



STRATEGY FOR THE DEVELOPMENT OF AGRICULTURAL STATISTICS SAMOA 2017-2020

2018



TABLE OF CONTENTS

TABLE OF CONTENTS	iii
FOREWORD	iv
ACRONYMS	v
CHAPTER 1. INTRODUCTION	1
1.1 Purpose of this document	1
1.2 Background	1
CHAPTER 2. EVALUATION OF DATA.....	3
2.1 Agricultural statistics in SBS.....	3
2.2 Statistical activities in MAF	3
2.3 Data needs.....	6
2.4 An integrated agricultural statistics system for Samoa	6
2.5 Capacity assessment	8
CHAPTER 3: STRATEGY FOR AGRICULTURAL STATISTICS	10
3.1 Action plan.....	10
3.2 Data release calendar	11
3.3 Financing.....	12
ANNEX 1 STATISTICAL INDICATORS FOR THE ASP	13
ANNEX 2 PROPOSED AGRICULTURAL STATISTICS SYSTEM	19
ANNEX 3 ACTION PLAN FOR AGRICULTURAL STATISTICS, 2017-2020	22
TABLES	
Table 1: MAF data release calendar (draft)	11
Table 2: Main elements of proposed agricultural statistics system	20
Table 3: Availability of agricultural data in SBS surveys, 2018-2026	21

FOREWORD

Low income people rely on agriculture for their livelihoods. Agricultural development alleviates poverty and sustains food security. Sound information is required to make decisions on government spending, aid and investment to promote agricultural growth. But there has been a decline in the availability and quality of rural and agricultural statistics. The Agriculture Sector Plan (ASP) 2016-2020 highlights the lack of agricultural statistics and stresses the importance of improving agricultural statistics in Samoa for decision making and better agricultural planning, and for monitoring and evaluation of the ASP.

To help address this problem, the Food and Agriculture Organization (FAO) together with other international agencies developed the Global Strategy to improve agricultural and rural statistics (GS) to help countries produce the basic agricultural information needed for decision making. Countries are urged to develop a Strategy Plan for Agricultural and Rural Statistics (SPARS) within the framework of the country's national statistics strategy. The strategy for improving agricultural statistics has been developed within the framework of SSSDS2011-2021. The SSSDS identifies the gaps in statistics on crops, livestock and fisheries and emphasizes the need to develop statistical systems to provide regular agricultural indicators. The use of administrative systems for agricultural statistics is realized. This strategy develops the use of agricultural and fisheries statistics to meet needs of the sector.

The national statistics systems in Samoa is also done by various local agencies, the Samoa Bureau of Statistics (SBS) is responsible for national statistics but other agencies undertake statistical activities together with SBS to meet their needs, SBS is a leading provider of agricultural statistics through regular agricultural censuses and surveys, MAF undertakes little regular statistical activities and rarely available. There are data gaps, notably the lack of annual data on agricultural production that leads to an ineffective planning and policy making. MAF generates statistics to supplement those provided by SBS.

The strategy is presented in the form of an action plan to improve agricultural statistics, together with a list of ASP indicators and publication calendar for agricultural statistics in MAF. This document provides the agricultural statistical strategy for Samoa in 2017-2020, aligned with the ASP period.

I am therefore pleased to present this strategy with its purpose to guide the formulation of evidence-based policies as well as agricultural and fisheries planning in the future.



Tilafono David Hunter
Chief Executive Officer
Ministry of Agriculture and Fisheries

ACRONYMS

APHD	Animal Production and Health Division, Ministry of Agriculture and Fisheries
ASP	Agriculture Sector Plan 2016-2020
ASU	Agricultural Statistics Unit
CPI	Consumer Price Index
FAO	Food and Agriculture Organization of the United Nations
GS	Global Strategy to Improve Agricultural and Rural Statistics
HIES	Household Income and Expenditure Survey
ICT	Information and Communication Technology
M&E	Monitoring and Evaluation
MAF	Ministry of Agriculture and Fisheries
PPCD	Policy, Planning and Communication Division, Ministry of Agriculture and Fisheries
SACEP	Samoa Agriculture Competitiveness Enhancement Project
SBS	Samoa Bureau of Statistics
SPARS	Strategic Plan for Agricultural and Rural Statistics
SPC	Secretariat of the Pacific Community
SSDS	Samoa Strategy for the Development of Statistics 2011-2021

CHAPTER 1. INTRODUCTION

1.1 Purpose of this document

The Agriculture Sector Plan 2016-2020 (ASP) highlights the need to improve agricultural statistics in Samoa as the basis for better agricultural planning and policy making, and for monitoring the ASP. Improving statistics is covered under Outcome 1.4:

Outcome 1.4: a strengthened evidence-base for policy decision making, planning and monitoring the ASP.

Two outputs are specified:

Output 1.4.1: Agriculture statistics strategy developed, published and being implemented.

Output 1.4.2: A regular supply of relevant agriculture data collected analyzed and made available according to an agreed agricultural statistics calendar.

This document is the first step in delivering Output 1.4.1. It also provides the basis for the implementation of activities under Output 1.4.2.

1.2 Background

In recent years, there has been a decline in the availability and quality of agricultural statistics in many countries, especially given the emerging issues in agriculture such as the environment and global warming. To help address this problem, the Food and Agriculture Organization of the United Nations (FAO) in collaboration with other international organizations developed the *Global Strategy to Improve Agricultural and Rural Statistics* (GS) to help countries produce the basic agricultural information needed for decision making. Under the GS, countries are encouraged to develop a *Strategic Plan for Agricultural and Rural Statistics* (SPARS) within the framework of the country's national statistics strategy. The present document serves as the SPARS for Samoa.

The strategy for improving agricultural statistics presented in this document has been developed within the framework of the *Samoa Strategy for the Development of Statistics 2011-2021* (SSDS). The SSDS acknowledges the gaps in statistics on crops, livestock and fisheries and emphasizes the need to develop statistical systems to provide regular agricultural indicators. The use of administrative systems for agricultural statistics is foreseen. Agricultural statistics are covered in the SSDS under *sector statistics*; in particular, under *Goal 4: Relevant, Reliable, and Accessible Sector Statistics*. Two agriculture-related activities are specified:

Activity 4.1.1: developing and expanding the use of agricultural and fisheries statistics to meet needs of sector plans.

Activity 4.1.2: conducting regular agricultural surveys to supplement data from the ten-yearly agricultural censuses.

This strategy document is one element of Activity 4.1.1. The national statistics system in Samoa is decentralized: the Samoa Bureau of Statistics (SBS) has overall responsibility for national statistics, but other agencies undertake statistical activities in collaboration with SBS to meet

their needs. In the past, SBS has taken the lead in providing agricultural statistics in Samoa and has conducted regular agricultural censuses and surveys to meet that need. The Ministry of Agriculture and Fisheries (MAF) undertakes little regular statistical activity, and does not formally release any statistical information.

