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IDA/R2019-0206/1

June 13, 2019

Closing Date: Tuesday, July 2, 2019
at 6:00 p.m.

FROM: Vice President and Corporate Secretary

Samoa - Samoa Agriculture and Fisheries Productivity and Marketing Project

Project Appraisal Document

Attached is the Project Appraisal Document regarding a proposed grant to Samoa for a Samoa Agriculture and Fisheries Productivity and Marketing Project (IDA/R2019-0206), which is being processed on an absence-of-objection basis.

Distribution:
Executive Directors and Alternates
President
Bank Group Senior Management
Vice Presidents, Bank, IFC and MIGA
Directors and Department Heads, Bank, IFC, and MIGA

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Report No: PAD2938

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A PROPOSED GRANT

IN THE AMOUNT OF SDR 14.4 MILLION
(US$19.95 MILLION EQUIVALENT)

TO THE

INDEPENDENT STATE OF SAMOA

FOR A

SAMOA AGRICULTURE & FISHERIES PRODUCTIVITY AND MARKETING PROJECT (SAFPROM)

JUNE 11, 2019

Agriculture Global Practice
East Asia And Pacific Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective March 31, 2019)

Currency Unit =	West Samoan Tala (WST)
2.70 WST =	US$1
1.38825 US$ =	SDR 1

FISCAL YEAR
January 1 - December 31

Regional Vice President:	Victoria Kwakwa
Country Director:	Michel Kerf
Senior Global Practice Director:	Juergen Voegele
Practice Manager:	Nathan M. Belete
Task Team Leader(s):	Stephane Forman, Cary Anne Cadman

ABBREVIATIONS AND ACRONYMS

ACIAR	Australia Centre for International Agricultural Research
AFCRP	Agriculture & Fisheries Cyclone Recovery Project
ASCD	Agriculture Sector Coordination Division
ASP	Agriculture Sector Plan (2016-2020)
CBFMP	Community Based Fisheries Management Program
CEO	Chief Executive Officer
CERC	Contingency Emergency Response Component
CTSSU	Centralized Technical Services and Support Unit
DA	Designated Account
DBS	Development Bank of Samoa
DFAT	(Australian) Department of Foreign Affairs and Trade
EEZ	Exclusive Economic Zone
EFA	Economic and Financial Analysis
ESA	Environmental and Social Assessment
ESMF	Environmental and Social Management Framework
EU	European Union
F&V	Fruits and Vegetable
FAO	Food and Agriculture Organization (of the United Nations)
FFA	Forum Fisheries Agency
FM	Financial Management
FY	Fiscal Year
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GoS	Government of Samoa
GRS	Grievance Redress Service
HHs	Households
IA	Implementing Agency
IDA	International Development Association
IFAD	International Fund for Agricultural Development
ILO	International Labor Organization
IUU	Illegal, unreported and unregulated (fishing)
M&E	Monitoring and Evaluation
MAF	(Samoa) Ministry of Agriculture and Fisheries
MCIL	(Samoa) Ministry of Commerce, Industry & Labour
MCS	Monitoring, Control and Surveillance
MFAT	(New Zealand) Ministry of Foreign Affairs and Trade
MFD	Maximizing Finance for Development
MGP	Matching Grant Program
MIS	Management Information System

MNRE	(Samoa) Ministry of Natural Resources & Environment
MOF	(Samoa) Ministry of Finance
MoH	(Samoa) Ministry of Health
MSMEs	Micro, Small and Medium Enterprises
MSU	Mobile Slaughtering Unit
MWCSD	Ministry of Women, Community & Social Development
NCD	Non-Communicable Disease
OH&S	Occupational Health and Safety
OIE	World Organization for Animal Health
PDO	Project Development Objective
PIC	Pacific Islands Country
PPA	Project Preparation Advance
PROP	Pacific Islands Regional Oceanscape Program
PSC	Public Service Commission
RPF PIC 9	Regional Partnership Framework, Pacific Islands (nine member countries)
RPF	Resettlement Policy Framework
SACEP	Samoa Agriculture Competitiveness Enhancement Project
SAT	Samoan Tala
SBEC	Small Business Enterprise Centre
SCD	Systematic Country Diagnostic
SDG	Sustainable Development Goals
SOP	Standard Operating Procedures
SPC	Pacific Community (formerly Secretariat of the Pacific Community)
SROS	Scientific Research Organization of Samoa
SSU	Static Slaughtering Unit
STA	Samoa Tourism Authority
STEP	Systematic Tracking of Exchanges in Procurement
TC	Tropical Cyclone
US$	United States Dollar
WB	World Bank
WCPFC	Western and Central Pacific Fisheries Management Commission

