efficiency of financial resources and investments utilised during Phase 1.

They will also provide an assessment of the changes to markets and the business environment and their likely impact on the strategy and the outcomes. This report will be sent to the Samoan Government (Ministry of Agriculture) and the ITC

#### Phase 2 2012-2014

For Phase 2, F&V Strategy Coordinating Committee 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.

After the completion of Phase 2, F&VSSCC will present to the Samoan Government and the ITC a detailed report about implementation of the strategy, progress and successes that have been achieved. It will also include analysed trends of fruit and vegetable domestic market as well as development of an export sector. It will comment on shortcomings found and failures as well as offering solutions.

# **Annexes**

Appendix 1:	Priority and c	ost per activ	vity (Prioritize	ed Implement	ation plan)

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
1.1	Develop a vision for the Fruit and Vegetable sector  Define concrete targets and milestones for the strategy (at the social, economic and productive level) and set 2014 as a time frame for the full implementation of the strategy	None	Vision validated and agreed by stakeholders  Definition of quantitative targets agreed by stakeholders, Committee and MAF	0/0/0
1.5	Create or adopt an implementation and monitoring framework to enable Coordinating Committee to evaluate and follow up on implementation of the strategy and make required changes in light of the evolving sector	Office space, communications and operational budget Secretarial/ steering committee allowances	Monitoring framework approved by Cabinet Institutionalised Coordinating committee	Office \$18,000pa, Telephone\stationary\ computer and ancillaries \$18,000pa Committee Allowances \$30,000 \$66,000\\$72,600\\$72,600.
1.6	In cooperation with the Aid Coordinating Unit of MoF and MAF, develop an operative budget for the implementation of the strategy and validate list of existing and potential donors and partners for implementation	None	Costing and budget for Implementation available per activity	
1.7	Table progress reports on the implementation of the Fruit and Vegetable Sector Strategy and highlight key issues that require cross ministerial support and involvement at the Trade, Commerce and Industry Development Board (TCI) meetings and/or Cabinet Development Committee on a regular basis	Printing costs	2 Progress report tabled at CDC and TCI meetings in 2009	Incorporated in 1.5
1.2	After strategy endorsement by cabinet and launch, organise 2 stakeholder meetings in Upolu and in Savaii to encourage ownership and communicate objectives to farmer communities	Venue, stationeries, transport cost	Presentations to stakeholders done Attendance of a representative number of farmers	\$52,000 for all four \$52,000/\$52,000/\$52,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
1.3	Select potential opportunities for presenting strategy in existing government forums (e.g. World Food Day, MWCD meetings, Environment Week, Measina forum) to successfully coordinate and promote the implementation of activities	Information and communicatio n material (printing, designing)	Present in at least 5 forums in 2009/2010/2011	\$7,500/\$7,500/\$7,500
1.4	Plan for periodical update of strategy implementation progress to stakeholders using media and communication tools such as brochures, DVD, internet, radio, tv)	Information and communicatio n material (printing, designing)	Communication of progress every two months via TV and radio Publication of briefing brochures	\$7,500/\$7,500/\$7,500
2.1	Map the Value Chain for representative fruits and vegetables (including processed product chains) to determine key market intelligence requirements  Check past census/surveys for unused/unreported data and revisit existing databases  Potential information requirements:  -Market analysis and buyer requirements (identification of market potential and returns); types of varieties and product forms, consumer taste, (eg seasonal requirements, quality standards, post harvest standards & quarantine requirements)  -Supply capacity, number and location of farmers (Crop type/variety production data, area planted, yields, monthly production volumes, commercial and households production)  -Market monitoring (real-time price, volumes information) / Market Information  -Directory of existing support services and of existing funding or grants mechanism and exporters"	Technical expertise	Needs assessment completed Strengthening activities identified	5 fruits analysed and 5 vegetables in first year and subsequent years \$50,000/\$50,000/\$50,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
2.2	"Develop an action plan for the provision of market intelligence in cooperation with Statistic department, Samoa Central Bank and Ministry of revenue, MAF Identify existing government agencies or sector associations that could collect, maintain and/or disseminate components of database information	None	Action Plan approved and operationalised by relevant Ministry agencies	
5.1	Conduct finance needs and risk exposure assessments for representative fruit and vegetable value chains, (including existing grant schemes)	technical expertise	2 Value chains mapped- 1 of a fruit and 1 of a vegetable	See 2.1 above
5.2	Together with the Aid Coordination Division and the MOF identify and consolidate a list of financing bodies or institutions targeting agriculture sector and SME finance at a national and regional level that can fund the different stages of the Value Chain	None	List completed	See 5.1 and 2.1
2.3	Assess possibility of private sector provision of data and collection, maintenance and/or dissemination and select potential partners	Study	List of private sector enterprises that will collect and provide data Definition on type of data and frequency	\$45,000, then \$10,000pa
2.4	Adapt existing census questionnaires and create additional targeted surveys to wholesalers and commercial farmers to create baseline information.  Improve Frequency of agricultural census to 5 years and of pest and disease database to 2 years	None	Policy and Planning MAF to submit request for improved frequency of surveys Submission to Cabinet by Minister and CEO of Agriculture Resources allocated and completion of Agricultural Census for 2010	
2.5	Conduct demand & supply studies for a range of existing and potential products and gather information in: Local hotels, restaurants and supermarkets, Regional and international markets	Resources and team for data collection	Demand and Supply studies completed Replication and update of studies annually	Study done fully first year, update with sample second year, full study alternative year \$10,000/\$5,000/\$5,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
2.6	Conduct annual workshop for key stakeholders for building capacity in data collection/dissemination and analysis	Specialists in Data Collection and analysis	Key stakeholders trained and data collection methods improved Improved data Analysis and use for decision making	Workshop training by SBS in 1 <sup>st</sup> and 3 <sup>rd</sup> year \$10,000/\$5,000/\$10,000
2.7	"Develop dissemination techniques to reach farmers using radio and community meetings  Identify targeted and simple information for improved production planning and linkage to market"	Dissemination costs and material production costs	Information disseminated through radio, news papers and community meetings on a regular basis Adoption by farmers Improved farming planning	Weekly news broadcast \$15,000/\$10,000/\$8,000
2.8	Improve dissemination of market intelligence to domestic buyers, wholesalers and exporters through email and internet	Dissemination costs and material production costs	Market information disseminated and used by buyers	Monthly newsletter sent via email/internet /radio \$10,000/\$8,000/\$10,000
4.1	Conduct a comprehensive needs assessment of training requirements for the fruit and vegetable sector based on market and buyer requirements, for the entire value chain from producer to buyer and consumer.  Identify successful training institutions and approaches and explore opportunities for replication.  Identify which government and relevant agencies require specialised training to deliver market driven services	Human resources	Report completed Target agencies involved and mobilised	Study of needs assessment/ production of unit modules for the various chain members \$50,000/\$30,000/\$30,000
4.2	Develop a training and capacity building action plan per segment (farmer, extension, processor, buyer, cross cutting). Estimate resources needed and identify support service providers for delivery of training. Segment training activities according to short term and long term modules and include both theory and practical hands on material.	Human resources	Work plan agreed Detailed Costing of initiative Sectoral Capability Plan initiated	Chain members are provided with unit modules and assisted to achieve pass rates \$30,000/\$40,000/\$40,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
3.1	Assess the feasibility of commercially driven pack houses and post harvest service centres defining clearly the roles of and type of services that will be provided to Value Chain operators and the structure in which these centres will be operated and managed (farmer associations and / or NGO's and / or private sector)	Supply Chain & Agribusiness specialists	Feasibility report completed Recommendations and activities for piloting service centres	\$1,000 for study
3.2	"If feasibility study is positive define and agree with Ministry of Agriculture the potential role and type of services that could be provided to farmers, processors and buyers.  Core services provided could include: Collection, cooling, grading sorting, packing, distribution, manages hubbing and bulking of production outputs. Also finance and admin support services  Expanded services could include: Marketing of produce, training for farmers on quality and management, information collection and dissemination, Finance/credit lines and collateral provision, common sourcing of supplies, bulk buying of inputs, seeds and packaging and inviting technical (national/regional/international) consultants in the field of growing, post harvest handling  Longer term functions: 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 for Profitable utilisation of excess produce/value addition (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"	Supply Chain & Agribusiness specialists	Definition and agreement of services provided by centre Agreement on next steps and work plan for setting up centres	Core Service Costs Infrastructure costs such as coolers, vehicles for collection and human resource costs such as grading, packing, distribution, finance and administration  \$269,000/\$100,000/\$100,000Na tional Export Authority mandate can be expanded to cover import substitution Farmer training in growing, quality control, management, data receipt and dissemination, can be outsourced. Cost through provision of services from NEA - \$180,000 pa Training on post harvest handling and opportunities for value added \$180,000 pa.  Total costs \$629,000/\$460,000/\$460,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
3.3	Determine the best mechanism for funding the centres to cover costs while not charging users excessively (e.g. commissions perceived from successful commercial operations and annual contribution by farmer members and buyers)	Finance and business planning specialists	Commercially viable finance plan for centre	See 3.1
3.4	Determine the potential for small holder and community farmer collaboration, ownership and use of services and possibly distribute shares of centre to farmers based on production volumes	None	Small holder farmer inclusion plan	
3.5	"Based on farmer and buyer agreements, determine the most appropriate location for one pilot centre in Upolu  Pilot the service Centre model Starting with a pilot run with a selected group of 10-20 farmers and selected buyers to enable the development of a viable framework or contract that can be used effectively between suppliers and buyers who will be using the centres.  Develop and define appropriate contractual arrangements adapted to the Samoan context"	Resources for centre piloting	Location determined in agreement with farmer association and buyers Identification of farmers and buyers that will participate in pilot experience Set up of Centre First commercial operations	Housing, land, vehicle, staff, sorting, packing, cooling \$550,000/\$150,000/\$150,000
3.12	Promote and apply national food safety standards and operational procedures including CODEX and good agricultural practices across the whole value chain  Strengthen implementation of current programs for standards /quality assurance (international certification requirements to increase compliance)  Put in place mechanisms to Identify different market opportunities across the Value Chain based on quality produced	Development of necessary processes, Compliance and auditing systems	Standards in place and enforced Quality improved in F&V fresh and processed	MAF to develop HACCP training and quality assurance services for farmers on good agricultural practises including but not limited to post harvest handling. Sorting centres and food processors given their limited numbers to seek ISO accreditation.  Accreditation costs:  \$100,000/\$50,000/\$25,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
4.5	"Identify a group of farmers for pilot testing training.  Reinforce on site training at the farms & provide basic management skills including record keeping.  Specific on-field training on pest disease management and planting and on post harvest handling,  Training on choosing the best varieties, seeds and inputs and what effect that can have on your yield and income.  Ensure close follow up by extension officer / service centre: before	Costs for trainees, trainer cost, extension staff extra costs Stationeries	Successful farmers identified and contributing to training	10 meetings for 10 farmers per meeting- \$10,000pa Stationeries \$2000pa
4.6	Fut in place a programme designed to train officers, relevant government agency officials and service providers on:  - How to work with and respond to demands from farmers, businesses and exporters on compliance with market and buyer requirements / standards.  - Training on new technologies based on market opportunities  - How to train new officers in the field in order to expand base and reach support to farmers	Resources to develop or adapt training modules Information on successful training modules	Training modules developed Funding for delivery secured Identification of trainers	Monthly training for extension officers and agency officials \$20,000pa
3.13	Determine farm inputs required and tender for agricultural input suppliers to better align based on market requirements (including imported supplies)	Information	List of input requirements Regular revision of lists Tendering of supply requirements	\$100,000 Tendering costs- \$1000
3.14	Review the role of the agricultural store and propose restructuring	Reviewer (review to be based on how the VC is being affected)	Recommendations implemented based on review More efficient supply of inputs	\$7000
4.3	In cooperation with the MAF, villages, private sector and buyers, develop or improve approach towards a more commercially driven hands on methodology for training farmers	Human resources modules	Support services have hands on training plans in place. Training delivery mechanism is pilot tested	Refer 4.5&4.6

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
4.4	Identify and commit successful farmers to serve as a model to disseminate experience and training to inspire other farmers.	Trainers Training materials, field manuals	Target group of farmers selected Training materials developed Piloting of testing with a group of 20 farmers Improved quality of produce and record keeping as a result of training	\$6000
4.5	Develop a performance incentive mechanism based on study tours, exchange programmes, scholarships and other education awards in fields that will contribute to the strengthening of extension and support services for the fruit and vegetable sector	Consultancy costs	Better trained and more enthusiastic extension officers	\$7000
6.8	Explore leasing of customary and government land for commercial fruit and vegetable production and processing	Legal advisory costs	Clause in land bill effective	\$10,000
6.9	Document comparative production and income figures from farms that have removed rocks and those that have not (helps promotion of good management tools in doing successful commercial farming); Develop a business model and include projection of income generation opportunities arising from the use /lease of land for fruit and vegetable production	human resources	Comparative production documented  Business model documented	\$14,000 \$14,000
6.1	Pilot using alternative technology such as production above the ground in boxes to reduce effort needed to remove rocks  If successful replicate and train other farmers	Media resources Implementation costs	Awareness building campaign launch	\$65,000
6.11	Where customary land is used for commercial production of fruit and vegetables, draft a template contract between farmers and land owners for customary land to be signed by the lawyers to make it binding	Model agreements, legal expertise	Contract template completed	\$7,000
5.3	"For the selected products, develop appropriate finance tools (for example, using the contract as collateral and/or risk management products, programs such as factoring, the use of remittances and insurance products) for value chain stakeholders: Commercial farmers, Small holder farmers, SME  On this basis, develop a SIMPLE and PRACTICAL model or template contract that would suit both the farmers and buyers (SBEC model)	Technical expertise	Model developed	\$50,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
5.4	Explore using contract, solid business plans and micro-insurance (purchased by individual stakeholders) as collateral in order to guarantee better access to finance for individual farmers directly or through service centre or farmer association	technical expertise	Model tested Increased number of farmers accessing affordable finance	\$10,000
5.5	Create a flexible and operative system of low rate seasonal credit and simplify enterprise access to credit resources during peak periods for the purchase of inputs.	None DBS to investigate	Constant credit offer Easy access to finance for input purchasing	\$5,000
5.6	Encourage banks/donors to use value chain approaches to assess risk, and evaluate exposure, based on a complete understanding of the enterprise's position and linkages to other activities in the chain.	None Bank assessors training	Banks evaluating risk exposure using value chain approach Increased credit to farmers	\$22,000
5.7	Ensure provision of information, through SFA, MAF, Service providers, on how to accessing business planning, and funding proposal writing	None Communicatio n resources	a measured increase in number of business plans financed	\$10,000
5.11	Provide price incentives or in kind incentives to small farmers to increase their investment in technology/quality inputs	Budgetary resources	Cabinet Submission completed	\$10, 000,000pa
5.12	"Make available direct credit lines and financial schemes to chain stakeholders at an affordable cost by reducing interest rates and improving repayment terms on loans from development banks.	Budgetary resources	Cabinet Submission completed	\$2,000,000pa
5.13	"Encourage SME's to purchase capital equipment for primary processing and value addition using time-bound lower rate loans and tax incentives.  Investigate possibility of establishing mutual funds through Producer Organisations for larger investments	Budgetary resources	Policy paper for CDC completed	See 5.12
5.14	Seek assistance for processors to explore relevant available technology and market development needed for appropriate follow-up, evaluation and information dissemination CDE/PSSF/PIFS/PITIC	Training consultancies	Proposal for financial assistance Completed	\$100,000pa

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
5.15	Establish a technology support fund, accessible to farmers, SMEs or export companies that have an identified a potential market and the right technology to scale up production and improve the quality to take advantage of this market	Grants, operational costs	Cabinet Submission completed	\$1.5million pa
3.6	Provide start up operational funding to the farmers association office (ie for computer facilities and overheads)	EU Micro Projects	EU micro project proposal drafted, submitted and approved Funding disbursed Farmer association office operational	\$17,000
3.7	Strengthen management capacity of farmers associations by providing targeted training (i.e. "institutional strengthening programme")	FAO/ EU ACP	Improved performance in management of resources and members Increased membership Increased funding proposals approved	\$300,000pa
3.8	Support the development of a members database including production area, crops, soil, water, seasonalities	FAO/ EU ACP	Database created and operational Database updated regularly	\$300,000pa
3.9	Strengthen farmer groups and networks (in cooperation with MAF, villages, private sector and potential buyers) to implement sharing of equipment, experiences and knowledge through existing networks	Training	Number of farmer groups and networks established Training visits of farmers to point of sales and buyers Sharing of equipment	See above
3.1	Improve capacity in post-harvest handling practices at the farm to enable to distribution to markets.	Supply Chain & Agribusiness specialists	Feasibility report completed tied in to the VC analysis	\$5,000
3.11	Improve linkages and cooperation between farmers associations and crops division advisory services  Develop a system of field attachments for extension officers	communication, building relationships, trust 4 sessions with motivational speakers	Increase farmer efficiency as a result of extension service training	\$20,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
4.1	Use "field trips" as a delivery method and organise visit of growers, buyers, processors to each others farms/companies to understand each others issues and requirements	Human resources transport	Report completed Target agencies involved and mobilised	\$15,000
4.11	Introduce HACCP standards and compliance training throughout the whole value chain (farmers, processors, hotels, restaurants)  Reinforce training and certification for compliance for organic standards and eurogap	Access to Standards (ISO, HACCP) Technical expertise	Introduction of HACCP and other in training curricula Increase in number of certified farms and processor	\$1.5million then \$500,000pa as maintenance thereafter
4.12	Provision of Supply-chain Management training:  Improved sourcing to allow processors to benefit from a steady flow of good quality agricultural commodities  Familiarize growers with contract farming	Human resources About mechanism	Improved supply chain management resulting in decreasing costs	
4.13	In cooperation with International accreditation bodies, design short term training programmes addressed to enterprises and laboratories to reinforce testing capacities where needed	Resources and technical assistance for accreditation	Increase in number of accredited labs and enterprises Reduction of testing done abroad	
4.14	Provide opportunities for specialised training and preparation support for farmers, exporters, processors in marketing skills, Branding and commercialisation as well as management (accounting record keeping, distribution / logistics, operations)	Human resources For farmers - only in context of actual markets 2 specialised training per segment	Training proposal completed and submitted for funding	\$50,000pa
3.15	Produce information on and apply suitable technologies to extend season and thereby window of opportunity (de-greening of citrus)	Specialists in Research & Development in Fruits and Vegetables	Suitable postharvest technologies identified	\$20,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
3.16	Evaluate options for development and multiplication of fruit and vegetable seeds/rootstock appropriate for Samoan agriculture  Create a business plan demonstrating feasibility of commercial nurseries	Specialists in Research & Development in Fruits and Vegetables	Business plan developed and showing positive returns	\$15,000
3.17	Link educational and scientific institutions to farmers, farmer groups, and service centres in order to promote on farm research  Initiate mobile farmer field training for improved replication of seed propagation techniques	Equipment and Training materials, transport	A measured increase in the number of on-farm research among fruits and vegetable farmers	\$20,000
4.7	"Deliver capacity building through modular training with practical on-factory and classroom content.  Agree on number and development of modules (Quality, Management, GMP, HACCP Food heath and hygiene standards, processing techniques, operations, sales and marketing, Packaging)  For each module use a combination of 2 trainers: from University and successful processors and businessmen	Resources to develop or adapt training modules Information on successful training modules	Training modules developed Funding for delivery secured Identification of trainers	\$20,000
4.8	"Provide training on  Technology and processing techniques: Help enterprises progress in elaborating better recipes, which match consumer's needs, are compatible with the use of existing equipment and reduce production costs. Distribute information on technologies & best practices for processing  Improvement of processing ratio and production performance (increased volumes and quality, reduction of losses).  Sales and marketing: To calculate precisely the cost of goods and margin (fixed costs, variable costs and contribution margin of each SKU) to analyse the profit potential and pricing of the product portfolio. Elaboration of a relevant marketing strategy and business plan, establishment of a customer satisfaction index to make sure that the final product satisfies.	Trainers Training materials, field manuals	Delivery of 45 training to a selected group of processors	\$250,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
4.9	In collaboration with processors develop and disseminate proper training manuals and training tools such as Visual aids / dvds to be developed.	Human resources	Development and successful testing of materials	\$20,000pa
7.1	Develop a mandate and vision for SAME in consultation with stakeholders and clearly define core services in the strategic plan Services to be provided by SAME:  Distribution of information: Market information, Quality assurance processes (ISO), HACCP, Direct enterprise support and hands on training (Production, Costing and Pricing, Occupational health and safety, Product development, advocating and lobbying for sector interests	Meeting costs, human resources	Vision established for SAME Action plan for SAME drafted	\$450,000, then maintenance at \$250,000pa
7.2	Strengthen SAME by aligning / redefining its governance structure to its mandate and to the services to be provided (corporate plan)	meeting costs, human resources	SAME structure & Corporate Plan finalised	\$15,000
7.3	Segment SAME's members in terms of services to be provided and intensity of support required. (General members: Monthly review, market information and sector news, Core members: Intensive follow up and support in operations, market access and product de velopment)	meeting costs, human resources	SAME members segmented according to needs	\$15,000
7.4	Develop costing and pricing of SAME services and explore tying member contributions to results of SAME support (comission or fees pegged to increase of sales)  Explore tying SAME services to a commercially driven model of return where, if SAME helps increase profit, then processors pay commission	Human resources	Costing and pricing of services agreed by members	\$25,000
7.5	Develop a mid-term staffing programme and define Job descriptions and roles in order to deliver SAME services	Human resources	Job descriptions completed	\$25,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
7.6	Enhance product development capacity built in SAME in cooperation with SROS.	Technical expertise	New products developed	\$150,000pa
7.7	Select a pilot group of processing firms and focus SAME's efforts in order to achieve maximum impact on those firms	Consultation costs expertise	Firms involved in pilot reported on annually	\$50,000
2.9	Based on market information (local and international) set up a promotion strategy for each targeted market segment (Domestic and Export)	Marketing, Merchandising and promotion specialists Repetitive of earlier activities	Promotional plan finalised and approved by sector stakeholders Operationalisation of plan by implementing partners	\$5,000
2.10	Develop promotional point of sale materials to be displayed in hotels, restaurants, Supermarkets, F&V markets and stalls to communicate contribution of fruit and vegetable sector to farmer community livelihoods, promotion of healthy eating and import substitution	Marketing, Merchandising and promotion specialists Not stand alone activities	Promotional activities and material exhibited in point of sales on a regular basis Increased consumption of F&V	\$100,000
2.11	Encourage Chefs and food and beverage mangers to try local foods and adapt their procurement practices and recipes including traditional and exotic Samoan produce.	None	Increase in local procurment	\$100,000
2.12	Develop and conduct a campaign to promote the consumption of fruits and vegetables as part of a healthy diet: TV health and cooking programmes(inc luding O le Kuka Samoa and the Challenge) School and work place canteen and lunch program Ministry of Health	Development of visual and interactive materials	Campaign content and delivery mechanisms agreed Rollout of campaign to targeted audiences Increased awareness and healthy consumption of fruit and vegetables	\$100,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
2.13	Promote backyard gardening for consumption of fruits and vegetables	Seeds, tools, planting information materials, cooking instructions	Measured increase in subsistence planting and consumption of locally grown F&V's	\$70,000
2.14	Incorporate the Samoan quality standard Logo (Loto nuu) to promote fruit and vegetable fresh and processed produce	None	Use of Samoan logo by industry	Refer activities on sales and marketing activities
Year 2				
1.12	Conduct a needs assessment on the requirements regarding capacity building to formulate and implement policy measures for the sector	Specialist in policy review and policy design training	Analysis & report completed Matrix with synergies and conflicts Suggested alternative formulations	\$50,000
1.13	Conduct tailored national level training to strengthen capacity of government officials and private sector to contribute to policy formulation  Link capacity building to the use of PITIC national and regional tools and services (trade commissioners, SOPAC	Training and delivery mechanism	Trainings delivered against needs assessment	\$50,000
1.8	F&V coordinating committee to engage Ministry CEO's (MCIL, Health, MAF, MOF, MNREM) to achieve and sustain cross ministerial support and involvement		Regular meetings with CEO's of Ministries Minutes of meetings and action points tabled	
1.9	Analyse current legisla tions, policies, regulations, and any strategies that impinge upon Fruit & Vegetable Sector and determine areas of conflict and potential synergies. (national, regional, international) Investigate alternative formulations (if need	Specialist in policy review and legislation review	Analysis & report completed Matrix with synergies and conflicts Suggested alternative formulations	