To help begin work on improving agricultural statistics in Samoa, an assessment of the agricultural statistics system in Samoa was undertaken in 2014 under the GS programme. The main finding was that the lack of suitable agricultural data is hampering effective planning and policy making in Samoa. There are important data gaps, especially the lack of annual data on agricultural production. Also, statistical information is not always readily accessible. SBS cannot provide all the agricultural statistics needed in Samoa. MAF should play an enhanced role in generating statistical information to supplement the information provided by SBS.

In most countries, the SPARS is a comprehensive stand-alone document. It describes the agricultural sector and agricultural development plans, evaluates the existing agricultural statistics system and statistical capacity, and presents a detailed strategy for developing the statistics. Normally, a formal results-based approach is used, with a vision, goals, outputs and activities defined, and an action plan, financing plan and formal Monitoring and Evaluation (M&E) system presented. Preparing full SPARS is a major undertaking and could not be done for Samoa.

Instead, the strategy is presented in the form of an action plan to improve agricultural statistics, together with a list of ASP indicators and a publication calendar for agricultural statistics in MAF. An overview of the current agricultural statistics system is also presented, based on material from the GS assessment of agricultural statistics in Samoa, and reports of FAO statistical consultants.

The present document provides the agricultural statistics strategy for Samoa for the period 2017-2020 in line with the period covered by the ASP. For the purpose of this document, agriculture covers crops, livestock and fisheries, and includes the economic, social and environmental dimensions of agricultural and rural development.

CHAPTER 2. EVALUATION OF DATA

2.1 Agricultural statistics in SBS

The main agricultural statistics published by SBS are those from the five-yearly agricultural censuses and surveys.

The Samoa Agricultural Census is conducted every ten years, based on FAO guidelines, to provide structural data on agricultural activities, including household demographics, purpose of production, livestock numbers, fisheries activity, farm machinery, land use and tenure, use of outside labour, agricultural income and credit, fertilizer and chemical use, crop area, and number of trees/plants for permanent crops. Agricultural production data are not collected. Agricultural censuses were undertaken in 1989, 1999 and 2009.

The SSDS highlighted the need to reintroduce agricultural surveys every ten years (in between agricultural censuses) to update census information and provide information on current agricultural conditions. Agricultural surveys were undertaken in 2005 and 2015. The 2015 survey was based on the previous agricultural census, with additional data collected on economic activity, fishing habitats, livestock characteristics, household and extended family land, and sales of main crops.

Some limited supplementary agricultural data are available from other SBS censuses and surveys. The Census of Population and Dwellings 2011 included data on numbers of livestock (cattle, pigs and chickens) and whether the household had any agricultural land. The Census of Population and Dwellings 2016 were similar to the previous census: livestock data were excluded, but data on subsistence and non-subsistence agriculture and agriculture as a secondary activity were included. The Household Income and Expenditure Surveys (HIES) include questions on income and expenditure for agricultural activities.

SBS undertakes a weekly Market Survey in markets around Apia. The quantities of taro, taro palagi, ta'amu, yam, banana, coconut, breadfruit, and selected fruit and vegetables supplied to the domestic market are measured, along with the number of sellers and the average price. A supply index is calculated. Data are released in a monthly report. Price data for the Consumer Price Index (CPI) are collected at the same time.

2.2 Statistical activities in MAF

The technical divisions of MAF are: Crops Division; Animal Production and Health Division (APHD); Fisheries Division; and Quarantine Division. The Policy, Planning and Communication Division (PPCD) provide policy support to MAF.

(a) Crops Division

There are few regular statistical activities in Crops Division. A once-off Fruit and Vegetable Survey was undertaken in 2013 for the World Bank funded *Samoa Agriculture Competitiveness Enhancement Project* (SACEP), but data were not released. A Coconut Survey was recently

conducted. Some administrative data are available, including the distribution of planting materials, but the data are not well organized and are difficult to access. No statistical information is formally released by Crops Division. A quarterly newsletter is produced irregularly. This reports on the Division's activities, but no statistics are included.

Statistics on crop area and production are not regularly compiled. However, some estimation has been done. For coconut, the area cultivated has been estimated based on aerial photography and the distribution of seedlings, while production estimates have been made based on a general assessment of yields, SBS Market Survey data, and exports. For taro, the area planted has been estimated based on data on exports and planting material distributed. The lack of crop area, production and yield data is a major data gap. A methodology to compile these data annually should be developed based on information from various sources, such as the SBS agricultural censuses and surveys, the SBS Market Survey, exports and administrative data. Additional small-scale surveys or special studies – such as crop yield surveys – should be conducted as necessary to help in this process. The use of crop cutting methodologies should also be explored.

Crops Division maintains lists of farmers obtained from registrations at the Agricultural Show (held in October each year). The lists provide only limited coverage of farmers. The need for maintaining the lists should be assessed, the information provided about each farmer reviewed, and the potential use of this information for statistical purposes evaluated. One benefit of the Agricultural Show is that it provides an opportunity for the Division to meet with farmers and perhaps even do some informal surveys. These could cover such things as crop conditions, cropping patterns, marketing, and even crop production. This should be explored.

Regular information on crop conditions, such as crop losses and weather conditions, are needed. This could come from administrative sources. Meteorological data might also be utilized. Timely crop condition information is the key to early assessment of food security issues. A quarterly crop condition report should be prepared. Ultimately, crop production forecasts could also be provided.

(b) Animal Production and Health Division

In 2012, APHD conducted a Cattle Census, funded by SACEP. The census is expected to be repeated later in 2017. A Sheep Census was undertaken in 2014. No data were released for either collection. Data on cattle numbers from the Cattle Census were lower than SBS census/survey data. These data are fundamental to APHD and the discrepancies need to be resolved.

A Meat Market Survey is conducted monthly. Meat inspectors visit retail outlets in Apia to collect data on the volume and price of cattle and pig meat supplied. The data are not formally released. There are some operational problems with the survey. This is an important collection and APHD should work with SBS to resolve those problems.

An annual Village Consultation Survey was undertaken in selected villages to promote APHD services, disseminate new livestock technologies, and identify problems faced by farmers. Also, some data were collected on the structure of livestock herds. The survey could provide a valuable source of data. The potential role of the survey in providing statistical information should be reviewed. Therefore, the APHD is looking at replacing the Village Council Survey with

a Livestock Multiplier Group Survey. This will enable the APHD to report on the progress on the development status of the multiplier farm initiative that is monitored quarterly.

Some administrative data – such as animal health records, distribution of animals to farmers, and the operation of the mobile slaughtering facilities – are available in APHD. The data are not centrally stored and are difficult to access. APHD maintains lists of livestock farmers, based on Agricultural Show registrations. The lists provide only limited coverage, but could be useful for informal surveys or studies.

APHD does not compile regular statistics on livestock production. Some estimates of meat production are made based on supply data from the Meat Market Survey. Egg production is assessed based on import data. The lack of livestock production data is a major data gap, and a methodology to compile these data annually should be developed. The methodology might include conducting small-scale surveys or special studies from time to time to estimate production parameters such as slaughtering rates.

