

Agriculture Sector Plan 2011 – 2015

Review

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Abbreviations

DRM	Disaster Risk Management
NZ	New Zealand
NZAP	New Zealand Aid Programme
NZD	New Zealand Dollar
PACER	Pacific Islands Agreement on Closer Economic Relations
PDD	Project Design Document
PICTA	Pacific Island Countries Trade Agreement
SAME	Samoa Association of Manufacturers and Exporters
SAT	Samoa Tala
SBEC	Small Business Enterprises Centre
SBS	Samoa Bureau of Statistics
SDS	Strategy for the Development of Samoa
SLC	Samoa Land Corporation
SOE	State Owned Enterprises
SPBD	South Pacific Business Development
SPC	Secretariat of the Pacific Community
SPS	Sanitary and Phyto-Sanitary Measures
SROS	Scientific Research Organisation of Samoa
STA	Samoa Tourism Authority
STABEX	Stabilization of Export Earnings
STEC	Samoa Trust Estates Corporation
SWAp	Sector Wide Approach
UNDP	United Nations Development Programme
USP	University of the South Pacific
WB	World Bank
WIBDI	Women in Business Development Inc
WTO	World Trade Organisation

Executive Summary

The Agriculture Sector Plan 2011 – 2015, represents an innovative movement towards a better way of reinvigorating the sector. Implementation required a radical change from a sector-centric approach based on delivering projects often in isolation of other related sector activities towards a programme approach that would clearly define roles and responsibilities and result in an improvement in efficiencies of delivering services. While the Agriculture Sector Plan (ASP) made considerable advances in some areas these are not necessarily reflected in high level economic indicators such as the contribution of the sector to the Gross Domestic Product (GDP) and a reduction in the value of imported food.

Relevance and Alignment of the Agriculture Sector Plan

The relevance of the ASP can be determined by how the Plan addressed the issues that are perceived as constraints that had slowed or inhibited development of the sector and whether it provided a framework for contributing towards the goals of the Samoa Development Strategy (SDS).

The degree of alignment of SDS strategies with ASP sector objectives is variable and results from a poorly defined logic low from ASP activities to the SDS goals. This makes it difficult to develop meaningful indicators to measure how the ASP contributes to national development goals.

There is a high level of alignment between the SDS key fisheries strategies and the sub – sector through matching indicators. However there is weak alignment between the business legal and regulatory environment strategy of the SDS and the ASP. This results from a tenuous link between increasing access to customary land for agriculture and real GDP growth given that land may be available but not used and/or there may be other constraints to achieving agriculture growth.

It should be noted that the alignment problems of the SDS and the ASP relate partly to timing. The SDS was designed in 2008 and the ASP was designed in 2010. Although it has been possible to retro – adjust the ASP to the SDS this has been limited by lack of clarity in the SDS on how the agriculture sector would contribute towards achievement of high-level national goals. Annual reviews of the ASP would assist in improving alignment with the SDS.

The four sector plan objectives provide a relevant and an aligned strategic response to the social, political and economic constraints identified during the ASP design phase i.e:

- **SPO1:** *To strengthen policy, legal, regulatory and strategic planning framework for sustainable agriculture development.*
- **SPO2:** *To improve self reliance in food production and nutritional security.*
- **SPO3:** *To enhance private sector capacity in improving productivity, value adding and marketing.*
- **SPO4:** *To ensure sustainable adaptation and management of agriculture resources;*

The contextual analysis of the ASP and the sub – sector strategies however lack detailed discussion on the cause and effect linkages between constraints and strategies.

Performance of the Agriculture Sector Plan

The macro-economic indicators would suggest that the Plan has not contributed towards economic growth however there are a number of factors which have influenced this. The contribution of value added agriculture to the GDP was reset in 2014 to take into account data from the 2008 Household Income and Expenditure Survey (HIES) and the 2009 Agriculture Census. This saw the estimate for agriculture value added increase by about 152 percent in 2010, whilst fisheries estimated value added decreased by about 22 percent.

Loans to the sector from both commercial banks and the Development Bank of Samoa have fallen relative to other sectors and for the Fisheries sector there has been little or no lending in the last two years of the Plan. A major factor which contributed to this was the diversion of funding into other sectors in response to the Small Island Developing States Conference (SIDS) and Cyclone Evan Recovery efforts.

The Plan did not make substantial in-roads into reducing the value of imported meat and fresh fruit and vegetables. Over the Plan period imports of chicken increased slightly while imports of beef and pork remained approximately the same. Similarly fruit and vegetable imports remained the same. Export of agriculture products is dominated by coconut products although taro exports are showing signs of increasing. The fisheries catch has fallen over the plan period however there are no figures yet for yields from aquaculture.

Although the Plan did not make a significant difference to the macro-economic indicators nevertheless it made good progress towards achieving sector plan outcomes. Considerable progress has been made towards improving the policy and regulatory framework with the introduction of new Acts including:

- the Egg Standards Act
- the Biosecurity Act
- the Slaughter and Meat Supply, and,
- the Fisheries Bill (currently before Parliament)

Livestock and crops surveys were undertaken during the Plan period while Fisheries continues to maintain a robust data base.

The Ministry of Agriculture (MAF) human resource capability analysis remains outstanding and needs to be completed in conjunction with a corporate plan.

MAF has made good progress across all three Divisions towards achieving Sector Plan Objective 2 with all Divisions setting the ground work for improving self-reliance and food security through research and development that has included crop trials, the introduction of improved genetics and the establishment of village based community aquaculture projects. Most of this work was completed towards the end of the ASP period and is expected to show results during the next Plan time frame

A difficulty in measuring ASP progress towards achieving Sector Plan Objective 3 is that the outcomes are very dependent on private sector actions. While the Fisheries Division has made good progress towards achieving SPO3 with improvements to onshore infrastructure and surveillance mechanisms this has been offset to some extent by the lack of private sector investment in areas such

as processing. The Crops Division has made considerable progress across a range of activities particularly in the distribution of planting material and it is expected that this will result in more private sector activity over the next Plan period. For the Livestock Division improvements will accrue after more breeding cycles have been completed along with increases to calving and lambing rates. The establishment of the mobile abattoir will make an immediate impact on increasing the market for domestic meat.

MAF Divisions have made some progress towards Sector Plan Objective 4 to ensure sustainable management of resources and reflects the close working relationship with Ministry of Natural Resources and Environment (MNRE) though targets set by each Division vary considerably making comparisons difficult.

Delivery of the ASP as a sector wide approach has not succeeded as well as could be expected. This is due to a number of inter-related factors that relate to:

- Failure to clearly define the roles and responsibilities of each stakeholder and the resources needed for implementation.
- Lack of ownership which has arisen through lack of reciprocal sector plan strategies
- Lack of a medium term expenditure framework that directly relates to the ASP
- Lack of cross sector coordination capacity
- Lack of a monitoring and evaluation framework.

Although the institutional framework for delivering a cross sector plan has been established there are some issues over whether this is the most effective mechanism. There is a resource constraint associated with the need to service thirteen sector steering committees each of which are required to meet every quarter. This amounts to a meeting every week for many of the people who sit on several steering committees. In the case of the agriculture sector lack of a well-resourced dedicated Agriculture Sector Coordination Unit that would act as the secretariat for the ASSC has hampered the delivery of the ASP as a cross sector programme.

Ongoing Relevance of the Goals and Objectives

The goal of the ASP is unrealistic and difficult to measure. The goal of the next ASP should be altered so that it can be measured through indicators that are directly attributable to activities in the agriculture sector.

The broad scope of all four objectives remains relevant however in going forward it will be necessary to adjust the outcomes and indicators to improve the framework for monitoring and evaluation.

There is a need to continue work on SPO1 on updating policy and reviewing the regulatory framework to ensure an enabling environment of the agriculture sector. It is also important the statistics are regularly updated to provide a framework for evaluating sector performance. The presence of a sector wide coordinating unit remains central to the implementation of the Plan on a sector wide basis as does the development of a costed implementation plan. It is felt

however that customary land issues would be more appropriately dealt with by other stakeholders.

Activities under SPO2 on improving the productivity and efficiency of village level agriculture remain a central aspiration to Samoa's food security system. This involves promoting not only more efficient production systems that are competitive against imported products but also improving the connection of producers to markets. With the increase in non – communicable diseases there is a need to continue to promote healthy eating habits to reduce the level of non – communicable diseases. It is important to note in going forward that role of women and youth in the agriculture sector has not been significantly championed in the current ASP. This could take the form of training schemes such as apprenticeships.

The scope of SPO3 remains relevant however there is a need to revise the strategies and outcomes to improve private sector participation. Improving private sector organisation would establish a platform for public – private sector forums as well as a focal point for training. Supporting the establishment of value chains would assist in identifying entry points for investment particularly for infrastructure and product diversification that will be required to develop both domestic and export markets.

With more emphasis being placed on the need for Samoa to comply with its obligations under the Sendai Framework, work on developing more resilient farming systems and technology to assist in the recovery of community agriculture following disasters will continue to remain a relevant objective of the sector.

SACEP Contribution to ASP Goals and Objectives

SACEP did not become fully operational until 2013 and has contributed to the achievement of all four sector objectives to varying degrees depending on the implementation stage of individual sub-sector projects.

The contribution to SPO1 has been in the form of providing secretariat resources for the ASCU and in providing training for MAF extension staff and in assisting with agriculture surveys. The ASCU secretariat should be regarded as a short term measure and it is important that a long term solution to this is found before the commencement of the next Agriculture Sector Plan. It is important also that a capability review of MAF is undertaken to ensure that proposed strategies for the next ASP match MAF's human resources.

The contribution of the Project towards SPO2 has been research and development with a long term goal of import substitution. For crops this has included variety trials on crops such as brassicas, tomatoes, lettuce and onions to select suitable varieties as well as improving efficiencies. In the livestock sector new breeds of sheep and cattle that are more tolerant to the conditions in Samoa have been introduced. The full impact of SACEP R & D activities in these areas is unlikely to be realized for another two to three years. The Project also funds a programme run in association with the Ministry of Health to promote healthy eating habits and reduce the incidence of NCDs.

SACEP has made a significant contribution towards SPO3 through tailored financing in the form of the matching grants programme. Associated with this

has been training for farmers to increase their business skills. Uptake of grants is increasing rapidly and likely to continue through the next plan period. SACEP's investment in a mobile abattoir is intended as a pilot project which if successful will lead to improvements in meat slaughtering hygiene and an increase in the consumption of local meat. A constraint in the implementation of SPO3 however has been lack of clear direction on how best to incentivise the private sector and direct investments that will result in increases in financial returns to farmers and value adding opportunities. Related to this is the lack of private sector organisation that would provide the platform for public – private sector partnerships.

SACEP has conducted trials on technology for resilient farming techniques which will contribute towards Samoa's strategies for disaster risk and resilience.

- SACEP Opportunities

- i. TA assistance to develop a M & E framework. This could include use of extension officers to work in conjunction with the *pulenu'u* to collect data. Use of mobile devices could be used to facilitate this process.
- ii. TA assistance to carryout a capability review of MAF. This could be in the form of an independent peer review carried out by another government ministry or an internal review by MAF staff facilitated by an independent reviewer.
- iii. An increase in the human resource of the Sector Coordinating Unit. This should be regarded as a transitional step towards mainstreaming financial resourcing.
- iv. Develop and strengthen domestic food supply and marketing chains.
- v. Ensure that that all domestic food supply chains comply with food safety regulations
- vi. Support initiatives that will encourage women and youth to develop agriculture based income generating opportunities
- vii. Provide ongoing support for partnerships and programmes that will promote consumption of nutritious local foods
- viii. Support for prioritised value chains where Samoa has a comparative advantage (in domestic and export markets) to improve efficiencies and product competitiveness
- ix. Increased support for developing business models for value chains including certified products
- x. TA to assist with further development of financing and savings models that are complimentary to the matching grants programme and the ADB Samoa Private Sector Development Project.
- xi. Strengthen private sector organisations as a platform for:
 - public / private sector forums
 - training in both technical and financial skills
 - public / private partnerships for value chain infrastructure investment.
- x. Increase the capacity of MAF extension providers to work with communities to develop community risk maps and action plans.
- xi. Conduct and promote farming systems research which will promote resilient multi – story cropping systems

Lessons Learnt

- a. Lack of a monitoring and evaluation framework has made it difficult to measure progress and the impact of activities.
Development of the M & E framework should include:
 - a robust results framework that clearly demonstrates the logic flow between activities and outcomes is the basis for developing an implementation plan
 - indicators that are relevant and importantly can be measured in a timely way within the resources available is an important consideration in deciding the outputs and outcomes
 - a comprehensive implementation plan
- b. There needs to be a realistic match between the ASP deliverables and the human and physical resources.
- c. A sector wide approach requires clear definition in the respective roles of government and the private sector in delivering the plan. need to be clearly defined.
- d. An underlying implementation principle for the ASP is that it has “a value chain approach.” It is important then that a common understanding is developed among stakeholders on what this involves.
- e. Over the next Plan period it will be important to consider that currently responsibility for delivering some outputs and all of the development outcomes lies with the private sector who appear to lack the resources and confidence to invest in the sector.