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
1.10	Align F&V strategy with the overall strategy for the development of Samoa (SDS)  Ensure link between the Fruit & Vegetable Sector Strategy with the Agricultural development plan, the National Export Strategy and SROS Plan, Health Sector Plan, MWCSD Sector Plan, Water Sector Plan and MNRE Cooperate Plan.  Ensure sector priorities are represented in the Improving Policy Development and Coordination Reform Program (Ref: PO44)	None	Key F&V strategic priorities included in the documents (Agricultural sector plan) Alignment of implementation proposals for F&V with existing plans and strategies (ie: SDS, SROS, MNRE)	
1.11	Strengthen mechanisms for dialogue with private sector and other governments in the region for integration into bilateral and regional policy processes related to fruit and vegetable sector	Platforms for dialogue and information	Private public dialogue meetings held F&V Strategy tabled in the Head of Agriculture Ministerial meeting May 2009 and in other similar meetings Development of project Proposal	
5.16	Engage farmers and private sector stakeholders in the next review of Development Bank of Samoa legislation in order to provide inputs relevant to improved access to finance	None Report costing	Sector members participate in next SDB Review	\$5000
5.17	Encourage access to finance through government policy and strengthen support to specialized finance agencies	Cabinet submission	Cabinet Submission completed	
5.18	Together with the Aid Cooperation division and the MOF, develop a plan to engage regional & international commercial and development banks as potential funding partners for the implementation of the strategy	Technical expertise	Plan initiated	\$10,000
6.1	Develop an aggressive awareness campaign on the lifestyle and potential economic benefits of engaging in Agribusiness activities	Media resources	Awareness building campaign launch	\$100,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
6.2	Include Entrepreneurship and leadership training in high schools and through NGO's	Training materials and packages, human resources	Inclusion of entrepreneurship in curricula of various courses	Consultancy fees \$100,000 Publishing costs \$30,000 Training of trainers- \$50,000
6.3	Identify one pilot village to provide fencing based on potential and commitment  Investigate how to provide free fencing and through which institution and what impact it will have  Establish a mechanism to repay fencing tied to profit and village council/project leader/government	Fencing	Piloting of free fencing increasing ownership and quality of produce	Part of the package that includes the rock removal or boxing and soil build up technology
6.4	Contribute and provide inputs to the development and implementation of the National water management strategy in relation to F&V sector needs (areas covered, water harvesting, water collection, water storage, water use, irrigation)	None	Fruit and vegetable sector priorities represented in Water management strategy	Part of the model farms showcasing these packaged technology e.g.irrigation
6.5	Document and monitor the volume of water use in fruit and vegetable production (irrigation, cleaning after harvest, cleaning of processing/packing area etc)	Technical know how	Annual Volumes calculated and reported	Deliberate survey to track a selected sample over a specified duration (12 months, 24 months)
6.6	Pilot test water harvesting in pools to avoid water shortage during dry season	Infrastructure	Success of a pilot water harvest irrigated farm	\$50,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
6.7	Dialogue with Samoa Water Authority to find ways for improving processing firm access to potable water for small processors For hacep compliant processors, ensure filtration systems are in place	Action plan for improved access to potable water Funding needs identified Project proposal submitted	List of technologies completed	\$50,000
Year 3				
5.8	Based on the risk profile, design risk management tools and procedures to manage the different risk layers (national, meso and micro level) and facilitate credit uptake, respectively	Risk management expert	Credit update improved	\$50,000
5.9	Conduct a study on the feasibility of creating a multi-sector disaster aid facility	Risk management expert	Study report completed	Part of 5.8
5.10	Evaluate the establishment of a disaster risk management fund at a regional level to provide local and international insurance companies an incentive to insure the agricultural sector and to provide clear definition of the kind of risks that are being covered	Technical expertise	Evaluation available	\$30,000

# Appendix 2: List of stakeholders for workshop 1 and 2

Stakeholder list for Strategy Development Workshop 1 (October 2008)

Name	position/institution	Savaii/Upolu	Email	
Misiolo Sofe	self-employed	Upolu		Farmer
Aukusitino Rasch	DBS- ACEO Research	Upolu		ACEO
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	Ministry of Women and			
	Social and Community			
Henry Levasa	Development	Upolu	hlevasa@lesamoa.net	Staff
	Ministry of Women and			
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Dorothy Tofilau	Development	Upolu		Staff
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Leuluai Lydia Hazelman	self-employed	Upolu		Farmer
Tone Neru	self-employed	Upolu		Farmer
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Agnes Ripley	farmers Assoc	Upolu		Farmer
Maalaula	Vailele	Upolu		
Ulutautogia Faatoafe	Mosooi Asosi	Upolu		Farmer
Feiloaiga Malaga	МОН	Upolu		Staff
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Afiafi Siaosi	Farmer - Salelavalu	Savaii	
Leua Lapa		Savaii	
Nise Lapa	Farmer - Salelavalu	Savaii	
Lapa Fili	Farmer - Salelavalu	Savaii	
Limatolu Valevale	Farmer - Salelavalu	Savaii	
Vaelua Tui Leutu		Savaii	
Rapi Ioane	Farmer - Salelavalu	Savaii	
Kalami Tupeni	Farmer	Savaii	
Tuileutu A Voti	Pulenuu - Faga	Savaii	
Su'a Afiafi	Farmer - Salelavalu	Savaii	
Tevaga Tupuivao Avana		Savaii	
Poufa	Farmer		
Nuu Tanesi	Farmers Association Sale	Savaii	

# **Stakeholder list for Strategy Development Workshop 2** (February 2009)

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# Appendix 3: Past and current development activities

Activity/modality	Funding Agency	Implementi ng Partner(s)	Purpose	Timeline	Budget USD
Integrated Pest Management in Sustainable Production System for Brassica Sub- regional Project	Aus/ACIAR	MAF SPC	Develop integrated pest management package for diamondback moth	2005- 2010	527,625
Demonstration Farm	China	MAF	Establish demonstration and training farm for vegetable production/integrated livestock and biogas	Pipeline	200,000
Regional Programme For Food Security (RPFS)	FAO, Italy	FAO, National Ministries of Agriculture in 14 PICs	Enhancing production, income generation and food security as well as building capacity on trade facilitation and agriculture policy development	2004-2008	7,060,000
Formulation of the Food Security and Sustainable Livelihoods Programme in the PICS	FAO	FAO	Assist countries in the preparation for the expansion phase of the Regional Programme for Food Security	2007-2008	244,000
Initiative on Soaring Food Prices	FAO		To enhance food security and nutritional status of small farmers and vulnerable households through the provision of seeds of improved varieties and necessary agro-inputs	2008-2009	250,000
Horticultural Post-Harvest Research	FAO	RDIS	To conduct post harvest research on horticultural produce with the aim to enhance the quality of fresh produce along the food chain	2008	73,000
Organic Farming and Processing	FAO	WIBDI	To build capacities to produce and process organically certified and fair trade labelled agricultural produce for local and export niche markets	2009-2010	230,000
Micro-projects	EU	MoF	Support to community projects including agriculture	1998-2009	13,860,000
Development of Sustainable Agriculture in the Pacific (DSAP) Project	EU	SPC, National Ministries of Agriculture in 16 PICs	To promote and implement sustainable agriculture that will improve food production thereby enhancing food security and income generation in the Pacific.	2003-2008	12,628,000
Organic Certification in the Pacific Project	IFAD	IFOAM/WI BDI	Primarily aims to build the capacity in certification of organic agriculture.	2008	200,000
Organic Standards project	IFAD	SPC	To help develop regional standards, improve regional coordination and develop a strategy for promotion of organic agriculture	2007-2009	200,000

Activity/modality	Funding Agency	Implementi ng	Purpose	Timeline	Budget
	rigency	Partner(s)			
PACER/Regional Trade Facilitation Programme (RTFP)	AusAID, NZAID	PIFS, SPC, Oceania Customs Organisatio n (OCO)	To facilitate trade within the region through improved and streamlined processes in quarantine, customs and standards and conformance matters. It also includes capacity building and support to reform legislative and regulatory frameworks.	2004-2009	Aus\$ 770,000
Pacific Regional Agricultural Market Access (PRAMA)	AusAID NZAID	SPC	To enable PICs to better meet the import quarantine requirements of key trading partners, like Australia and New Zealand.	Pipeline	
Legislation review TA	Commonwea lth Sec.	MFAT/Atto rney General's Office	Legislation drafting for compatibility with WTO		
National Export Strategy	Commonwea lth Sec.	MFAT	To improve export performance through enforcement of food safety standards, development a Samoan brand, organic certification, fair trade products	2008-2012	80,000
Processing of Regional Trade Statistics of Agricultural Commodities	FAO	SPC	To assist the Secretariat of the Pacific Community (SPC) in obtaining relevant statistical information from PICs in support of informed agricultural policies	2006-2009	253,000
Pacific Regional Economic Integration Programme (PACREIP)	EU	PIFS, SPC, SPTO	To strengthen capacity to implement PICTA, conduct EPA Negotiations with EU, support participation in the WTO, engage in regional economic integration.	2004-2009	17,248,000
Diagnostic (DTIS) Capacity building / Window 1 TA	IFTF LDCs	UNDP/MF AT	To boost Samoa's trade capacity, better react to market opportunities, and work towards full integration into the multilateral trading system.	2008-2009	285,714 38,000
Facilitating Agriculture Commodity Trade (FACT) Project	EU	SPC	To address existing bottlenecks in the supply chain of representative Pacific island commodities and transform selected commercial ventures into export oriented, market-driven enterprises that consistently supply overseas markets with competitive products	2008-2013	6,160,000
Programme support to WIBDI	Oxfam	WIBDI	To develop organic farming and fair trade certification to niche value products for export	Annual	167,000

Activity/modality	Funding Agency	Implen nting Partne	ng		Timeli ne	Budget
Pacific Financial Technical Advisory Centre (PFTAC)	Multi- donor		To provide technical advice and capacity building to 15 Pacific Island countries in four key areas: tax and customs policy; public financial management; financial sector supervision and regulation; and economic and financial statistics.		ongoin g	
Private Enterprise Partnership for the Pacific (PEP-Pacific)	IFC, Australia, Japan, New Zealand		To reduce poverty through employment-generating sustainable private sector development focusing on access to finance, tourism and business climate development.		ongoin g	
Enterprise Challenge Fund (ECF)	Australia	ate	E I		2007- 2013	94,000,0
Activity/modality	Funding Agency	Implem ting Partner		Purpose	Timelin e	Budget USD
Improved Nutrition Capacity Building	WHO	WHO/N H	Мо	Nutrition guidelines, poster printing, school canteen audits, evidence-based interventions for anaemia	2008	20,000
TA (Health SWAp) Pooled Funding	WB	MoF, MoH		Review Nutrition Policy		24,000
Water resources SWAp (programme support)	EU	MoF, MoH, MNRE, SWA	,	Water sector support programme	2005- 2010	29,500,0 00
Water resources SWAp (budget support)	EU	MoF, MoH, MNRE, SWA		Water sector support programme phase 2	Pipeline 2009-2013	35,340,0 00
Integrated Water Resource Management	EU Water Facility	SOPAC		To safeguard the sustainable access to water and sanitation, and support countries to engage with civil society, and jointly develop/implement water strategies with attention to health, agriculture, tourism, environment.	2008- 2011	4,312,00 0

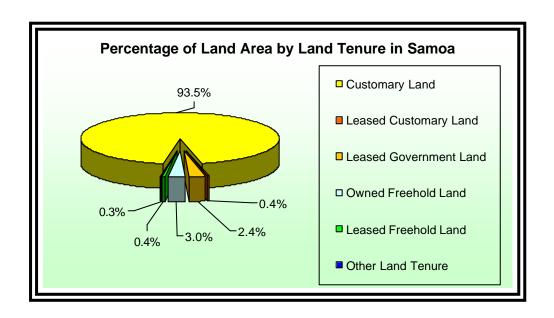
# **Appendix 4: Progress toward the Millennium Development Goals and Targets**

Millennium Development Goal (MDG) table classifying impact per activity

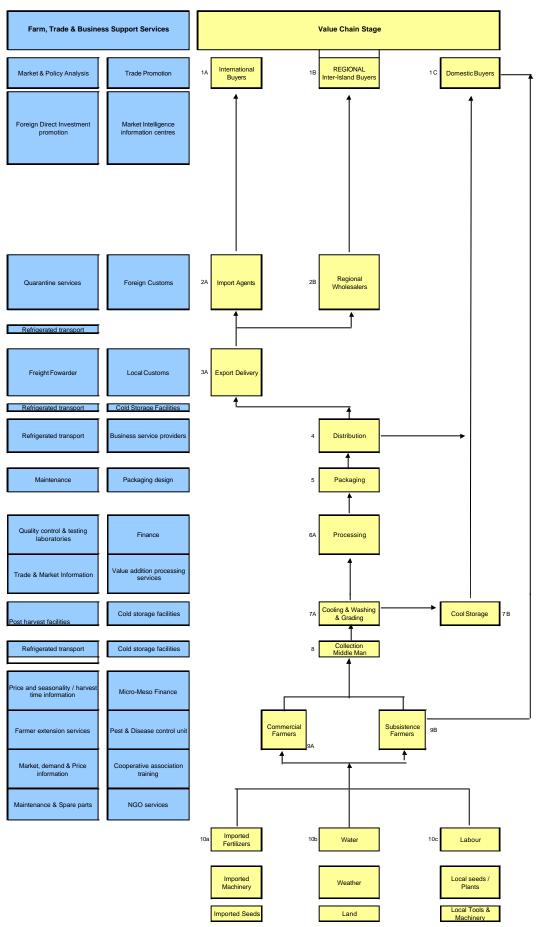
Strategy objectives	Eradicate extreme poverty and hunger	Promote gender equality and empower women	Combat HIV/AIDS, malaria and other diseases	Ensure environmental sustainability	Global partnership for Development
Objective 1	1.10 Align policy / regulations to strengthen the implementation of the fruit and vegetables sector including promotion of healthy eating and import substitution or supply side capacity building. Ensure sector priorities are represented in the Improving Policy Development and Coordination Reform Program (Ref: PO44			1.10Align F&V strategy with the overall strategy for the development of Samoa (SDS). Ensure link between the Fruit & Vegetable Sector Strategy with the Agricultural development plan, the National Export Strategy and SROS Plan, Health Sector Plan, MWCSD Sector Plan, Water Sector Plan and MNRE Cooperate Plan. Ensure sector priorities are represented in the Improving Policy Development and Coordination Reform Program (Ref: PO44)	1.11 Strengthen mechanisms for dialogue with private sector and other governments in the region for integration into bilateral and regional policy processes related to fruit and vegetable sector
Objective 2	2.12 Develop promotional point of sale materials to be displayed in hotels, restaurants, Supermarkets, F&V markets and stalls to communicate contribution of fruit and vegetable sector to farmer community livelihoods, promotion of healthy eating and import substitution 2.15Promote backyard gardening for consumption of fruits and vegetables		2.14Develop and conduct a campaign to promote the consumption of fruits and vegetables as part of a healthy diet:  TV health and cooking programmes(including O le Kuka Samoa and the Challenge) School and work place canteen and lunch program Ministry of Health Exercise programs		

Strategy objectives	Eradicate extreme poverty and hunger	Promote gender equality and empower women	Combat HIV/AIDS, malaria and other diseases	Ensure environmental sustainability	Global partnership for Development
Objective 4	4.3 In cooperation with the MOAF, villages, private sector and potential buyers, develop or improve approach towards a more commercially driven methodology for training farmers				
Objective 5	5.13 Conduct a study on the feasibility of creating a multi-sector disaster aid facility. Evaluate the establishment of a disaster risk management fund at a regional level to provide local and international insurance companies an incentive to insure the agricultural sector and to provide clear definition of the kind of risks that are being covered			5.13 Conduct a study on the feasibility of creating a multi-sector disaster aid facility. Evaluate the establishment of a disaster risk management fund at a regional level to provide local and international insurance companies an incentive to insure the agricultural sector and to provide clear definition of the kind of risks that are being covered	
Objective 6	6.1 Develop an aggressive promotional strategy that will raise awareness on the lifestyle benefits of engaging in Agricultural activities (e.g engaging key national figures as spoke people for the Fruit and Vegetable sector to target changing mindsets, current WIBDI ads on healthy living, calendar of farmers)	6.1 Develop an aggressive promotional strategy that will raise awareness on the lifestyle benefits of engaging in Agricultural activities (e.g engaging key national figures as spoke people for the Fruit and Vegetable sector to target changing mindsets, current WIBDI ads on healthy living, calendar of farmers)			

# Appendix 5: Land tenure systems in Samoa



# Appendix 6: F&V Value chain maps and issues



ISSUE	Value chain stage
Trade facilitation and transportation	All
Lack of affordable airfreight cargo space limits export Recruit AgriChain New Zealand to analyse the impact and opportunities of freight cargo for both sea and air transport on export	Exporter
Market access	ALL
Limited market access. Market access process is both very long and stifling	All
Market Info: Grades and standards, Price, Requirements, Volumes	
Lack of coherent and comprehensive Market Information  Poor or no understanding across the Sector of WTO Rules and	All All
Requirements  Poor understanding of and, therefore, poor adaptability to Climate	Farmer
Volumes do not meet demand	All
Lack of knowledge of what the testing requirements are  No connection between planting seed supply and market demand.	All Farmer and processor/exporter
Demand from farmer decides the kind of seeds to be planted	All
Supply standards highly variable or non-existent  Poor product development skills and weak support from RDIS/ Patent	Farmer Processor
Lack of extension to advise on growing seasons	
Policy	
Poor management of Water. Overuse of water is affecting existing users  Water retention is not used as a solution to lack of water	Inputs
water retention is not used as a solution to tack of water	Inputs
Standards compliance	D
Organic Certification H&R is too expensive and too impractical Soil analysis cost is too high compared to the quality of information	Processor Farmer
generated - timeliness  Lack of training for HACCP, ISO	Processor
No Soil analysis, RDIS, USP	Farmer
No usage of tissue culture and no tissue culture replication by nursery stock	Farmer
High cost of pest and disease control	Farmer
Investment in brand and promotion	
Poor Promotion of Samoan Food – no set of minimum standards for	Processor
inclusion in such a programme  High variable of programme levelly	Exporter Processor
High variable of processing locally  No packaging/labelling on exports	Processor
Extension services  Lack of cold storage facilities, due to high capital and/or electricity costs, contributes to high post-harvest losses/wastages.  Initiate a feasibility study to determine a realistic need for cold storage	Processor

facilities in Samoa	
Lack of/Limited processing facilities of acceptable standards,	Processor
particularly for small farmers and processors	
Processing equipment cannot be afforded by most processors regardless	Processor
of the size of the operation	
No Access to water for irrigation. Frequent flooding and droughts	Farmer
Non-availability of machinery adapted to farmers' needs	Farmer
Troil availability of interimery adapted to farmers needs	Turner
Seeds, planting and linkage to market	
Variety of seeds viability and absence of on farm advice relating to	Inputs
choice of crop and its optimum development	mp wis
Seed quality and variety	Inputs
Need for wider and appropriate availability of seed variety to strengthen	Inputs
network between processors/ hotels / farmers	
Low availability of seeds and lack of uniformity	
See above but lack of traditional extension services	
See above but lack of traditional extension services	
Inputs and Dackaging	
Inputs and Packaging Unavailability of affordable packaging materials is a major constraint	Processor
Need for collective procurement of raw material and packaging materials	Processor
Rocking Terrain soils limit mechanisation	Farmer
High cost of machinery to develop land and improve farming	Farmer
methodology	7
Inconsistent supply of raw materials impairs the ability for processors to	Processor
produce consistently.	
Initiate a pilot study between a selected number of suppliers (e.g. for talo	
palagi) and a processor (National Foods) over time to provide concrete	
positive indication/benefits of consistent supplies	
Organisation, training and common drive	
Lack of a firm decision/practices among farmers to overcome	Farmer
	rannei
inconsistency in supply	All
Lack of entrepreneurship	
Unavailability of continuous training awareness	Farmer
Very poor cooperation between farmers	Farmer
Larceny	Farmer
High pre-harvest losses due to pigs (free range)	Farmer
Lack of resources and materials for fencing	Farmer
Trust & Relationship not recognised as key to the success of operation	All
Need for closer collaboration between farmers, suppliers & processors	All
No organization collection hubbing	Farmer
Poor ability of farmer to adapt	Farmer
Lack of commercial drive and commercial training in the basics of	Farmer/ Processor
business	
Processor sector does not pay enough attention to import substitution	Processor
opportunities	
Select one key processed product with high import substitution potential	
and initiate an experiment with existing infrastructure (e.g. nonu	
producers) to gauge feasibility of such an enterprise	
Little training on the field to farmers	Farmer
Average farmers' age over 30. Need to change traditional mindset to a	Farmer
more commercially driven one. Lack of status in farming	
Not enough farmers committed to farming. (Young people)	
	I .