Much can be done to improve statistics in APHD. Many of the statistical issues in APHD are similar to Crops Division: administrative systems need to improve; the requirements for the list of livestock farmers should be assessed and its use for statistical purposes evaluated; a methodology for estimating livestock production should be developed; and data should be widely disseminated.

(c) Fisheries Division

An extensive statistical system for fisheries has been put in place, with technical support from the Secretariat of the Pacific Community (SPC) and the Pacific Island Forum Fisheries Agency. For in-shore fishing, data on the volumes and values of fish landings are collected three times a week from major markets in Apia and Savaii, and at roadside markets. Off-shore fishing operators are required to keep logbooks of their catches, and data are collected at landing points. Division staff visits aquaculture farmers every three months to collect production data. Socio-economic surveys of fishing households are carried out from time to time, most recently in 2012.

Fisheries Division conducts own analysis of data utilizing standardised regional methodologies where most staff dealing with data has undertaken expertise training by SPC and FFA. The analysis assists with developing and imposing management strategies for a particular fishery or fisheries at the national and regional level. Given the confidentiality and sensitivity associated with decision making involved with the use of these data, access to fisheries raw data is strictly controlled. The use and access of FFA and SPC to these data is organized through sharing agreements signed between regional organization and Samoa Fisheries. It is advised such confidentiality shall be respected as public access may compromise management applications as well as bilateral and multilateral arrangements. Reports published by the Fisheries Division can be good sources of information for public access.

Statistical systems in Fisheries Division are more highly developed than in other divisions in that sound data collection systems are in place and international support is ongoing.

(d) Quarantine Division

Quarantine Division generates a wide range of operational information but the data are of little interest for agricultural statistics as such.

(e) Policy, Planning and Communication Division

PPCD does little statistical work. In 2016, it published the report *Situation and Outlook for Samoa Agriculture and Fisheries 2015*, with support from FAO. The report highlighted significant trends and issues in agriculture and fisheries, but contained little data as such. It was intended to be an annual report but, in its present form and given the current weaknesses in the statistics, there may not be enough new information available each year to make this worthwhile. PPCD issues a bi-monthly bulletin *Market Link*, which provides material on market-related topics of interest, including SBS price data.

2.3 Data needs

The agricultural statistics system should focus primarily on providing the data necessary to monitor the ASP. The performance monitoring framework for the ASP is set out in *Agriculture Sector Plan 2016-2020, Volume 2, Implementation and Monitoring Framework*. The framework provides a broad description of performance indicators for each outcome and output.

Many indicators are based on MAF administrative information, rather than being statistical in nature, and relate to such things as the preparation of a report, the implementation of a programme, or the number of participants for a training activity. Some statistical indicators are provided, especially for Outcome 2. Much of the required data for these indicators are already available from existing SBS collections. Other data, such as agricultural production, are not currently available and statistical systems need to be developed.

The focus in this report is on the statistical indicators. Annex 1 lists the statistical indicators required, together with the level of disaggregation, frequency, agency responsible and source of data.

2.4 An integrated agricultural statistics system for Samoa

Agricultural censuses and surveys can only go some of the way towards satisfying the need for agricultural statistics in Samoa. A comprehensive agricultural statistics system is needed, with existing census/survey data supplemented by data from other sources; namely: other SBS censuses and surveys; administrative systems; and supplementary surveys or special studies.

(a) Agricultural data in other SBS censuses/surveys

SBS carries out a household census or survey in most years as part of its normal census/survey programme. If a small agricultural module or a few agricultural data items were included in each household census/survey, some key agricultural data could be provided on a regular basis.

For household surveys such as HIES, the agricultural module could include the following items:

- Annual crops¹: land area used for growing annual crops; land area used for planting each of the three core crops (taro, ta'amu and taro palagi); proportion of produce sold for each core crop; and whether the household planted each of 22 other crops.
- Permanent crops¹: area of land under the crop and number of scattered trees for each of the four core crops (coconut, cocoa, breadfruit and banana); proportion of produce sold for each core crop; and whether the household has each of 15 other crops.
- Livestock: number of animals for each of the four core livestock types (cattle, pigs, chickens and sheep).
- Fisheries: whether household members were engaged in fisheries activities.

It would not be feasible to collect crop data in population censuses, but livestock and fisheries data could be included.

The proposed agricultural module would not provide agricultural production data as such, but could be used in conjunction with data from other sources as part of the methodology for estimating agricultural production. If implemented, the above proposals would provide crop related data approximately every second year, while data on numbers of cattle, pigs and chickens would be available in most years.

(b) Administrative data

In many countries, it is not possible to collect agricultural data via regular censuses and surveys. In these circumstances, administrative systems become an important source of data. As mentioned before, administrative systems in MAF need to be strengthened to make the data more accessible.

Many countries establish administrative reporting systems specifically to provide agricultural data. This involves field staff such as village officials, local agricultural officers, extension workers, veterinary officers or “key informants” providing regular statistical reports. Typically, this covers data on crop plantings, crop conditions, crop production and livestock numbers. The data reported may be taken from official documents, such as land or taxation records, or based on reporting officials’ own observations or judgment. The reports are transmitted through the various administrative levels, often electronically. There are often weaknesses in the data from such administrative reporting systems, but they are often the only way to get regular agricultural data, and will continue to be a key element of agricultural statistics systems in many countries.

Usually, the administrative reporting system is used in conjunction with data from other sources to provide regular crop condition statistics throughout the year. The feasibility of developing such a system for agricultural statistics in Samoa should be evaluated. This might be done through agricultural extension workers, the pulenu’u, or key informants.

¹Annual crops are those with a less than one-year growing cycle. Permanent crops are those with a more than one-year growing cycle, especially tree crops.

(c) *Supplementary surveys or special studies*

Supplementary surveys may be conducted to help fill data gaps. The surveys could be major national surveys, such as the Coconut Survey or the Cattle Census. More commonly, they will be special in-depth studies to help in estimating agricultural production. Crop yield studies are one example. Cost of production surveys could also be undertaken to provide input data for GDP estimation.

For Samoa, the agricultural statistics system should comprise an integrated package of statistical activities centered around the SBS programme of agricultural censuses and surveys, supplemented by data obtained using the three approaches described above. It is foreseen that the agricultural statistics system in Samoa will have several main elements:

- a five-yearly programme of agricultural censuses and surveys conducted by SBS to provide basic structural data;
- regular market surveys, conducted by SBS, APHD and Fisheries Division to measure the domestic market supply of crop, livestock and fisheries products;
- an agricultural module in SBS censuses and surveys to provide a limited range of basic crop, livestock and fisheries data;
- administrative data from MAF's ongoing programmes;
- an administrative reporting system for crop condition information based on field reports;
- supplementary national surveys conducted by MAF with SBS support to fill data gaps;
- small-scale in-depth studies conducted by MAF to help in the estimation of agricultural production; and
- estimation of crop and livestock production using analytical methods based on data from the various sources.