Recommendations

- **Goal and Objectives**

The goal of the next ASP should be altered so that it can be measured through indicators that are directly attributable to activities in the agriculture sector. The broad scope of all four objectives remains relevant however in going forward it will be necessary to adjust the outcomes and indicators to improve the framework for monitoring and evaluation.

- **Monitoring and Evaluation**

Drafting the ASP 2016 – 2020 needs to be built around the development of a results framework that is developed and validated in consultation with stakeholders. The results framework should include: outputs; short medium and long-term outcomes and quantifiable indicators that are aligned to the new Strategy for Development of Samoa. A monitoring and evaluation framework should be developed which clarifies what data should be collected and by whom as well as measuring the impact and coordinating recommendations for changes to activities. The M & E capacity of MAF will need to be strengthened to ensure timely collection and collation of data. This should include putting dedicated staff in each Division who will be responsible for data collection. Funding for this could be included under the next phase of SACEP.

- **Human Resource**

The Human Resource section of MAF needs to be strengthened to enable it to:

- a. Conduct and follow through on staff performance reviews
- b. Facilitate the MAF capability review

- **The Sector Wide Approach**

The sector wide approach to implementing the ASP needs to be reviewed to ensure clarity around the roles and responsibilities of different stakeholders. This could be achieved with more emphasis developing value chains for specific products and markets on a cross-sector basis. To ensure strong leadership and better coordination in the planning, implementation and monitoring the Agriculture Sector Coordination Unit (ASCU) should be strengthened to provide a more robust secretariat support to the Agriculture Sector Steering Committee (ASSC). The membership of the sub-sector working groups (SWGs) should also be reviewed and could be altered to reflect sector objectives rather than MAF divisions. It is also important that the terms of reference for all levels of the institutional framework for implementing the ASP are reviewed to alter the current focus on activity reporting to strategic analysis and guidance.

- **Strengthening Value Chains**

An analysis of products where Samoa has a comparative advantage should be undertaken with a view to strengthening market led value chains. This work should also include clear identification of the roles of all stakeholders involved in the chain along with business models that identify investment opportunities and niche market opportunities particularly for certified products. As a means of developing the domestic market consideration should be given to developing a healthy school lunch programme.

- **Gender & Youth**

Although gender is identified as an important cross cutting issue it has not been emphasized in the ASP. A value chain analysis approach should be used to determine how women (and youth) can be supported. The analysis should include:

- productive activities of men and women individually and in groups;
- differential gender-based opportunities for upgrading within the chain;
- power-relations that affect economic rents among stakeholders throughout the chain.
- support for capacity building of women and youth agricultural entrepreneurs

- **Financing**

Technical assistance should be obtained to assist in further development of financing and savings models that are complimentary to the matching grants programme and the ADB Samoa Private Sector Development Project.

- **Private Sector Organisation**

Assistance should be provided to strengthen private sector organisations that are able to provide advocacy, assist in the formation of public – private partnerships, strengthen value chains and act as platforms for the delivery training.

- **Investment**

MAF is heavily dependent on SACEP for funding activities in the livestock and crops sub-sectors. At present funding in the fisheries sub-sector is very limited. There has been a recent increase in donor interest in providing funding for the agriculture sector. Given the current lending constraints of the commercial banks and the Development Bank it is recommended that MAF develops funding vehicles for the sector and becomes proactive in becoming more “investment ready.”

Review of the Agriculture Sector Plan 2011 – 2015

1.0 Introduction

The purpose of this review is to:

- a. Evaluate the relevance of the ASP;
- b. Evaluate the implementation of the ASP, and,
- c. Provide recommendations to MAF and ASSC on future directions and priorities that will guide the formulation of the new ASP.

This review builds on the findings of the ASP review undertaken in January 2015 and takes into the consideration the socio – economic conditions and the performance of the productive sector at the time of time drafting (2010). This has been done to provide a contextual baseline for evaluating the performance of the plan.

2.0 The Relevance of the ASP

The Agriculture Sector Plan, 2008 – 2012 (ASP) was designed in 2010 with the intention of revitalising agriculture after several decades of declining productivity as well as contributing towards the goals of the Strategy for the Development of Samoa (SDS).

An analysis of the socio-economic context at the time that the plan was developed provided the basis for the perceived constraints that had slowed or inhibited development of the sector and whether the ASP provided a framework for addressing these constraints and contributing towards the goals of the SDS.

2.1 The Sector Context

- Contribution of Agriculture to the GDP

The contribution of agriculture and fisheries to the economy declined significantly from 50% of the GDP in the 1980's to 30% in the 1990s to only 11% in 2009. At the end of 2010 this had further declined under 10%. There were a number of factors that contributed to this including and outbreak of taro blight and substantial aid inflows that supported high levels of public expenditure on education and health.

- Trade

Samoa's trade deficit in 2009 was approximately SAT 151 million, with merchandise exports estimated at SAT 8 million and imports at SAT 159 million. The decade ending 2010 saw a steady decline in the value of agriculture exports due largely to a fall in exports of coconut products (copra, oil and cream) resulting from a decline in global prices. A drop in fish exports further exacerbated the situation during the same period. *Nonu* exports continued to grow during this period but were showing signs of slowing down as markets in Asia started to flatten out. Taro exports were recovering however it was anticipated that it might take another 3 -5 years before significant volumes would be exported.

- Investment

Successive Samoa Development Strategies (2003-2007 and 2008-2012) promoted agriculture and fisheries through market-oriented strategies, however both public and private investment declined over the 2000 - 2010 decade.¹

There was a lack of appropriate lending products for agriculture and interest rates were high (up to 14%), constraining on-farm investment, and production systems that need significant working capital. It should be noted however that of the 6.5% of households involved in commercial agriculture only 8.1% of these had taken out loans for agriculture purposes.

- Subsistence Production

The Household Income and Expenditure Survey (HIES)² found that despite having a large subsistence agriculture sector, households remained very vulnerable to increases in food and fuel prices, particularly when faced with losses in remittances or employment. In 2008 households in the lowest income quintile spent about 55% of their total expenditure on food.³

Associated with the fall in productivity there was a considerable change in key parameters in the sector. The 2009 agriculture census indicated that the percentage of households actively engaged in the sector declined from 71.8% (14,734) in 2000 to 68% in 2009. This decline is also reflected in employment levels in the sector which declined during the same period from 60% to 39%. Only 3% of households reported that they produced mainly for sale. The Agriculture Census reported that the average size of household agricultural holdings dropped considerably over the same period from 1989 to 2009. The average size of holdings in 2009 was 5.8 acres in 2009, compared with 9.0 acres in 1999 and 15.0 in 1989.

- The Farming System

During the 2000 – 2010 period the farming system included coconuts, cocoa, taro and other root crops, fruits and vegetables along with small-scale livestock production. The ASP comments that Samoa's farming systems are labor intensive, with rural labor becoming more scarce and expensive, due to high wages in urban areas and opportunities offered by migration.⁴ Only one quarter of rural households were engaged in formal markets.⁵

Land under tree crops decreased from 24 percent in 1999 to 10 percent in 2009 however some of this may have been converted to livestock, which went up from the 5 percent of the total in 1999 to 14 percent in 2009.

- Crosscutting Issues.

Gender

The ASP design also considered cross cutting issues that impacted on the sector. The HIES Survey⁶ reported that less than 10% of women were engaged in

¹ Central Bank of Samoa Report, 2010

² Samoa Bureau of Statistics, Household Income and Expenditure Survey, 2008

³ Samoa Bureau of Statistics, A Report on Basic Needs Poverty Line, UNDP, 2010

⁴ This problem increased with the introduction of the 'Recognised Seasonal Employer Scheme.'

⁵ Samoa Bureau of Statistics, Household Income and Expenditure Survey, 2008.

⁶ Samoa Bureau of Statistics, 2008 Household Income and Expenditure Survey.

agriculture activities. Based on the 2006 census findings, approximately 51% of the total working population were considered to be in the youth category⁷ however less than 10% are directly employed in the agriculture sector. This may be partly attributed access to, and control over, productive resources (land and capital) as well as limited knowledge and skills in modern farming techniques.

The Environment

Samoa is vulnerable to climatic perturbations. Building the resilience of farmers and the rural poor to cope with climatic fluctuations is key to a sustainable trade in agriculture produce and products. Matching usable science-based climate change prediction information needs to farmer needs by taking into account traditional practices incorporating existing local knowledge and experience is crucial in this case. The environment is also susceptible to poor land use management practices, which could if left unchecked have significant implications on the future productivity and sustainability of the sector. These include land degradation including erosion; agro-chemical pollution of ground and surface water; loss of strategic forests and wetlands leading to loss of biodiversity; increasing livestock numbers imposing pressure on ecosystems and watershed systems; loss of biodiversity in agricultural landscapes through the introduction of non-native varieties.

A summary of constraints identified in the ASP and the corresponding ASP strategic responses are shown in **table 1**.

Table 1: ASP Responses to Sector Issues

Identified Constraint	ASP Strategic Response
1. Lack of an overarching national sector plan that provides a coherent policy, legal, regulatory and strategic planning framework.	<ul style="list-style-type: none"> • Develop and promote a sector wide approach that is inclusive of government and the private sector.
2. Lack of accurate and reliable agricultural statistical data for formulating evidence-based policies and strategies, for setting and measuring performance indicators and impacts and for effective monitoring and evaluation purposes.	<ul style="list-style-type: none"> • Collection and collation of relevant and reliable data agriculture statistics to assist in the monitoring and evaluation of the sector.
3. Low productivity and returns in village subsistence agriculture putting food security at risk and increasing reliance on imported food.	<ul style="list-style-type: none"> • Promote and support increased production, productivity and the resilience of village agriculture to ensure self – sufficiency in food and nutrition. • Strengthen research into new, high yield and pest resistant crop varieties and livestock • Improve availability of agriculture inputs and planting materials, breeding animals and fish.

⁷ The ASP age definition of youth is 15 – 29 years.

Table 1: ASP Responses to Sector Issues (continued)

Identified Constraint	ASP Strategic Response
4. The impact of natural disasters, pests and diseases on production and productivity of subsistence and commercial commodities.	<ul style="list-style-type: none">• Implement environmentally friendly production and farming systems for: livestock, crops and in-shore fisheries.• Strengthen extension resources to promote sustainable practices in agriculture.
5. Changing global markets for agricultural products and the volatility in market prices for Samoa's export commodities.	<ul style="list-style-type: none">• Improve private sector understanding of opportunities under trade agreements• Strengthen research and market development for new products.• Improve post harvest infrastructure
6. Relative decline of public and private funding for the sector.	<ul style="list-style-type: none">• Improve access to finance facilities including incentives for merchant financing and future purchases against moveable assets.

- **Sector Plan**

The development of an overarching sector wide approach that is inclusive of both government and the private sector is seen as a proactive solution to developing ownership for outcomes with relevant sectors and a movement away from the perception that achieving agriculture outcomes in areas such as trade, environment and value adding would be the responsibility of MAF.

- **Lack of Statistics**

The Household Income and Expenditure Survey and Agriculture Census provide good baseline data. The strategic response relates to fulfilling a need for supplementary data from sub-sectors and specific agriculture activities as well as an evaluation framework to assist the sector develop evidence-based policies.

- **Declining Village Agriculture**

The strategic response to declining village agriculture and increasing reliance on imported food was to improve the competitiveness of the sector through research that would increase yield and lower costs on improved breeds of crops, livestock and aquaculture breeds. This approach has been coupled to promoting village agriculture through the *Talomua* (initially) and then the agriculture shows, which use a competitive approach as a means of reviving interest in agriculture. Further refinement of this strategic response is needed to ensure that there is more emphasis on eating locally produced food.

- **The Environment**

The implementation of environmentally friendly production and farming systems addresses in part the need to mitigate the impact of natural disasters and the susceptibility of the farming system to pests and diseases. However this is rather broad and there is a need to ensure that communities take responsibility as well.