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Samoa	Samoa Agriculture & Fisheries Productivity and Marketing Project (SAFPROM)	
Project ID	Financing Instrument	Environmental Assessment Category
P165873	Investment Project Financing	B-Partial Assessment

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[✓] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Disbursement-linked Indicators (DLIs)	[✓] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
02-Jul-2019	30-Jun-2025

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To increase the productivity and access to markets by selected producers, to improve management of targeted productive natural resources and, in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency.

Components

Component Name	Cost (US$, millions)
Strengthening National Institutions	10.66
Strengthening the performance of selected value-chains	9.54
ASCD establishment and project management, M&E and communication	3.35
Contingency Emergency Response	0.00

Organizations

Borrower:	Independent State of Samoa
Implementing Agency:	Ministry of Agriculture & Fisheries Ministry of Finance

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	23.55
Total Financing	23.55
of which IBRD/IDA	19.95
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	19.95
IDA Grant	19.95

Non-World Bank Group Financing

Other Sources	3.60
International Fund for Agriculture Development	3.60

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
National PBA	0.00	13.95	0.00	13.95
Regional	0.00	6.00	0.00	6.00
Total	**0.00**	**19.95**	**0.00**	**19.95**

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2020	2021	2022	2023	2024	2025	2026
Annual	0.80	1.25	1.96	3.45	5.55	6.40	0.54
Cumulative	0.80	2.05	4.01	7.46	13.01	19.41	19.95

INSTITUTIONAL DATA

Practice Area (Lead)

Agriculture

Contributing Practice Areas

Environment & Natural Resources

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

Gender Tag

Does the project plan to undertake any of the following?	
a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF	Yes
b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment	Yes
c. Include Indicators in results framework to monitor outcomes from actions identified in (b)	Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Moderate

2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Moderate
8. Stakeholders	Moderate
9. Other	High
10. Overall	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04	✓	
Forests OP/BP 4.36	✓	
Pest Management OP 4.09	✓	
Physical Cultural Resources OP/BP 4.11		✓
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37		✓

Projects on International Waterways OP/BP 7.50	✓
Projects in Disputed Areas OP/BP 7.60	✓

Legal Covenants

Sections and Description
The Recipient shall maintain, throughout the Project implementation period, an Agriculture Sector Advisory Committee, with a mandate, composition and resources satisfactory to the Association, which shall be responsible for, inter alia, providing overall policy guidance and strategic direction for Project implementation. (Section I.A.1 of Schedule 2 of the Financing Agreement)

Sections and Description
The Recipient shall maintain, throughout the Project implementation period, an ASCD within MAF, with a mandate, composition and resources satisfactory to the Association, which shall be responsible for, inter alia, carrying out day-to-day implementation of Parts 1 to 3 of the Project, including overseeing fiduciary and safeguards compliance, and monitoring and coordination of activities under such parts of the Project, with support from CTSSU. (Section I.A.2 of Schedule 2 to the Financing Agreement)

Sections and Description
3. The Recipient shall maintain, throughout the Project implementation period, the following positions in ASCD: (a) a sector coordinator; (b) a principal procurement officer; (c) a principal safeguards officer; (d) a principal financial management officer; and (e) a principal monitoring and evaluation officer, each with terms of reference, qualifications and experience satisfactory to the Association. (Section I.A.3 of Schedule 2 to the Financing Agreement)

Sections and Description
4. The Recipient shall maintain, throughout the Project implementation period, a Matching Grant Program Committee, with a mandate, composition and resources satisfactory to the Association, which shall be: (a) responsible for, inter alia, overseeing and managing the Matching Grant Program; and (b) comprised of representatives from, inter alia, MAF including ASCD, MOF, Ministry of Commerce, Industry and Labor, Development Bank of Samoa and SBEC. (Section I.B.1 of Schedule 2 to the Financing Agreement)

Sections and Description
The Recipient, through MAF, shall prepare and adopt a Matching Grant Program Operations Manual as accepted by the Association, and thereafter ensure that the Matching Grants Program is carried out in accordance with the Matching Grants Program Operations Manual. (Sections I.B.2 to I.B.4 of Schedule 2 to the Financing Agreement)