The main elements of the proposed system are given in Annex 2. Table 2 shows the data that would come out of the system, its frequency and sources. Table 3 shows the timing of agricultural data that would become available from SBS censuses and surveys.

2.5 Capacity assessment

An improved agricultural statistics system will rely heavily on MAF. Currently, MAF lacks the basic statistical capacity needed to undertake statistical work and to support its planning and policy making functions. Partnerships with SBS and other data suppliers and users are not strong. MAF's needs may not always be well articulated in developing SBS censuses and surveys, and opportunities to provide important statistical information may be lost. There is little data analysis capacity in MAF, and data from SBS censuses and surveys are not well utilized for policy analysis.

MAF has proposed the establishment of an Agricultural Statistics Unit (ASU) within PPCD to take the lead in managing agricultural statistics in Samoa and promoting evidence-based policy making and planning in MAF. The ASU is now partly operational. It will serve as a liaison on

statistical matters between MAF and SBS and will have the lead responsibility in MAF for data dissemination. The establishment of the Unit will be a key element in increasing the capacity of MAF to improve agricultural statistics in Samoa.

Most data collection activities in MAF will continue to be undertaken by the technical divisions. An Information Section manages the statistical work in Crops Division. There is no Statistics or Information Unit in APHD and Fisheries Division, with technical units managing their own data. The organizational structure for statistics in the technical divisions should be reviewed to ensure that statistical activities can be effectively coordinated by the ASU. ASU staff may be out-posted to the divisions to facilitate this work.

Improving agricultural statistics in Samoa will require considerable upgrading of statistical skills in MAF. It is difficult to assess capacity building needs in advance of the ASU being established and staffed. Existing PPCD staffs have some limited understanding of statistical procedures, data collection operations, and data processing. Some have attended statistical training courses abroad, but have little practical experience in statistics. This is a good starting point for the ASU, but the key will be to effectively utilize and further develop the existing skills. Staff needs to gain experience in basic statistical operations, such as developing statistical systems, preparing and publishing statistical publications, data analysis, and database development. FAO has provided consultants to help initiate statistical work in MAF and this has provided good on-the-job training in basic statistical development activities. Formal training should also be provided in data analysis and report writing. Statistical staffs in the technical divisions also need to be trained.

Improving the Information and Communication Technology (ICT) infrastructure is another element of capacity building. The improvement in communication facilities in Samoa opens up possibilities for the use of tablet computers or mobile phones for data collection, electronic transmission of data, and more efficient systems for the storage and retrieval of data. ICT equipment should be assessed to ensure that technology is effectively utilized in MAF's statistical work. The need for suitable statistical software to help in data processing, analysis, storage and dissemination should also be evaluated.

CHAPTER 3: STRATEGY FOR AGRICULTURAL STATISTICS

The agricultural statistics strategy is presented in the form of an action plan for developing the agricultural statistics system in Samoa, as required under Output 1.4.1 of the ASP. The strategy covers the period from now (mid-2017) until 2020.

3.1 Action plan

The action plan is given in Annex 3. This shows the activities to be undertaken and the timetable for each activity. Activities are shown in each quarter for 2017 and 2018. For 2019 and 2020, only a broad outline of activities in each year is given.

Work on these activities has already begun in PPCD. The main activities scheduled for 2017 and 2018 are:

- establish a database of the ASP indicators;
- contribute to the preparation of monitoring reports for the ASP;
- develop a Statistics Page for the MAF website for use in disseminating agricultural statistics;
- analyze the results of the Coconut Survey, and prepare/publish the survey report;
- evaluate livestock data obtained from the various censuses and surveys, explain reasons for conflicting data, and develop standard questions to be used for the collection of these data in future censuses and surveys;
- provide support for the design and conduct of the proposed Cattle Census;
- develop a collection of data from farmers registering with MAF for the 2017 and 2018 Agricultural Shows, analyze the results, and prepare/publish reports;
- produce crop production tables from the Samoa Agricultural Survey 2015, analyze results, and prepare/publish a report evaluating the methodology;
- analyze agricultural data from the Census of Population and Dwellings 2016;
- collaborate with SBS on the inclusion of agricultural items in HIES 2018, and analyze the resultant data;
- start to prepare and publish quarterly crop condition reports based on data from various sources, including the SBS Market Survey, as well as administrative, meteorological and international trade data.
- develop and document methodologies for providing annual estimates of agricultural production, and develop a plan for implementing the activities to generate the necessary production related data;
- begin to prepare/publish annual agricultural production statistics;

- continue work on evaluating administrative systems in Crops Division and APHD, re-develop systems to provide statistical information in a suitable format, and begin to prepare/publish regular reports;
- evaluate APHD's Meat Market Survey, modify the methodology as necessary, and begin to prepare/publish regular reports;
- begin to implement additional collections required for estimating crop and livestock production; and
- begin work on developing an administrative reporting system to provide regular information on crop conditions.

3.2 Data release calendar

A key element of improving the agricultural statistics system is ensuring that users are provided with a wider range of more timely data. All statistics produced by MAF should be formally published, either in printed form or via the Statistics Page on MAF's website. The new ASU will have primary responsibility in MAF for data dissemination. A data release calendar is needed to ensure the systematic release of data. A tentative calendar is shown in Table 1. This should be regularly reviewed.

Table 1: MAF data release calendar (draft)

Publication	Month												First release
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Crop Conditions	X			X			X			X			Jan 2018
Crop Statistics (including production)									X				Sep 2018
Livestock Statistics (including production)									X				Sep 2018
Fisheries Annual Statistics (including production)								X					Aug 2018
Livestock Slaughter Statistics	X			X			X			X			Oct 2017
Fisheries market Landings (Inshore and Offshore)	X			X			X			X			Apr 2018
Distribution of crop planting materials					X						X		Nov 2017
Village Consultation Survey			X										Mar 2020
Survey of Agricultural Show Registrants												X	Dec 2016
Other regular administrative data													To be determined
Other Survey Reports (e.g., Coconut Survey)													As required

The key releases will be quarterly crop condition reports, annual agricultural production statistics, quarterly Meat Market and fish catch statistics, and reports on MAF administrative systems.

3.3 Financing

The government will need to mobilize resources to implement the action plan. This will include the costs of staffing and other overheads in the newly established ASU, as well as funding for upgrading statistical units in the technical divisions as needed. Funds will also be required to introduce new data collections and carry out surveys as required. Conducting a survey is expensive and must be carefully budgeted to adequately cover printing of questionnaires, recruitment of enumerators, travel and related data collection expenses, data capture and processing, and printing of the survey report.

External resources will be needed for technical assistance, the development of new statistical methodologies, staff training, and equipment. External support might be used to help introduce new data collections, but the government will progressively take over the cost of these collections as they become part of the regular data collection programme.