- **Global Markets**

Samoa has limited options in response to changing global markets. Meeting international product standards, identifying niche markets and developing products for those markets as well as leveraging off any advantages result from trade agreements are all sound strategies however Samoa needs to consider taking it to another level and developing vertically integrated value chains if it is going to compete in global markets.

- **Public and Private Sector Funding**

The strategic response to the decline in public sector funding is not clear though it should be implicit in the development of the Medium Term Economic Framework (MTEF), which would identify areas for committed public expenditure and funding gaps. The strategic response for increasing funding for the private sector is to lend on moveable assets that may include livestock and harvested crops as well as other assets such as vehicles. This is an innovative approach, which has been considered in other countries however it may require considerable inputs before it becomes part of the mainstream lending.

- **Private Sector Opportunities**

Providing tax incentives may go some way towards encouraging more involvement of the private sector however more also needs to be done to develop robust business models that would change the perception that financial returns in agriculture do not match opportunities in other areas.

2.2 Relevance of the ASP to SDS Goals

The Review of the ASP is based on the premise that it was written as a strategy that would contribute towards the achievement of the goals and objectives of the SDS (2008 – 2012).

Under the SDS the Government recognized the need for collective and collaborative partnerships with all stakeholders that would result in the development of ownership and actions across all relevant sectors. The SDS promoted the role of Government in increasing the confidence of the private sector to invest in developing agriculture. In designing the ASP it was understood that improving the performance of the agriculture sector would require dealing with policy, legal and regulatory, and institutional issues which had affected the sector in the past years. Equally important would be a re- definition of roles and changes in the way government, the private sector, development partners and the communities interact and coordinate their respective contributions to achieve the ASP's key policy objectives as well as the effective implementation of sector strategies.

The ASP was the first sector plan to address the development of the sector in a comprehensive way with a vision of achieving long-term outcomes and thus represents a move away from outcomes based on short life projects. In doing this the Plan took into consideration other key national strategies and projects including:

- a. *Samoa-Australia Partnership for Development*: Support for trade liberalisation, improving infrastructure and lowering the cost of doing business.

- b. *National Export Strategy of Samoa 2008 – 2012*: which highlights increased productivity in agriculture as critical to the revitalisation of the export sector.
- c. *Fruits and Vegetable Strategy 2009*: The use of a value chain approach to address marketing opportunities and attract investment.
- d. *Diagnostic Trade Integrated Study 2010*. Improving the trading environment for through a diagnostic approach to making changes in legislation, policy and regulations.
- e. *Integrating Climate Change Risks in the Agriculture Sector* to increase the resilience and adaptive capacity of coastal communities to the adverse impacts of climate change on agricultural production and public health.
- f. *The proposed Samoa Agriculture Competitive Enhancement Project*. The project aims to strengthen the livestock and fruits and vegetables sub sectors through market development support.

The relevance of the ASP towards achieving the goals of the SDS can be measured by determining alignment with the strategic areas of the SDS which was designed to provide overarching guidance to sector plans.

A coordinated approach in developing the SDS and the ASP would have resulted in a synchronised policy framework in which the ASP objectives would align with the SDS strategic areas. However the SDS was written in 2008 and the ASP in 2010 and there is a lack of consistency in the language between the two documents in defining strategies and objectives. The problem is further complicated by the lack of indicators in both documents which would provide direction on the intent of the outcomes and how they would be measured.

To simplify the process a traffic light system (**table 2**) was used to provide an indication of the level of alignment between relevant goals of the SDS and the ASP. A summary of this process is provided below. More details are provided in Annex 3.

Table 2: Alignment Traffic Lights

There is a direct line of logic between the ASP strategy objectives and SDS strategy areas that would ensure that achievement of ASP outcomes would contribute to SDS goals.	
Sub-sector strategies indicate that achievement of the strategic objective would contribute to some measurable SDS outcomes however the line of logic is weak and may be dependent on factors outside of the influence of the ASP.	
There are no sub-sector strategies that connect the ASP strategic objective to the SDS strategies.	

- **Vision and Goals**

The ASP vision complements the SDS vision table 3 in that improving food and income security directly contributes towards improving the quality of life for the people of Samoa. The goal of the ASP is to increase the sector’s contribution towards that Gross Domestic Product (GDP). This contributes towards economic polices however does not necessarily contribute towards social and environmental policies.

Table 3: SDS and ASP Goals / Objectives

	Samoa Development Strategy	Agriculture Sector Plan
Vision	Improved Quality of Life for All	Agriculture for Food and Income Security
Priority Areas	<ul style="list-style-type: none"> • Economic Policies • Social Policies • Environmental Policies 	‘To revitalize the agriculture sector to increase its relative contribution to the national GDP from its current level of 10 percent to 20 percent by 2015’

- **SDS Goal 2.**

The targets/indicators for Goal 2 of the SDS are:

- Real GDP growth averages 3.0 – 4.0 % per annum
- Private sector employment growth averages 2.5% per annum

The identified strategies for achieving these are:

1. Business legal and regulatory environment
2. Financial Sector Development
3. Trade
4. Development

All four sector objectives of the ASP relate to Goal 2 of the SDS and therefore should contribute to the achievement of relevant targets/indicators. Delivery of strategies 1, 2 and 3 are not clearly defined in either document. MAF is identified as an implementing agency for Development strategies only. The SDS then has informed the design of the ASP but lack of clarity in the SDS in the areas that impact on the agriculture sector has made it difficult to fully align strategies.

For the business and regulatory environment the strategy is to increase access to land however there is tenuous link between increasing access to customary land for agriculture and real GDP growth given that land may be available but not used and/or there may be other constraints to achieving agriculture growth.

Indeed, the low economic return to agriculture as compared to other sources of income is considered a significant cause of the stagnation of village agriculture. Experience has demonstrated that in the past when markets for agricultural products have been strong (e.g. banana, cocoa, taro, kava), issues related to land tenure and land access have not been a major constraint to smallholder participation in the market.

There is some alignment of financial strategies through the provision of tailor made funding through the Samoa Agriculture Competitiveness Enhancement Project (SACEP) however the ASP does not specifically include other strategies for developing competitive funding particularly for small and medium sized agriculture businesses.

No specific strategies were included in the ASP for reducing tariffs and implementing a National Export Strategy.

Alignment of development strategies was variable. Areas such as research and development for new products, food safety standards food and nutrition security and sustainable management of resources are aligned in both documents. Other areas are confused by the lack of relevant SDS indicators, which makes it difficult to assess. All the Development Strategies for Goal 2 have been written as sector plan outputs. Lack of a high level strategy and indicators makes it difficult to know what is to be achieved and what is to be measured. A summary assessment of the alignment between ASP strategies and SDS goals and strategic areas is shown in table 4.

Table 4: Alignment of ASP with SDS Goals & Strategies

SDS Goal 2: Private Sector Led Economic Growth and Employment Creation		
SDS Strategic Area	ASP Strategies	Alignment
Legal and Regulatory Environment - increase access to land	SPO1: Introduce legislation for leasing	
Financial Sector Development - Promote SME development Private Sector Economy Contestable Fund. - Access to microfinance, technical assistance and training.	No specific strategies	
	SACEP matching grants	
Trade - Reduce/eliminate tariffs on agriculture. - Implement a National Export Strategy	No specific strategies	
	NES was discontinued	
Development		
- R & D on agro-processing	SPO3: Value adding R & D	
- Provide market & quarantine information	SPO3: market & quarantine inform.	
- Develop food and non-food safety standards.	SPO3: Develop food safety standards	
- Eliminate tariffs	No specific strategies	
- Implement a sector wide plan	SPO1: Implement sector wide plan	
- Establish an abattoir	SPO3: Economic infrastructure	
- Private sector ownership of the HTFA	SPO3: Economic infrastructure	
- Privatisation of the Agriculture Store	SPO3: Economic infrastructure	
- Extend community based fisheries programmes	SPO2: Food and nutrition security	
- Update tuna management plan	SPO4: Sustainable resource management	
- Promote development in export markets	SPO3:	

- **SDS Goal 5.**

SDS Goal 5 relates to improving community development. Relevant indicators for this are given as:

- index of subsistence production
- decrease in bottom quintile share of national household income
- number of households accessing micro credit program (WIBDI, SBEC, SPBD, etc.) increases
- number of villages in village-based development program increases

In broad terms the ASP strategy aligns with the scope of the SDS and would provide data to measure the indicators. The alignment difficulty in this case is that the strategy for the goal i.e.

Improve food security through the provision of planting materials, crop-focused extension services and extension of the village fisheries management plans

This has been written as a combination of an activity and an output for the ASP making it difficult to identify indicators that would guide the formulation of ASP sub – sector strategies.

SDS Goal 5: Community Development		
SDS Strategic Area	ASP Strategies	Alignment
Economic Development - Improve food security through the provision of planting materials, crop- focused extension services and extension of the village fisheries management plans.	SPO2: Promote and support increased production, productivity and the resilience of village agriculture, to ensure self-sufficiency in food and nutrition.	

- **SDS Goal 6**

Goal 6 relates to improved governance and is very specific in stating that the basis for this is the need for reliable and timely statistics that would improve decision making. ASP sub – sector strategies focus on data collection and collation is aligned to this strategic area.

SDS Goal 6: Improved Governance		
SDS Strategic Area	ASP Strategies	Alignment
Public Administration - Develop a sound framework for statistics and other data for sound governance in the public administration sector.	- SPO1: Collection and collation of relevant and reliable agriculture statistics to assist in M & E of sector performance	

- **SDS Goal 7**

Goal 7 relates to environmental sustainability and disaster risk reduction in agriculture and fisheries. The alignment problem in this case is that the strategy for the goal is not specific enough and does not mention disaster risk

management and does not provide clear direction for the indicators. As stated the strategies would essentially have to have the same indicators.

SDS Goal 7: Environmental Sustainability		
SDS Strategic Area	ASP Strategies	Alignment
Environmental Sustainability and Disaster Risk Reduction - Formulation of agro-forestry and implementation of conservation and regeneration activities.	- SPO4: Strengthen capability of extension services to promote sustainable resource management.	
	- SPO4: Implement environmentally friendly production and farming systems including: livestock; crops and in-shore fishing.	

3.0 Agriculture Sector Plan Achievements

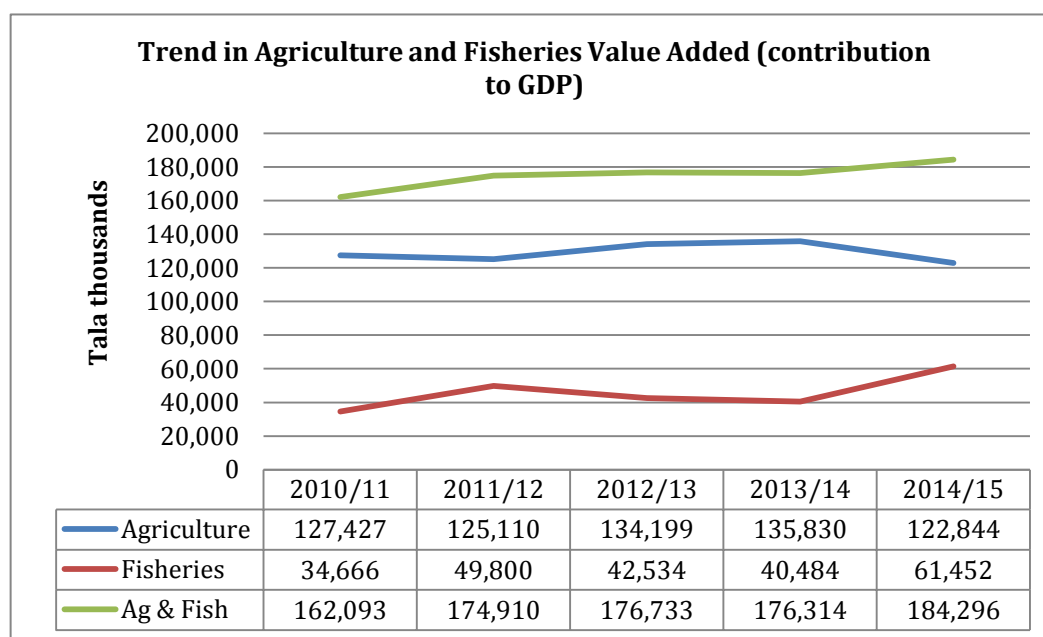
3.1 Economic Indicators

- Contribution to GDP

Agriculture & Fisheries value added was re-based in 2014 taking into account the 2008 HIES and the 2009 Agriculture Census data. This saw the estimate for agriculture value added increase over the previous estimate by about 152 percent in 2010, whilst fisheries estimated value added decreased by about 22 percent.