Lock of Forman and Working conital Finance	
Lack of Farmer and Working capital Finance  Access to credit too hard and/or cumbersome	Farmer
Lending rates too high	Farmer
Fund availability and communication access a major constraint	Farmers /Processor
Power cuts /water cuts/portables affect shelf life of machinery and	Processor
processing activities	
Unavailability of loans for corporate farming	Farmer
Funding for fencing hard to access and, often, not a priority	Farmer
Consignment stock affects cash flow	All
Enforcement of credit being repaid based on trust	
Lack of credit records leads to constraints in third party investment and	
activities/production	
Risk of chasing farmer for payment too high for banks	
High cost of credit schemes & finance	
Price setting at spot on day of sale, lack of contract	
No contracts between banks and farmers	
No collateral for customary land	
Lack of mechanisation & finance to buy land	
Spread of Risk too high or does not even exist	
No access to risk	
Lack of shared capital and investment risk	
Pest and disease control cost	
No record keeping by small holders and commercial farmers	Farmer
	•
Health	
Not enough awareness or programs strongly linking F&V production	All
and supplies to Health dietary	

# Appendix 7: Average annual quantity and CIF value of vegetable imports (Jan 2002 – Jun 2008)

Product (tariff definition)	Quantity	CIF value
	(kg)	(S\$)
Onions and shallots, fresh or chilled	534561.6	1004140
Potatoes, frozen	131972.4	514877.1
Cabbage lettuce,(head lettuce) fresh or chilled	93128.01	382836.6
Carrots and turnips, fresh or chilled	102327.2	287143.4
Garlic, fresh or chilled	158918	224320.6
Mixtures of vegetables, frozen	77715.08	215887.5
Tomatoes, fresh or chilled	27037.6	100410.2
Cauliflowers and headed broccoli, fresh or chilled	35422.3	73441.23
Celery other than celeriac, fresh or chilled	37505.42	65408.92
Fruits of genus capiscum or pimenta, fresh or chilled	19080.96	62553.69
Lettuce, fresh or chilled, (excl. cabbage lettuce)	7592.58	43715.54
Mushrooms, fresh or chilled	13676.02	41049.23
Sweet corn, frozen	8423.966	17722
Other vegetables, fresh or chilled, not elsewhere specified.	4154.683	12430.15
Vegetables, frozen, other	4726.726	12372
Beetrootradishes and other similar edible roots, fresh or chilled	5632.277	12197.23
White,red,Savoy, Chinese cabbages, collards,kohlrabi, kaleetc, fresh or chilled	2940.778	12169.85
Brussels sprouts, fresh or chilled	3743.697	7917.846
Beans, fresh or chilled	3266.358	7105.846
Other vegetables; mixtures of vegetables, whole, cut, sliced but not further prepared	2121.758	7082.462
Other vegetables; mixture of vegetables provisionally preserved, unsuitable for	2335.809	6398.308
immediate		
Onions provisionally preserved, unsuitable in that state for immediate consumption	3163.206	6104.462
Shelled or unshelled peas, frozen	4923.812	5443.231
Peas, fresh or chilled	1690.217	5337.846
Shelled or unshelled beans, frozen	4260.283	3751.385
Chicory, fresh or chilled, (excl. witloof)	1913.603	3460.923
Asparagus, fresh or chilled	626.1785	3006.615
Spinach,New Zealand spinach and orache spinach, frozen	707.1385	2391.077
Dried mushrooms and truffles, whole, cut, sliced, broken or in powder, not further	1596.197	2388.154
prepared		
Cucumbers and gherkins, fresh or chilled	813.6062	2355.846
Leeks and other alliaceous vegetables, fresh or chilled	664.2631	2182.615
Olives provisionally preserved, unsuitable in that state for immediate consumptionle	732.7031	1612
Spinach, NZ spinach and orache spinach, fresh or chilled	503.7446	969.0769
Leguminous vegetables, fresh or chilled,other	77.48308	602.6154
Dried onions, whole, cut, sliced, broken or in powder, but not further prepared	194.1169	502.6154
Truffles, fresh or chilled	36.07692	417.5385
Cucumbers and gherkins provisionally preserved, unsuitable for immediate	01.54200	409.8462
	91.54308	409.0402

# Appendix 8: Average annual quantity and CIF value (Jan 2002 – Jun 2008) of fruit imports

Product (tariff definition)	Quantity	CIF
	(kg)	Value
		(S\$)
Apples, fresh	124660.3	513005.7
Oranges,fresh	85537.82	399238.9
Coconuts,not fresh,not desiccated	96579.42	203099.1
Dried prunes	26468.01	114582.6
Other nuts, fresh or dried, nes	9968.914	83679.23
Pears and quinces, fresh	33705.31	83577.85
Other dried fruit, nes	10291.7	60132
Fresh grapes	29000.01	59443.54
Mixtures of nuts or dried fruits,not containing added salt	4788.214	43276.77
Mixtures of nuts or dried fruits, containing added salt	3806.146	23526.62
Kiwifruit, fresh	12203.52	17561.38
Mandarins, clementines, wilkingsetc, fresh or dried	4831.586	17525.23
Peaches, including nectarines, fresh	4620.551	10343.54
Dried grapes	7946.094	9157.846
Strawberries, fresh	1551.758	8619.538
Melons, fresh, (excl.watermelons)	11640.41	8521.538
Plums and sloes, fresh	2038.495	8311.538
Watermelons, fresh	2309.154	6084.308
Coconuts, desiccated	6094.657	5734
Peel of citrus fruit or melons, fresh, frozen, driedetc.	2206.343	4054.308
Other fruit, fresh, nes	815.3938	3812
Guavas, mangoes and mangosteens, fresh or dried	1181.323	2922.308
Walnuts without shells, fresh or dried	637.6277	2377.538
Lemons and limes, fresh or dried	451.2215	2148.154
Other fruits and nuts, frozen, containing added sugar and other sweetening matter	375.2308	1881.692
Cherries, provisionally preserved, not for immediate consumption	185.2308	1860.308
Cashew nuts, without shell, fresh or dried	263.7323	1755.385
Grapefruit, fresh or dried	680.0569	1734.462
Black, white or red currants and gooseberries, fresh	305.9585	1689.692
Fruit and nuts, provisionally preserved, not for immediate consumption	1630.978	1664.462
Raspberries, blackberries, mulberries and loganberries, fresh	255.1154	
Apricots, fresh	301.7031	1572.769
Oranges,dried	1197.329	1408.615
Cherries, fresh	247.2262	1192.923
Other fruits and nuts,frozen,not containing added sugar or other sweetening matter	27.29231	1161.385
Strawberries, frozen, not containing added sugar or other sweetening matter	95.73077	984.6154
Dates, fresh or dried	272.1923	861.2308
Almonds without shells, fresh or dried	933.9246	799.5385
Strawberries, provisionally preserved, not for immediate consumption	62.76923	789.3846
Avocados, fresh or dried	132.9985	786.6154
Cashew nuts, in shell, fresh or dried	171.0277	719.6923
Walnuts in shell, fresh or dried	312.1354	701.3846
Dried apricots	203.2185	507.6923
Almonds in shell, fresh or dried	104.7969	468.4615
Pineapples, fresh or dried	139.0492	406.4013
Raspberries, blackberries, etc, containing added sugar or other sweetening matter	62	250
rasportios, orackocitios, cic, containing added sugar of other sweetening matter	02	230

# Appendix 9: Glossary

TERM	DESCRIPTION
EC	European Commission
EU	European Union
ITC	International Trade Centre
MAF	Ministry of Agriculture and Fisheries
MoF	Ministry of Finance
NGO	Non Governmental Organisation
SCCA	Samoa Crops Cooperative Association
SFA	Samoa Farmer Association
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
USAID	Unites States Agency for International Development
USD	United States Dollar
USP	University of the South Pacific







# All ACP Commodities Programme Pacific Region

# Fruit & Vegetables SECTOR STRATEGY for SAMOA

July 2009 Apia, Samoa





# Note to the readers and purpose of this document

As part of the EU funded All ACP Agriculture Commodities Programme (AAACP) for the Pacific Region, the Ministry of Agriculture of Samoa and the sector stakeholders in collaboration with the International Trade Centre (ITC) in Geneva, Switzerland, have undertaken the development of a Comprehensive Sector Strategy for Fruits and Vegetables.

The emphasis on Fruit and Vegetables came out of the EU/AAACP Pacific Kick-Off Workshop held in Samoa in February 2008, where areas and sectors of priority were identified to implement sustainable commodity strategies.

Representatives from the agricultural sectors in the Pacific countries including farmers, processors, retailers, government officials and regional institutions selected Fruits and Vegetables for Samoa based on factors such as market demand and potential, developmental impact, existing development initiatives already focusing on sectors and motivation of stakeholders.

The Sector Strategy for F&V was developed by a stakeholder run Coordinating Committee and by the Ministry of Agriculture. This was done by using ITC's market-led participatory approach. It focuses on domestic, regional and international market and social development objectives and is aligned to existing initiatives such as the Strategic Development of Samoa or the National Export Strategy for Samoa. The F&V will also be an integral part of the Agricultural Sector Plan currently being developed by the Ministry of Agriculture.

The emphasis is on revitalising the fruits and vegetable industry through the value-chain approach thus targeting farmers, private sector enterprises, processors, buyers, policy makers and support institutions.

Under the ACP programme, Food and Agriculture Organisation of the United Nations (FAO) based in Rome provided support to ITC and the sector stakeholders for the development of the current strategy. The World Bank also contributed with information and support form specialist.

The purpose of this document is to guide and support the development of the Fruit and Vegetable industry by providing a framework and a plan and by articulating value chain actors, private sector, existing resources, development activities and donor support.

This document has not been formally edited and is intended to provide an overview of the Fruit and Vegetable Sector Strategy for Samoa. The implementation plans and work programme have been submitted to Cabinet on March 2009.

# **Acknowledgements**

A full list of contributory participants is included in Appendix 2. In addition, the Government of Samoa wishes to thank the following institutions and individuals

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# **VISION** for the Fruit and Vegetable Sector

A competitive and sustainable sector growing the future for a healthy and wealthy Samoa

# **MISSION**

To establish the fruit and vegetable sector as a major economic vehicle in achieving the objectives of the Samoa Development Strategy by 2012 and enabling it's Millennium Development Goals by 2020

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# **Executive Summary**

# **Impact and Beneficiaries:**

The 2005 agricultural survey identified 17,829 agriculturally active households in Samoa, as those who are involved in agriculture of some sort. This represents 77% of the total households surveyed and is the basis for the opening assumption that over 50,000 people and their dependants rely in some measure on the productivity of the agriculture sector. In terms of impact, this implies that at least one third of the population derives at least part of their income from farming.

The economic benefits of a successful fruit and vegetable sector are obvious and all Samoans will see their life style improved both socially and materially through the successful development of the fruit and vegetable sector.

#### **Global and Sector Situation:**

Samoa is not exempt from the current global economic environment. Overall consumption is forecast to drop by 4.1% in 2009 due to falls in earned incomes including a drop in remittances resulting from the global recession, weak employment in New Zealand and Australia, workforce reduction in the tuna cannery industry in American Samoa and the automotive wire factory in Apia<sup>1</sup>.

In light of the expected impact of the above forecasts, the fruit and vegetable sector takes on a renewed importance as a key economic driver and in ensuring ongoing food and nutritional security.

Economic reforms during the 1990's placed Samoa among the fastest growing Pacific Island economies. Currently, the Samoan economy is experiencing an increasing balance of payments deficit as a result of a liquidity squeeze and reduced growth. Samoa's economic performance remains highly vulnerable to economic shocks and natural disasters. Additionally, private sector growth is restricted, constrained by a narrow resource base, high inflation, limited infrastructure, a shortage of investment, isolation, dependence on fuel imports, a lack of skilled labour and a small domestic market.

Samoa's primary industries are an important contributor to the national economy, accounting for over 50% of total exports and contributing to 10 % of GDP. With 77% of the country's households being agriculturally active, the primary industries are also very important for national food security and are the foundation of traditional community life.

The Strategy for the Development of Samoa (SDS) is the overarching multi-year plan (2009-2015) for the country based on the long-term vision of 'improved quality of life for all'. Agricultural and rural development figures prominently in the SDSs<sup>2</sup>.

The fruit and vegetable sector offers a diverse range of produce to develop a stronger fresh and processed food industry that shall contribute significantly in positioning Samoa as the leading economy in the Pacific.

http://www.mof.gov.ws/uploads/budget\_address\_2009-2010.pdf

<sup>&</sup>lt;sup>2</sup> The ADB estimated that in 2004 20% of the population was below the Basic Needs Poverty Line and 9% below the Food Poverty Line, and that 6% lived on less than US\$1.0 per day. Of the 34,000 living below the Basic Needs Poverty Line 73% were found in rural areas.

## The Strategy response and objectives:

This strategy is a comprehensive way to address critical factors that impact on the development of the Samoan fruit and vegetable sector. It identifies target markets and associated value chain issues that impede efficiency and growth. In order to reduce the gap in performance, prioritised response activities have been developed and categorized into seven objectives.

The seven key objectives are:

- 1. Improve coordination in the sector to successfully implement the Fruit and Vegetable Strategy
- 2. Improve market intelligence, promotion and dissemination across the whole value chain
- 3. Build a supply sub sector that can guarantee consistent quality and supply of fresh fruit and vegetables
- 4. Build a sector that is well trained and supported by a comprehensive and properly executed capability plan
- 5. Improve financial situation of sector farmers and enterprises
- 6. Promote Integrated Management of resources to ensure sustainability of the fruit and vegetable sector
- 7. Strengthen Samoa Association for Manufacturers and Exporters (SAME) to provide services that will increase returns and overall value addition for sector

### The target Markets:

The strategy covers the development of the domestic and export markets to create demand to meet increased supply that will become available as a result of the actions that result from the activity plans.

As a first priority, target market segments include local hotels, supermarkets and restaurants particularly for crops and products that are currently being imported but could be produced locally.

The 2009 market demand survey that was prepared by USP as an input to the strategy workshop 1 clearly identified that over 80% of hotels and restaurants surveyed will stop buying imported product if locally produced competitively priced, similar quality alternatives are made available.

Additionally, niche exports to the regional markets, and the Pacific Rim are key to ensuring long-term sustainability and commercial viability of the sector. Development of an export sector will be achievable based on a more stable domestic market. The main areas of focus for exports are Organic fruits and vegetables and specialty produce such as tonic juices.

The timeframe foresees strategy implementation in five years 2009- 2014. It is expected that it will create a platform for future growth in the sector beyond the period of the plan.

### **Implementation of key activities**

The inconsistency of supply, quality, volume and price variations of fruit and vegetables is the reason for the lack of growth and local consumption in the fruit and vegetable supply chain.

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.

As decided in the stakeholder workshops priority has been given to developing a value chain that shall be based on consistent and quality fruit and vegetables supplied into the market through a pilot grading and quality centre that will provide logistical (pick up, post harvest handling, grading, sorting, delivery) services to farmers and buyers and in turn provide additional support services such as finance, training and agronomic support.

## **Expected outcomes**

If the F&V sector strategy is implemented it is anticipated that the overall sector contribution to GDP will increase to approximately 10% over the next 5 years.

However its impact on MDG's will be substantially greater because the economic impact will be at the rural and subsistence level.<sup>3</sup>

## The Strategy Management Framework

The Fruit and Vegetable Strategy Development Coordinating Committee was appointed by stakeholders and is composed by representatives from the value chain including farmers, processors, and tourism industry, NGO's and the Ministries of Agriculture and Finance.

The Coordinating Committee has been responsible for the development of the strategy and has articulated communications with stakeholders, Government Authorities and Implementing Partners. In March 2009 Cabinet has confirmed the role of the committee in managing implementation and monitoring progress.

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<sup>&</sup>lt;sup>3</sup> The impact on MDG's has been estimated and categorized for each of the relevant activities in the implementation plan and can be consulted in the Strategy Document.

# Message from the Ministry of Agriculture

Agricultural development continues to be a key focus area for the Strategy of the Development of Samoa (SDS) for 2005-2008 and 2008-2012 and the Millennium Development Goals (MDG's). The Development of the Fruit and Vegetable Sector Strategy is therefore an achieved Milestone as it provides direction to the Ministry and the private sector in accelerating economic growth and sustained macroeconomic stability.

In order for Agriculture to grow in a sustainable manner, there is a need for an increased emphasis on commercial production with associated value addition and well-managed supply chains. Such a concept is fully recognized in this Strategy.

At present, there is a substantial amount of unused arable land that is available for cultivation. Somewhere between 160,000 and 200,000 hectares of Samoa's total land area is assessed as suitable for agriculture and the 1999 Agriculture Census indicates that only about 53,400 hectares (including fallow land) were in use with low levels of productivity. The latter can be improved with numerous technologies and agronomic practices that are available to farmers.

The Ministry of Agriculture and Fisheries (MAF) is to provide full support in the implementation of the activities in partnership with the Private sector and the Coordinating Committee.

# **Message from the International Trade Centre**

The EU funded All ACP Agricultural Commodities Programme was launched in the Pacific in a Regional Kick-Off Workshop held in Samoa in February 2008. Less than a year later, more than 120 Fruit and Vegetable sector stakeholders in cooperation with the Government of Samoa accomplished the development of a comprehensive market led strategy and implementation plan.

The International Trade Centre (ITC) wishes to acknowledge and commend all the effort put into the development of this strategy and implementation plan. The process has already begun to show sprouts particularly in the area of fostering private-public partnerships and in achieving improved articulation and organisation of value chain actors through the Coordinating Committee.

Beneficiaries have been included from the design phase and have directly interacted with the ACP Programme Implementing Partners in determining priority activities and delivery mechanisms. Furthermore, the strategy has also enabled stronger coordination and linkages with regional organisations and other donor bodies outside of the ACP Programme but most important the strategy is actually responding to market potential and will increase overall sector performance.

The Coordinating Committee presented the strategy outputs to Honourable Tuilaepa Prime Minister and Cabinet members on 18<sup>th</sup> March 2009 and on the official launch event hold in July 9<sup>th</sup> 2009. This also reflects success in securing high-level support and in addressing the crosscutting needs of the strategy.

The Challenge ahead is to successfully implement and coordinate of activities is the challenge ahead to ensure a meaningful impact in the development of the farming community villages as well as Samoan industry. The strategy and implementation plan developed by Samoa is a solid tool that will allow the Coordinating Committee and Government to do so.

# Purpose of the Strategy and time frame

The strategy has been designed based on current and future market potential using the International Trade Centre's Participatory methodology. Value chain Diagnosis against market and buyer requirements has been the basis to design response activities to improve overall sector performance.

The Strategy has three main overall objectives, targeting productive, social and health areas.

- 1. To enable the sector to become a more significant contributor to the Samoan economy by better capitalizing on existing and future market opportunities and attracting direct investment
- 2. To articulate and implement value chain actors to address the main issues and challenges faced by the sector in order to respond to market requirements
- 3. To engage and mobilise Government and Development and assistance partners for support in the implementation of the strategy.

The time frame for implementation of the strategy is of 5 years ending in 2014. 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.

# Specific Goals, Impact and Beneficiaries

# **Overall Development goal and beneficiaries**

The overall development goal is to improve the livelihood, health and economic situation of the Samoan people by raising the production and consumption levels of fruit and vegetables and its value added products. Annex 4 has classified each one of the Strategy objectives and relevant activities regarding its contribution to the Millennium Development Goals.

# **Targets**

If the F&V sector strategy is implemented it is anticipated that the overall sector contribution to GDP will increase in approximately 10% over the next 5 years.

However its impact on MDG's will be substantially greater because the economic impact will be at the rural and subsistence level.<sup>4</sup>

The implementation of the sector strategy targets to improve delivery and quality of fruits and vegetables not only for the consumers who will benefit from a wider range choices on offer contributing to improvements to health and nutrition needs, but also the processors by increasing returns from exports and improved sustainable development options for Samoa.

<sup>&</sup>lt;sup>4</sup> The impact on MDG's has been estimated and categorized for each of the relevant activities in the implementation plan and can be consulted in the Strategy Document.

## **Overall Targets**

Target	2009-2015
Increase in commercial production output	50%
Increase in number of commercial farmers	By 100% (Mixed cropping from 10,000 ha
and land utilisation	to 20,000ha)
Import substitution for fresh	85% of current imports of F&V produced
	locally (excluding produce that does not
	grow)
Increase in Processing activities	15% of total processed foods consumed
	produced locally
Increase in Exports	50 Million Tala (FOB)
Decrease of Lifestyle diseases (NCD's) by	Decrease of NCD's related to healthier
improved diets	eating by 2015

# **Productive targets**

- Increased rural employment opportunities by 2014
- Improved village and rural economies through increased production and therefore gate and specific market sales by 2014
- 15% reduction in processed fruit and vegetable imports by 2014
- 25% reduction in fresh fruit and vegetable imports by 2014
- SAT\$50 million in fruit and vegetable export earning by 2014

#### **Social targets**

- Increase fruit and vegetable consumption by halving the percentage of people who at less than 5 of the combined servings from 33 to 15% within the next 3-5 years.
- Reduction in non-communicable diseases
- Reverse the current prevalent trend of obesity among the men (quadrupled) and women (doubled) in Samoa within the next 3-5 years.

# **Anticipated Impact of strategy implementation**

A more productive fruit and vegetable sector and industry will enhance the economic well being of Samoa.

Farmers, their families and their villages will enjoy diversified income streams. Individually and collectively, they will be able to negotiate more effectively with both suppliers and their customers. They will be able to better plan and finance their planting and harvesting cycles. They will be better organised both individually and collectively to meet the challenges in providing their customers with what they want, when they want it.

Processors will benefit similarly. They will be better placed to source fruit and vegetables locally. They will be better able to specify grades of quality and delivery schedules. They will be able to plan their inputs and resource needs, as well as access to funding.

Buyers will benefit from being able to plan their activities and promotions around a more secure supply of fruit and vegetables. The 2009 market demand survey that was prepared by USP as an input to the strategy workshop 1 clearly identified that over 80% of hotels and restaurants surveyed would stop buying imported product if a satisfactory locally produced competitively priced alternatives were made available.

The national economy will benefit through increased production in the sector due to at least 50% reduction of foreign exchange losses for sector products from import substitution. Increases in government revenue will additionally be sourced through taxation earnings with increased domestic employment using GST, employee, and company taxes from both farmers and secondary processors. Increased exports will also provide support in foreign reserve earnings.

Consumers will benefit economically from a regular, lower cost supply of fresh fruit and vegetables which will provide added health and social benefits.

#### **Social Benefits**

On a social level as returns to farmers improve every level of society that has an interest in agriculture will feel more secure and better able to plan for the future. Increasing value of property (e.g. fruit trees and taro plants) provides land holders a sense of security. Samoa has traditionally had a robust social structure that provides for community needs and protection. The ability of families to contribute resources to this system both sustains the system but helps ensure security for all within it.

Increased opportunities to earn cash in agriculture will also encourage young people to remain in the village further strengthening family and social structures and reducing the social pressures in town areas created by urban drift. Employment opportunities would also be diversified with work created in cultivation, harvesting and post-harvest activities, which expands the range of opportunities available to young people.

### **Health Benefits**

These diseases are now the leading cause of death in Samoa as obesity rates have grown from 25.5% in 1978 to 67.5% in 2001, among the highest rates in the world. As a result, Government has identified health as one of its priority focus areas in the last two triennia covered by the SDS. The strengthening of health promotion and primordial prevention is also an important strategic area in the SDS 2008-2010'

Samoa is burdened by rapidly increasing levels of food and nutrition related diseases (including diabetes, hypertension, obesity, coronary heart disease), which impact negatively on the health system, families and the national economy.

The impact on the overall health of Samoans of increased regular consumption of fresh fruit and vegetables cannot be under-estimated. Campaigns to encourage increased daily intake of fruit and vegetables are under way all over the world. The Samoan government has already put in place programmes along these lines and this strategy will contribute strongly to the existing campaigns.