The ASP document estimates the cost of delivering Outcome 1.4 of the ASP as SAT\$ 834,000. This includes SAT\$ 35,000 for the preparation of the strategy for the development of statistics (the current document) and SAT\$ 799,000 for implementing the agricultural statistics system. This costing should be reviewed in light of the programme of statistical activities that will emerge as a result of the action plan.

ANNEX 1

STATISTICAL INDICATORS FOR THE ASP

Outcome/Output	ASP Performance Indicators	Data to be provided	Disaggregation	Frequency	Agency	Data Source	Remarks
SECTOR PLAN OUTCOME 1: Sector coordination improved and investment in food security and inclusive commercial agriculture/ fisheries production systems increased	Public expenditure on Agriculture Sector (including Development Partner funds) as a percentage of Total Expenditure Functions; achievement in monitoring targets	1 Public expenditure on agriculture sector as a percentage of total expenditure	National	Annual	Ministry of Finance	Budget papers	
	All outcomes and outputs	Administrative data only					
SECTOR PLAN OUTCOME 2: an increased supply and consumption of competitively priced domestically produced food	Volume and price index of local food products; share of local food products in top 10 household food purchases	1 Market supply of taro, ta'amu, yam, vegetables, coconut, breadfruit and banana	National	Monthly	SBS	Market Survey	
		2 Market supply of cattle and pig meat	National	Quarterly	APHD, MAF	Meat Market Survey	Data to be compiled and published
		3 Volume of in-shore fish landings; volume of off-shore fish landings	National	Quarterly	Fisheries Division, MAF	Landings Surveys	Data to be compiled and published
		4 Price indexes for: (i) local food crops; (ii) local meat products; and (iii) local fish products	National	Quarterly	ASU, MAF		Price data available from CPI, meat market survey and fish market collection, but not in index form
		5 Share of local food products to top ten household purchases	National	Quinquennial: 2013, 2018	SBS		HIES
Outcome 2.1: Increased farm production and productivity from adoption of improved sustainable and resilient farming practices	Areas planted, yields & production of target food crops; livestock fecundity and numbers; number of fish farms and volume of production	1 Area planted for each crop	District	Decennial: 2019	SBS	Agricultural Census	
		2 Area planted for taro, ta'amu and taro palagi	National	Irregular: 2015, 2017, 2018	SBS	Agricultural Survey, HIES, and Labour Force Survey	Agricultural module to be developed for SBS surveys
		3 Area, yield and production for taro, ta'amu, taro palagi, coconut and cocoa	National	Annual	Crops Division, MAF	Not available	Methodology to be determined
		4 Area, yield and production for breadfruit, vegetables, banana and yam	National	Quinquennial	Crops Division, MAF	Not available	Methodology to be determined
		5 Crop conditions	National	Quarterly	ASU, MAF	Not available	To be developed by ASU based on data from different sources
		6 Number of each type of livestock	District	Decennial: 2019	SBS	Agricultural Census	
		7 Number of cattle, pigs and chickens	National	Irregular: 2015, 2017, 2018	SBS	Agricultural Survey, HIES, and Labour Force Survey	Agricultural module to be developed for SBS surveys
		8 Production of cattle, pig and chicken meat; egg production	National	Annual	APHD, MAF	Not available	Methodology to be determined
		9 Number of cattle, pigs and chickens by type	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		10 Annual number of births, deaths, slaughtering and sales of cattle, pigs and chickens	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		12 Number of fish farms	National	Annual	Fisheries Division, MAF	Administrative data	
		13 Volume of inshore fish landings; volume of off-shore fish landings	National	Quarterly	Fisheries Division, MAF	Landings surveys	Data to be compiled and published

Outcome/Output	ASP Performance Indicators	Data to be provided	Disaggregation	Frequency	Agency	Data Source	Remarks
Output 2.1.1: Sustainable productivity enhancing and resilient technologies and farming systems tested available and ready for extension and scale up	Number of relevant research activities implemented and number of improved technologies/systems developed ready for extension	1 Number of tunnel houses	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		2 Number of shade houses	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		3 Number of variety evaluation trials	National	Annual	Crops Division, MAF	Administrative data	
		4 Types of crops/vegetables evaluated and distributed	National	Annual	Crops Division, MAF	Administrative data	
		5 Number of pest and disease trials implemented	National	Annual	Crops Division, MAF	Administrative data	
		6 Types of pests and disease	National	Annual	Crops Division, MAF	Pest and Disease Survey by Quarantine and Crops	
		7 Number of Coconut Rhinoceros Beetle hot spots population being eradicated	National	Annual	Crops Division, MAF	Administrative data	
		8 Number of husbandry practises	National	Annual	APHD, MAF	Administrative data	
		9 Types of husbandry practices	National	Annual	APHD, MAF	Administrative data	
		10 Types of improved pastures	National	Annual	APHD, MAF	Not available	
		11 Types of supplementary feeds	National	Annual	APHD, MAF	Not available	
		12 Types of pests and diseases affecting livestock	National	Annual	APHD, MAF	Pest and Disease Survey by Quarantine and Crops Divisions	
		13 Number of feed trials	National	Annual	APHD, MAF	Administrative data	
		14 Number of crossbreeding trials	National	Annual	APHD, MAF	Administrative data	
		15 Number of tilapia and freshwater prawn farms established	National	Annual	Fisheries Division, MAF	Administrative data	
		16 Number of trochus, sea grape, giant clam farms established	National	Annual	Fisheries Division, MAF	Administrative data	
		17 Number of giant clam nurseries	National	Annual	Fisheries Division, MAF	Administrative data	
Output 2.1.2: Rural farming communities have improved access to relevant information to increase farm productivity & food production	Number of farmers using improved technologies and practices; farmer satisfaction with extension support services	1 Number of households using tunnel houses	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		2 Number of villages and communities using tunnel houses	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		3 Number of households using shade houses	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		4 Number of villages and communities using shade houses	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		5 Percent of crop households using a tractor	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		6 Percent of crop households using inorganic fertilizers	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		7 Percent of crop households using organic farming practices	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		8 Percent of crop households planting improved crop varieties	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	Additional topic for censuses and surveys