The contribution of agriculture to the GDP shows an increase in the 2012/2013 – 2013/2014 (**figure 1**) years, due in part to the increase in global prices for coconut products which fell again in the 2014/2015 year. The contribution of fisheries rose in the 2011/2012 year due largely to an increase in prices then fell for the next two years. The contribution of fisheries has risen again during the 2014/2015 year.

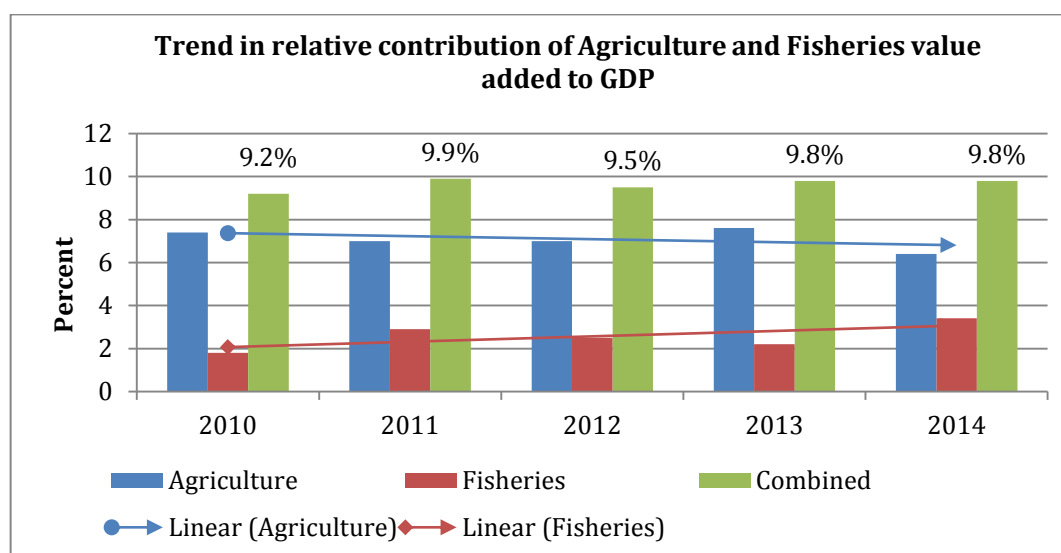
Figure 1: Contribution of Agriculture to the GDP



Source: SBS Report on GDP (June 2015 Quarter)

During the ASP period the relative combined contribution of agriculture and fisheries to the GDP remained relatively static at between 9.2% and 9.9%. in 2014 (**figure 2**). Small increases in the agriculture sector were offset by corresponding decreases in the fisheries sector.

Figure 2: Percentage Contribution to GDP



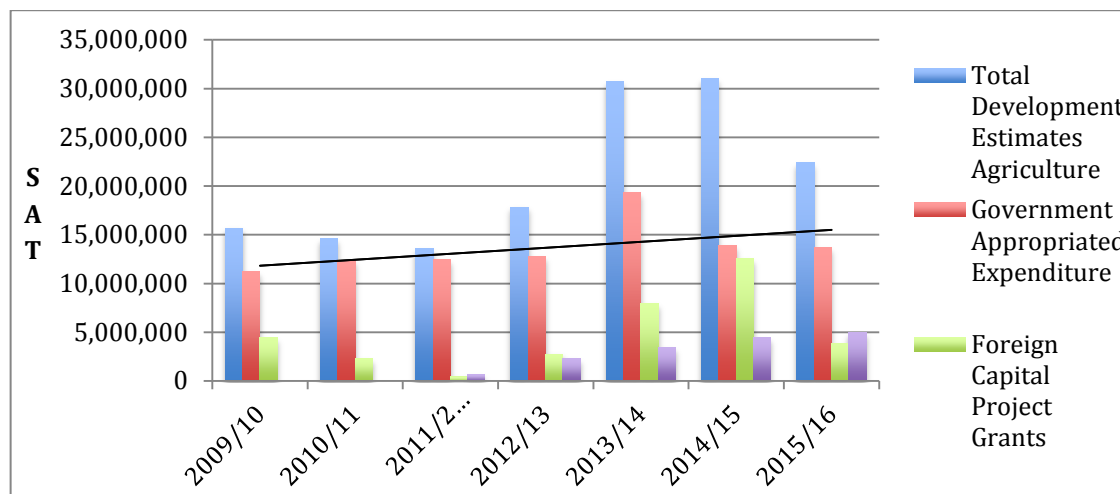
Source: SBS Report on GDP (June 2015 Quarter)

- Financing the Agriculture Sector

Total appropriated funding for the agriculture sector has increased slightly from SAT 11.3 million in 2010 to SAT 13.5 million in the 2015 / 2016 financial year (**figure 3**). The increase in total appropriation in 2013 / 14 to SAT 31 million was due to additional funding for Cyclone Evan recovery. However total appropriation for the agriculture development budget as a percentage of the total development budget (**figure 4**) showed only very modest increases from

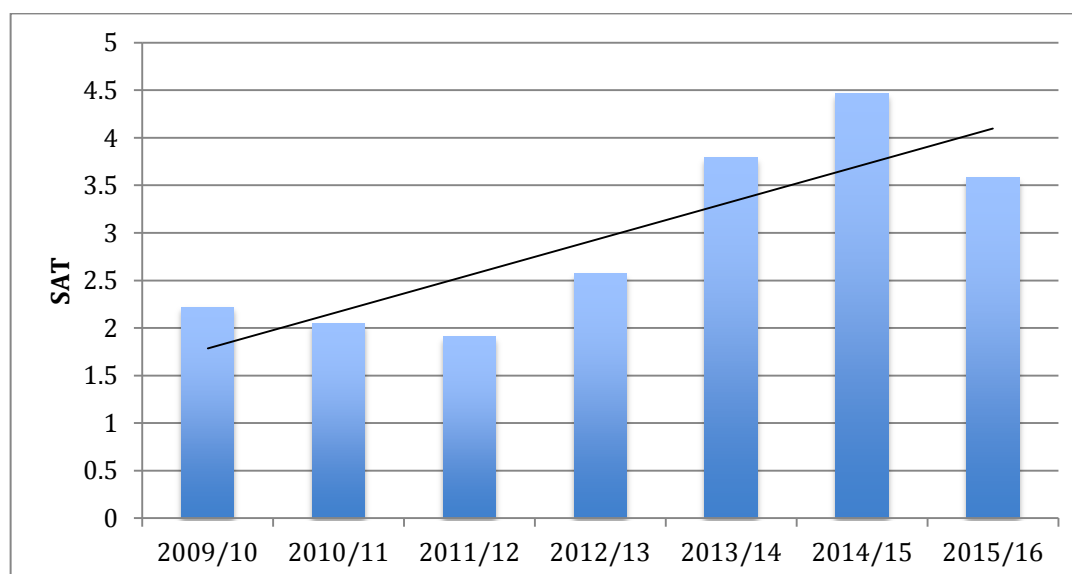
2.1% in 2010/11 to 2.6% in 2015/16. The very large increase in total appropriation in 2013 still only represented 4.5% of the total development budget. The commencement of the SACEP project in 2011 resulted in an increase in foreign capital grants and foreign short term loans.

Figure 3: Trend in public sector finance for agriculture



Source: Central Bank of Samoa

Figure 4: Agriculture development budget as percentage of total of development budget



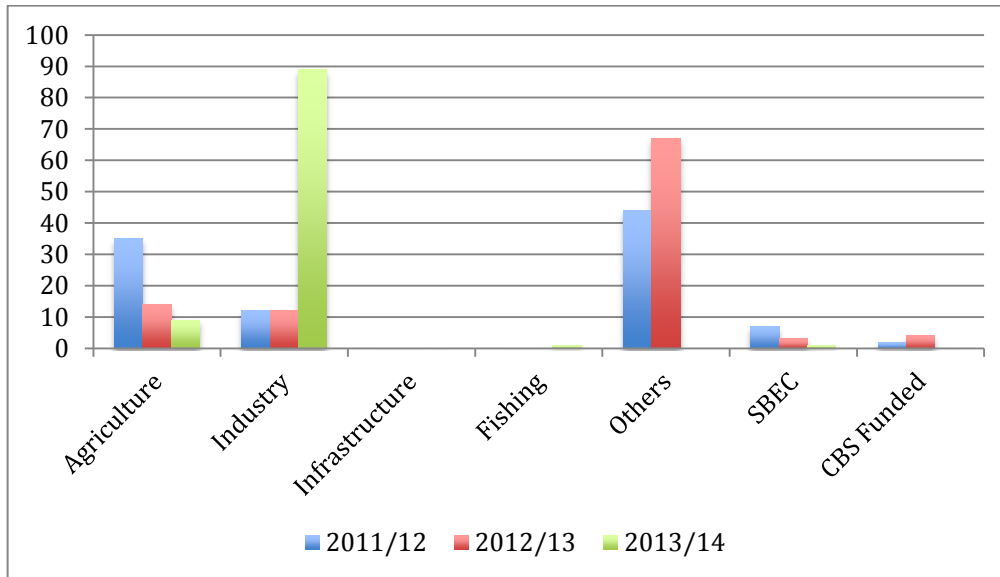
Source: Central Bank of Samoa

Agriculture Sector Lending

The Development Bank of Samoa’s (DBS) lending for the financial years from 2011/2012 to 2013/14 is shown in **figure 5**. Loans to agriculture decreased on a percentage basis relative to other sectors, in particular industry from 35% in 2011/12 to 9% in 2013/14. No loans were made to fisheries in the 2011/12 and 2012/13 years. In 2013/14 loans made to fisheries made up 1% of the total loans.

Following the World economic recession in late 2010, Cabinet approved a stimulus package to assist in rebuilding the economy. Additional funding was also provided to assist with the Small Island Development States (SIDS) Conference and the Commonwealth Youth Games (CYG). The major part of this funding (76%) was recorded as industry loans of which the tourism sector made up 62%.

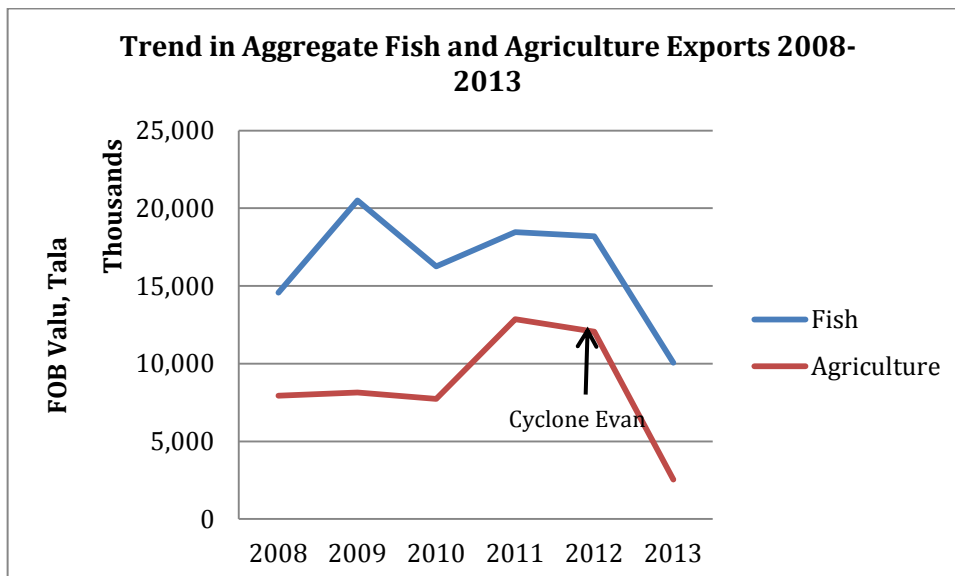
Figure 5: Sector Lending by the Development Bank of Samoa



- Agriculture Imports and Exports

The trend in aggregate agriculture and fish exports by value is shown in **figure 6**. Fish exports outperformed agriculture exports from the period 2008 to 2012. Following Cyclone Evan however both sectors experienced a dramatic fall.