#### Sustainable land use

By ensuring appropriate agricultural technologies are utilised, the entire value chain will benefit due to sustainable land use. This will ensure higher crop yields over the long term, increasing farmer incomes and sustaining the value chain into the future.

# The current situation: F&V Sector Background<sup>5</sup>

# **Snapshot of the Macro Situation**

Gross Domestic Product (GDP) has shown signs of contraction for the first time in over a 10-year period. Imports have slowed down resulting in a 15% downward revision of revenues expected for 2009/10. Import prices and inflation rates have continued to climb while re-manufactured exports have declined due to reduced demand in the auto industry in Australia.

Samoa's macroeconomic performance remains vulnerable to economic shocks and natural disasters. Continued growth in the economy will be linked to the continued development of the agricultural sector. Samoa remains heavily dependant on overseas development assistance (US\$30.8 million in 2004) and remittances (US\$248 million or 25 % GDP in 2005). Official GoS debt stood at US\$157 million in 2004 or 35% of GDP. Multilateral and bilateral loans account for over 90% of this debt.

Agriculture's contribution to GDP has decreased in recent years from 14.9% in 1995, to 6% in 2007. The ongoing decline of the agricultural sector's importance has been accompanied by a restructuring of the sector, as the coconut and taro sub-sectors are no longer as dominant as they were in the past.

The 40% of the population that lives in and around Apia generate 70% of the GDP thereby creating significant urban/rural disparity.

Agriculture still provides a livelihood to 77% of the population, and Samoa displays a high level of food security. Coverage of national food requirements however is decreasing and food imports are rising (rice, mutton flaps, chicken wings, eggs, etc.). The situation could be reversed since the country can produce a wide array of animal and plant food products. The degree of food self-sufficiency could be greatly increased given the national potential and that agriculture is one of the pillars of traditional community life.

The 2005 agricultural survey identified 17,829 agriculturally active households in Samoa, as those who are involved in agriculture of some sort. Other recent estimations account for 37000 smallholder farmers and 960 commercial farmers.

There is limited processing of fruit and vegetables in Samoa. Taro and banana chips are produced. As at March 2009, the main success of this sector is the export of Noni juice to Japan and the USA.

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<sup>&</sup>lt;sup>5</sup> Section developed using information available in the World Bank Mission Report submitted to Ministry of Agriculture in June 2009 and in the ITC / FAO preparatory information report submitted to sector stakeholders during workshop 1.

Significant amounts of fruit and vegetables are imported into Samoa. For the year 2007, according to ITC statistics, the value of imports of fresh and processed fruits and vegetables was approximately USD1.5 million. According to the Samoa Central Bank 2007 report, the imports of vegetables and fruits was just under SAT\$4 million and SAT 1.8 million, respectively.

Table 2: Brief Context on Global and national economy<sup>6</sup>

Land Area (km²): 2,820	Population (No.): 180,741 (2006)
	21% in Apia urban area
Density (inhabitants/km2): 65 (2004 estimate)	Rural Population (% of total population): 78
GDP (US\$ million): 532.0 (2006)	GDP per cap (US\$): 2,872 (2007)
Budget allocation agriculture (2008/09):	Primary Sector GDP (% of total GDP):
SAT12.37 million (US\$ 4.95 m)	11.4 % (2006)
% of Total Budget 1.8%	Ag 6.7 %

# The Fruit and Vegetable sector situation

#### Land Use

Only 80,500 ha or about 28% of the total land mass is under regular agricultural or livestock production. An FAO funded GPS Mapping Study of Samoa completed in 2004 provides details on land use and gives the following distribution of the total land mass across land use categories:

- 53,000 ha or 18.6% is under (sole) plantation crops;
- 10,000 ha or 3.6% is under mixed cropping;
- 17,500 ha or 6.2% is classified as grassland;
- 192,000 ha or 68% is classified as forestry, secondary forestry or scrub
- 10,800 ha or only 3.2% has no agricultural potential being either urban land, barren land (lava) lakes or wetlands.

Annex 5 provides more details on the land use in Samoa.

#### **Agricultural Practices and Farming Systems**

Agriculture in Samoa is a smallholder activity, practiced using labour intensive technologies.

Farm size is typically less than 10 acres. Soils are of volcanic origin and generally very fertile. Farmers use a variety of mixed cropping techniques for ground crops (e.g., taro with other crops), ground crops in association with tree crops (e.g., taro under bananas), or 'stage' cropping of tree crops (typically cocoa under coconut); cattle raising is often integrated with tree crops (typically cattle grazing under coconuts trees).

The above practices combine with the ubiquitous presence of boulders and rocks due to past volcanic activity to hinder mechanization.

<sup>6</sup> Sources: SDS 2008-20012; Samoa Census of Population and Housing 2006; Samoa Budget Statement 2008/09; Asian Development Bank 2005. Key Indicators of Developing Asian and Pacific Countries (ADB); Central Bank of Samoa Bulletin, March 2008

The recent increase in the prices of agricultural chemicals and imported food items is encouraging the return of village communities to traditional ways of cultivating land and favouring the consumption of local vs. imported foodstuffs. This trend is an asset for organically certified agriculture that has great potential for expansion on niche markets overseas.

The downside is the availability and cost of labour. With young people migrating to Apia or overseas, and typically showing a lesser interest in farming activities, labour is becoming a constraint. The incentive for increasing agricultural productivity will be an adequate remuneration of labour in the context of the manual labor intensive technologies used.

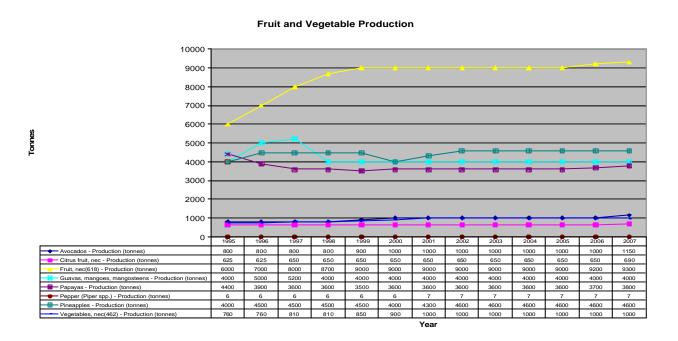
Of the 17,829 rural households, 14,000 households produce entirely or mainly for home consumption. An increasing fraction of farmers are becoming market oriented and about 2,500 households (11%) are deemed commercial or semi-commercial producers.

Farmers increasingly need to meet cash requirements to pay for basic services (e.g., electricity) and basic amenities and foodstuffs that they buy from the market. This has had a positive impact in getting farmers connected to the market. However, the fact that farmers can cover their cash needs through remittances gives them an incentive to market their surplus production only to the extent that prices cover their reservation wage (or opportunity cost of their labour in terms of other potential economic activities and/or leisure time).

#### **Production**

The production figures below from FAO's FAOSTAT are based on projections from the last agricultural census in 1999. While these projected figures did not foresee a great increase in production for both fruit and vegetables into the 2000's, what has been observed over the last 10 years challenges these projections.

Figure 1: Fruits and Vegetable Production from 1995-2007



Though production being sold may not have been consistently increasing over this period, Fugalei market sales nevertheless indicate some increase in production and in the diversity of varieties being produced.

Data on production yields and area harvested of fruits and vegetables in Samoa is limited. Information on fruit and vegetables grown and sold in the local market was not specifically measured in the 1999 census and 2002

and 2005 agricultural surveys. However, an agricultural census planned for November 2009 should provide more information specific to the sub sector.

There are systemic issues which impact on production, for example access to land for commercial farming. Traditional and cultural considerations can discourage land clearance for new plantings and this has contributed to a lack of product diversification until very recent times.

## **Organic Production**

The organic agriculture sub sector has grown from zero in 1999 to 204 certified farms as of March 2009, with another 150 expected to enter the certification system by mid 2009. The number of suppliers for the pilot domestic "Organic Farmers Market" which happen last Friday of every month and a weekly "Organic Basket" delivery programme has also grown from zero in December 2007 to 36 farmers in May 2009.

Currently demand exceeds supply for the Farmers market and Basket service and these pilots are expected to expand as production increases. Exports crops and products include cocoa, coconut and coconut products, nonu and bananas. Unpublished data showed tangible impacts of this growth such as home improvements, people going back to the land instead of seeking paid employment in town, regular income, better management and use of remittances to focus on socio cultural commitments while income earned funds daily needs such as school fees, food and electricity.

#### Value addition

There is limited processing of fruit and vegetables in Samoa but high demand for processed products that is currently mainly satisfied through imports although there is scope for local production with minimum investment in some categories.

As of March 2009, the main success of this sector is the export of Nonu (*Morinda citrifolia*), juice to Japan and the USA. Exports peaked in 2005 at just above SAT\$8 million but have fallen to approximately half this value in 2008. As a measure of the success of this product, it represented 8% of total Samoan exports during the period from July 2008 to July 2009. Taro and banana chips are also produced. The strategy intends to increase availability of inputs enabling the further development of value added activities for the fruit and vegetable sector.

# **Domestic market dynamics**

Samoa has grown fruit and vegetables since the islands were originally populated. There has been a stronger vegetable than fruit cultivation in the past. However, data show very clearly a dramatic decrease in the consumption of traditional foods, which include fruits and vegetables with the exception of taro and banana, which have experienced an increase of consumption from 1991 to 2003.

#### **Imports**

Significant amounts of fruit and vegetables are imported into Samoa. According to the Samoa Central Bank 2007 report, the imports of vegetables and fruits was just under SAT\$4 million and SAT 1.8 million,

<sup>&</sup>lt;sup>7</sup> Central Bank, National Export Strategy of Samoa

respectively. The substitution of imports by local production has been identified as a possible growth opportunity for the fruit and vegetable sector. Annex 7 and 8 provide values for the imports (2002-2008) by HS category.

Figure 2: Total vegetable imports into Samoa from 2002-2007

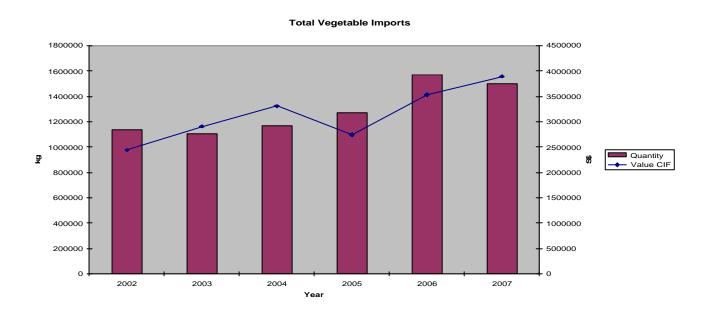
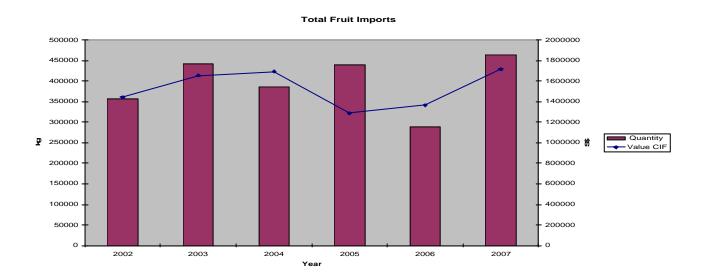


Figure 2: Total fruit imports into Samoa from 2002-2007



# **Issues Affecting the Sector Value Chain**

Issues constraining development of the Fruit and Vegetable sector were identified<sup>8</sup> at all points of the value chain from production inputs and land resource issues through financing and marketing access to consumer education and preference. Annex 6 provides Value chain maps from the workshops.

Many of these issues are interlinked and interdependent and are related to the market and buyer requirements. Hence the need for a comprehensive and holistic strategy and a broad based cross sector approach to addressing these issues.

The issues that were identified fall into broad categories and are identified below.

- 1- Inefficient Trade Facilitation and high transport costs
- 2- Limited market access (distribution channels for fresh produce)
  Lack of market information: grade & standards, prices, buyer requirements, quantities, etc
  Low level of awareness and compliance for market standards
  No investment in branding and few marketing or promotion skills
- No policy alignment with private sector priorities and business objectives
   Low levels of farmer organisation
   No coordinated management of natural resources such as water, arable land and tourism use.
- 4- Ineffective agronomic support services
  Seed production and sourcing not linked to market variety requirements
  Inconsistent supply of raw material and inputs and fragmented farmer base
  No access to quality inputs and no packaging material produced on the island
- 5- Lack of access to Finance due to high interest rates and inability to use customary land as collateral Lack of adapted appropriate technologies at all levels (esp. packaging)

  Cultural systems defeating/discouraging entrepreneurial culture in rural communities

High cost of vegetables restricting the amount of vegetables included in the local diet despite awareness of contribution to healthy eating

Little awareness of healthy eating and nutrition.

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<sup>&</sup>lt;sup>8</sup> During the strategy development workshops, by the stakeholder run working groups and through the value chain analysis studies.

# Existing Projects and Resources Available<sup>9</sup>

Foreign technical assistance to the sector has been focused until now on improving fundamental supply side capabilities. The strategy aims to develop a stronger link between market and business development objectives and requirements and supply activities. Furthermore, developments programs relevant to the agricultural sector have acknowledged the need for institutional capacity building, key technical support, private sector promotion and environmental matters.

The level of support on the part of the donor community (approximately US\$1-2 million per annum in recent years) has been limited as compared with the health and education sectors (and to a lesser extent telecom) that have received the majority of external funding.

In recent years, the MAF received substantial support for capacity building (AusAID Institutional Strengthening Project, 2002-2007). Currently, the bulk of the support to the agricultural sector is through support to the small business development (ADB Small Business Development Project, EU Micro-Projects, NZAID and UNDP Private Sector Support Facility).

Both the Government of Samoa and donors have acknowledged the need for more coordination in interventions in the agricultural sector and expressed interest in a programmatic approach as framework for external aid in that sector.

External grants are projected to increase to \$152 m representing a rise of 37% over 2008/09. The Agriculture Sector is allocated a budget of approximately \$11.11 million Tala.

The Government is also consulting closely with the World Bank on a substantial investment of US \$18.0 million to revitalize Agriculture.

While it is difficult to specify an amount that is allocated specifically to fruits and vegetables, the nature of farming in Samoa would suggest that the approximate amount of development resources available to the Fruit and Vegetable Sector is approximately 10 million USD.

<sup>&</sup>lt;sup>9</sup> Section developed using information made available by the Ministry of Agriculture and extracted from the World Bank Mission Report submitted to MAF in June 2009 and from the ITC / FAO preparatory information report submitted to sector stakeholders during workshop 1

Below is a brief description of the donor programs in the agriculture sector. More details are provided in the annex 3: Past, current and proposed agricultural projects with external donors and implementing partners

- Ausaid: Agricultural Sector Development Strategy 2005-2007: Under the 2005-2007 SDS strategies to enhance the growth of the agricultural sector were identified and implemented. These strategies included: (i) enhancing food security; (ii) promoting commercial investment and diversification of crop production, including high value perishable products for both domestic market and exports; (iii) supporting commercial investment in livestock and fisheries production; (iv) promoting the sustainable use of forestry resources; and (v) strengthening of the Ministry of Agriculture's capacity for planning, budget management and Monitoring & Evaluation under the AUSAid supported Institutional Strengthening Program (ISP, 2002-2007).
- EU (i) support to export promotion of crops through the *High Temperature Fast Air* (HFTA) quarantine program (completed); (ii) Micro-projects (SR12 million, ongoing); multi-sector including and prominently agriculture production and agro-processing; and (iii) Implementation of the fruits and vegetables strategy, ongoing through the International Trade Centre (ITC) under the Agricultural Diversification for the African, Caribbean and Pacific countries (AAACP);
- **FAO**(i) country support under the regional food security program (\$170,000); (ii) TA to assist the Research and Development Institute (RDIS) for horticulture and food technology; (iii) Technical Cooperation Program (TCP to assist MAF in the preparation of the Agriculture Sector Re view and (v) telefood program.
- ADB: Small Business Development Project (US\$4.1, completed, emphasis is on rural sector enterprises;
- **NZAID** (NZ\$250,000) & UNDP (US\$95,000): Private Sector Support Facility (PSSF), with emphasis on agriculture commercial value chains;
- **GEF**: Small grant scheme (US\$400,000), community-based projects including organic farming activities.
- **SPC:** FACT project

# The future for the F&V sector

# **Target Markets**

The committee and sector stakeholders have reviewed current supply and demand patterns of both fresh and processed F&V products and identified the following areas listed below as targets for the strategy:

# **Domestic market and Import Substitution**

Priority number one is related to import substitution particularly of fresh and processed fruits and vegetables. This would see improvements in the sustainable delivery of product and improved quality assurance. The current imports of fresh fruits and vegetables are about \$5,800,000 per annum. In addition there is a growing market as the Tourism sector has continued to grow in the current global environment. At present in the first 3 months of 2009 the market has expanded 27% over the same period during 2008.

Processors also need to reduce the reliance on processed food imports that can be viably and sustainably replaced by local equivalent produced products. This market accounts for 20% of total imports.

## **Export**

Existing export markets need to have improved supply chains with stringent quality assurance processes to enable continued improvements in their niche market access. Fresh fruit and vegetable market access protocols have enabled development of markets for organic fair trade products with Europe and New Zealand. The Fair Trade market has grown by 70% in New Zealand under the period march 2008 to March 2009.

Exports of processed fruits and vegetables have increased over the second half of 2008 and have continued to grow sustainably in the first half of 2009. The growth potential for enhancing and developing this market has been addressed in this strategic plan in order to ensure the distribution of wealth down the value chain.

The processors are also pursuing diversification of processed products to enable sustainable development of the products and improved market linkages.

### Market segments

Focus	Phase 1	Phase2
	2009-2011	2012-2014
Domestic market	Supermarkets, hotels, restaurants, school	
Fresh	canteens, markets, institutional catering	
Domestic market	Supermarkets, hotels, restaurants, school	
Processed	canteens, markets, institutional catering	
Exports Fresh	Tokelau, American Samoa, Cook Island,	New Zealand & USA,
	Australia, New Zealand (Samoan	Australia (general),
	community)	
Processed exports	USA (incl American Samoa), Japan,	New Zealand, USA
	Tokelau, Tonga, Fiji, Australia, New	Australia, EU
	Zealand (Samoan community)	

In consultation with the local buyers and consumers the following list of products was established for the local markets. The markets were also separated in terms of volumes required and modes of delivery. Some of these products are currently the focus of commodity chain studies to further ensure sustainability of supplies.

During the strategy development workshops and follow up meetings the importers and wholesalers also identified the products having high potential for processing in Samoa including the quantities needed.

### **Potential product opportunities**

Focus	Phase 1 2009-2012	Phase 2 2013-2014
Domestic market Fresh	Eggplant, cabbages, citrus, potatoes, lettuce, herbs, tomatoes, capsicums, mangos, pineapples, papaya, cucumber, banana, breadfruit	Onions, carrots, garlic, apples, oranges, celery, mangosteen
Domestic market Processed	Chutneys, Honey, Jams, Snack foods & Chips, Dried fruit,	Fruit Juices Frozen potatoes and vegetables, dried vegetables, Bottled & Canned fruit, sauces, Chilli & Tomato Sauce
Exports Fresh	Organic (Bananas, Coffee, cocoa, coconut), cabbages, tomatoes, lettuce, cucumbers, capsicums, limes, pomelo, grapefruits	Organic and exotic high value fruit, organic herbs
Processed exports	Noni Juice, coconut oil, coconut water, Snack foods & chips, fruits (banana, pineapple), flour	Organic line extensions, sauces, canned and frozen fruits and vegetables dried fruits, desiccated coconut, vacuum pack taro and yams

The strategy covers a period of five years and is divided into 2 phases:

### Phase 1: 2009-2011

This first phase will end at the same time as the completion of the current SDS plan. This phase will commence with a major demand (buyer quantities and requirements) and supply (availability of produce) information-gathering exercise that will set the strategy in motion. It will also identify systemic and sectoral fundamentals such as access to land, water and transport.

The existing business will be complemented by increased fresh and processed exports to Pacific neighbours. A thorough review of the strategy is foreseen for the end of phase one.

### Phase 2: 2012-2014

This phase will see a stronger focus on expansion to new markets, in particular niche or specialty in New Zealand and Australia. This phase will see a consolidation of the activities from the first phase.

### Strategic Objectives and interventions

In order to respond to the demands and needs of the identified markets, the implementation plan included in a later section in this document has identified strategies, concrete actions and their corresponding implementing partners.

This section will provide a brief overview of each of the 7 objectives in the strategy by describing each of the sub-objectives and detailed activities in them. It is important to note that in this section the objectives, sub-objectives and activities and are shown in a logical order but not in a priority order.

The Annex 1 shows the activities in the order of priority together with their estimated cost for implementation (a three-year rolling budget developed).

# Objective 1: Improve coordination in the sector to successfully implement the F&V Strategy

Currently, the fruit and vegetable sector is dependent on a series of individual spheres that often are not well related to each other and thus the need for improved coordination across Ministries, development agencies and other stakeholders.

The first task will be to communicate the way forward to stakeholders and implementing partners. It is expected that government policy will be aligned across government agencies as well as the private sector. The private sector will have greater input into the setting of government policy to create better enabling environment, to allow the strategy to achieve its goals. The strategy implementation will be closely monitored at all stages.

Sub Objectives in the Implementation plan:	Anticipated results from development activities
<ul> <li>Communication to stakeholders</li> </ul>	<ul> <li>The majority of individual farmers can articulate why and how they have changed their working practices by end 2010</li> </ul>
<ul> <li>Set up monitoring and implementation framework for the Strategy</li> </ul>	<ul> <li>A framework is in place and working by January 2010, respected by major donors and government agencies as a mechanism for monitoring and implementation coordination</li> </ul>

Policy coherence and linkages to other initiatives	The strategy is used as a basis to ensure coherence between policy design, social & economic development and market aspirations of the private sector at least between 2009 and 2012.
Capacity building for policy design and implementation	National fruit & vegetable chain stakeholders and donors use the strategy as an input to national and regional development planning and policy-making – recognised by adequate government and donor backing at least between 2009 and 2012.