Sections and Description
The Recipient shall make Matching Grants to each Beneficiary under a Matching Grant Agreement in accordance with eligibility criteria and procedures acceptable to the Association and set forth in the Matching Grant Program Operations Manual. (Sections I.B.5 to I.B.7 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall prepare and furnish to the Association, not later than August 15 of each year during the implementation of the Project, for the Association's review and no-objection, an Annual Work Plan and Budget, and ensure that the Project is implemented in accordance with the Annual Work Plans and Budgets accepted by the Association for the Recipient's respective fiscal year. (Section I.D of Schedule 2 to the Financing Agreement)

Sections and Description
The Recipient shall ensure that all monitoring, control and surveillance activities carried out by the Recipient under the Project are in compliance with the provisions of Section I.F.4 of Schedule 2 to the Financing Agreement (Section I.F.4 of Schedule 2 to the Financing Agreement)

Sections and Description
By not later than six months after the Effective Date, the Recipient, through MAF, shall prepare and adopt Standard Operating Procedures as accepted by the Association, and thereafter ensure that the Project is carried out in accordance with the Standard Operating Procedures. (Section I.C of Schedule 2 to the Financing Agreement)

Sections and Description
The Recipient shall carry out, jointly with the Association, not later than three years after the Effective Date, or such other period as may be agreed with the Association, a Mid-Term Review for the Project. (Section II.2 of Schedule 2 to the Financing Agreement)

Sections and Description
The Recipient shall carry out, jointly with the Association, not later than two years after the Effective Date, or such other period as may be agreed with the Association, a review of the Matching Grant Program. (Section I.B.11 of Schedule 2 to the Financing Agreement)

Conditions

Type	Description
Disbursement	No withdrawal shall be made for payments under Category (3) unless and until the Association is satisfied that the Recipient's fisheries laws and regulations are consistent with the provisions of Article 73 of the United Nations Convention on the Law of the Sea. (Section III.B.1(b) of Schedule 2 to the Financing Agreement)
Type	Description
Disbursement	No withdrawal shall be made for Matching Grants under Category (4) unless and until the Association is satisfied that: (a) the Recipient has adopted the Matching Grant Program Operations Manual in accordance with the provisions of the Financing Agreement; and (ii) the memoranda of understanding between the Recipient, through MOF and MAF, and the Development Bank of Samoa and SBEC have been signed in accordance with the provisions the Financing Agreement. (Section III.B.1(c) of Schedule 2 to the Financing Agreement)
Type	Description
Disbursement	No withdrawal shall be made for Emergency Expenditures under Category (5), unless and until the Association is satisfied that all of the conditions listed in Section I.E.2 of Schedule 2

	to the Financing Agreement have been met in respect of said expenditures. (Section III.B.1(d) of Schedule 2 to the Financing Agreement)
Type Effectiveness	Description the Co-financing Agreement has been executed and delivered and all conditions precedent to its effectiveness (other than the effectiveness of this Agreement) have been fulfilled.

I. STRATEGIC CONTEXT

A. Country Context

1. The Independent State of Samoa (Samoa) is a small, remote Pacific Islands Country (PIC) with a population of approximately 197,000 people[1]. Samoa consists of two large islands (Upolu and Savai'i), and several smaller islands, and has a total land area of approximately 2,830 km^2 and an exclusive economic zone of 131,000km^2. Samoa is a stable democracy with steady growth supported largely through remittance (25 percent of the Gross Domestic Product (GDP) over the past 4 years) and aid flows (10 percent), as well as the tourism and agriculture sectors.

2. Like many PICs, Samoa faces unique challenges to its economic growth, due to its small size, remoteness, high exposure to shocks and environmental fragility. Economic growth has picked up in recent years, and in Fiscal Year (FY) 2016 real GDP expanded by around 7 percent, much faster than originally forecasted and a significant acceleration from growth of between 1 and 2 percent in the previous two years. Growth in FY16 was driven by tourism arrivals, lower fuel prices, and new fish processing facilities, as well as two major sporting events. Agriculture and fisheries contributed a total of 11 percent of the GDP in the year ending September 2017[1]. Over the medium term, real GDP is expected to increase at an annual rate of around 2 percent[2].