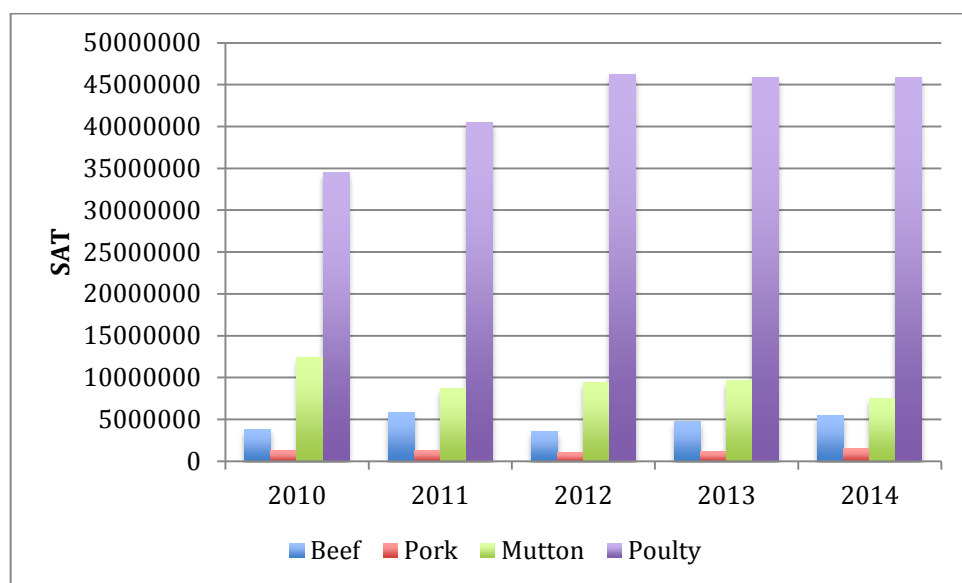
Figure 6: Trends in Fish and Agriculture Exports



Meat imports were dominated by chicken meats for the 2008 – 2014 period with a total value of SAT 45 million in 2014 (**Figure 7**). The value of mutton imports have shown a decrease in value of the reported period with a

corresponding increase in poultry imports. Beef and pork imports have been relatively stable.

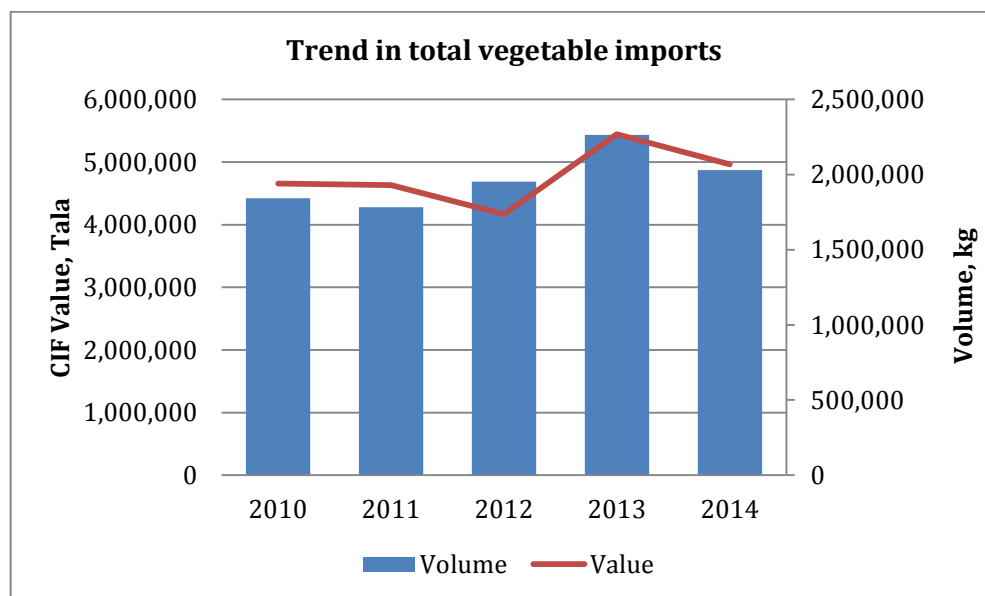
Figure 7: Meat Imports



Source of data: Samoa Customs Office

The trend in total value of vegetable imports has remained relatively stable for the 2010 – 2014 period (**figure 8**).

Figure 8: Vegetable Imports



Source: Samoa Bureau of Statistics

3.2 Assessment of Sector Plan Outcomes

A detailed analysis of the contribution of activities carried out under the ASP towards achieving outcomes was carried out (Annex 5). A traffic light system (**table 5**) is used as a means of determining the level of achievement (**table 6**).

Table 5: Achievement Traffic Lights

Over 75% of activities have been completed within the time frame of the ASP and strategic plan objective has either been achieved or will be within the next 6 months.

50% of activities have been completed with the time frame of the ASP however another 12 months are needed to achieve the strategic plan objective.

Less than 50% of the activities have been completed within the time frame of the ASP and 12 – 24 months are needed to achieve the strategic plan objective.



Table 6: Sector Outcome Achievements

Outcomes	Crops	Livestock	Fisheries
SPO1: Policy & Legislation			
1. Agriculture Sector Plan effectively implemented by 2015.	Red	Orange	Green
2. Reliable and timely availability of key statistics for planning and monitoring of sector performance.	Orange	Orange	Green
3. Coherent and well coordinated sector vis-à-vis adoption of the sector wide approach.	Orange	Orange	Orange
4. Enhanced policy, planning and monitoring capacity of MAF including the delivery of market oriented extension services.	Orange	Orange	Orange
5. Formalise leasing arrangements to improve certainty and access to customary land use for crop development by non – matais in the villages.	Orange	Orange	Orange
SPO2: Food Security and Nutrition			
6. Increased food self-reliance and nutrition.	Green	Green	Green
7. Increased productivity from the adoption of high yield crops, livestock and aquaculture species.	Orange	Orange	Orange
8. Enhanced nutritional dietary intake from locally produced primary products.	Orange	Orange	Orange
SPO3: Enabling Environment			
9. Increased private sector investments in the sector.	Orange	Green	Orange
10 Improved efficiency of economic infrastructure in the sector.	Orange	Orange	Green

Table 6: (continued)

Outcomes	Crops	Livestock	Fisheries
SPO3: Enabling Environment			
11 Increased access to tailor made financing arrangements for farmers and fishers.			
12 Increased diversification and access to commercially viable products in the sector.			
13 Increased compliance with food safety, phyto-sanitary and market access requirements in the sector.			
14 Increased exports of fisheries and niche type products.			
SPO4: Sustainable Agriculture Practices			
15 Enhanced capacity for sustainable practices in the sector.			
16 Enhanced adaptation of environmentally friendly production systems.			

SPO1: *To strengthen policy, legal, regulatory and strategic planning framework for sustainable agriculture development.*

1. The ASP was drafted in 2010 and came into affect in 2011 and was previously reviewed in January 2015.
2. The Agriculture Census and the Household Income and Expenditure Survey provide a comprehensive data set on production, land holdings, rural employment and domestic consumption, however the interval between surveys means that design for the ASP 2016 – 2020 is likely to be based on data that is out of date. The Livestock Survey (2012) and the Agriculture Survey (2015) provide some updated data but are based on a limited sample size. Data from the Fisheries Division is collected regularly and the data-base is efficiently maintained.
3. The Agriculture Sector Steering Committee (ASSC) is responsible for guidance and oversight of the implementation of the Plan and meets every quarter and reports to the Cabinet Coordination Committee (CDC). Membership of the ASSC includes the chief executive officers (CEOs) of relevant government agencies, NGOs and is chaired by the private sector.⁸ To ensure an inclusive monitoring and reporting of key sub-sectors to the

⁸ Ministry of Women, Community and Social Development; Ministry of Finance; Development Bank of Samoa; Ministry of Commerce, Industries and Labour; Ministry of Natural Resources and the Environment; Ministry of Trade; Ministry of Foreign Affairs and Trade; Scientific Research Organisation of Samoa; Women in Business Development Incorporated;

ASSC on policy issues and also report on any major problems and constraints that they are confronted with sub – sector committees were established:

- a. Livestock Management and Advisory Committee (LMAC)
- b. Crops Management and Advisory Committee (CMAC)
- c. Fisheries Management and Advisory Committee (FMAC)

The MACs comprise senior staff from each Division of MAF as well as the private sector. While the institutional arrangements for implementing a cross sector approach are in place there have been some difficulties. Responsibility for cross sector coordination lies with the Agriculture Coordination Unit of MAF who is also responsible for providing the secretariat for the ASSC. Currently this role is undertaken by the SACEP Coordinator and supporting staff. However their primary responsibilities are to deliver the SACEP programme. The ASSC has met regularly since the year of its inception (2012) though it appears to have met only twice in 2015. The LMAC was suspended for a time pending approval for changes to membership. The CMAC and FMAC have met regularly though it was difficult to ascertain their input into the agenda of the ASSC.

4. Considerable progress has been made to develop the policy, legal and regulatory framework. For Livestock the approval of the Slaughter and Meat Supply Act has paved the way for local producers to effectively compete against imported products. In the Fisheries sector the Coastal Fisheries Management and Development Plan and the Aquaculture Management and Development Plan has provided the legal framework for the Fisheries Division to work with communities in developing sustainable marine resources. No significant policies for the crops sector were introduced during the Plan period. While the National Export Strategy was designed to provide more focus for the crops sector. The decision to incorporate it into the ASP has resulted in a loss of focus. The legal framework for leasing traditional land for agriculture has been completed however more work is needed to ensure that applications are processed in a timely manner. (this is a somewhat simplified perspective on the issues of leasing communal land and using this as collateral for loans).
5. MAF Performance reviews are conducted by the Human Resource section of the Corporate Services Division, which include a training needs assessment however lack of resources has made it difficult to follow through on recommendations. Under SACEP, training has been provided to Livestock and Crops Division both through formal (overseas) and informal through working along side short-term technical consultants. In general training for crop extension staff has been technical with little emphasis on developing a market led approach. The Fisheries Division has limited funding for training and provides overseas training for its staff through projects.
6. The legal framework for leasing customary land for agricultural purposes is on place however there is a lengthy process that must be followed. It would appear that any increase in land area under production has come

from government leased land rather than customary land. (This is also covered under 4 above).

SPO2: *To improve self-reliance in food production and nutritional security.*

7. The community development and plans for fisheries have been successful in ensuring the sustainability of marine resources. This approach seems to have been less effective for agriculture. (Development of fisheries community management plans and reserves has been ongoing since the 90s, supported earlier under AusAID projects.)
8. Improving self-reliance at the village level for fisheries has largely focused on aqua-culture. For the Livestock and Crops Division strategies for improving self-sufficiency have focused on improving yields through breeding and improved varieties as well as better husbandry techniques. Under the Stimulus package seedlings and cuttings for staples such as coconut and root crops have been distributed with the aim of restoring food security in villages following Cyclone Evan.
9. While it is implied in the ASP that improving agriculture productivity and increasing the fisheries catch will lead to improved nutrition there are no specific strategies that are aimed at increasing the consumption of nutritious locally produced food.

SPO3: *To enhance private sector capacity in improving productivity, value adding and marketing.*

10. The establishment of aqua-culture and livestock multiplier farms has been seen by the private sector as a good investment opportunity. The crops sector has seen limited investment in tunnel houses however there investment in *nonu* as well as taro and coconut oil processing has increased with new investments in virgin coconut oil. Investment in fisheries has declined over the Plan period with falling prices in export markets. Private sector confidence would appear to be related to a perception of low returns rather than the regulatory and institutional environment. No progress was made on introducing tax concessions that would benefit investors in the sector. But some agro-processors (e.g. in *nonu* and probably coconut) have benefited from duty concessions on inputs, but generally there is concern on the slow bureaucratic systems to access these schemes.
11. There has been improvement in the infrastructure for the sector particularly in the post harvest area. However there has been limited progress on privatization of infrastructure facilities most of which are still managed by MAF.
12. The SACEP matching grant scheme and the Cyclone Evan Recovery Programme have provided the major part of credit to the sector with small contributions from the commercial banks. The ADB Agribusiness Support Facility was established in 2014 and provides a higher level of credit for large commercial operations however the impact has not been assessed as yet.

13. A considerable amount of research has been undertaken across the three divisions during the Plan period. Crop research has resulted in an increase in the range of commercially viable crops available and increased financial returns and market opportunities for import replacement on the domestic market however transfer and adoption of this technology is still at the preliminary stage. Similarly research on improving the genetic base of sheep and cattle has led to genetic crosses that are more suited to the conditions and in the long term will provide a base for import substitution. Research on the development of value added products such as avocado oil has so far not led to commercialisation. Applied research on aquaculture species and the use of improved alia sails has been carried out, however these technologies have not yet been fully commercialized.
14. In the crops area considerable progress has been made towards opening market access for a number of crops that have promise in export markets. The commissioning of a mobile abattoir will enable locally produced meat to be compliant with international standards and thus be competitive with international products. Fisheries products have been compliant with international standards for the last decade. The Biosecurity Division delivers regular training and awareness raising, to sector stakeholders.
15. International trade agreements have had limited impact on Samoa's exports however agreements such as PACER – PLUS could have a negative effect when fully operational through increasing access to Samoa markets for competing imports. At present there is no united public – private forum to develop responses to possible impact of trade agreements.