Outcome/Output	ASP Performance Indicators	Data to be provided	Disaggregation	Frequency	Agency	Data Source	Remarks	
Output 2.1.2: Rural farming communities have improved access to relevant information to increase farm productivity & food production	Number of farmers using improved technologies and practices; farmer satisfaction with extension support services	9	Percent of households using improved pastures for cattle; percent of households using improved pastures for pigs	National	Quinquennial: 2015, 2019	SBS Agricultural Census, Agricultural Survey		
		10	Percent of households using supplementary feed for pigs; percent of households using supplementary feed for chickens	National	Quinquennial: 2015, 2019	SBS Agricultural Census, Agricultural Survey	Additional topic for censuses and surveys	
		11	Percent of cattle raising households with improved breeds of cattle	National	Quinquennial: 2015, 2019	SBS Agricultural Census, Agricultural Survey		
		12	Number of Public Response Appraisals conducted	National	Annual	Crops, APHD, Fisheries Divisions, MAF	Administrative data	
	Output 2.1.3: Timely farming and fishing information widely distributed/communicated through appropriate media	Increased number and quality of relevant publications, media activities/events	13	Number of tilapia farms established	National	Annual	Fisheries Division, MAF	Administrative data
			14	Number of sea urchins, sea grapes households	National	Annual	Fisheries Division, MAF	Administrative data
	Output 2.1.4: Productivity enhancing farm inputs more readily available to rural farming communities	Number of farmers accessing improved inputs; number of inputs (planting materials, livestock breeds, fingerlings etc.) distributed	1	Number and quality of relevant publications, media activities/events		Annual	Crops, APHD, Fisheries Divisions, MAF	Administrative data
			1	Number of vegetables seedlings distributed	National	Six-monthly	Crops Division, MAF	Administrative data
			2	Number of fruit trees seedlings distributed	National	Six-monthly	Crops Division, MAF	Administrative data
			3	Number of root crops seedlings distributed	National	Six-monthly	Crops Division, MAF	Administrative data
			4	Number of plantation crops distributed	National	Six-monthly	Crops Division, MAF	Administrative data
			5	Number of nuts and spices seedlings	National	Six-monthly	Crops Division, MAF	Administrative data
	Outcome 2.2: Increased household income from increased commercial agriculture and fisheries activities	Share of households with agricultural activities mainly for sale; proportion of income usually derived from agriculture; main purpose of fishing	6	Number of livestock farmers accessing improved pasture species; planting materials	National	Annual	APHD, MAF	Administrative data
			1	Percent of household income derived from agriculture and fisheries	National	Quinquennial: 2013, 2018	SBS	HIES
2			Percent of household income from selling crops	National	Quinquennial: 2013, 2018	SBS	HIES	
3			Percent of household income from selling livestock	National	Quinquennial: 2013, 2018	SBS	HIES	
4			Percent of household income from selling fish and aquacultural products	National	Quinquennial: 2013, 2018	SBS	HIES	
5			Number of households growing crops mainly for sale	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
6			Number of crop households selling some crop produce	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
7			Number of households raising livestock mainly for sale	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
8			Number of livestock households selling some livestock produce	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
9			Number of households fishing mainly for sale	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
10	Number of households selling some fish produce	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey			

Outcome/Output	ASP Performance Indicators	Data to be provided	Disaggregation	Frequency	Agency	Data Source	Remarks
Output 2.2.1: School feeding program utilizing nutritious local foods piloted	School feeding program planned, designed and implemented with at least 2 target schools by end 2018	1	Number of planting materials distributed to schools by type	National	Annual	Crops Division, MAF	Administrative data
		2	Number of schools with tunnel houses and vegetable gardens	National	Annual	Crops Division, MAF	Administrative data
		3	Number of pilot meat tastings carried out	National	Annual	APHD, MAF	Administrative data
Output 2.2.2: Rural access roads improved	At least 4 x 5km road access roads improved annually	1	Length of access roads improved		Annual	Administrative data	
Outcome 2.3: Improved food quality throughout the domestic food chain	80% of targeted farms using GAP & GHP; estimated post-harvest losses/wastage in priority food chains	1	Number of farms using GAP & GHP; estimated post-harvest losses/wastage in priority food chains		Annual	Crops Division, MAF	Administrative data
		2	Percentage of post-harvest losses for taro	National	Irregular	Crops Division, MAF	Not available Special surveys to be conducted
Output 2.3.1: Strengthened capacity among farmers and fresh food vendors to reduce food safety risks, improve post-harvest food quality and shelf life and reduce wastage	Number of food chains evaluated for food safety risks and post-harvest constraints; number of farmers/food vendors and other service providers trained in GAP/GHP	1	Number of food chains evaluated for food safety risks and post-harvest constraints; number of farmers/food vendors and other service providers trained in GAP/GHP		Annual		Administrative data
Outcome 2.4: Increased agriculture income and employment generating opportunities for women and youth	Gender and age disaggregated data on employment/ commercial activity in agriculture	1	Number of females with main industry crop or livestock production	Regional	Quinquennial: 2016, 2021	SBS	Population Census
		2	Number of female employees with main industry crop or livestock production	Regional	Quinquennial: 2016, 2021	SBS	Population Census
		3	Number of females with main industry fishing	Regional	Quinquennial: 2016, 2021	SBS	Population Census
		4	Number of female employees with main industry fishing	Regional	Quinquennial: 2016, 2021	SBS	Population Census
		5	Number of females with other activities in crop, livestock or fishing production	Regional	Quinquennial: 2016, 2021	SBS	Population Census
		6	Number of persons aged 15-24 with main industry crop or livestock production	Regional	Quinquennial: 2016, 2021	SBS	Population Census
		7	Number of employees aged 15-24 with main industry crop or livestock production	Regional	Quinquennial: 2016, 2021	SBS	Population Census
		8	Number of persons aged 15-24 with main industry fishing	Regional	Quinquennial: 2016, 2021	SBS	Population Census
		9	Number of employees aged 15-24 with main industry fishing	Regional	Quinquennial: 2016, 2021	SBS	Population Census
		10	Number of persons aged 15-24 with other activities in crop, livestock or fishing production	Regional	Quinquennial: 2016, 2021	SBS	Population Census