3. However, frequent natural disasters can distort this picture. Samoa is ranked 30th of countries exposed to three or more hazards[3] and is expected to lose an average of 1 percent GDP each year as a result of tropical cyclones and just less than 1 percent annually due to earthquakes and tsunamis[4]. Samoa has been struck by seven Category 4 or 5 cyclones, the most recent of which was Tropical Cyclone (TC) Evan in late 2012 that, according to the Damage and Loss Assessment[3], caused an estimated US$210 million (30 percent of annual GDP) in damages and losses. Of this, 45 percent belonged to the private sector, including a loss of 49 percent in crop and livestock GDP, and 5 percent in fisheries GDP. While Samoa has largely recovered from the effects of TC Evan, Category 5 cyclones are likely to be a 1 in 10-year event for Samoa.

4. Samoa's growth is also constrained by the high instances of obesity and non-communicable diseases (NCD). Fifty-four percent of Samoa's population is obese, and more than 40 percent of deaths are the result of diabetes, stroke and heart diseases. It is predicted that the economic burden of NCDs will reach as high as 8.5 percent of GDP by 2040[4]. Recently, Samoa has seen steady improvements in health outcomes, with the highest life expectancy in the Pacific (75 years) and one of the lowest infant mortality rates (15/1,000 live births). However rising rates of NCDs threaten to undo much of the health and economic progress, for instance, overseas medical treatment for NCDs accounted for 15 percent of total health expenditure in 2009/10, while only benefiting 0.1 percent of the nation's population.

5. Samoa faces persistent challenges in securing prosperity for all and the incidence of hardship remains high. While extreme poverty is low (0.6 percent), basic needs poverty or 'hardship', stands at 26.9 percent. Currently 81 percent of Samoa's population live in rural areas and most households (HHs) are engaged in some form of agricultural activity. While strong traditional family solidarity and community-based safety nets are still effective in preventing extreme

[1] Samoa Bureau of Statistics.
[2] Samoa First Resilience DPO, The World Bank (2017)
[3] "Samoa Post-Disaster Needs Assessment, Cyclone Evan 2012", Government of Samoa, March 2013.
[4] Pacific Possible, The World Bank (2017)

hardship, these traditional networks cannot manage local or country-wide shocks, such as natural disasters, that affect most of their members.

B. Sectoral and Institutional Context

6. Sectoral context: In Samoa, and across the Pacific, agriculture and coastal fisheries play an important role in meeting subsistence needs. According to the 2015 Agriculture Survey, 97 percent of the over 30,000 HHs of Samoa grow some crops or raise some livestock. For most, agriculture is a secondary activity, growing crops for subsistence purposes only. The most commonly produced crops are taro, banana and yam, and many HHs engage in small-scale subsistence livestock production. For fisheries, small-scale subsistence and semi-commercial fisheries are an important source of food and livelihoods in Samoa, with consumption levels of about 100 kg per person per year in rural areas.

7. Despite this, 'food and live animal' imports are the top category of imports, accounting for 27.5 percent of the total[5], with chicken legs, sugar and mutton topping the list. In 2015, approximately 67 percent of all retail beef and 95 percent of chicken meat was imported. While endowed with productive waters, Samoa still imports large quantities of fish products, mainly low-price canned tuna, the value of which is estimated at nearly US$15 million in 2016. Low cost and low-quality food imports often crowd out domestic production and contribute (together with food consumption behavior) significantly to the NCD crisis experienced in the region.

8. However, signs of import substitution can be seen recently and the potential for farmers to move from subsistence into semi-commercial and commercial farming has been evident from the Samoa Agriculture Competitiveness Enhancement Project (SACEP)'s implementation results. According to the 2017 Market Survey, undertaken through the SACEP, the volume of local meat products available in the marketplace more than doubled between 2013 and 2017, the volume of local vegetables increased by 62 percent and local fruits by 48 percent over the same period[6]. According to the 2018 Matching Grant Program (MGP) Impact Assessment, median sales between 2013 and 2017 increased by 110 percent for farmers involved in the MGP, while the control group saw an increase of just 11 percent over the same period.

9. In the export market, fish and taro are the top two agriculture exports (accounting for 38 and 9 percent of exports respectively in July-September 2017 quarter). Fresh fish, particularly tuna, still constitutes one of Samoa's largest export commodities, even if fishing accounted for only 3.5 percent of nominal GDP in 2017.