***SPO4:** To ensure sustainable adaptation and management of agriculture resources;*

16. The Fisheries extension service has developed the capability to provide advice and promote sustainable practices. It also has an established programme with selected communities. While the Crops and Livestock Divisions have developed some sustainable farming practices these have not been mainstreamed into the extension practices.
17. Fisheries have made significant progress towards developing community managed sustainable marine reserves. Some progress has been made with in the crops area to work with communities to develop land management strategies but this is restricted to some villages in upland areas. Restricted grazing of livestock in watershed areas will also have an impact in some areas.

4.0 Samoa Agriculture Competitive Enhancement Project

4.1 Implementation

SACEP funded activities have focused in the crops and livestock areas. A summary of progress towards project development objective indicators and intermediate results indicators is shown in **table 7**. Baseline values were set in 2012, the first year of project implementation. Measurement of performance against development objective indicators has been less than expected with the exception of the share locally produced vegetables being sold in domestic retail

markets which showed an increase of 64% over the baseline value. Poor performance in uptake of Matching Grant Loans may be attributed to the time it took to set up the loan mechanism and put in place the training programme that supports it. The percentage of locally produced beef sold through retail outlets has fallen from a baseline value of 40% to 29% in 2014. This appears to be due to a movement from retail markets towards more beef being gifted into the fa'alavelave market.

Table 7: SACRP Progress towards Indicators and Targets (up to and including 2014)

Project Development Objective Indicators	Cumulative target Values (%) 2014			Intermediate Results Indicator	Cumulative target Values 2014		
	Baseline	Target	Actual		Baseline	Target	Actual
Percentage increase in average fruit and vegetable yields of growers participating in MGP	n/a	40	0	Cumulative number of business plans prepared by livestock producers/entrepreneurs and approved for grant financing	0 (%)	270	172
Percentage increase in average fruit and vegetable yields of targeted subsistence farmers	0	20	0	Proportion of APHD staff completing training programs to upgrade their extension effectiveness and/or technical capacity	0 (%)	80	100
Increase in the share of locally produced beef sold by domestic retail and food service channels	40	42	29	Proportion of Crops Division staff completing training programs to upgrade their extension effectiveness and/or technical capacity	10 (%)	80	100
Increase in the share of locally produced fruits and vegetables sold by domestic retail and food service channels	5	15	69	Increase in response to improved husbandry - calving rate	48 (%)	-	64
Increase in the value of sales of fruit and vegetable growers participating in the MGP	n/a	0	0	Increase in reproduction rates in response to improved husbandry - average litter size for pigs	5 (#)	5	8
Increase in the value of sales of livestock producers participating in the MGP.	n/a	0	0	Number of livestock processed through hygienic field slaughter services and the abattoir	0 (#)	1000	-
				Cumulative number of business plans prepared by fruit and vegetable producers/entrepreneurs and approved for grant financing	0 (#)	160	50
				Number of farmers using improved fruit and vegetable varieties and adopting improved husbandry practices (IPM, prudent fertilizer user)	0 (#)	190	55
				Increase in the proportion of surveyed livestock and fruit and vegetable producers receiving satisfactory extension services	0 (%)	10	98

A SACEP survey was being undertaken while the review was in progress and it is anticipated that there will be a substantial improvement in achievements against target indicators during the 2015 year. The MGP is now fully operational and indications during consultations were that the number of grants had increased significantly. In the livestock sector importation of new breeding stock is unlikely to have an impact until about 2017 when the herd numbers build up on the multiplier farms. Similarly the ground work has been done in the crops sector on trials of new varieties and it is expected that when more seed becomes available that this will also show a positive gain in the next survey.

Intermediate results showed an improvement over baseline values in some areas particularly in the training area where all extension staff in both divisions received training. The number of business plans prepared for vegetable and livestock farmers did not reach the target but this is expected to improve over the next 12 months as more matching grants are dispersed.

The establishment of a centrally located abattoir was put on hold after an analysis indicated that it was unlikely to achieve the through-put needed to ensure it became financial viability. Instead a mobile abattoir has been purchased however it will not commence operations until 2016. Improvements in animal husbandry have so far only shown modest gains but from the consultations show signs of improving over the next Plan period. Considerable resources have been allocated to improving the genetic stock of the beef herd with the introduction of droughmaster bulls however it is likely to be 3 – 5 years before this shows up as a performance indicator. In addition considerable resources have been allocated to the establishment of sheep however this is not shown as a SACEP indicator.

Surveys indicated that 58 farmers had adopted new technology such as improved fruit and vegetable varieties the use of improved husbandry practices and that this was likely to increase substantially with an increased extension effort. Of farmers surveyed, 98% indicated that they were receiving satisfactory extension services.

4.2 SACEP Contribution to ASP Goals and Objectives

Sector Plan Objective 1

SACEP has contributed to achievement of the objective through the facilitation of the sector wide approach by providing resources for the Agriculture Sector Coordination Unit and acting as the secretariat for the ASSC. SACEP also provided resources for the livestock survey carried out in 2012 and the agriculture survey in 2015 which has contributed towards providing a data base for the sector. SACEP has made a major contribution towards increasing the capacity of MAF extension services to provide market oriented extension services through training programmes which have included all extension staff in both divisions.

- Ongoing relevance

There remains a need for periodic surveys to up date the data base and to evaluate the impact of SACEP activities. Similarly capacity building of extension services will need to be continued as new technology and markets are developed.

- **Constraints**

Lack of a well defined monitoring and evaluation framework including collecting and collating data has made it difficult to evaluate the performance of SACEP activities and provide a clear commentary to the ASSC on future directions. There does not appear to have been any significant constraints to building the capacity of MAF extension services. It is difficult to get a clear picture on whether future SACEP activities may be constrained by MAF human resources. Lack of cross sector coordination has been an issue in implementing the ASP. Although the Sector Coordinating Unit has been embedded in SACEP it is evident that there is a need for more dedicated human resources.

- **SACEP Opportunities**

- i. TA assistance to develop a M & E framework. This could include use of extension officers to work in conjunction with the *pulenu'u* to collect data. Use of mobile devices could be used to facilitate this process.
- ii. TA assistance to carryout a capability review of MAF. This could be in the form of an independent peer review carried out by another government ministry or an internal review by MAF staff facilitated by an independent reviewer.
- iii. An increase in the human resource of the Sector Coordinating Unit. This should be regarded as a transitional step towards the mainstreaming financial resourcing.

Sector Plan Objective 2

SACEP has contributed to village agriculture and food security in a number of ways. The “*Talomua*” programme has been replaced by the Agriculture Shows in most areas. SACEP contributes the cost and organisation of the shows. The research capacity of the crops and livestock divisions has been strengthened by SACEP inputs. In the crops sector this has included research on new vegetable varieties as well methods to improve resilience against climate change and introduce more sustainable farming methods. MAF research staff have also benefitted from working alongside international consultants. In the livestock sector SACEP has introduced new breeds of sheep and cattle and extension activities have focused on improving stock husbandry. Calving and lambing rates have improved considerably along with animal health. Recommendations for pastures have been previously established and will be implemented.

SACEP has entered into a memorandum of understanding with the Ministry of Health to raise awareness for healthy eating and promote consumption of local produce.

It is important to note that the SACEP programme did not commence until 2012 and much of the year was spent in project setup. The full impact of the SACEP research programme is unlikely to be realised for another 2 years.

- **Constraints**

There have been no significant constraints to SACEP activities under this objective and looking forward is essentially expanding the range of activities to

increase impact.

- **Ongoing relevance**

Promoting village agriculture continues to be a necessary activity to maintain household agriculture activity and improve food security and self-reliance. This needs to be supported through research and development on new crops and innovations to lower costs and improve efficiencies. Rising NCDs remain a significant drain on the countries health care system and there is a need for agriculture to continue contributing towards that.

- **SACEP Opportunities**

- i. Develop and strengthen domestic food supply chains and marketing chains.
- ii. Ensure that that all domestic food supply chains comply with food safety regulations
- iii. Support initiatives that will encourage women and youth to develop agriculture based income generating opportunities
- iv. Provide ongoing support for partnerships and programmes that will promote consumption of nutritious local foods

Sector Plan Objective 3

SACEP has also contributed this objective through tailored financing in the form of matching grants focused on import substitution and export crops. The number of matching grants have been steadily increased over the 2014/2015 years. Associated with the matching grants programme has been training to increase business skills for farmers.

SACEP has contributed towards SPO3 through the purchase of the mobile abattoir which will commence operations in 2016.

- **Ongoing relevance**

The decline in public and private sector investment has contributed to under performance in the sector. The matching grants programme under SACEP, while in its early stages has been well managed and indications are that it will lead to improvements in private sector investment.

The mobile abattoir is a pilot which if successful is likely to lead to further investment in infrastructure.

- **Constraints**

After the set-up phase the matching grants programme has run smoothly. Investment in economic infrastructure is constrained by lack of private sector involvement and consideration should be given to further development of public – private partnerships. This area however is constrained by lack of private sector organisation. While SACEP activities have contributed to the development of this objective overall there has not been sufficient resources to achieve the overall objective i.e to incentivise private sector investment. The current approach has effectively been a hail of “silver bullets” that are not well connected and poor understanding of public and private sector roles in producing and marketing of

products in competitive markets. A value chain theme would assist in defining government's role in enabling the environment and the private sector's responsibility in producing, processing and marketing.

- **SACEP Opportunities**

- i. Support for prioritised value chains where Samoa has a comparative advantage (in domestic and export markets) to improve efficiencies and product competitiveness
- ii. Increased support for developing business models for value chains including certified products
- iii. TA to assist with further development of financing and savings models that are complimentary to the matching grants programme and the ADB Samoa Private Sector Development Project.
- iv. Strengthen private sector organisations as a platform for:
 - public / private sector forums
 - training in both technical and financial skills
 - public / private partnerships for value chain infrastructure investment.

Sector Plan Objective 4

SACEP contribution towards SPO4 has been research on more sustainable farming practices including the use of drip irrigation and a farming systems approach to sustainable agriculture. Results from these trials have not yet been translated into extension activities.

- **Ongoing relevance**

Samoa is a signatory to the Sendai Agreement and has an obligation to develop and implement a National Adaptation Plan of Action and a National Disaster Management Plan. An Agriculture DRM is currently being drafted. SACEP's current activities contribute towards these activities.

- **SACEP Opportunities**

- i. Increase the capacity of MAF extension providers to work with communities to develop community risk maps and action plans.
- ii. Conduct and promote farming systems research which will promote resilient multi – story cropping systems to farmers.

5.0 Implementation of the Agriculture Sector Plan

In adopting a sector wide approach the GoS has signaled a clear intent that it wants to change the way in which government agencies, development partners and the private sector plan for and deliver investments. The government recognizes that the agriculture sector has suffered from having successive stand-alone projects that have not resulted in sustainable changes in the performance of the sector as a whole. The sector wide approach then endeavors to make the transition to a programme approach that is delivered by the collective action of all stakeholders.

The key components of the sector programme approach are:

- a. A clear sector policy and strategy, distinguishing government's

regulatory role from its service delivery role, clarifying the roles of the private sector and civil society and outlining necessary institutional reforms

- b. A Medium Term Expenditure Framework based on a comprehensive action plan, capturing expected internal and external resources and indicating how these resources will be allocated in pursuit of agreed policy;
- c. A performance monitoring and evaluation system and an agreed process for moving towards harmonised systems for reporting, budgeting, financial management and procurement.

Implementation of the ASP as a sector wide approach then involves evaluating whether these features were an integral part of the approach.

- **Roles and responsibilities**

The roles and responsibilities of stakeholders are poorly defined and while the ASP does include a matrix of responsibilities this does not provide enough detail at the outcome level to guide other sectors. The development of other ministry and agencies' sector plans at different times has led to lack of reciprocal strategies and thus lack of ownership of the ASP.

The problems that have arisen in this area should also be seen in the context of the private sector which in reality is responsible for delivering the development outcomes of the ASP. However this has not been well-defined it is not clear how the private sector's activities will be resourced.