# Activities under Objective 1 listed below

	1.2	After strategy endorsement by cabinet and launch, organise 2 stakeholder meetings in Upolu and in
ion to ers		Savaii to encourage ownership and communicate objectives to farmer communities
Communication to stakeholders	1.3	Select potential opportunities for presenting strategy in existing government forums (e.g. World Food Day, MWCD meetings, Environment Week, Measina forum) to successfully coordinate and promote the implementation of activities
Cor		Plan for periodical update of strategy implementation progress to stakeholders using media and communication tools such as brochures, DVD, internet, radio, tv)
ig and in the		Create or adopt an implementation and monitoring framework to enable Coordinating Committee to evaluate and follow up on implementation of the strategy and make required changes in light of the evolving sector
Set up a monitoring and implementation framework for the strategy		In cooperation with the Aid Coordinating Unit of MoF and MAF, develop an operative budget for the implementation of the strategy and validate list of existing and potential donors and partners for implementation
Set up a imple frame s		Table progress reports on the implementation of the Fruit and Vegetable Sector Strategy and highlight key issues that require cross ministerial support and involvement at the Trade, Commerce and Industry Development Board (TCI) meetings and/or Cabinet Development Committee on a regular basis
er		F&V coordinating committee to engage Ministry CEO's (MCIL, Health, MAF, MOF, MNREM) to achieve and sustain cross ministerial support and involvement
age to oth	1.9	Analyze current legislations, policies, regulations, and any strategies that impinge upon Fruit & Vegetable Sector and determine areas of conflict and potential synergies. (national, regional, international)
d link /es		Investigate alternative formulations (if need be) that will contribute positively to the success of the F&V strategy implementation.
ince and lii initiatives	1.10	Align F&V strategy with the overall strategy for the development of Samoa (SDS)
Policy Coherence and linkage to other initiatives		Ensure link between the Fruit & Vegetable Sector Strategy with the Agricultural development plan, the National Export Strategy and SROS Plan, Health Sector Plan, MWCSD Sector Plan, Water Sector Plan and MNRE Cooperate Plan.
Policy		Ensure sector priorities are represented in the Improving Policy Development and Coordination Reform Program (Ref: PO44)
		Strengthen mechanisms for dialogue with private sector and other governments in the region for integration into bilateral and regional policy processes related to fruit and vegetable sector
Cap acity build ing	1.12	Conduct a needs assessment on the requirements regarding capacity building to formulate and implement policy measures for the sector

1.13 Conduct tailored national level training to strengthen capacity of government officials and private sector to contribute to policy formulation

Link capacity building to the use of PITIC national and regional tools and services (trade commissioners, SOPAC,SPC, USP, PIFS etc)

# Objective 2: Improve market intelligence and dissemination across the whole value chain

The type of information needed has been identified through value chain studies and market research. Data collection and analysis are crucial to build an accessible pool of knowledge for the fruit and vegetable sector.

The information has to be made 'user friendly' and readily available by more traditional means as well as electronically. This sharing of information will include promotional campaigns both at international and domestic levels. In Samoa the objective is to reinforce the current work by the Ministry of Health through a campaign to increase the consumption of fruit and vegetables, which will improve the dietary habits of the nation.

- Determine data needs
- Improve data collection and analysis
- Improve information dissemination
- Promotion of Fruits and Vegetables

	2.1	Map the Value Chain for representative fruits and vegetables (including processed product chains) to determine key market intelligence requirements
		Check past census/surveys for unused/unreported data and revisit existing databases
Determine data needs		Potential information requirements: -Market analysis and buyer requirements (identification of market potential and returns); types of varieties and product forms, consumer taste, (eg seasonal requirements, quality standards, post harvest standards & quarantine requirements) -Supply capacity, number and location of farmers (Crop type/variety production data, area planted, yields, monthly production volumes, commercial and households production) -Market monitoring (real-time price, volumes information) / Market Information -Directory of existing support services and of existing funding or grants mechanism and exporters
De	2.2	Develop an action plan for the provision of market intelligence in cooperation with Statistic department, Samoa Central Bank and Ministry of revenue, MAF
		Identify existing government agencies or sector associations that could collect, maintain and/or disseminate components of database information.
pul	2.3	Assess possibility of private sector provision of data and collection, maintenance and/or dissemination and select potential partners
Improve data collection and analysis	2.4	Adapt existing census questionnaires and create additional targeted surveys to wholesalers and commercial farmers to create baseline information.
		Improve Frequency of agricultural census to 5 years and of pest and disease database to 2 years
	2.5	Conduct demand & supply studies for a range of existing and potential products and gather information in: Local hotels, restaurants and supermarkets, Regional and international markets
	2.6	Conduct annual workshop for key stakeholders for building capacity in data collection/dissemination and analysis

# Continuation of Objective 2 Activities

_	2.7	Develop dissemination techniques to reach farmers using radio and community meetings
Improve information dissemination		Identify targeted and simple information for improved production planning and linkage to market
Im info		Improve dissemination of market intelligence to domestic buyers, wholesalers and exporters through email and internet
	2.9	Based on market information (local and international) set up a promotion strategy for each targeted market segment (Domestic and Export)
getables	2.10	Develop promotional point of sale materials to be displayed in hotels, restaurants, Supermarkets, F&V markets and stalls to communicate contribution of fruit and vegetable sector to farmer community livelihoods, promotion of healthy eating and import substitution
ts and Ve	2.11	Encourage Chefs and food and beverage mangers to try local foods and adapt their procurement practices and recipes including traditional and exotic Samoan produce.
Promotion of Fruits and Vegetables	2.12	Develop and conduct a campaign to promote the consumption of fruits and vegetables as part of a healthy diet: TV health and cooking programmes(including O le Kuka Samoa and the Challenge) School and work place canteen and lunch program Ministry of Health Exercise programs
romc	2.13	Promote backyard gardening for consumption of fruits and vegetables
ш.	2.14	Incorporate the Samoan quality standard Logo (Loto nuu) to promote fruit and vegetable fresh and processed produce

# Objective 3. Build a supply sub-sector that will guarantee consistent and continuous supply of fresh fruit and vegetables

The need for markets to get supplied consistently with quality fruit is the reason for the lack of growth and local consumption in the fruit and vegetable supply chain. This objective is proposing a two tiered approach to the issue tackling Community / Smallholder and Commercial Farmers.

**Service oriented Collection Points:** The development shall be based on consistent and quality supplied fruit and vegetables into the market through a pilot grading and quality centre. A feasibility study for developing private sector based service centre is currently being undertaken. It is envisaged that this centre would provide support and services to farmers and buyers covering the value chain from production to market.

The establishment of this commercially driven system is certainly the pivotal point for most of the activities and objectives in the strategy. In a way this objective has the potential to drive the implementation of the others: for the commercial service centre to work at a profit and deliver to market it need to articulate Finance, Information, Training, GAP and Agronomic Support, Soil and farming system management and coordination across actors.

Several ad-hoc meetings between the Coordinating Committee, Interested buyers (restaurants, hotels, processors, supermarkets and exporters) have been to define the modus-operandi for the implementation of this objective.

The produce shall be picked up from the village farmers through the local village stores and from the Commercial farmers and then graded and offered to the hospitality, retail and processing industry.

This objective will be piloted by the Coordinating Committee with initially a group of selected farmers and a group of selected buyers based on selected crops and products. If the business model is successful, then it is envisaged that it will be replicated and expanded.

The main services provided will be related to Information dissemination (price, quantities needed, quality, transport availability) through mobile phones; cooling, grading, and sorting. One of the most capital services to be provided is the pick-up and delivery. Such support would enable farmers to meet customers' quality requirements and allow appropriate planning for planting.

The grading process provided by the service centre will create and enforce strict quality standards on all produce agreed to with the buyers. The service centre will have the opportunity to negotiate better prices for lower or processing grades with processors thus also becoming a channel for fruit that would otherwise remain unsold or rot.

On a second phase, the services provided would relate to providing finance, inputs and agronomic service support in cooperation with extension officers.

Improvement of Production and Agricultural Practices: Conventional Agriculture is completely inappropriate for the shallow topsoil's in Samoa. Initial Value Chain Study inspections of farms have determined capacity limitations and identified deficiencies in the conventional agricultural practices currently in use. Land usage technologies developed in countries such as New Zealand and Australia which have the advantage of much deeper topsoils (6-15 feet) destroy the Samoan topsoil within very short periods. Consequently agronomic services catered under the strategy implementation will be adapted.

One of the key suggestions in implementation is to explore the use of raised beds using artificial soil mediums to ensure less cost of production (tilling and clearing the land) and higher and more consistent yields. A model farm has also been established in line with Objective 4 of the current strategy.

It is also important to strengthen the farmers associations and groups collaborate to achieve this objective.

# Explore Viability and Pilot collection points or service centres to reduce post harvest loss

### **Sub Objectives:**

- Viability of collection points or service centres/ and their potential roles explored to reduce post harvest loss.
- Strengthen farmer associations to improve production and market linkages
- Quality compliance and standards
- Access to appropriate Inputs for sustainable cropping
- Improve Research and development

# 3.1 Assess the feasibility of commercially driven pack houses and post harvest service centres defining clearly the roles of and type of services that will be provided to Value Chain operators and the structure in which these centres will be operated and managed (farmer associations and / or NGO's and / or private sector)

3.2 If feasibility study is positive define and agree with Ministry of Agriculture the potential role and type of services that could be provided to farmers, processors and buyers.

Core services provided could include: Collection, cooling, grading sorting, packing, distribution, manage hubbing and bulking of production outputs. Also finance and admin support services

Expanded services could include: Marketing of produce, training for farmers on quality and management, information collection and dissemination, Finance/credit lines and collateral provision, common sourcing of supplies, bulk buying of inputs, seeds and packaging and inviting technical (national/regional/international) consultants in the field of growing, post harvest handling

Longer term functions: 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 co

- 3.3 Determine the best mechanism for funding the centers to cover costs while not charging users excessively (e.g. commissions perceived from successful commercial operations and annual contribution by farmer members and buyers)
- 3.4 Determine the potential for small holder and community farmer collaboration, ownership and use of services and possibly distribute shares of centre to farmers based on production volumes
- 3.5 Based on farmer and buyer agreements, determine the most appropriate location for one pilot centre in Upolu

Pilot the service Centre model Starting with a pilot run with a selected group of 10-20 farmers and selected buyers to enable the development of a viable framework or contract that can be used effectively between suppliers and buyers who will be using the centres.

Develop and define appropriate contractual arrangements adapted to the Samoan context

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	3.6	Provide start up operational funding to the farmers association office (ie for computer
Đ		facilities and overheads)
Į		
o imp		Strengthen management capacity of farmers associations by providing targeted training (i.e. "institutional strengthening programme")
ons to		Support the development of a members database including production area, crops, soil, water, seasonalties
Strengthen farmer associations to improve production and market linkages	3.9	Strengthen farmer groups and networks (in cooperation with MAF, villages, private sector and potential buyers) to implement sharing of equipment, experiences and knowledge through service centre and market visits
on an		Encourage the formation of farmer associations in rural locations of Samoa. Support network coordination through an umbrella organization.
then fa roducti	3.10	Improve farmer associations' capacity in post-harvest handling practices at the farm and use service centres to distribute to markets.
Streng	3.11	Improve linkages and cooperation between farmers associations and crops division advisory services
		Develop a system of field attachments for extension officers
ס	3.12	Promote and apply national food safety standards and operational procedures including
an Is		CODEX and good agricultural practices across the whole value chain
Quality compliance and standards		Strengthen implementation of current programs for standards/quality assurance (international certification requirements to increase compliance)
com		Put in place mechanisms to Identify different market opportunities across the Value Chain based on quality produced
to ate or ble	3.13	Determine farm inputs required and tender for agricultural input suppliers to better align based on market requirements (including imported supplies)
Access to appropriate Inputs for sustainable cropping	3.14	Review the role of the agricultural store and propose restructuring
0	3.15	Produce information on and apply suitable technologies to extend season and thereby window of opportunity (de-greening of citrus)
and	3.16	Evaluate options for development and multiplication of fruit and vegetable seeds/rootstock
rch		appropriate for Samoan agriculture
sea pm		Undertake a feasibility study for commercially driven propagation and nurseries
Improve Research Development	3.17	Link educational and scientific institutions to farmers, farmer groups, and service centres in order to promote on farm research
Impro		Initiate mobile farmer field training for improved replication of seed propagation techniques

# Objective 4. Improve performance by building a sector that is well trained and supported by a well developed and properly executed capability plan

Every stakeholder in the supply chain identified training as a key requirement. This objective calls first for an audit of training needs for the productive and government implementing partners. Following the audit, the training providers will be identified to understand what can and should be made available. Once the needs are established, a menu of training options will be offered to the sector. However the underlying principle of the strategy needs calls for practical training at all levels using model farms and very concise modules that can be delivered on site (for example in farms or factories).

- Identification of training needs
- Delivery of Training at support service level
- Delivery of training at farmer level
- Delivery of Training at Cross cutting level
- Delivery of Training at Processor level

Identification of training needs	4.1	Conduct a comprehensive needs assessment of training requirements for the fruit and vegetable sector based on market and buyer requirements, for the entire value chain from producer to buyer and consumer.  Identify successful training institutions and approaches and explore opportunities for replication.  Identify which government and relevant agencies require specialized training to deliver market driven services
	4.2	Develop a training and capacity building action plan per segment (farmer, extension, processor, buyer, cross cutting).  Estimate resources needed and identify support service providers for delivery of training.  Segment training activities according to short term and long term modules and include both theory and practical hands on material.
Delivery of training at farmer level	4.3	In cooperation with the MAF, villages, private sector and buyers, develop or improve approach towards a more commercially driven hands on methodology for training farmers
	4.4	Identify a group of farmers for pilot testing training.  Reinforce on site training at the farms & provide basic management skills including record keeping.  Specific on-field training on pest disease management and planting and on post harvest handling,  Training on choosing the best varieties, seeds and inputs and what effect it can have on your yield and income.  Ensure close follow up by extension officer / service centre: before fertilizer is applied, before harvest and when pest is detected.
	4.5	Identify and commit successful farmers to serve as a model to disseminate experience and training to inspire other farmers.

Delivery of	4.13	In cooperation with International accreditation bodies, design short term training programmes addressed to enterprises and laboratories to reinforce testing capacities where needed  Provide opportunities for specialized training and preparation support for farmers, exporters, processors in marketing skills, Branding and commercialization as well as management (accounting record keeping, distribution / logistics, operations)
Delivery of Training at Cross cutting lev	4.12	Provision of Supply-chain Management training:  Improved sourcing to allow processors to benefit from a steady flow of good quality agricultural commodities  Familiarize growers with contract farming
	4.11	Introduce HACCP standards and compliance training throughout the whole value chain (farmers, processors, hotels, restaurants)  Reinforce training and certification for compliance for organic standards and eurepgap
evel	4.10	Use "field trips" as a delivery method and organise visit of growers, buyers, processors to each others farms/companies to understand each others issues and requirements
	4.90	In collaboration with processors develop and disseminate proper training manuals and training tools such as Visual aids / videos to be developed.
Delivery of Training at Processor level support service level	4.80	Provide training on  Technology and processing techniques: Help enterprises progress in elaborating better recepies, which match consumer's needs, are compatible with the use of existing equipment and reduce production costs. Distribute information on technologies & best practices for processing  Improvement of processing ratio and production performance (increased volumes and quality, reduction of losses).  Sales and marketing: To calculate precisely the cost of goods and margin (fixed costs, variable costs and contribution margin of each SKU) to analyze the profit potential and pricing of the product portfolio. Elaboration of a relevant marketing strategy and business plan, establishment of a customer satisfaction index to make sure that the final product satisfies "expressed and implied customer needs".  Management: To collect on a daily basis, operational data in order to generate key performance indicators allowing management to get
	4.7	Deliver capacity building through modular training with practical on-factory and classroom content.  Agree on number and development of modules (Quality, Management, GMP, HACCP Food heath and hygiene standards, processing techniques, operations, sales and marketing, Packaging)  For each module use a combination of 2 trainers: from University and successful processors and businessmen
	4.6	Put in place a programme designed to train officers, relevant government agency officials and service providers on:  - How to work with and respond to demands from farmers, businesses and exporters on compliance with market and buyer requirements / standards.  - Training on new technologies based on market opportunities  - How to train new officers in the field in order to expand base and reach support to farmers
aining at ce level	4.6	Develop a performance incentive mechanism based on <u>study tours</u> , <u>exchange programmes</u> , scholarships and other education awards in fields that will contribute to the strengthening of extension and support services for the fruit and vegetable sector

### Objective 5. Improve financial situation of sector enterprises 10

This objective calls first for an audit of existing financing options for the fruit and vegetable sector because the actual financing mechanism available are not specifically catered to solve the needs (conditions, interest rates, repayment terms, and risk evaluation) of the sector and the stakeholders.

The objective also foresees special recognition of the needs of the fruit and vegetables sector such as long time lags from planting to harvest with some crops. The objective is targeting smallholder finance as well as working capital finance and export finance.

Training is foreseen to up-skill farmers and enterprises in making requests for finance. It will include advice on how to assess risk from a commercial perspective. There will be a disaster risk profile for Samoa to plan contingencies.

Additionally promotion for Foreign Direct Investment and national private sector investment is also a priority.

**The overall situation:** A credit information system and a law that protects lenders and borrowers rights is not yet operational in Samoa. This is an essential element to stimulate formal credit to the agri-business sector. The Banks also need to take into account the high risks associated with the nature of this sector. These risks have contributed to a high rate of default loans, which at end of fiscal year 2007 represented 68% of total default loan repayments.

The share of loans by commercial banks to the agricultural sector has progressively decreased in the last decade from 2 to 1.5 percent of total loan amount, against a significant increase of the construction sector and "other activities" which are mainly loans to private individuals<sup>11</sup>.

Currently the Central Bank of Samoa has estimated that a wide proportion (75 million Tala) of the money available for loans is not being currently used or disbursed into loans by the financial institutions. <sup>12</sup>

In order to solve the current lack of commercial funding and the high cost of it, the strategy is proposing to provide funding to farmers using innovative mechanisms and concentrating in the buyers and input suppliers as imbedded actors in the value chain capable of taking a financial scheme management role.

Access to Finance and Collateral: Apart from the lack of experience of commercial banks to provide loans to the agriculture sector stakeholders the lack of collateral is one of the key issues. A contract (subscribed by a farmer or a farmer association), to deliver a certain amount of produce at an agreed date and with specific quality requirement, could be considered by banks as an income generating activity/transaction that increases the probability of repayment of credit by the farmer in the future.

Currently the Development Bank of Samoa guarantees for loans and there aren't any fixed criteria that regulate the release of guarantees. The lack of selection criteria among loans reflects on the significant default rate by clients, especially the agriculture and fishery sector.

<sup>&</sup>lt;sup>10</sup> As an Input to the strategy development FAO conducted a desk research study in Samoa: Supply chain finance and risk management for Samoa's fruit and vegetable sector: issues, constraints and potential solutions. Some extracts are used to describe this objective.

<sup>&</sup>lt;sup>11</sup> Pacific Economic Bulletin, 2007

<sup>&</sup>lt;sup>12</sup> Central Bank of Samoa, Press Release Observer newspaper July 2009

On the overall policy level this strategy is proposing to make credit to the economic sector more effective by reviewing and define objective criteria to be followed when approving a loan guarantee. This review will be done jointly by Private sector and the Samoa Development Bank.

Finally this objective is considering developing viable and sustainable livelihoods for the rural farmers by providing price stabilization on the products by providing stable prices based on profitability margins. Also direct credit lines will be made available for technology investment by processors and farmers.

Pilot of a delivery mechanism through the commercially driven Agri-business Centres (Objective 3): As explained above, the strategy will explore innovative schemes and mechanisms to provide funding to farmers. The commercially driven service centre will be imbedded in the value chain and will therefore have a trust / contractual relationship with both the farmers and the buyers. This would allow to run a profitable business and also to provide funding, for example through provision of inputs and credit to smallholders who would in term sell the produce to the centre. The Centre would also hedge different price risks by finding different markets (processing, export, fresh hotels, fresh and processed supermarkets).

**Weather Risk management**: The analysis of weather risk exposure and feasible tool shall be conducted at all levels: micro, meso and macro and for all risk layers. With reference to risk layers, a clear definition of the border between the risks that are insurable from those that are not insurable (because of their high frequency and the magnitude of losses they entail) will also be done.

The most viable solution to manage disaster risks -probably at a regional level is to conceive financing instruments that are a combination of national budgets with external financing (donors) together with private sector funding (international re-insurance companies).

- Undertake Situational Analyses
- Develop and implement finance delivery mechanisms
- Improve access to finance
- Increase levels of investment
- Policy and legislative change
- Introduce Risk management facilities

rtake tional lysis	5.1	Conduct finance needs and risk exposure assessments for representative fruit and vegetable value chains, (including existing grant schemes)
Undert Situatic Analy	5.2	Together with the Aid Coordination Division and the MOF identify and consolidate a list of financing bodies or institutions targeting agriculture sector and SME finance at a national and regional level that can fund the different stages of the Value Chain
Develop and implement finance delivery mechanisms	5.3	For the selected products, develop appropriate finance tools (for example, using the contract as collateral and/or risk management products, programs such as factoring, the use of remittances and insurance products) for value chain stakeholders: Commercial farmers, Small holder farmers, SME processors/ exporters  On this basis, develop a SIMPLE and PRACTICAL model or template contract that would suit both the farmers and buyers (SBEC model)
	5.4	Explore using contract, solid business plans and micro-insurance (purchased by individual stakeholders) as collateral in order to guarantee better access to finance for individual farmers directly or through service centre or farmer association
	5.5	Create a flexible and operative system of low rate seasonal credit and simplify enterprise access to credit resources during peak periods for the purchase of inputs.

Improve access to finance	5.6	Encourage banks to use value chain approaches to assess risk, and evaluate exposure, based on a complete understanding of the enterprise's position and linkages to other activities in the chain.
	5.7	Ensure provision of information, through SFA, MAF, Service providers, on how to access existing training on business planning, and funding proposal writing
Risk nent is	5.8	Based on the risk profile, design risk management tools and procedures to manage the different risk layers (national, meso and micro level) and facilitate credit uptake, respectively
oduce R anageme facilities	5.9	Conduct a study on the feasibility of creating a multi-sector disaster aid facility
Introduce Risk management facilities	5.10	Evaluate the establishment of a disaster risk management fund at a regional level to provide local and international insurance companies an incentive to insure the agricultural sector and to provide clear definition of the kind of risks that are being covered
	5.11	Provide price incentives or in kind incentives to small farmers to increase their investment in technology/quality inputs
tment	5.12	Make available direct credit lines and financial schemes to chain stakeholders at an affordable cost by reducing interest rates and improving repayment terms on loans from development banks.
Increase levels of investment	5.13	Encourage SME's to purchase capital equipment for primary processing and value addition using time-bound lower rate loans and tax incentives.  Investigate possibility of establishing mutual funds through Producer Organizations for larger investments
rease	5.14	Seek assistance for processors to explore relevant available technology and market development needed for appropriate follow-up, evaluation and information dissemination CDE/PSSF/PIFS/PITIC
ou <u>l</u>	5.15	Establish a technology support fund, accessible to farmers, SMEs or export companies that have an identified a potential market and the right technology to scale up production and improve the quality to take advantage of this market
eg e	5.16	Engage farmers and private sector stakeholders in the next review of Development Bank of Samoa legislation in order to provide inputs relevant to improved access to finance
Policy and legislative change	5.17	Encourage access to finance through government policy and strengthen support to specialized finance agencies
	5.18	Together with the Aid Cooperation division and the MOF, develop a plan to engage regional & international commercial and development banks as potential funding partners for the implementation of the strategy

# Objective 6. Promote integrated management of resources to ensure sustainability of the fruit and vegetable sector

An efficient fruit and vegetable sector can only be established with an efficient enabling environment. This objective first addresses the attitudes of Samoans towards the career of farming and also seeks to support the entrepreneurial drive and risk aversion. The status needs to be lifted to ensure a regular supply of new entrants, particularly young farmers to the profession. The underlying principle is that farming will attract youth only if it is associated with making money, having a decent standard of lifestyle and not having high entrance costs (ie availability of lease land).