Outcome/Output	ASP Performance Indicators	Data to be provided	Disaggregation	Frequency	Agency	Data Source	Remarks
Output 2.4.1: Increased capacity among rural women to run successful chicken farming enterprises, producing for home consumption and sale	Number of (new) successful chicken farming enterprises run by women	1 Number of chicken farms solely operated by women	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		2 Number of chicken farms operated by women jointly with other household members	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		3 Number of commercial chicken farms owned by groups of women	National	Annual	APHD, MAF	Administrative data	
		4 Number of females with main industry poultry production	National	Quinquennial: 2016, 2021	SBS	Population Census	
Output 2.4.2: Improved skill and knowledge among rural women and youth in fruit growing, processing, preservation and business enterprise and marketing	Number of (new) successful fruit processing and marketing enterprises run by women and youth	1 Number of fruit processing and marketing enterprises run by women	National	Annual	Crops Division, MAF	Administrative data	
		2 Number of fruit processing and marketing enterprises run by youth	National	Annual	Crops Division, MAF	Administrative data	
Output 2.4.3: Increased capacity among rural women and youth to develop viable small scale fisheries value added and marketing enterprises	Number of (new) successful small scale fisheries value added and marketing enterprises run by women and youth	1 Number of small scale fisheries value added and marketing enterprises run by women	National	Annual	Fisheries Division, MAF	Administrative data	
		2 Number of small scale fisheries value added and marketing enterprises run by youth	National	Annual	Fisheries Division, MAF	Administrative data	
Output 2.4.4: Increased number of women providing and receiving training and provision of extension services	Number of women extension service providers; number of women attending extension training activities	1 Number of women extension service providers	National	Annual	MAF	Administrative data	
		2 Number of women attending extension training activities	National	Annual	MAF	Administrative data	
Outcome 2.5: Increased community awareness and understanding on production and consumption of local nutritious food	Range of nutritious fruits and vegetables available on farms and in domestic markets; dietary diversity score	1 Market supply of selected fruit and vegetables	National	Quarterly	SBS	Market Survey	Methodology to be determined
		2 Production of fruits and vegetables	National	Quinquennial	Crops Division, MAF	Not available	
		3 Number of vegetable and fruit sellers	National	Quarterly	SBS	Market Survey	
		4 Number of households growing selected vegetables	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		5 Number of households growing selected fruit crops	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
Output 2.5.1: Agriculture extension service providers trained and knowledgeable to deliver appropriate messaging on local food and good nutrition	Number of government and non-government extension service providers completing training on local food and good nutrition; number of relevant extension materials (e.g. pamphlets, posters, video films etc.)	1 Number of government and non-government extension service providers completing training on local food and good nutrition	National	Annual	MAF	Administrative data	
		2 Number of relevant extension materials (e.g. pamphlets, posters, video films etc.)	National	Annual	MAF	Administrative data	
Output 2.5.2: Annual Agriculture Show in Upolu and Savaii used as a platform to encourage production and consumption of nutritious local foods	A successful well attended annual Agriculture Show in Upolu and Savaii	1 Number of livestock farmers registered in livestock competitions	National	Annual	MAF	Administrative data	
		2 Number of crops farmers registered in crops competitions	National	Annual	MAF	Administrative data	Annual report on Agricultural Show to be prepared.
		3 Number of farmer registered in fisheries competitions	National	Annual	MAF	Administrative data	
		4 Number of youth groups registered in competitions	National	Annual	MAF	Administrative data	

Outcome/Output	ASP Performance Indicators	Data to be provided	Disaggregation	Frequency	Agency	Data Source	Remarks
Output 2.5.3: Appropriate curriculum materials focussed on local food production and good nutrition and health for primary schools	Well designed and prepared primary school curriculum materials available by start of 2018	1 Well designed and prepared primary school curriculum materials available	National	Annual	MAF	Administrative data	
SECTOR PLAN OUTCOME 3: A sustained increase in production, productivity, product quality, value adding and marketing of agriculture and fisheries products	Ratio of agriculture exports to food imports; trend growth in agriculture and fisheries value added (market prices); value of agriculture (& fisheries) exports; value and volume of selected food imports; number of households farming and fishing mainly for sale	1 Ratio of value of exports of agricultural commodities to value of imports of food commodities	National	Annual	SBS	Customs data	
		2 Annual growth rate of value added for the agriculture and fisheries sector at constant prices	National	Annual	SBS	National accounts	
		3 Value of exports of agriculture and fisheries commodities by type of commodity	National	Annual	SBS	Customs data	
		4 Quantity and value of imports of food commodities by type of commodity	National	Annual	SBS	Customs data	
		5 Number of households growing crops mainly for sale	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		6 Number of crop households selling some crop produce	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		7 Number of households raising livestock mainly for sale	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		8 Number of livestock households selling some livestock produce	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		9 Number of households fishing mainly for sale	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
		10 Number of households selling some fish produce	National	Quinquennial: 2015, 2019	SBS	Agricultural Census, Agricultural Survey	
Outcome 3.2: Increased value share of agriculture and fisheries products used by tourism, commerce and manufacturing sectors	Share of value of local agriculture (and fisheries) intermediate inputs in Tourism, Manufacturing and Commerce sectors' value added	1 Share of local agriculture and fisheries intermediate inputs in Tourism, Manufacturing and Commerce sectors' value added	National	Annual	SBS	National accounts	
Outcome 3.3: Increased value of niche quality certified agricultural and fisheries product exports	Value of quality certified Agriculture and fisheries exports (e.g. organic, fair trade, GAP, HACCP, ISO etc.)	1 Value of certified agriculture and fisheries commodities exported	National	Annual	SBS	Customs data	
All other outcomes and outputs	Administrative data only						
SECTOR PLAN OUTCOME 4: Sustainable agricultural and fisheries resource management practices in place and climate resilience and disaster relief efforts strengthened	Compliance with relevant policies and regulations; value of disaster-related damages and losses in food and agriculture sectors; and agriculture sectors; Climate Adaptation Strategy for Agriculture finalized and being implemented	1 Value of disaster-related damages and losses in food and agriculture sectors	District	Quarterly	MAF	Reporting system	System to be established.
		2 Other administrative data					
All outcomes and outputs	Administrative data only						

ANNEX 2

OUTLINE OF PROPOSED AGRICULTURAL STATISTICS SYSTEM

Table 2: Main elements of proposed agricultural statistics system^{1,2}

Data	Frequency	Source	Data source	Remarks
CROPS				
Land use, land tenure, land fragmentation, etc.	Quinquennial: 2015, 2019, 2024, 2029 ...	SAC, SAS	SBS	
Number of growers, area planted and number of plants	Decennial: 2019, 2029, ...	SAC	SBS	All crops
	Quinquennial: 2015, 2019, 2024, 2029 ...	SAC, SAS	SBS	Core crops
Number of growers, area planted	Irregular: 2017, 2018, 2022, 2023 ...	HIES, LFS	SBS	Number of growers (all crops); area planted (core crops)
	Annual	Administrative reports	MAF	Core crops
Crop conditions	Quarterly	Administrative reports	MAF	Core crops
Market supply of crops	Monthly	Market Survey	SBS	Selected products
Crop yield	Irregular	Crop yield surveys	CD	Core crops
Crop production	Annual	Derived from data on crop plantings, market supply and crop yield surveys	CD	Core crops
Cost of production	Irregular	Cost of production surveys	CD	Core crops
LIVESTOCK				
Characteristics of livestock herds	Decennial: 2019, 2029, ...	SAC	SBS	All livestock types
	Quinquennial: 2015, 2019, 2024, 2029 ...	SAC, SAS	SBS	Core livestock types
Number of livestock	Decennial: 2019, 2029, ...	SAC	SBS	All livestock types
	Quinquennial: 2015, 2019, 2024, 2029 ...	SAC, SAS	SBS	Core livestock types
	Quinquennial: 2021, 2026 ...	CPD	SBS	Core livestock types
	Irregular: 2017, 2018, 2021, 2022, 2023 ...	HIES, LFS, CPD	SBS	Core livestock types
Market supply of meat	Quarterly	Market Survey	APHD	
Livestock production factors: slaughtering rates, birth/death rates	Annual	Village Consultation Survey	APHD	Core livestock types
	Quinquennial: 2015, 2019, 2024, 2029 ...	SAC, SAS	SBS	Core livestock types

1, 2. See footnotes on Page 21.