In adopting a sector wide approach there is a need for more focus on themes that are common to each sector. For example adopting a value chain approach would provide a vehicle for identifying specific activities for each relevant sector plan as well as a useful framework for conducting sector – wide monitoring and evaluation.

- **Medium Term Expenditure Framework**

The intent of the ASP was that a Medium Term Expenditure Framework (MTEF) would be developed based on a comprehensive action plan, capturing expected internal and external resources and indicating how these resources will be allocated in pursuit of agreed policy. SACEP has a well-developed project implementation plan and where relevant this has included activities with other sectors. For example SACEP has an MOU with the Ministry of Health to deliver programmes on nutrition awareness raising and is in the process of developing a MOU with MWCSO for delivery of services to villages on food security. SACEP also works closely with the Small Business Enterprise Centre (SBEC) and the Development Bank of Samoa to deliver services to support the matching grant programme. Aside from these areas there is no comprehensive action plan which would provide the basis for developing a MTEF.

- **Coordination**

Although the institutional framework for delivering a cross sector plan has been established there are some issues over whether this is the most effective mechanism. There is a resource constraint associated with the need to service thirteen sector steering committees each of which are required to meet every

quarter. This amounts to a meeting every week for many of the people who sit on several steering committees. In the case of the agriculture sector lack of a well-resourced dedicated Agriculture Sector Coordination Unit that would act as the secretariat for the ASSC has hampered the delivery of the ASP as a cross sector programme.

- **Monitoring and Evaluation**

The monitoring and evaluation framework is weak. Data is collected from each Division on a monthly basis and collated into a quarterly report. The quarterly data reports are discussed at the Executive Management Team meetings. Data reporting in the quarterly reports is in the form of statements on achievements and/or actions to be taken rather than quantifiable statistics. There are no dedicated resources in each Division that are responsible for data collection and the detailed survey undertaken by the Planning, Policy and Communications Division in August 2015 is at present the only source of reliable information. No data or other relevant information is provided by other sectors on progress of cross – sectoral activities.

There is no evaluation of data that would provide the foundation for assessing the impact of activities and for decision making and recommendations for change.

5.0 Ongoing Relevance of Sector Plan Goals and Objectives

Assessment of the ongoing relevance of ASP goals and objectives is based on findings from the implementation of the ASP. The following discussion is intended to provide guidance in developing the strategies and outcomes for the development of the ASP 2016 – 2020.

Goal

- **ongoing relevance**

The goal of the ASP proposes revitalising the agriculture sector to increase the relative contribution to the GDP from 10% to 20% by 2015. The contribution of agriculture however can be masked by public and donor spending in other areas. Additionally an increase in performance of other sectors has a similar effect on agriculture's impact. A further difficulty arises from the the measurement of value adding contributions. For example a farm gate price for produce is substantially increased through value adding processes if measured in the manufacturing sector however there is uncertainty over whether this is recorded as a contribution by agriculture. A goal based on underlying principal of the ASP to adopt a sector wide approach in developing the sector would be more aspirational.

Sector Policy Objective 1: *To strengthen policy, legal, regulatory and strategic planning framework for sustainable agriculture development.*

The scope of the objective remains relevant and though considerable progress has been made in developing the policy and regulatory frameworks there is a need for regular reviews. However the outcomes and strategies require adjustments and refinements to address problem areas.

Outcome 1.1: Agriculture Sector Plan effectively implemented by 2015;

- ongoing relevance

The ASSC was not adequately supported by a secretariat capable of coordination across sectors and providing an evaluation of sector progress. A strengthened secretariat would enable the ASSC to take a stronger role in providing government with recommendations for changes in policy and regulatory frameworks that would enable and support the development of the sector.

Outcome 1.2: Reliable and timely availability of key agricultural statistics for planning and monitoring of sector performance;

- ongoing relevance

The need for relevant and updated statistics related to key indicators remains a key factor for implementing the plan and in evaluating performance. However consideration could be given to embedding the collection and collation of data at least at the sub-sector level within MAF. This may also provide a mechanism for obtaining data on agricultural activities from other sectors, which are currently not captured and lie outside the SBS established framework of activities.

Outcome 1.3: Coherent and well coordinated sector vis-à-vis adoption of the sector wide approach;

- ongoing relevance

The Review found that the roles and responsibilities of other agencies in delivering the ASP was poorly defined and not reflected in other sector plans. This made it difficult to assess the contribution of other sectors towards the ASP and was compounded by a lack of cross sector indicators and a budget aligned to strategic objectives and development outcomes. A necessary step in this process is the development of a detailed implementation plan that is inclusive of other sectors and would identify the public and private - sector funding needed to deliver the plan.

Outcome 1.4: Enhanced policy, planning and monitoring capacity of MAF including delivery of market oriented extension services;

- ongoing relevance

The Review found that no clear long-term strategy had been developed to enhance the human resources needed to support delivery of the ASP. MAF is the lead agency for delivering the ASP, it is important therefore that activities for improving delivery of ASP services, particularly in extension, involve undertaking a capability review of MAF (and relevant division of other sectors) and developing a strategy that ensures that there is a match between human resources and planned outputs.

Outcome 1.5: Enhanced legal and administrative framework for leasing of customary land for agriculture formalized;

- ongoing relevance

The framework for leasing customary land for agriculture purposes is in place however any issues that arise in this area could be submitted as

recommendations by the ASSC to the CDC making it unnecessary to continue this outcome.

Sector Policy Objective 2: *To improve self reliance in food production and nutritional security.*

- **ongoing relevance**

The need to improve Samoa's self-reliance in food production and nutritional security remains a relevant and aspirational objective though given the diversity of imported products, indicators would need to relate to specific items. Nutritional security may involve access to food that is imported or locally produced and in either case may relate to access to cash rather than availability of food and needs carefully defined indicators to avoid ambiguity.

Outcome 2.1: *Increased food self reliance and nutrition;*

- **ongoing relevance**

The number of households involved in agriculture activities remains relatively high however consumption of imported food has also remained high over the ASP period. It is important therefore that promotion of self – reliance in food production is continued and accepted by rural and urban households as financially beneficial both at the household level through lowering household expenditure on food and at the national level through reducing Samoa's national debt through reducing expenditure on imported food.

Outcome 2.2: *Increased productivity from adoption of high yield crops, livestock and aquaculture species;*

- **ongoing relevance**

Households are unlikely to increase agriculture activity above existing levels unless there are demonstrated increases in production efficiencies that result in a higher return on effort. Current research and development to assess higher yielding varieties and breeds has laid an important base for improving productivity however this needs to be transferred to village based sustainable agriculture systems. An important aspect of this process is to develop ownership in research outcomes through village based prioritization of research activities.

An important aspect of increasing consumption of locally produced food particularly in urban areas is the formation and promotion of market driven supply chains that are accessible by village producers.

MAF's public good role in providing inputs such as planting materials and breeding stock for livestock farming and aquaculture should be reviewed in the context of the role of private in these activities. For example there is a justifiable case for MAF to provide certified disease free planting material or genetically superior breeds however the private sector should become more involved in multiplication of materials.

Women make crucial contributions in agriculture and rural enterprises in all developing country regions, as farmers, workers and entrepreneurs. Their roles vary across regions but, everywhere, women face gender-specific constraints that reduce their productivity and limit their contributions to agricultural

production, economic growth and the well-being of their families, communities and countries.

Although gender is identified as an important cross cutting issue it has not been emphasized in the ASP. Globally it has been found that where women in agriculture and rural areas are provided with equal access to productive resources and opportunities there is an increase of yields on their farms by 20–30 percent and an enhancement of the food security, nutrition, education and health of children.

Although gender is identified as an important cross cutting issue it has not been emphasized in the ASP. A value chain analysis approach should be used to determine how women (and youth) can be supported. The analysis should include:

- productive activities of men and women individually and in groups;
- differential gender-based opportunities for upgrading within the chain;
- power relations that affect economic rents among stakeholders throughout the chain.
- support for capacity building of women and youth agricultural entrepreneurs

Outcome 2.3: *Enhanced nutritional dietary intake from locally produced agriculture products;*

- **ongoing relevance**

Samoa has a high incidence of non – communicable diseases including obesity and diabetes that are related to poor diet. To date activities in this area have involved awareness raising campaigns focusing on healthy diets and aimed at school children delivered through the Ministry of Health and funded through SACEP. However current dietary patterns and lifestyle changes have been established over several decades and will not be easy to change unless there is broader engagement between MAF and other sectors including the Ministry of Health, Ministry of Education Sports and Culture and the Ministry of Women Community and Social Development. Awareness raising, will need to be underpinned by advocacy on the need to reduce imports of unhealthy food while promoting training for enhancing food safety and quality in local supply chains.

Sector Policy Objective 3: *To enhance private sector capacity in improving productivity, value adding and marketing;*

- **ongoing relevance**

The private sector is responsible for delivering most of the outcomes for the agriculture sector and enhancing capacity remains a relevant objective.

Outcome 3.1: *Increased private sector investments in the sector;*

- **ongoing relevance**

Attracting more private sector investment into agriculture requires a focus on a number of key activities that will improve financial returns. Private sector growth requires strong advocacy along with strong organizations that are able to provide and direct resources. SAME is a well established organization that has been filling the role of promoting value adding activities however to be effective it needs to be linked to strong producer organisations. There is a need to strengthen producer organisations that can assist in defining delivery of tailored financing and training schemes to enhancing private sector capacity. Strong private sector organisations also provide a platform for developing public – private sector partnerships that will be needed to improve extension services, develop commercial infrastructure and improve quality control along value chains. Strong private sector organisations also provide a platform for increasing training opportunities through cadet and apprentice schemes.

Scaling up agriculture production of the next Plan period will require more vertical integration of supply and value chains to improve competitiveness in both domestic and export markets. Vertical integration involves strong governance along the supply chain to ensure that responsibilities of both the government and the private sector are defined and carried out.

Failure to attract more private sector finance may be related to lack of tested business models that indicate where investments are likely to provide the highest returns. Understanding this requires deepening the understanding of value chain participants of business management and skills.

Improve capacity of private sector organisations to enhance their understanding of opportunities for increased trade under various trade arrangements being negotiated.

Outcome 3.2: *Improved efficiency of economic infrastructure in the sector;*

- **ongoing relevance**

Lack of post harvest infrastructure in both agriculture and fisheries remains a constraint to competing in local and export markets. The introduction of ice making machines in the fisheries sector which has led to improvements in the quality of fish is an example of how directed assistance can assist in developing the industry. It is acknowledged however that returns on infrastructure in the start up phase may not attract investment. Examples of this are the abattoir and the High Temperature Forced Air (HTFA) Facility. A start up phase involving public – private sector ownership in which government may initially reduce the commercially risk would allow for transition to full private sector ownership.

Outcome 3.3: *Increased access to tailor made financing arrangements for farmers and fishers;*

- **ongoing relevance**

The rapidly increasing uptake of the matching grants programme funded under SACEP demonstrates the need to continue developing tailored finance products for the sector that endure beyond the time frame of the SACEP project.

Outcome 3.4: *Increased diversification and access to commercially viable products in the sector;*

- **ongoing relevance**

The ability to diversify and differentiate products is a key attribute of competitive value chains. The value chain approach lends itself to being able to identify areas that are under performing and improve efficiencies. Product diversification and differentiation are key attributes to penetrating and maintaining market share. Identifying and prioritizing areas for research and development should involve all stakeholders in the chain from production to the market.

Outcome 3.5: *Increased compliance with food safety, phyto-sanitary and market access requirements in the sector;*

- **ongoing relevance**

Considerable progress has been made in developing and testing food safety standards and in developing pathways to meet sanitary and phyto-sanitary requirements. The need for this activity will continue to ensure that Samoa remains competitive in both domestic and international markets.

Outcome 3.6: *Increased exports of fisheries and niche type products;*

- **ongoing relevance**

Producing for niche markets provides an opportunity for Samoa to develop a comparative advantage and in some cases provide a premium price for producers. However this area requires thorough research in both production and post harvest processing to ensure that economical returns are possible.

Sector Policy Objective 4: *To ensure sustainable adaptation and management of agriculture resources;*

- **ongoing relevance**

The objective remains relevant going into the next ASP period however in line with the government's intent to develop an agriculture disaster risk management plan, there is a need to include strategies to strengthen climate resilience and disaster risk management practices.