The objective also explores potential responses to basic needs for the sector such as access to arable land, security from theft, transport infrastructure and regularly available water and power. In Samoa, about 80% of land is under customary ownership, while 16% is owned by the Government, and about 4% is freehold. Traditionally, customary ownership is vested in the matai (elected head of an extended family) or a local chief. Tackling the problems of a customary system is difficult and highly sensitive, and it is not surprising that the Government has moved cautiously on resolving land issues.

Research into improvements in crop varieties based on market requirements needs to be increased. The involvement of both the public and private sectors in research activities is also key.

- Access to land and improved utilisation
- Change of Mindset and ownership of farming
- Water supply and irrigation

of Mindset nership of ming	6.1	Develop an aggressive awareness campaign on the lifestyle and potential economic benefits of engaging in Agribusiness activities
Ainc ship	6.2	Include Entrepreneurship and leadership training in high schools and through NGO's
ge of Mil ownersh farming	6.3	Identify one pilot village to provide fencing based on potential and commitment
Change of Mindset and ownership of farming		Investigate how to provide free fencing and through which institution and what impact it will have
Ch		Establish a mechanism to repay fencing tied to profit and village council/project leader/government
ly and		Contribute and provide inputs to the development and implementation of the National water management strategy in relation to F&V sector needs (areas covered, water harvesting, water collection, water storage, water use, irrigation)
Water supply a irrigation		Document and monitor the volume of water use in fruit and vegetable production (irrigation, cleaning after harvest, cleaning of processing/packing area etc)
Wate	6.6	Pilot test water harvesting in pools to avoid water shortage during dry season
	6.7	Dialogue with Samoa Water Authority to find ways for improving processing firm access to potable water
ъ ⊆	6.8	Explore leasing of customary and government land for commercial fruit and vegetable production and processing
Access to land and improved utilization		Document comparative production and income figures from farms that have removed rocks and those that have not (helps promotion of good management tools in doing successful commercial farming); Develop a business model and include projection of income generation opportunities arising from the use /lease of land for fruit and vegetable production
Access		Pilot using alternative technology such as production above the ground in beds to reduce effort needed to remove rocks. If successful replicate and train other farmers
ΨË		Where customary land is used for commercial production of fruit and vegetables, draft a template contract between farmers and land owners for customary land to be signed by the lawyers to make it binding

# Objective 7. Strengthen Samoa Association of Manufacturers and Exporters to provide services that will increase returns and overall value addition for sector

The Strategic Development of Samoa document recognises that the private sector is the engine of growth.

Private sector involvement is key to the sustainable and successful development of market outlets for any surplus fruit and vegetable production particularly related to value addition through processing.

The capacity of SAME members to manufacture ranges of fruit and vegetable based products will be built up by an institutional strengthening programme. This will supply the domestic market and explore the offshore potential.

SAME's mandate needs to be reviewed and its resources strengthened to allow it to perform the tasks foreseen for it and most important to deliver the quality service Samoan processing SME's need.

- SAME membership and services
- Funding of SAME
- Strengthening SAME's Capacity
- Pilot expansion of services
- Increase processing in Samoa

<del></del>		[5]
		Develop a mandate and vision for SAME in consultation with stakeholders and clearly
es		define core services in the strategic plan
<u> </u>		Services to be provided by SAME:
e l	7.1	Services to be provided by SAIVIE.
ρ		Distribution of information: Market information, Quality assurance processes (ISO), HACCP,
a		Direct enterprise support and hands on training (Production, Costing and Pricing,
흗		Occupational health and safety, Product development, advocating and lobbying for sector
rs.		interests
pe		Strengthen SAME by aligning / redefining its governance structure to its mandate and to the
e II	7.2	services to be provided (corporate plan)
SAME membership and services		Segment SAME's members in terms of services to be provided and intensity of support
Σ		required.
S A	7.3	(General members: Monthly review, market information and sector news, Core members:
		Intensive follow up and support in operations, market access and product development)
		Develop costing and pricing of SAME services and explore tying member contributions to
ing ME		results of SAME support (commission or fees pegged to increase of sales)
ndi SA	7.4	Explore tying SAME services to a commercially driven model of return where, if SAME
Funding of SAME		helps increase profit, then processors pay commission
		Develop a mid-term staffing programme and define Job descriptions and roles in order to
e s	7.5	deliver SAME services
Strengthe ning SAME's Capacity	7.0	deliver extracts
nin AN apa		
နှင့် လ	7.6	Enhance product development capacity built in SAME in cooperation with SROS.
0		
of of ces	7 7	Select a pilot group of processing firms and focus SAME's efforts in order to achieve
Pilot expansi on of services	7.7	maximum impact on those firms
e e		

# **Implementation Plans**

Please refer to the A3 version of the Implementation plan attached to this page.

### **Resources Needed**

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 **52**, **234** Million US Dollars. The table below provides the detail per objective and year.

	Total	Year One	Year Two	Year Three
<b>Objective One:</b>	\$ 512,200	\$ 133.000	\$ 239,600	\$ 139,600
Objective Two:	\$ 696,000	\$ 515,000	\$ 88,000	\$ 93,000
Objective three:	\$ 4.580.000	\$ 2,085,000	\$ 1,260,000	\$ 1,235,000
Objective four:	\$ 3,284,000	\$ 1,980,000	\$ 652,000	\$ 652,000
Objective five:	\$40,992,000	\$13,697,000	\$13,615,000	\$13,680,000
Objective Six:	\$ 540,000	\$ 110,000	\$ 380,000	\$ 50,000
Objective Seven:	\$ 1,630,000	\$ 730,000	\$ 450,000	\$ 450,000
Total:	\$52,234,200	\$19,250,000	\$16,684,600	\$16,299,600

As discussed in the existing resources section in this document some resources are already available through existing development activities and projects.

The way forward for the successful implementation and resource allocation to this strategy is currently being discussed with the Aid Coordination branch of the Ministry of Finance.

The funding needs reflect the starting point for the fruit and vegetable sector and industry. As explained in the sector situation section of this strategy the F&V sector has received hardly any direct investment in the past and the funding allocated has not successfully delivered the expected results.

The funding requirements also reflect part –but not all- of what is needed to make the sector more competitive and to enable it to substantially contribute to the Government's and MDG goals. It is clear that one of the essential components needed is already existing and that is the private sector leadership together with the mobilisation of the sector stakeholders towards a common goal and market / development objective.

### Forecasts of evolution of Fruit and Vegetable market

The present uncertainty surrounding the global economic situation makes forecasting an inexact science.

**The Horizon one:** (2009-2012) scenario shows a dramatic slowdown in global demand of almost every non-essential purchase. This affects fruit and vegetables all around the world. Local and seasonal (i.e. low cost) produce seems to be still on shopping lists, but many previously popular imported or exotic produce has suffered major declines in sales and therefore prices.

In the short term, there will be fewer opportunities to develop a broad range of fruit and vegetable exports. The major exception at the present time appears to be the export of Noni juice, which occupied 8% of total Samoan exports in the period July 2008 – January 2009.

Additionally in the short term, availability of credit through the traditional banking system is under threat even more when the fruit and vegetable sector activities require specific financing tools.

The pressure on governments all over the world to prop up their local economies could potentially lead to reductions in overseas aid and assistance. Some governments are already realigning their priorities, which may, in this medium term, affect the amount of aid that is available to Samoa. Additionally in 2010, Samoa will be upgraded to 'developing country' status from the present category of 'least developed country (LDC)

**The Horizon two:** (2012-2014) scenario could be that the world economy starts to rebuild wealth and demand increases across the board and consumer confidence returns. A well executed programme of domestic market improvements in the fruit and vegetable sector in the earlier phases will set up a good platform for exports when the up-turn in demand returns.

The scenarios are based on a number of assumptions that are listed below.

### Optimistic scenario optimistic

- Increased investment in the production of fruits and vegetable productivity rises
- Fruit and vegetable farmers can be persuaded to invest in their business
- Fruit and vegetable farmers gaining access to and propagating the required basic planting material such as seeds, seedlings, fertilizers, herbicides, pesticides etc
- Fruit and vegetable farmers gaining the funding to support improved work practices
- Fruit and vegetable farmers become better organized and acquire better business management skills
- Fruit and vegetable farmers achieving improved working relationships with their customers to understand and meet their requirements
- Processors improve their operational practices and overall quality of production
- Processors improve their operational practices by investing in technological improvements
- Both farmers and processors gaining access to adequate funding on reasonable terms
- Buyers support the efforts of farmers and processors and buy local wherever feasible
- Lower cost vegetables become available to consumers, which combined with vegetable consumption promotion, will increase the level of vegetable consumption in the Samoan diet.

Table 7: Financial impact (optimistic) - SAT\$ pa

Focus	Phase 1	Phase 2
	2009-2012	2012-2014
Domestic market	SAT\$2.5million	SAT\$6.0million
Fresh		
Domestic market	SAT\$1.00million	SAT\$5.0million
Processed		
Exports Fresh	SAT\$250k	SAT\$1.0million
Processed exports	SAT\$1.0million	SAT\$5.0million
Total increase per	SAT\$4.75million	SAT\$17million
annum		

The optimistic projects of the financial impact resulting from the strategy foresee an annual increase of SAT\$17.0million per annum by phase two of the implementation process. It should be stressed that this figure does not represent a ceiling, as the actual result could be much higher. The fresh market will benefit from an extra SAT\$2.5million in the first period of the plan. Approximately 50% will come from a reduction in imports and the balance from increased domestic consumption.

By the end of the plan, under the optimistic option, imports will be reduced by SAT\$2.5 million, which is the total value of current fruit and vegetable imports in the categories, which can be grown in Samoa. The balance will represent a 25% increase in domestic consumption by value. In volume terms, the figure will be higher as consumption of homegrown produce is also expected to rise.

The figures for processed fruit and vegetables are even higher. They assume a very significant increase in the availability of processed grade fruit. This will give processors confidence to increase their operations and develop markets both in Samoa and overseas. A positive impact of SAT\$10million per annum is expected – 50% from both domestic and export sales. Import substitution of sauces and fruit juices and export sales of canned and/or frozen exotic fruit will represent the bulk of the increase in the processed sector. Present levels of imports suggest that there is SAT\$500k per annum available by way in import substitution for sauces and juices.

A marketing campaign for Samoan organic processed products will compliment a sister campaign for fresh organic produce for export. The figure of SAT\$1.0million for exports of fresh fruit and vegetable exports may seem less than ambitious. It is reasonable given the difficulties of exporting to regional overseas markets. To obtain this level on a sustainable basis will be a great achievement

### Pessimistic scenario

- The quantity and quality consistency of fruit and vegetables does not improve within the expected time frames
- Fruit and vegetable farmers do not achieve improved returns from their land
- Fruit and vegetable farmers do not invest in training, new seeds and business practices
- Fruit and vegetable farmers stick to their old practices and remain fragmented and supply driven
- Processors do not invest in training and work practice or technological improvements
- Finance for investment in the growing and processing sector is either not readily available or it is too costly
- It is likely that neighbouring countries, which are overcoming these difficulties quicker than Samoa, will attract the bulk of foreign investments to the region

 Tax proceeds will reduce and unemployment in the city suburbs will increase leading to unrest and increased poverty

The result would be a weaker growing sector that would have both financial and social repercussions. Imports of produce, which could be grown in Samoa, would rise and inward investment in other areas could probably be negatively affected too.

We have taken the assumptions above and projected below the financial implications of the pessimistic scenario.

Table 8: Financial impact (pessimistic) - SAT\$ pa

Focus	Phase 1	Phase 2
	2009-2012	2012-2014
Domestic market	SAT\$1.0 million	SAT\$1.0 million
Fresh		
Domestic market	SAT\$250k	SAT\$250k
Processed		
Exports Fresh	Nil impact	Nil impact
Processed exports	SAT\$500k	SAT\$500k
Total increase per	SAT\$1.75million	SAT\$1.75million
annum		

The pessimistic projections assume an impact of just under SAT1.75million per annum by the end of the implementation period. Positive impacts come from a gradual reduction in the level of imports of fresh produce and some import substitution of processed foods and growth in export of this category. The domestic fresh market figures assume a contribution of approximately 50% from import substitution with the other 50% coming from local market consumption growth.

As far as processed fruit and vegetables are concerned, the pessimistic figures foresee an initial spurt in the manufacture and marketing of processed foods, largely driven by extra quantities of processed grade fruit and vegetables becoming available.

Fresh exports are seen as remaining very low and deriving no increase as a result of the implementation of the strategy. As with processed foods, increased quantities of processing grade fruit will allow a lower cost of fruit for use in preserves (organic or conventional). However, the pessimistic assumption is that there will be no marketing activity outside Samoa to stimulate demand and that product development will be slow.

This is likely to be the worst-case scenario if the strategy is implemented. The benefits are still worth having but should be evaluated against the likely results from the optimistic scenario.

**Possible external shocks:** The comment on the forecasts relates to the known issues and circumstances relating to the sector. However, the possibility of a severe shock to the fruit and vegetable sector in Samoa cannot be discounted. Some of these have occurred within recent memory. They can be divided into externally and internally caused and fall into three categories: Climate and environmentally driven – cyclones, drought, disease, pollution, earthquakes. Some fall back positions will be factored in activity 5.13 and in the Risk Management strategies that will be put in place.

### **NCCS & Implementation Framework**

The Fruit and Vegetable Strategy Development Coordinating Committee has operated on a voluntary basis and was appointed by stakeholders in July 2008.

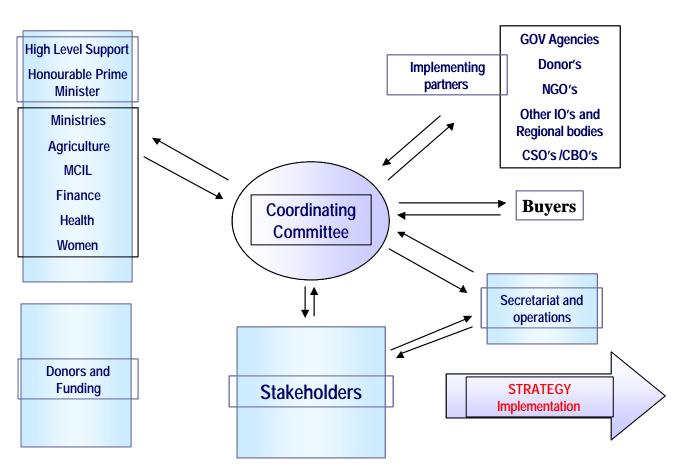
It is comprised of representation of farmers, processors, tourism industry, support services and the Ministry of Agriculture.

The Committee has driven the development of the strategy and ensured the necessary involvement of and communication with stakeholders, donors and authorities.

The Coordinating Committee was also responsible for the overall quality and relevance of the strategy as well as for maintaining and generating the necessary ownership among stakeholders for successful implementation.

Towards the implementation of the Strategy the Coordinating Committee has been assigned the role of managing the implementation and monitoring progress. This was a stakeholder decision backed by Cabinet.

### The proposed Implementation and monitoring framework is detailed below



### **NCCS Committee Members**

Chairman of the Committee		
Samoa Association of		
Manufacturers and exporters	Grant Percival	percival@ipasifika.net
Vice chair of Committee		
Private Farmer	Edwin Tamasese	etamasese@gmail.com
Farmer Association	Ricky Westerlund	enidjjc@yahoo.com
Farmer Association	Jeff Atoa	tjexport@ipasifika.net
Women in Business		
Development Inc.	Karen Mapusua	karen@womeninbusiness.ws
Ministry of Agriculture	Afele Faiilagi	afelefaiilagi@lesamoa.net
Ministry of Finance		
Aid Coordination Division	Noumea Simi	noumea.simi@mof.gov.ws
Samoa Hotel Association	Nynette Sass	nsass@samoa-hotels.ws
Ministry of Agriculture	Frank FONG	frank.fong@maf.gov.ws

The Coordinating Committee will oversee the overall implementation of the activities under this strategy and will interact in cooperation with the Aid Coordination unit MOF (as shown in the diagram above) with all implementing partners and donors.

### **Key Sector Performance Indicators**

Below are a set of performance indicators that offer a framework for evaluation. They will be converted to more precise measurable indicators in the future .

- Number, potential and actual production capacity and employment in the enterprises in the sector
- Structure, quality and number of new investments in the fruit and vegetable products sector
- Demand for support services from farmers and Associations
- Demand for training courses and business mentoring activities
- Measurable quality characteristics across the sector's production
- Disbursement to enterprises of credit by registered development financing institutions
- Volume of new and top grade seed delivered to farmers
- Productivity of fruit and vegetable farmers per hectare and estimated profitability per hectare
- Increase in land under fruit and vegetable production
- Reduction in value and volumes of fruit and vegetable imports
- Increased domestic fresh fruit and vegetable consumption
- Appearance of fruit and vegetables at point of sale
- Acceptable price competitive
- Compliance with national and international standards
- Perceived quality of fruit and vegetables by consumers
- Export readiness

### **Progress Monitoring and Reporting Schedule**

As stated, the F&VSS Coordination Committee has 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 2009-2012

Three monthly interim progress evaluations and an executive review should be made after 12 months to ascertain if any slippage in delivery is taking place. The report will be sent to the Samoan Government (Ministry of Agriculture), to the ACP Programme Coordination Unit and to the ITC.

At the end of the first stage – upon completion of the first two years, the strategy monitoring team will present a detailed analytical report about the realisation of the measures foreseen in the strategy and the implementation plan. This will include achieved results, efficiency of financial resources and investments utilised during Phase 1.

They will also provide an assessment of the changes to markets and the business environment and their likely impact on the strategy and the outcomes. This report will be sent to the Samoan Government (Ministry of Agriculture) and the ITC

### Phase 2 2012-2014

For Phase 2, F&V Strategy Coordinating Committee 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.

After the completion of Phase 2, F&VSSCC will present to the Samoan Government and the ITC a detailed report about implementation of the strategy, progress and successes that have been achieved. It will also include analysed trends of fruit and vegetable domestic market as well as development of an export sector. It will comment on shortcomings found and failures as well as offering solutions.

# **Annexes**

Appendix 1:	Priority and c	ost per activ	vity (Prioritize	ed Implement	ation plan)