Table 2 (cont.): Main elements of proposed agricultural statistics system^{1,2}

Data	Frequency	Source	Data source	Remarks
Production of livestock products (milk, meat, eggs)	Annual	Derived from data on number of livestock and livestock production factors	APHD	
Cost of production	Irregular	Cost of production surveys	APHD	
FISHERIES				
Structure of fishing industry	Quinquennial: 2015, 2019, 2024, 2029 ...	SAC, SAS	SBS	
No. of households engaged in fisheries	Quinquennial: 2015, 2019, 2024, 2029 ...	SAC, SAS	SBS	
	Irregular: 2017, 2018, 2021, 2022, 2023 ...	HIES, LFS, CPD	SBS	
In-shore fisheries market landings	3 days per week	Market surveys	FD	
Off-shore fisheries landings	3 days per week (Port sampling) 2 days per week (Market landings)	Survey of landing points and market surveys	FD	
Cost of production	Irregular	Cost of production surveys	FD	

Table 3: Availability of agricultural data in SBS surveys^{1,2}

Year	Data available	Data source
2018	Area of core crops; number of growers of non-core crops; number of livestock for core livestock; number households engaged in fisheries.	HIES
2019	Land use, area of agricultural land; area/number of plants for all temporary and permanent crops; number and characteristics of all livestock types, characteristics of fisheries activities.	SAC
2020	-	
2021	Number of cattle, pigs and chickens; number of households engaged in fisheries.	CPD
2022	Area of core crops; number of growers of non-core crops; number of cattle, pigs and chickens; number households engaged in fisheries.	LFS
2023	Area of core crops; number of growers of non-core crops; number of cattle, pigs and chickens; number households engaged in fisheries.	HIES
2024	Land use, area of agricultural land; number of plants for all crops; area planted for core crops; sales and derived production for core crops; number and characteristics of core livestock types, livestock slaughtering and sales; characteristics of fisheries activities.	SAS
2025	-	
2026	Number of cattle, pigs and chickens; number of households engaged in fisheries.	CPD

1. Based on outline of agricultural statistics system in Section 2.4.

2. Abbreviations used. SAC: Samoa Agricultural Census. SAS: Samoa Agricultural Survey. CPD: Census of Population and Dwellings. HIES: Household Income and Expenditure Survey. LFS: Labour Force Survey. MAF: Ministry of Agriculture and Fisheries. SBS: Samoa Bureau of Statistics. CD: Crops Division, MAF. APHD: Animal Production and Health Division, MAF. FD: Fisheries Division, MAF.

ANNEX 3

ACTION PLAN FOR AGRICULTURAL STATISTICS, 2017-2020

Activity	2017		2018				2019	2020
	Sep	Dec	Mar	Jun	Sep	Dec		
A General								
1 Statistical organisation								
1.1 Establish and staff ASU								
1.2 Assess structure for statistics in the technical divisions								
1.3 Establish coordination arrangements between divisions								
2 ASU Reporting								
2.1 Prepare database for ASP indicators								
2.2 Update database of ASP indicators								
2.3 Prepare statistical material for ASP performance reviews								
3 Data dissemination								
3.1 Finalize agricultural statistics publication programme								
3.2 Develop Statistics Page for MAF's Website								
3.3 Upload statistical materials to MAF's website								
4 Agricultural show								
4.1 Assist in preparing statistical awareness materials								
4.2 Design data collection for agricultural show registrants								
4.3 Implement data collection for agricultural show								
4.4 Analyze, prepare/publish report on agricultural show								
5. SBS censuses/surveys								
5.1 Develop agricultural questions for HIES 2018								
5.2 Analyze agricultural data in CPD 2016								
5.3 Analyze agricultural data in HIES 2018								
5.4 Collaborate with SBS in design of 2019 Agriculture Census								
5.5 Assist SBS in conduct of 2019 agriculture census								
5.6 Assist SBS in preparing 2019 agriculture census report								
5.7 Develop agriculture questions for 2021 population census								
B CROP STATISTICS								
6 Further Analysis of SBS Agricultural Survey 2015								
6.1 Produce additional tables in collaboration with SBS								
6.2 Analyse data and prepare report								
7 Coconut Survey								
7.1 Assist in producing survey tables in collaboration with SBS								

7.2 Analyse data and prepare/publish report								
8 Crop Production statistics								
8.1 Develop methodology for annual crop production statistics								
8.2 Prepare action plan to develop crop production statistics								
8.3 Implement collections needed to estimate crop production								
8.4 Prepare/publish crop production statistics								
9. Improving administrative system in crop division								
9.1 Assess administrative system in crop division								
9.2 Identify areas to improve statistics in crop division								
9.3 Determine publication plan for crops division statistics								
9.4 Redevelop administrative systems to provide regular data								
9.5 Prepare/publish regular reports of administrative data								
10. Quarterly crop condition report								
10.1 Evaluate alternative sources for crop condition information								
10.2 Publish quarterly crop condition reports								
11. Administrative reporting system								
11.1 Evaluate options for administrative reporting of crop data								
11.2 Prepare reporting forms and procedures								
11.3 Implement administrative reporting system								
11.4 Prepare/publish results in quarterly crop condition reports								
C. LIVESTOCK STATISTICS								
12 Cattle count								
12.1 Evaluate cattle data from different census and surveys								
12.2 Develop methodology for collection of cattle data								
12.3 Assist in conduct of Cattle Census								
12.4 Assist in preparing/publishing report for Cattle Census								
13 Livestock production statistics								
13.1 Develop methodology for annual production statistics								
13.2 Prepare action plan to develop production statistics								
13.3 Implement collection for estimating livestock production								
13.4 Prepare/publish livestock production statistics								
14. Livestock slaughter data								
14.1 Evaluate APHD's Meat Market Survey								
14.2 Implement improvements in methodology								
14.3 Evaluate other sources of slaughter data								
14.4 Prepare/publish slaughter statistics								
15 Improving administrative systems in APHD								
15.1 Assess administrative systems in APHD								

15.2 Identify areas for work to improve statistics in APHD								
15.3 Determine a publication schedule for APHD								
15.4 Redevelop administrative systems to provide regular data								
15.5 Prepare/publish regular reports of administrative data								
16. Livestock Multiplier Group Survey								
16.1 Evaluate methodology for Livestock Multiplier								
16.2 Design survey, as necessary								
16.3 Prepare/publish report								
D. FISHERIES STATISTICS								
17 Fish catch statistics								
17.1 Prepare quarterly report on fish landings								
17.2 Prepare/publish annual fish production report								
18 Improving Administrative Systems in Fisheries Division								
18.1 Assess administrative systems in Fisheries Division								
18.2 Identify areas to improve statistics in Fisheries Division								
18.3 Determine a publication schedule for Fisheries Division								
18.4 Redevelop administrative systems to provide regular data								
18.5 Prepare/publish regular reports of administrative data								