Outcome 4.1: *Enhanced capacity for sustainable practices in the sector;*

- **ongoing relevance**

Lack of a DRM strategy for agriculture and fisheries that defines sector roles and responsibilities has made it difficult to identify outputs and develop effective activities. However it is anticipated that this will be resolved with the introduction of the Agriculture and Fisheries DRM. The need to strengthen the capability and effectiveness of extension services that work in close collaboration with MNRE staff, land owners and communities has been well articulated in the current ASP and remains relevant.

Outcome 4.2: *Enhanced adaptation of environmentally friendly production systems;*

- **ongoing relevance**

The current ASP expresses the need to implement environmentally friendly farming and fishing practices to protect natural resources. The fisheries community management plans have supported this outcome and should be extended to include crops and livestock particularly in areas that are close to or inside watersheds and could impact of water supplies.

The Biosecurity Service has a well developed plan to ensure that there are adequate controls to prevent the spread of invasive pests and diseases and that Samoa's plant and animal health status is preserved.

6.0 Conclusions, Lessons Learnt and Recommendations

6.1 Conclusions

Relevance of the ASP

The four sector plan objectives provide a relevant and an aligned strategic response to the social, political and economic constraints identified during the design phase i.e:

- Lack of an overarching sector plan (SP01)
- Strengthening of the policy and regulatory framework (SP01)
- Lack of reliable statistics (SP01)
- Low village productivity (SP02)
- Changing global markets for agriculture products (SP03)
- Decline in public and private sector funding (SP03)
- Limited private sector involvement in the sector (SP03)
- The impact of natural disasters SPO4)

The contextual analysis of the ASP and the sub – sector strategies however lack detailed discussion on the cause and effect linkages between constraints and strategies.

The degree of alignment of SDS strategies with ASP sector objectives is variable and results from a poorly defined logic flow from ASP activities to the SDS goals. This makes it difficult to develop meaningful indicators that would determine the level of alignment. For example there is a high level of alignment between the SDS key fisheries strategies and the sub – sector through matching indicators. However there is weak alignment between the business legal and regulatory environment strategy of the SDS and the ASP as there a number of factors outside MAF (and related sectors) that might influence the development of land lease legislation and access to land for agriculture.

Financial sector strategies have also been classified as weakly aligned as there is insufficient detail including indicators in the sub-sector strategies to evaluate the alignment. Similarly there is weak alignment in a number of areas relating to SPO4 where sub-sector strategies relate to a number of areas not covered in the SDS including:

- international treaties for genetic resources
- the impact of climate change

- the development sustainable agriculture management plans.

The alignment problems of the SDS and the ASP mainly relate timing in the formulation of the two plans. The SDS was designed in 2008 and the ASP was designed in 2010. Although it has been possible in to retro - adjust the ASP to the SDS this has been limited by lack of clarity on how the agriculture sector would contribute towards achievement of high level national goals.

Achievements of the ASP

- Economic Indicators

The value added contribution of agriculture to GDP has fallen steadily during the Plan period while fisheries contribution has shown a small increase. It is however difficult to measure how agriculture has contributed to the GDP and whether the decrease is due to a fall in productivity or is due in part to an increase in spending in other sectors such as industry where increased funding was influenced by the Small Island Developing States (SIDS) Conference and Cyclone Evan Recovery efforts.

Notwithstanding additional resourcing for Cyclone Recovery Government spending in the sector has remained relatively static throughout the Plan Period while SACEP has provided additional funding in the Crops and Livestock sectors.

Loans to the sector from both Commercial Banks and the Development Bank have fallen relative to other sectors and for the Fisheries sector there has been little or no lending in the last two years of the plan.

Meat imports are dominated by chicken meat imports which has not been a major focus for the Plan's activities. Imports of other meat continue to be high and this is not expected to change until herd numbers build up and slaughtering and processing reach international standards for food safety. Vegetable imports remain high though imports of head cabbage have fallen over the Plan Period. The fisheries catch has fallen over the plan period however there are no figures yet for yields from aquaculture.

- Sector Plan Objectives

Some progress towards achieving SPO1 however it is complicated by the diverse range of activities that are not necessarily related. So while good progress has been made with the introduction of the Egg Standards Regulations and with the Slaughter and Meat Supply Act and the Fisheries Bill that is currently before Parliament (Dec. 2015) little progress has been made with capability reviews across all MAF's Divisions. Furthermore, activities such as improving agriculture statistics require a clear strategy and appropriate resources (both human and financial).

Good progress has been made across all three Divisions towards achieving SPO2 with all Divisions setting the ground work for improving self reliance and food security through research and development that has included crop trials, the introduction of improved genetics and the establishment of village based community aquaculture projects. However most of this work was completed towards the end of the ASP period and has not yet been transferred to farmers or as is the case with livestock will require more breeding cycles before it is reflected in import statistics. Increasing the supply of local food may not

necessarily lead to an increase in its consumption as there are other factors involved such as price and eating habits that have been established over several decades. Increasing consumption of local food will require a social marketing campaign to change attitudes and habits.

A difficulty in measuring progress towards achieving SPO3 is that the outcomes are very dependent on private sector actions. While the Fisheries Division has made good progress towards achieving SPO3 with improvements to onshore infrastructure and surveillance mechanisms this is offset to some extent by the lack of private sector investment in areas such as processing. The Crops Division has made considerable progress across a range of activities particularly in the distribution of planting material and it is expected that this will result in more private sector activity over the next Planning Period. For the Livestock Division improvements will accrue after more breeding cycles have been completed. The establishment of the mobile abattoir will make an immediate impact on increasing the market for domestic meat.

All Divisions have made some progress towards ensuring sustainable management of resources and reflects the close working relationship with MNRE though targets set by each Division vary considerably making comparisons difficult. For example replanting reefs has a longer time frame than introducing heat tolerant cattle. A key success indicator in this area however is that individuals / communities take ownership of proposed changes in practices and this can take time. The Fisheries Division has made considerable progress in gaining acceptance for community management of marine resources however Crops are faced with more complex issues that arise from the way land is used. Little or no progress has been made by any Division towards drafting disaster management strategies.

- Contribution of SACEP

SACEP did not become fully operational until 2013 and has contributed to the achievement of all four sector objectives to varying degrees depending on the implementation stage of individual sub-sector projects.

The contribution to SPO1 has been in the form of providing secretariat resources for the ASCU and in providing training for MAF extension staff and in assisting with agriculture surveys. The ASCU secretariat should be regarded as a short term measure and it is important that a long term solution to this is found before the commencement of the next Agriculture Sector Plan. It is important also that a capability review of MAF is undertaken to ensure that proposed strategies for the next ASP match MAF's human resources.

The contribution of the Project towards SPO2 has been research and development with a long term goal of import substitution. For crops this has included variety trials on crops such as brassicas, tomatoes, lettuce and onions to select suitable varieties as well as improving efficiencies. In the livestock sector new breeds of sheep and cattle that are more tolerant to the conditions in Samoa have been introduced. The full impact of SACEP R & D activities in these areas is unlikely to be realized for another two to three years. The Project also funds a programme run in association with the Ministry of Health to promote healthy eating habits and reduce the incidence of NCDs.

SACEP has made a significant contribution towards SPO3 through tailored financing in the form of the matching grants programme. Associated with this has been training for farmers to increase their business skills. Uptake of grants is increasing rapidly and likely to continue through the next plan period. SACEP's investment in a mobile abattoir is intended as a pilot project which if successful will lead to improvements in meat slaughtering hygiene and an increase in the consumption of local meat. A constraint in the implementation of SPO3 however has been lack of clear direction on how best to incentivise the private sector and direct investments that will result increases in financial returns to farmers and value adding opportunities. Related to this is the lack of private sector organisation that would provide the platform for public – private sector partnerships.

SACEP has conducted trials on technology for resilient farming techniques which will contribute towards Samoa's strategies for disaster risk and resilience.

Going forward there is considerable opportunity for SACEP to contribute towards the achievement of the ASP through building on and diversifying its current range of activities.

- **Implementation of the ASP**

Delivery of the ASP as a sector wide approach has not yet been fully appreciated by all stakeholders and institutional capacity to support the sector wide process needs to be strengthened. Factors that have limited the uptake and delivery of a sector wide approach include:

- Failure to define clearly the roles and responsibilities of each stakeholder and the resources needed for implementation.
- Lack of ownership which has arisen through lack of reciprocal sector plan strategies
- Lack of a medium term expenditure framework
- Limited cross sector coordination capacity
- Lack of a monitoring and evaluation framework.

6.2 Lessons Learnt

- a. Lack of a monitoring and evaluation framework has made it difficult to measure progress and the impact of activities.
Development of the M & E framework should include:
 - a robust results framework that clearly demonstrates the logic flow between activities and outcomes as the basis for developing an implementation plan
 - indicators that are relevant and importantly can be measured in a timely way and within the resources available is an important consideration in deciding the outputs and outcomes
 - a comprehensive implementation plan
- b. There needs to be a realistic match between the ASP deliverables and the human and physical resources.

- c. A sector wide approach requires clear definition in the respective roles of government and the private sector in delivering the plan need to be clearly defined.
- d. An underlying implementation principle for the ASP is that it has “a value chain approach.” It is important then that a common understanding is developed among stakeholder on what this involves.
- a. Over the next Plan period it will be important to consider that currently responsibility for delivering some outputs lies with the private sector who appear to lack the resources and confidence to invest in the sector.

6.3 Recommendations

- Goal and Objectives

The goal of the next ASP should be altered so that it can be measured through indicators that are directly attributable to activities in the agriculture sector. The broad scope of all four objectives remains relevant however in going forward it will be necessary to adjust the outcomes and indicators to improve the framework for monitoring and evaluation.

- Monitoring and Evaluation

Drafting the ASP 2016 – 2020 needs to be built around the development of a results framework that is developed and validated in consultation with stakeholders. The results framework should include: outputs; short medium and long-term outcomes and quantifiable indicators that are aligned to the new Strategy for Development of Samoa. A monitoring and evaluation framework should be developed which clarifies what data should be collected and by whom as well as measuring the impact and coordinating recommendations for changes to activities. The M & E capacity of MAF will need to be strengthened to ensure timely collection and collation of data. This should include putting dedicated staff in each Division who will be responsible for data collection. Funding for this could be included under the next phase of SACEP.

- Human Resource

The Human Resource section of MAF needs to be strengthened to enable it to:

- c. Conduct and follow through on staff performance reviews
- d. Facilitate the MAF capability review

- The Sector Wide Approach

The sector wide approach to implementing the ASP needs to be reviewed to ensure clarity around the roles and responsibilities of different stakeholders. This could be achieved with more emphasis developing value chains for specific products and markets on a cross-sector basis. To ensure strong leadership and better coordination in the planning, implementation and monitoring the Agriculture Sector Coordination Unit (ASCU) should be strengthened to provide a more robust secretariat support to the Agriculture Sector Steering Committee (ASSC). The membership of the sub-sector working groups (SWGs) should also be reviewed and could be altered to reflect sector objectives rather than MAF

divisions. It is also important that the terms of reference for all levels of the institutional framework for implementing the ASP are reviewed to alter the current focus on activity reporting to strategic analysis and guidance.

- **Strengthening Value Chains**

An analysis of products where Samoa has a comparative advantage should be undertaken with a view to strengthening market led value chains. This work should also include clear identification of the roles of all stakeholders involved in the chain along with business models that identify investment opportunities and niche market opportunities particularly for certified products. As a means of developing the domestic market consideration should be given to developing a healthy school lunch programme.

- **Gender & Youth**

Although gender is identified as an important cross cutting issue it has not been emphasized in the ASP. A value chain analysis approach should be used to determine how women (and youth) can be supported. The analysis should include:

- productive activities of men and women individually and in groups;
 - differential gender-based opportunities for upgrading within the chain;
 - gender-based division of activities in a given value chain
 - power relations that affect economic rents among stakeholders throughout the chain.
- How to support capacity building of women agricultural entrepreneurs
 - How to support the involvement of women in agriculture value adding processes;

- **Financing**

Technical assistance should be obtained to assist in further development of financing and savings models that are complimentary to the matching grants programme and the ADB Samoa Private Sector Development Project.

- **Private Sector Organisation**

Assistance should be provided to strengthen private sector organisations that are able to provide advocacy, assist in the formation of public – private partnerships, strengthen value chains and act as platforms for the delivery training.

- **Investment**

MAF is heavily dependent on SACEP for funding activities in the livestock and crops sub-sectors. At present funding in the fisheries sub-sector is very limited. There has been a recent increase in donor interest in providing funding for the agriculture sector. Given the current lending constraints of the commercial banks and the Development Bank it is recommended that MAF develops funding vehicles for the sector and becomes proactive in becoming more “investment ready.”