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
1.1	Develop a vision for the Fruit and Vegetable sector  Define concrete targets and milestones for the strategy (at the social, economic and productive level) and set 2014 as a time frame for the full implementation of the strategy	None	Vision validated and agreed by stakeholders  Definition of quantitative targets agreed by stakeholders, Committee and MAF	0/0/0
1.5	Create or adopt an implementation and monitoring framework to enable Coordinating Committee to evaluate and follow up on implementation of the strategy and make required changes in light of the evolving sector	Office space, communications and operational budget Secretarial/ steering committee allowances	Monitoring framework approved by Cabinet Institutionalised Coordinating committee	Office \$18,000pa, Telephone\stationary\ computer and ancillaries \$18,000pa Committee Allowances \$30,000 \$66,000\\$72,600\\$72,600.
1.6	In cooperation with the Aid Coordinating Unit of MoF and MAF, develop an operative budget for the implementation of the strategy and validate list of existing and potential donors and partners for implementation	None	Costing and budget for Implementation available per activity	
1.7	Table progress reports on the implementation of the Fruit and Vegetable Sector Strategy and highlight key issues that require cross ministerial support and involvement at the Trade, Commerce and Industry Development Board (TCI) meetings and/or Cabinet Development Committee on a regular basis	Printing costs	2 Progress report tabled at CDC and TCI meetings in 2009	Incorporated in 1.5
1.2	After strategy endorsement by cabinet and launch, organise 2 stakeholder meetings in Upolu and in Savaii to encourage ownership and communicate objectives to farmer communities	Venue, stationeries, transport cost	Presentations to stakeholders done Attendance of a representative number of farmers	\$52,000 for all four \$52,000/\$52,000/\$52,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
1.3	Select potential opportunities for presenting strategy in existing government forums (e.g. World Food Day, MWCD meetings, Environment Week, Measina forum) to successfully coordinate and promote the implementation of activities	Information and communicatio n material (printing, designing)	Present in at least 5 forums in 2009/2010/2011	\$7,500/\$7,500/\$7,500
1.4	Plan for periodical update of strategy implementation progress to stakeholders using media and communication tools such as brochures, DVD, internet, radio, tv)	Information and communicatio n material (printing, designing)	Communication of progress every two months via TV and radio Publication of briefing brochures	\$7,500/\$7,500/\$7,500
2.1	Map the Value Chain for representative fruits and vegetables (including processed product chains) to determine key market intelligence requirements  Check past census/surveys for unused/unreported data and revisit existing databases  Potential information requirements:  -Market analysis and buyer requirements (identification of market potential and returns); types of varieties and product forms, consumer taste, (eg seasonal requirements, quality standards, post harvest standards & quarantine requirements)  -Supply capacity, number and location of farmers (Crop type/variety production data, area planted, yields, monthly production volumes, commercial and households production)  -Market monitoring (real-time price, volumes information) / Market Information  -Directory of existing support services and of existing funding or grants mechanism and exporters"	Technical expertise	Needs assessment completed Strengthening activities identified	5 fruits analysed and 5 vegetables in first year and subsequent years \$50,000/\$50,000/\$50,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
2.2	"Develop an action plan for the provision of market intelligence in cooperation with Statistic department, Samoa Central Bank and Ministry of revenue, MAF Identify existing government agencies or sector associations that could collect, maintain and/or disseminate components of database information	None	Action Plan approved and operationalised by relevant Ministry agencies	
5.1	Conduct finance needs and risk exposure assessments for representative fruit and vegetable value chains, (including existing grant schemes)	technical expertise	2 Value chains mapped- 1 of a fruit and 1 of a vegetable	See 2.1 above
5.2	Together with the Aid Coordination Division and the MOF identify and consolidate a list of financing bodies or institutions targeting agriculture sector and SME finance at a national and regional level that can fund the different stages of the Value Chain	None	List completed	See 5.1 and 2.1
2.3	Assess possibility of private sector provision of data and collection, maintenance and/or dissemination and select potential partners	Study	List of private sector enterprises that will collect and provide data Definition on type of data and frequency	\$45,000, then \$10,000pa
2.4	Adapt existing census questionnaires and create additional targeted surveys to wholesalers and commercial farmers to create baseline information.  Improve Frequency of agricultural census to 5 years and of pest and disease database to 2 years	None	Policy and Planning MAF to submit request for improved frequency of surveys Submission to Cabinet by Minister and CEO of Agriculture Resources allocated and completion of Agricultural Census for 2010	
2.5	Conduct demand & supply studies for a range of existing and potential products and gather information in: Local hotels, restaurants and supermarkets, Regional and international markets	Resources and team for data collection	Demand and Supply studies completed Replication and update of studies annually	Study done fully first year, update with sample second year, full study alternative year \$10,000/\$5,000/\$5,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
2.6	Conduct annual workshop for key stakeholders for building capacity in data collection/dissemination and analysis	Specialists in Data Collection and analysis	Key stakeholders trained and data collection methods improved Improved data Analysis and use for decision making	Workshop training by SBS in 1 <sup>st</sup> and 3 <sup>rd</sup> year \$10,000/\$5,000/\$10,000
2.7	"Develop dissemination techniques to reach farmers using radio and community meetings  Identify targeted and simple information for improved production planning and linkage to market"	Dissemination costs and material production costs	Information disseminated through radio, news papers and community meetings on a regular basis Adoption by farmers Improved farming planning	Weekly news broadcast \$15,000/\$10,000/\$8,000
2.8	Improve dissemination of market intelligence to domestic buyers, wholesalers and exporters through email and internet	Dissemination costs and material production costs	Market information disseminated and used by buyers	Monthly newsletter sent via email/internet /radio \$10,000/\$8,000/\$10,000
4.1	Conduct a comprehensive needs assessment of training requirements for the fruit and vegetable sector based on market and buyer requirements, for the entire value chain from producer to buyer and consumer.  Identify successful training institutions and approaches and explore opportunities for replication.  Identify which government and relevant agencies require specialised training to deliver market driven services	Human resources	Report completed Target agencies involved and mobilised	Study of needs assessment/ production of unit modules for the various chain members \$50,000/\$30,000/\$30,000
4.2	Develop a training and capacity building action plan per segment (farmer, extension, processor, buyer, cross cutting). Estimate resources needed and identify support service providers for delivery of training. Segment training activities according to short term and long term modules and include both theory and practical hands on material.	Human resources	Work plan agreed Detailed Costing of initiative Sectoral Capability Plan initiated	Chain members are provided with unit modules and assisted to achieve pass rates \$30,000/\$40,000/\$40,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
3.1	Assess the feasibility of commercially driven pack houses and post harvest service centres defining clearly the roles of and type of services that will be provided to Value Chain operators and the structure in which these centres will be operated and managed (farmer associations and / or NGO's and / or private sector)	Supply Chain & Agribusiness specialists	Feasibility report completed Recommendations and activities for piloting service centres	\$1,000 for study
3.2	"If feasibility study is positive define and agree with Ministry of Agriculture the potential role and type of services that could be provided to farmers, processors and buyers.  Core services provided could include: Collection, cooling, grading sorting, packing, distribution, manages hubbing and bulking of production outputs. Also finance and admin support services  Expanded services could include: Marketing of produce, training for farmers on quality and management, information collection and dissemination, Finance/credit lines and collateral provision, common sourcing of supplies, bulk buying of inputs, seeds and packaging and inviting technical (national/regional/international) consultants in the field of growing, post harvest handling  Longer term functions: 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 for Profitable utilisation of excess produce/value addition (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"	Supply Chain & Agribusiness specialists	Definition and agreement of services provided by centre Agreement on next steps and work plan for setting up centres	Core Service Costs Infrastructure costs such as coolers, vehicles for collection and human resource costs such as grading, packing, distribution, finance and administration  \$269,000/\$100,000/\$100,000Na tional Export Authority mandate can be expanded to cover import substitution Farmer training in growing, quality control, management, data receipt and dissemination, can be outsourced. Cost through provision of services from NEA - \$180,000 pa Training on post harvest handling and opportunities for value added \$180,000 pa.  Total costs \$629,000/\$460,000/\$460,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
3.3	Determine the best mechanism for funding the centres to cover costs while not charging users excessively (e.g. commissions perceived from successful commercial operations and annual contribution by farmer members and buyers)	Finance and business planning specialists	Commercially viable finance plan for centre	See 3.1
3.4	Determine the potential for small holder and community farmer collaboration, ownership and use of services and possibly distribute shares of centre to farmers based on production volumes	None	Small holder farmer inclusion plan	
3.5	"Based on farmer and buyer agreements, determine the most appropriate location for one pilot centre in Upolu  Pilot the service Centre model Starting with a pilot run with a selected group of 10-20 farmers and selected buyers to enable the development of a viable framework or contract that can be used effectively between suppliers and buyers who will be using the centres.  Develop and define appropriate contractual arrangements adapted to the Samoan context"	Resources for centre piloting	Location determined in agreement with farmer association and buyers Identification of farmers and buyers that will participate in pilot experience Set up of Centre First commercial operations	Housing, land, vehicle, staff, sorting, packing, cooling \$550,000/\$150,000/\$150,000
3.12	Promote and apply national food safety standards and operational procedures including CODEX and good agricultural practices across the whole value chain  Strengthen implementation of current programs for standards /quality assurance (international certification requirements to increase compliance)  Put in place mechanisms to Identify different market opportunities across the Value Chain based on quality produced	Development of necessary processes, Compliance and auditing systems	Standards in place and enforced Quality improved in F&V fresh and processed	MAF to develop HACCP training and quality assurance services for farmers on good agricultural practises including but not limited to post harvest handling. Sorting centres and food processors given their limited numbers to seek ISO accreditation.  Accreditation costs:  \$100,000/\$50,000/\$25,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
4.5	"Identify a group of farmers for pilot testing training.  Reinforce on site training at the farms & provide basic management skills including record keeping.  Specific on-field training on pest disease management and planting and on post harvest handling,  Training on choosing the best varieties, seeds and inputs and what effect that can have on your yield and income.  Ensure close follow up by extension officer / service centre: before	Costs for trainees, trainer cost, extension staff extra costs Stationeries	Successful farmers identified and contributing to training	10 meetings for 10 farmers per meeting- \$10,000pa Stationeries \$2000pa
4.6	Fut in place a programme designed to train officers, relevant government agency officials and service providers on:  - How to work with and respond to demands from farmers, businesses and exporters on compliance with market and buyer requirements / standards.  - Training on new technologies based on market opportunities  - How to train new officers in the field in order to expand base and reach support to farmers	Resources to develop or adapt training modules Information on successful training modules	Training modules developed Funding for delivery secured Identification of trainers	Monthly training for extension officers and agency officials \$20,000pa
3.13	Determine farm inputs required and tender for agricultural input suppliers to better align based on market requirements (including imported supplies)	Information	List of input requirements Regular revision of lists Tendering of supply requirements	\$100,000 Tendering costs- \$1000
3.14	Review the role of the agricultural store and propose restructuring	Reviewer (review to be based on how the VC is being affected)	Recommendations implemented based on review More efficient supply of inputs	\$7000
4.3	In cooperation with the MAF, villages, private sector and buyers, develop or improve approach towards a more commercially driven hands on methodology for training farmers	Human resources modules	Support services have hands on training plans in place. Training delivery mechanism is pilot tested	Refer 4.5&4.6

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
4.4	Identify and commit successful farmers to serve as a model to disseminate experience and training to inspire other farmers.	Trainers Training materials, field manuals	Target group of farmers selected Training materials developed Piloting of testing with a group of 20 farmers Improved quality of produce and record keeping as a result of training	\$6000
4.5	Develop a performance incentive mechanism based on study tours, exchange programmes, scholarships and other education awards in fields that will contribute to the strengthening of extension and support services for the fruit and vegetable sector	Consultancy costs	Better trained and more enthusiastic extension officers	\$7000
6.8	Explore leasing of customary and government land for commercial fruit and vegetable production and processing	Legal advisory costs	Clause in land bill effective	\$10,000
6.9	Document comparative production and income figures from farms that have removed rocks and those that have not (helps promotion of good management tools in doing successful commercial farming); Develop a business model and include projection of income generation opportunities arising from the use /lease of land for fruit and vegetable production	human resources	Comparative production documented  Business model documented	\$14,000 \$14,000
6.1	Pilot using alternative technology such as production above the ground in boxes to reduce effort needed to remove rocks  If successful replicate and train other farmers	Media resources Implementation costs	Awareness building campaign launch	\$65,000
6.11	Where customary land is used for commercial production of fruit and vegetables, draft a template contract between farmers and land owners for customary land to be signed by the lawyers to make it binding	Model agreements, legal expertise	Contract template completed	\$7,000
5.3	"For the selected products, develop appropriate finance tools (for example, using the contract as collateral and/or risk management products, programs such as factoring, the use of remittances and insurance products) for value chain stakeholders: Commercial farmers, Small holder farmers, SME  On this basis, develop a SIMPLE and PRACTICAL model or template contract that would suit both the farmers and buyers (SBEC model)	Technical expertise	Model developed	\$50,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
5.4	Explore using contract, solid business plans and micro-insurance (purchased by individual stakeholders) as collateral in order to guarantee better access to finance for individual farmers directly or through service centre or farmer association	technical expertise	Model tested Increased number of farmers accessing affordable finance	\$10,000
5.5	Create a flexible and operative system of low rate seasonal credit and simplify enterprise access to credit resources during peak periods for the purchase of inputs.	None DBS to investigate	Constant credit offer Easy access to finance for input purchasing	\$5,000
5.6	Encourage banks/donors to use value chain approaches to assess risk, and evaluate exposure, based on a complete understanding of the enterprise's position and linkages to other activities in the chain.	None Bank assessors training	Banks evaluating risk exposure using value chain approach Increased credit to farmers	\$22,000
5.7	Ensure provision of information, through SFA, MAF, Service providers, on how to accessing business planning, and funding proposal writing	None Communicatio n resources	a measured increase in number of business plans financed	\$10,000
5.11	Provide price incentives or in kind incentives to small farmers to increase their investment in technology/quality inputs	Budgetary resources	Cabinet Submission completed	\$10, 000,000pa
5.12	"Make available direct credit lines and financial schemes to chain stakeholders at an affordable cost by reducing interest rates and improving repayment terms on loans from development banks.	Budgetary resources	Cabinet Submission completed	\$2,000,000pa
5.13	"Encourage SME's to purchase capital equipment for primary processing and value addition using time-bound lower rate loans and tax incentives.  Investigate possibility of establishing mutual funds through Producer Organisations for larger investments	Budgetary resources	Policy paper for CDC completed	See 5.12
5.14	Seek assistance for processors to explore relevant available technology and market development needed for appropriate follow-up, evaluation and information dissemination CDE/PSSF/PIFS/PITIC	Training consultancies	Proposal for financial assistance Completed	\$100,000pa

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
5.15	Establish a technology support fund, accessible to farmers, SMEs or export companies that have an identified a potential market and the right technology to scale up production and improve the quality to take advantage of this market	Grants, operational costs	Cabinet Submission completed	\$1.5million pa
3.6	Provide start up operational funding to the farmers association office (ie for computer facilities and overheads)	EU Micro Projects	EU micro project proposal drafted, submitted and approved Funding disbursed Farmer association office operational	\$17,000
3.7	Strengthen management capacity of farmers associations by providing targeted training (i.e. "institutional strengthening programme")	FAO/ EU ACP	Improved performance in management of resources and members Increased membership Increased funding proposals approved	\$300,000pa
3.8	Support the development of a members database including production area, crops, soil, water, seasonalities	FAO/ EU ACP	Database created and operational Database updated regularly	\$300,000pa
3.9	Strengthen farmer groups and networks (in cooperation with MAF, villages, private sector and potential buyers) to implement sharing of equipment, experiences and knowledge through existing networks	Training	Number of farmer groups and networks established Training visits of farmers to point of sales and buyers Sharing of equipment	See above
3.1	Improve capacity in post-harvest handling practices at the farm to enable to distribution to markets.	Supply Chain & Agribusiness specialists	Feasibility report completed tied in to the VC analysis	\$5,000
3.11	Improve linkages and cooperation between farmers associations and crops division advisory services  Develop a system of field attachments for extension officers	communication, building relationships, trust 4 sessions with motivational speakers	Increase farmer efficiency as a result of extension service training	\$20,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
4.1	Use "field trips" as a delivery method and organise visit of growers, buyers, processors to each others farms/companies to understand each others issues and requirements	Human resources transport	Report completed Target agencies involved and mobilised	\$15,000
4.11	Introduce HACCP standards and compliance training throughout the whole value chain (farmers, processors, hotels, restaurants)  Reinforce training and certification for compliance for organic standards and eurogap	Access to Standards (ISO, HACCP) Technical expertise	Introduction of HACCP and other in training curricula Increase in number of certified farms and processor	\$1.5million then \$500,000pa as maintenance thereafter
4.12	Provision of Supply-chain Management training:  Improved sourcing to allow processors to benefit from a steady flow of good quality agricultural commodities  Familiarize growers with contract farming	Human resources About mechanism	Improved supply chain management resulting in decreasing costs	
4.13	In cooperation with International accreditation bodies, design short term training programmes addressed to enterprises and laboratories to reinforce testing capacities where needed	Resources and technical assistance for accreditation	Increase in number of accredited labs and enterprises Reduction of testing done abroad	
4.14	Provide opportunities for specialised training and preparation support for farmers, exporters, processors in marketing skills, Branding and commercialisation as well as management (accounting record keeping, distribution / logistics, operations)	Human resources For farmers - only in context of actual markets 2 specialised training per segment	Training proposal completed and submitted for funding	\$50,000pa
3.15	Produce information on and apply suitable technologies to extend season and thereby window of opportunity (de-greening of citrus)	Specialists in Research & Development in Fruits and Vegetables	Suitable postharvest technologies identified	\$20,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
3.16	Evaluate options for development and multiplication of fruit and vegetable seeds/rootstock appropriate for Samoan agriculture  Create a business plan demonstrating feasibility of commercial nurseries	Specialists in Research & Development in Fruits and Vegetables	Business plan developed and showing positive returns	\$15,000
3.17	Link educational and scientific institutions to farmers, farmer groups, and service centres in order to promote on farm research  Initiate mobile farmer field training for improved replication of seed propagation techniques	Equipment and Training materials, transport	A measured increase in the number of on-farm research among fruits and vegetable farmers	\$20,000
4.7	"Deliver capacity building through modular training with practical on-factory and classroom content.  Agree on number and development of modules (Quality, Management, GMP, HACCP Food heath and hygiene standards, processing techniques, operations, sales and marketing, Packaging)  For each module use a combination of 2 trainers: from University and successful processors and businessmen	Resources to develop or adapt training modules Information on successful training modules	Training modules developed Funding for delivery secured Identification of trainers	\$20,000
4.8	"Provide training on  Technology and processing techniques: Help enterprises progress in elaborating better recipes, which match consumer's needs, are compatible with the use of existing equipment and reduce production costs. Distribute information on technologies & best practices for processing  Improvement of processing ratio and production performance (increased volumes and quality, reduction of losses).  Sales and marketing: To calculate precisely the cost of goods and margin (fixed costs, variable costs and contribution margin of each SKU) to analyse the profit potential and pricing of the product portfolio. Elaboration of a relevant marketing strategy and business plan, establishment of a customer satisfaction index to make sure that the final product satisfies.	Trainers Training materials, field manuals	Delivery of 45 training to a selected group of processors	\$250,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
4.9	In collaboration with processors develop and disseminate proper training manuals and training tools such as Visual aids / dvds to be developed.	Human resources	Development and successful testing of materials	\$20,000pa
7.1	Develop a mandate and vision for SAME in consultation with stakeholders and clearly define core services in the strategic plan Services to be provided by SAME:  Distribution of information: Market information, Quality assurance processes (ISO), HACCP, Direct enterprise support and hands on training (Production, Costing and Pricing, Occupational health and safety, Product development, advocating and lobbying for sector interests	information, Quality assurance terprise support and hands on cing, Occupational health and		\$450,000, then maintenance at \$250,000pa
7.2	Strengthen SAME by aligning / redefining its governance structure to its mandate and to the services to be provided (corporate plan)	meeting costs, human resources	SAME structure & Corporate Plan finalised	\$15,000
7.3	Segment SAME's members in terms of services to be provided and intensity of support required. (General members: Monthly review, market information and sector news, Core members: Intensive follow up and support in operations, market access and product de velopment)	meeting costs, human resources	SAME members segmented according to needs	\$15,000
7.4	Develop costing and pricing of SAME services and explore tying member contributions to results of SAME support (comission or fees pegged to increase of sales)  Explore tying SAME services to a commercially driven model of return where, if SAME helps increase profit, then processors pay commission	Human resources	Costing and pricing of services agreed by members	\$25,000
7.5	Develop a mid-term staffing programme and define Job descriptions and roles in order to deliver SAME services	Human resources	Job descriptions completed	\$25,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
7.6	Enhance product development capacity built in SAME in cooperation with SROS.	Technical expertise	New products developed	\$150,000pa
7.7	Select a pilot group of processing firms and focus SAME's efforts in order to achieve maximum impact on those firms	Consultation costs expertise	Firms involved in pilot reported on annually	\$50,000
2.9	Based on market information (local and international) set up a promotion strategy for each targeted market segment (Domestic and Export)	Marketing, Merchandising and promotion specialists Repetitive of earlier activities	Promotional plan finalised and approved by sector stakeholders Operationalisation of plan by implementing partners	\$5,000
2.10	Develop promotional point of sale materials to be displayed in hotels, restaurants, Supermarkets, F&V markets and stalls to communicate contribution of fruit and vegetable sector to farmer community livelihoods, promotion of healthy eating and import substitution	Marketing, Merchandising and promotion specialists Not stand alone activities	Promotional activities and material exhibited in point of sales on a regular basis Increased consumption of F&V	\$100,000
2.11	Encourage Chefs and food and beverage mangers to try local foods and adapt their procurement practices and recipes including traditional and exotic Samoan produce.	None	Increase in local procurment	\$100,000
2.12	Develop and conduct a campaign to promote the consumption of fruits and vegetables as part of a healthy diet: TV health and cooking programmes(inc luding O le Kuka Samoa and the Challenge) School and work place canteen and lunch program Ministry of Health	Development of visual and interactive materials	Campaign content and delivery mechanisms agreed Rollout of campaign to targeted audiences Increased awareness and healthy consumption of fruit and vegetables	\$100,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
2.13	Promote backyard gardening for consumption of fruits and vegetables	Seeds, tools, planting information materials, cooking instructions	Measured increase in subsistence planting and consumption of locally grown F&V's	\$70,000
2.14	Incorporate the Samoan quality standard Logo (Loto nuu) to promote fruit and vegetable fresh and processed produce	None	Use of Samoan logo by industry	Refer activities on sales and marketing activities
Year 2				
1.12	Conduct a needs assessment on the requirements regarding capacity building to formulate and implement policy measures for the sector	Specialist in policy review and policy design training	Analysis & report completed Matrix with synergies and conflicts Suggested alternative formulations	\$50,000
1.13	Conduct tailored national level training to strengthen capacity of government officials and private sector to contribute to policy formulation  Link capacity building to the use of PITIC national and regional tools and services (trade commissioners, SOPAC	Training and delivery mechanism	Trainings delivered against needs assessment	\$50,000
1.8	F&V coordinating committee to engage Ministry CEO's (MCIL, Health, MAF, MOF, MNREM) to achieve and sustain cross ministerial support and involvement		Regular meetings with CEO's of Ministries Minutes of meetings and action points tabled	
1.9	Analyse current legisla tions, policies, regulations, and any strategies that impinge upon Fruit & Vegetable Sector and determine areas of conflict and potential synergies. (national, regional, international) Investigate alternative formulations (if need	Specialist in policy review and legislation review	Analysis & report completed Matrix with synergies and conflicts Suggested alternative formulations	

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
1.10	Align F&V strategy with the overall strategy for the development of Samoa (SDS)  Ensure link between the Fruit & Vegetable Sector Strategy with the Agricultural development plan, the National Export Strategy and SROS Plan, Health Sector Plan, MWCSD Sector Plan, Water Sector Plan and MNRE Cooperate Plan.  Ensure sector priorities are represented in the Improving Policy Development and Coordination Reform Program (Ref: PO44)	None	Key F&V strategic priorities included in the documents (Agricultural sector plan) Alignment of implementation proposals for F&V with existing plans and strategies (ie: SDS, SROS, MNRE)	
1.11	Strengthen mechanisms for dialogue with private sector and other governments in the region for integration into bilateral and regional policy processes related to fruit and vegetable sector	Platforms for dialogue and information	Private public dialogue meetings held F&V Strategy tabled in the Head of Agriculture Ministerial meeting May 2009 and in other similar meetings Development of project Proposal	
5.16	Engage farmers and private sector stakeholders in the next review of Development Bank of Samoa legislation in order to provide inputs relevant to improved access to finance	None Report costing	Sector members participate in next SDB Review	\$5000
5.17	Encourage access to finance through government policy and strengthen support to specialized finance agencies	Cabinet submission	Cabinet Submission completed	
5.18	Together with the Aid Cooperation division and the MOF, develop a plan to engage regional & international commercial and development banks as potential funding partners for the implementation of the strategy	Technical expertise	Plan initiated	\$10,000
6.1	Develop an aggressive awareness campaign on the lifestyle and potential economic benefits of engaging in Agribusiness activities	Media resources	Awareness building campaign launch	\$100,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
6.2	Include Entrepreneurship and leadership training in high schools and through NGO's	Training materials and packages, human resources	Inclusion of entrepreneurship in curricula of various courses	Consultancy fees \$100,000 Publishing costs \$30,000 Training of trainers- \$50,000
6.3	Identify one pilot village to provide fencing based on potential and commitment  Investigate how to provide free fencing and through which institution and what impact it will have  Establish a mechanism to repay fencing tied to profit and village council/project leader/government	Fencing	Piloting of free fencing increasing ownership and quality of produce	Part of the package that includes the rock removal or boxing and soil build up technology
6.4	Contribute and provide inputs to the development and implementation of the National water management strategy in relation to F&V sector needs (areas covered, water harvesting, water collection, water storage, water use, irrigation)	None	Fruit and vegetable sector priorities represented in Water management strategy	Part of the model farms showcasing these packaged technology e.g.irrigation
6.5	Document and monitor the volume of water use in fruit and vegetable production (irrigation, cleaning after harvest, cleaning of processing/packing area etc)	Technical know how	Annual Volumes calculated and reported	Deliberate survey to track a selected sample over a specified duration (12 months, 24 months)
6.6	Pilot test water harvesting in pools to avoid water shortage during dry season	Infrastructure	Success of a pilot water harvest irrigated farm	\$50,000

Activity Number	Activity	Resources needed	Progress indicators	Budget 2009\2010\2011
6.7	Dialogue with Samoa Water Authority to find ways for improving processing firm access to potable water for small processors For hacep compliant processors, ensure filtration systems are in place	Action plan for improved access to potable water Funding needs identified Project proposal submitted	List of technologies completed	\$50,000
Year 3				
5.8	Based on the risk profile, design risk management tools and procedures to manage the different risk layers (national, meso and micro level) and facilitate credit uptake, respectively	Risk management expert	Credit update improved	\$50,000
5.9	Conduct a study on the feasibility of creating a multi-sector disaster aid facility	Risk management expert	Study report completed	Part of 5.8
5.10	Evaluate the establishment of a disaster risk management fund at a regional level to provide local and international insurance companies an incentive to insure the agricultural sector and to provide clear definition of the kind of risks that are being covered	Technical expertise	Evaluation available	\$30,000

#### Appendix 2: List of stakeholders for workshop 1 and 2

Stakeholder list for Strategy Development Workshop 1 (October 2008)

Name	position/institution	Savaii/Upolu	Email	
Misiolo Sofe	self-employed	Upolu		Farmer
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Su'a Afiafi	Farmer - Salelavalu	Savaii	
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Poufa	Farmer		
Nuu Tanesi	Farmers Association Sale	Savaii	

#### **Stakeholder list for Strategy Development Workshop 2** (February 2009)

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### Appendix 3: Past and current development activities

Activity/modality	Funding Agency	Implementi ng Partner(s)	Purpose	Timeline	Budget USD
Integrated Pest Management in Sustainable Production System for Brassica Sub- regional Project	Aus/ACIAR	MAF SPC	Develop integrated pest management package for diamondback moth	2005- 2010	527,625
Demonstration Farm	China	MAF	Establish demonstration and training farm for vegetable production/integrated livestock and biogas	Pipeline	200,000
Regional Programme For Food Security (RPFS)	FAO, Italy	FAO, National Ministries of Agriculture in 14 PICs	Enhancing production, income generation and food security as well as building capacity on trade facilitation and agriculture policy development	2004-2008	7,060,000
Formulation of the Food Security and Sustainable Livelihoods Programme in the PICS	FAO	FAO	Assist countries in the preparation for the expansion phase of the Regional Programme for Food Security	2007-2008	244,000
Initiative on Soaring Food Prices	FAO		To enhance food security and nutritional status of small farmers and vulnerable households through the provision of seeds of improved varieties and necessary agro-inputs	2008-2009	250,000
Horticultural Post-Harvest Research	FAO	RDIS	To conduct post harvest research on horticultural produce with the aim to enhance the quality of fresh produce along the food chain	2008	73,000
Organic Farming and Processing	FAO	WIBDI	To build capacities to produce and process organically certified and fair trade labelled agricultural produce for local and export niche markets	2009-2010	230,000
Micro-projects	EU	MoF	Support to community projects including agriculture	1998-2009	13,860,000
Development of Sustainable Agriculture in the Pacific (DSAP) Project	EU	SPC, National Ministries of Agriculture in 16 PICs	To promote and implement sustainable agriculture that will improve food production thereby enhancing food security and income generation in the Pacific.	2003-2008	12,628,000
Organic Certification in the Pacific Project	IFAD	IFOAM/WI BDI	Primarily aims to build the capacity in certification of organic agriculture.	2008	200,000
Organic Standards project	IFAD	SPC	To help develop regional standards, improve regional coordination and develop a strategy for promotion of organic agriculture	2007-2009	200,000

Activity/modality	Funding Agency	Implementi ng	Purpose	Timeline	Budget
	rigency	Partner(s)			
PACER/Regional Trade Facilitation Programme (RTFP)	AusAID, NZAID	PIFS, SPC, Oceania Customs Organisatio n (OCO)	To facilitate trade within the region through improved and streamlined processes in quarantine, customs and standards and conformance matters. It also includes capacity building and support to reform legislative and regulatory frameworks.	2004-2009	Aus\$ 770,000
Pacific Regional Agricultural Market Access (PRAMA)	AusAID NZAID	SPC	To enable PICs to better meet the import quarantine requirements of key trading partners, like Australia and New Zealand.	Pipeline	
Legislation review TA	Commonwea lth Sec.	MFAT/Atto rney General's Office	Legislation drafting for compatibility with WTO		
National Export Strategy	Commonwea lth Sec.	MFAT	To improve export performance through enforcement of food safety standards, development a Samoan brand, organic certification, fair trade products	2008-2012	80,000
Processing of Regional Trade Statistics of Agricultural Commodities	FAO	SPC	To assist the Secretariat of the Pacific Community (SPC) in obtaining relevant statistical information from PICs in support of informed agricultural policies	2006-2009	253,000
Pacific Regional Economic Integration Programme (PACREIP)	EU	PIFS, SPC, SPTO	To strengthen capacity to implement PICTA, conduct EPA Negotiations with EU, support participation in the WTO, engage in regional economic integration.	2004-2009	17,248,000
Diagnostic (DTIS) Capacity building / Window 1 TA	IFTF LDCs	UNDP/MF AT	To boost Samoa's trade capacity, better react to market opportunities, and work towards full integration into the multilateral trading system.	2008-2009	285,714 38,000
Facilitating Agriculture Commodity Trade (FACT) Project	EU	SPC	To address existing bottlenecks in the supply chain of representative Pacific island commodities and transform selected commercial ventures into export oriented, market-driven enterprises that consistently supply overseas markets with competitive products	2008-2013	6,160,000
Programme support to WIBDI	Oxfam	WIBDI	To develop organic farming and fair trade certification to niche value products for export	Annual	167,000

Activity/modality	Funding Agency	Implen nting Partne	g er	Purpose	Timeli ne	Budget
Pacific Financial Technical Advisory Centre (PFTAC)	Multi- donor				ongoin g	
Private Enterprise Partnership for the Pacific (PEP-Pacific)	IFC, Australia, Japan, New Zealand				ongoin g	
Enterprise Challenge Fund (ECF)	Australia	ate	ate projects which result in increased incomes, improved livelihoods and access to services for the local community		2007- 2013	94,000,0
Activity/modality	Funding Agency	Implem ting Partner		Purpose	Timelin e	Budget USD
Improved Nutrition Capacity Building	WHO	WHO/N H	Мо	Nutrition guidelines, poster printing, school canteen audits, evidence-based interventions for anaemia	2008	20,000
TA (Health SWAp) Pooled Funding	WB	MoF, MoH		Review Nutrition Policy		24,000
Water resources SWAp (programme support)	EU	MoF, MoH, MNRE, SWA	,	Water sector support programme	2005- 2010	29,500,0 00
Water resources SWAp (budget support)	EU	MoF, MoH, MNRE, SWA		Water sector support programme phase 2	Pipeline 2009-2013	35,340,0 00
Integrated Water Resource Management	EU Water Facility	SOPAC		To safeguard the sustainable access to water and sanitation, and support countries to engage with civil society, and jointly develop/implement water strategies with attention to health, agriculture, tourism, environment.	2008- 2011	4,312,00 0

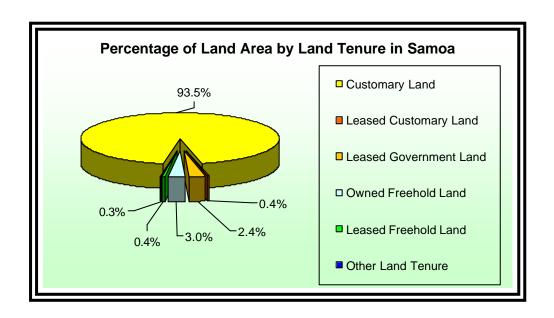
#### **Appendix 4: Progress toward the Millennium Development Goals and Targets**

Millennium Development Goal (MDG) table classifying impact per activity

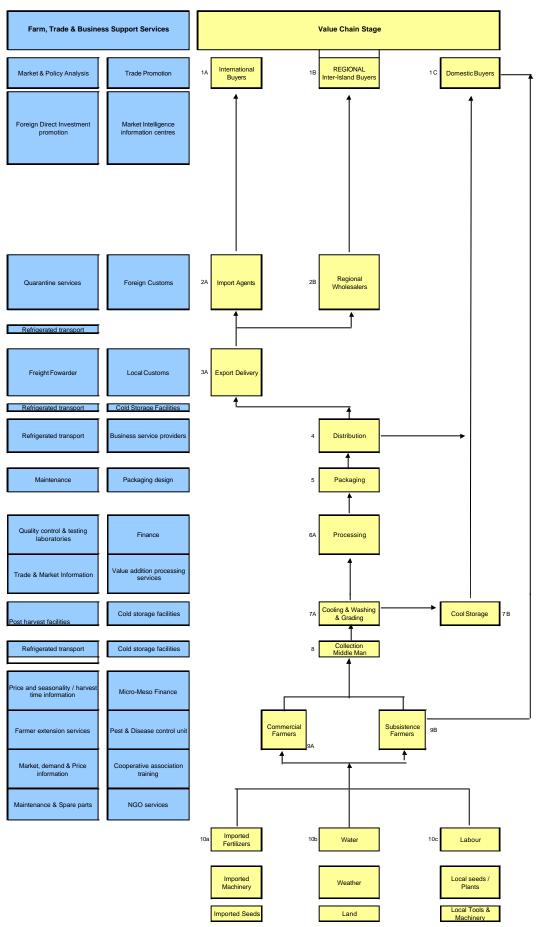
Strategy objectives	Eradicate extreme poverty and hunger	Promote gender equality and empower women	Combat HIV/AIDS, malaria and other diseases	Ensure environmental sustainability	Global partnership for Development
Objective 1	1.10 Align policy / regulations to strengthen the implementation of the fruit and vegetables sector including promotion of healthy eating and import substitution or supply side capacity building. Ensure sector priorities are represented in the Improving Policy Development and Coordination Reform Program (Ref: PO44			1.10Align F&V strategy with the overall strategy for the development of Samoa (SDS). Ensure link between the Fruit & Vegetable Sector Strategy with the Agricultural development plan, the National Export Strategy and SROS Plan, Health Sector Plan, MWCSD Sector Plan, Water Sector Plan and MNRE Cooperate Plan. Ensure sector priorities are represented in the Improving Policy Development and Coordination Reform Program (Ref: PO44)	1.11 Strengthen mechanisms for dialogue with private sector and other governments in the region for integration into bilateral and regional policy processes related to fruit and vegetable sector
Objective 2	2.12 Develop promotional point of sale materials to be displayed in hotels, restaurants, Supermarkets, F&V markets and stalls to communicate contribution of fruit and vegetable sector to farmer community livelihoods, promotion of healthy eating and import substitution 2.15Promote backyard gardening for consumption of fruits and vegetables		2.14Develop and conduct a campaign to promote the consumption of fruits and vegetables as part of a healthy diet:  TV health and cooking programmes(including O le Kuka Samoa and the Challenge) School and work place canteen and lunch program Ministry of Health Exercise programs		

Strategy objectives	Eradicate extreme poverty and hunger	Promote gender equality and empower women	Combat HIV/AIDS, malaria and other diseases	Ensure environmental sustainability	Global partnership for Development
Objective 4	4.3 In cooperation with the MOAF, villages, private sector and potential buyers, develop or improve approach towards a more commercially driven methodology for training farmers				
Objective 5	5.13 Conduct a study on the feasibility of creating a multi-sector disaster aid facility. Evaluate the establishment of a disaster risk management fund at a regional level to provide local and international insurance companies an incentive to insure the agricultural sector and to provide clear definition of the kind of risks that are being covered			5.13 Conduct a study on the feasibility of creating a multi-sector disaster aid facility. Evaluate the establishment of a disaster risk management fund at a regional level to provide local and international insurance companies an incentive to insure the agricultural sector and to provide clear definition of the kind of risks that are being covered	
Objective 6	6.1 Develop an aggressive promotional strategy that will raise awareness on the lifestyle benefits of engaging in Agricultural activities (e.g engaging key national figures as spoke people for the Fruit and Vegetable sector to target changing mindsets, current WIBDI ads on healthy living, calendar of farmers)	6.1 Develop an aggressive promotional strategy that will raise awareness on the lifestyle benefits of engaging in Agricultural activities (e.g engaging key national figures as spoke people for the Fruit and Vegetable sector to target changing mindsets, current WIBDI ads on healthy living, calendar of farmers)			

#### Appendix 5: Land tenure systems in Samoa



#### Appendix 6: F&V Value chain maps and issues



ISSUE	Value chain stage
Trade facilitation and transportation	All
Lack of affordable airfreight cargo space limits export Recruit AgriChain New Zealand to analyse the impact and opportunities of freight cargo for both sea and air transport on export	Exporter
Market access	ALL
Limited market access. Market access process is both very long and stifling	All
Market Info: Grades and standards, Price, Requirements, Volumes	
Lack of coherent and comprehensive Market Information  Poor or no understanding across the Sector of WTO Rules and	All All
Requirements  Poor understanding of and, therefore, poor adaptability to Climate	Farmer
Volumes do not meet demand	All
Lack of knowledge of what the testing requirements are  No connection between planting seed supply and market demand.	All Farmer and processor/exporter
Demand from farmer decides the kind of seeds to be planted	All
Supply standards highly variable or non-existent  Poor product development skills and weak support from RDIS/ Patent	Farmer Processor
Lack of extension to advise on growing seasons	
Policy	
Poor management of Water. Overuse of water is affecting existing users  Water retention is not used as a solution to lack of water	Inputs
water retention is not used as a solution to tack of water	Inputs
Standards compliance	
Organic Certification H&R is too expensive and too impractical Soil analysis cost is too high compared to the quality of information	Processor Farmer
generated - timeliness  Lack of training for HACCP, ISO	Processor
No Soil analysis, RDIS, USP	Farmer
No usage of tissue culture and no tissue culture replication by nursery stock	Farmer
High cost of pest and disease control	Farmer
Investment in brand and promotion	
Poor Promotion of Samoan Food – no set of minimum standards for	Processor
inclusion in such a programme  High variable of programme levelly	Exporter Processor
High variable of processing locally  No packaging/labelling on exports	Processor
Extension services  Lack of cold storage facilities, due to high capital and/or electricity costs, contributes to high post-harvest losses/wastages.  Initiate a feasibility study to determine a realistic need for cold storage	Processor

facilities in Samoa	
Lack of/Limited processing facilities of acceptable standards,	Processor
particularly for small farmers and processors	
Processing equipment cannot be afforded by most processors regardless	Processor
of the size of the operation	
No Access to water for irrigation. Frequent flooding and droughts	Farmer
Non-availability of machinery adapted to farmers' needs	Farmer
Troil availability of interimery adapted to farmers needs	Turner
Seeds, planting and linkage to market	
Variety of seeds viability and absence of on farm advice relating to	Inputs
choice of crop and its optimum development	mp was
Seed quality and variety	Inputs
Need for wider and appropriate availability of seed variety to strengthen	Inputs
network between processors/ hotels / farmers	
Low availability of seeds and lack of uniformity	
See above but lack of traditional extension services	
See above but lack of traditional extension services	
Inputs and Dackaging	
Inputs and Packaging Unavailability of affordable packaging materials is a major constraint	Processor
Need for collective procurement of raw material and packaging materials	Processor
Rocking Terrain soils limit mechanisation	Farmer
High cost of machinery to develop land and improve farming	Farmer
methodology	7
Inconsistent supply of raw materials impairs the ability for processors to	Processor
produce consistently.	
Initiate a pilot study between a selected number of suppliers (e.g. for talo	
palagi) and a processor (National Foods) over time to provide concrete	
positive indication/benefits of consistent supplies	
Organisation, training and common drive	
Lack of a firm decision/practices among farmers to overcome	Farmer
	rannei
inconsistency in supply	All
Lack of entrepreneurship	
Unavailability of continuous training awareness	Farmer
Very poor cooperation between farmers	Farmer
Larceny	Farmer
High pre-harvest losses due to pigs (free range)	Farmer
Lack of resources and materials for fencing	Farmer
Trust & Relationship not recognised as key to the success of operation	All
Need for closer collaboration between farmers, suppliers & processors	All
No organization collection hubbing	Farmer
Poor ability of farmer to adapt	Farmer
Lack of commercial drive and commercial training in the basics of	Farmer/ Processor
business	
Processor sector does not pay enough attention to import substitution	Processor
opportunities	
Select one key processed product with high import substitution potential	
and initiate an experiment with existing infrastructure (e.g. nonu	
producers) to gauge feasibility of such an enterprise	
Little training on the field to farmers	Farmer
Average farmers' age over 30. Need to change traditional mindset to a	Farmer
more commercially driven one. Lack of status in farming	
Not enough farmers committed to farming. (Young people)	
	I .

Lock of Forman and Working conital Finance	
Lack of Farmer and Working capital Finance  Access to credit too hard and/or cumbersome	Farmer
Lending rates too high	Farmer
Fund availability and communication access a major constraint	Farmers /Processor
Power cuts /water cuts/portables affect shelf life of machinery and	Processor
processing activities	
Unavailability of loans for corporate farming	Farmer
Funding for fencing hard to access and, often, not a priority	Farmer
Consignment stock affects cash flow	All
Enforcement of credit being repaid based on trust	
Lack of credit records leads to constraints in third party investment and	
activities/production	
Risk of chasing farmer for payment too high for banks	
High cost of credit schemes & finance	
Price setting at spot on day of sale, lack of contract	
No contracts between banks and farmers	
No collateral for customary land	
Lack of mechanisation & finance to buy land	
Spread of Risk too high or does not even exist	
No access to risk	
Lack of shared capital and investment risk	
Pest and disease control cost	
No record keeping by small holders and commercial farmers	Farmer
	•
Health	
Not enough awareness or programs strongly linking F&V production	All
and supplies to Health dietary	

## Appendix 7: Average annual quantity and CIF value of vegetable imports (Jan 2002 – Jun 2008)

Product (tariff definition)	Quantity	CIF value
	(kg)	(S\$)
Onions and shallots, fresh or chilled	534561.6	1004140
Potatoes, frozen	131972.4	514877.1
Cabbage lettuce,(head lettuce) fresh or chilled	93128.01	382836.6
Carrots and turnips, fresh or chilled	102327.2	287143.4
Garlic, fresh or chilled	158918	224320.6
Mixtures of vegetables, frozen	77715.08	215887.5
Tomatoes, fresh or chilled	27037.6	100410.2
Cauliflowers and headed broccoli, fresh or chilled	35422.3	73441.23
Celery other than celeriac, fresh or chilled	37505.42	65408.92
Fruits of genus capiscum or pimenta, fresh or chilled	19080.96	62553.69
Lettuce, fresh or chilled, (excl. cabbage lettuce)	7592.58	43715.54
Mushrooms, fresh or chilled	13676.02	41049.23
Sweet corn, frozen	8423.966	17722
Other vegetables, fresh or chilled, not elsewhere specified.	4154.683	12430.15
Vegetables, frozen, other	4726.726	12372
Beetrootradishes and other similar edible roots, fresh or chilled	5632.277	12197.23
White,red,Savoy, Chinese cabbages, collards,kohlrabi, kaleetc, fresh or chilled	2940.778	12169.85
Brussels sprouts, fresh or chilled	3743.697	7917.846
Beans, fresh or chilled	3266.358	7105.846
Other vegetables; mixtures of vegetables, whole, cut, sliced but not further prepared	2121.758	7082.462
Other vegetables; mixture of vegetables provisionally preserved, unsuitable for	2335.809	6398.308
immediate		
Onions provisionally preserved, unsuitable in that state for immediate consumption	3163.206	6104.462
Shelled or unshelled peas, frozen	4923.812	5443.231
Peas, fresh or chilled	1690.217	5337.846
Shelled or unshelled beans, frozen	4260.283	3751.385
Chicory, fresh or chilled, (excl. witloof)	1913.603	3460.923
Asparagus, fresh or chilled	626.1785	3006.615
Spinach,New Zealand spinach and orache spinach, frozen	707.1385	2391.077
Dried mushrooms and truffles, whole, cut, sliced, broken or in powder, not further	1596.197	2388.154
prepared		
Cucumbers and gherkins, fresh or chilled	813.6062	2355.846
Leeks and other alliaceous vegetables, fresh or chilled	664.2631	2182.615
Olives provisionally preserved, unsuitable in that state for immediate consumptionle	732.7031	1612
Spinach, NZ spinach and orache spinach, fresh or chilled	503.7446	969.0769
Leguminous vegetables, fresh or chilled,other	77.48308	602.6154
Dried onions, whole, cut, sliced, broken or in powder, but not further prepared	194.1169	502.6154
Truffles, fresh or chilled	36.07692	417.5385
Cucumbers and gherkins provisionally preserved, unsuitable for immediate	01.54200	409.8462
	91.54308	409.0402

# Appendix 8: Average annual quantity and CIF value (Jan 2002 – Jun 2008) of fruit imports

Product (tariff definition)	Quantity	CIF
	(kg)	Value
		(S\$)
Apples, fresh	124660.3	513005.7
Oranges,fresh	85537.82	399238.9
Coconuts,not fresh,not desiccated	96579.42	203099.1
Dried prunes	26468.01	114582.6
Other nuts, fresh or dried, nes	9968.914	83679.23
Pears and quinces, fresh	33705.31	83577.85
Other dried fruit, nes	10291.7	60132
Fresh grapes	29000.01	59443.54
Mixtures of nuts or dried fruits,not containing added salt	4788.214	43276.77
Mixtures of nuts or dried fruits, containing added salt	3806.146	23526.62
Kiwifruit, fresh	12203.52	17561.38
Mandarins, clementines, wilkingsetc, fresh or dried	4831.586	17525.23
Peaches, including nectarines, fresh	4620.551	10343.54
Dried grapes	7946.094	9157.846
Strawberries, fresh	1551.758	8619.538
Melons, fresh, (excl.watermelons)	11640.41	8521.538
Plums and sloes, fresh	2038.495	8311.538
Watermelons, fresh	2309.154	6084.308
Coconuts, desiccated	6094.657	5734
Peel of citrus fruit or melons, fresh, frozen, driedetc.	2206.343	4054.308
Other fruit, fresh, nes	815.3938	3812
Guavas, mangoes and mangosteens, fresh or dried	1181.323	2922.308
Walnuts without shells, fresh or dried	637.6277	2377.538
Lemons and limes, fresh or dried	451.2215	2148.154
Other fruits and nuts, frozen, containing added sugar and other sweetening matter	375.2308	1881.692
Cherries, provisionally preserved, not for immediate consumption	185.2308	1860.308
Cashew nuts, without shell, fresh or dried	263.7323	1755.385
Grapefruit, fresh or dried	680.0569	1734.462
Black, white or red currants and gooseberries, fresh	305.9585	1689.692
Fruit and nuts, provisionally preserved, not for immediate consumption	1630.978	1664.462
Raspberries, blackberries, mulberries and loganberries, fresh	255.1154	
Apricots, fresh	301.7031	1572.769
Oranges,dried	1197.329	1408.615
Cherries, fresh	247.2262	1192.923
Other fruits and nuts,frozen,not containing added sugar or other sweetening matter	27.29231	1161.385
Strawberries, frozen, not containing added sugar or other sweetening matter	95.73077	984.6154
Dates, fresh or dried	272.1923	861.2308
Almonds without shells, fresh or dried	933.9246	799.5385
Strawberries, provisionally preserved, not for immediate consumption	62.76923	789.3846
Avocados, fresh or dried	132.9985	786.6154
Cashew nuts, in shell, fresh or dried	171.0277	719.6923
Walnuts in shell, fresh or dried	312.1354	701.3846
· ·		507.6923
Almonds in shell, fresh or dried	203.2185 104.7969	468.4615
Pineapples, fresh or dried	139.0492	406.4013
Raspberries, blackberries, etc, containing added sugar or other sweetening matter	62	250
rasportios, orackocitios, cic, containing added sugar of other sweetening matter	02	250

#### Appendix 9: Glossary

TERM	DESCRIPTION
EC	European Commission
EU	European Union
ITC	International Trade Centre
MAF	Ministry of Agriculture and Fisheries
MoF	Ministry of Finance
NGO	Non Governmental Organisation
SCCA	Samoa Crops Cooperative Association
SFA	Samoa Farmer Association
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
USAID	Unites States Agency for International Development
USD	United States Dollar
USP	University of the South Pacific