10. Agriculture in Samoa has traditionally been dominated by village-based, mixed-farming systems (which combine taro, tubers and tree crops, e.g. coconut, cocoa and breadfruit), on communally-owned lands. The strength of Samoa's village-based agriculture system is in its distribution of risks and costs across the community, while collectively addressing basic food needs. Its drawback is that it restricts agricultural specialization and diminishes investment, failing to maximize agricultural efficiency and productivity in an increasingly market-oriented economy. However, there are notable increases in investment into agriculture by private sector, and a growing interest by farmers to move into market-oriented production. Community leaders are increasingly recognizing individual user-right claims on communally owned land and delineating individual farm areas. The number of organically-certified farms is growing steadily, and new farmers' associations are also developing.

[5] Samoa Bureau of Statistics (*http://www.sbs.gov.ws/index.php/new-document-library?view=download&fileId=1990*). Feb, 2017
[6] SACEP 2018 Market Survey

11. To support this transition from purely subsistence agriculture to farming as a business, the Government of Samoa plays an important role in seeking to sustainably increase productivity under resilient, mixed-farming systems; improving market access; and promoting business partnership models that enhance small farmers' access to support services necessary for meeting market requisites. This will contribute to diversifying farming families' nutrition, income and risks, improve productivity and reduce inputs, while mitigating some of the environmental damage caused by past deforestation. It will also support a reduction in major pest outbreaks and exposure to the adverse effects of climate change and promote nutrient cycling and ecosystem services required in organic farming.

12. In the fisheries sector, 21 percent of all HHs are engaged in fisheries activities[7], with the highest rate (37 percent) in Savai'i. Home consumption is the main purpose (70 percent of those HHs in 2015). Samoa's Exclusive Economic Zone (EEZ) is the smallest in the Pacific region and a tuna longline fishery, particularly albacore, is the main offshore fishery. While tuna has traditionally been the country's largest export earner, recent years have seen a decline in the overall tuna catches, with a more than 50 percent reduction between 2009 and 2013. Transshipment operations by foreign longliners began in Apia in 2010 and as of April 2012, there were 34 such operations. Smaller domestic longliners also transship in Samoa with the target market being the cannery in neighboring American Samoa. Samoa is a party to the UN Convention on the Law of the Sea and the UN Fish Stocks Agreement. Samoa is also party to and participates in the Western Central Pacific Fisheries Commission (WCPFC) and the Forum Fisheries Agency (FFA). In 2014, Samoa signed onto the Tokelau Arrangement, a joint approach to managing the South Pacific Longline Fishery for albacore. This arrangement provides for zone-based management and national catch limits.

13. Pressure on coastal resources has occurred with destructive fishing practices such as the use of nets with small mesh size, fishing with poisonous and noxious substances, the destruction of mangrove forests, sand mining and coastal development. To a lesser extent, cyclones and natural disasters also contribute to natural resources damages. In part due to these pressures, nearshore fishing underwent a steep decline in the early 1990s, however, conservation and management measures at the national and local levels have since been put in place and their implementation is ongoing.

14. Agriculture and fisheries in Samoa are very vulnerable to the adverse effects of climate change. According the World Bank's Climate and Disaster Risk Screening Tool, this project is likely to face (i) a high level of exposure to climate and disaster hazards, notably increasing incidence of drought, violent weather events (such as cyclones), and earthquakes or tsunamis; (ii) high impact on physical infrastructure and assets as a result of those hazards; and (iii) a high level of risk to the outcomes and service delivery of the project. More on the results of the Climate and Disaster Risk Screening tool can be found under the 'Key Risks' section.

15. Climate change for Samoa is predicted to manifest in more frequent and extreme rainfall events, longer drought events, flooding, landslides, extreme winds, and high air and water temperatures. Already sea levels have risen by approximately 4mm per year since 1993 (faster than the global average), persistent dry spells are coinciding with El Nino, pelagic fish stocks are likely to shift in distribution and ocean acidification is endangering the country's coral reef ecosystems[8]. Adoption of innovative farming technologies and practices, better adapted livestock breeds (resistant to vector-borne diseases), more crop varieties and a stronger focus on sustainable fisheries management are key components in improving nutrition for Samoa and supporting farmers and fishers to be more climate-prepared and resilient.

[7] 2015 Samoa Agriculture Survey
[8] COP23 country forecast: https://cop23.com.fj/samoa/

16. The limited access to: (i) extension and veterinary services for farmers, (ii) markets, and (iii) financing services constitute the key bottlenecks to unlocking the agriculture and fishery potential in Samoa.

    a. Extension and veterinary services. Currently only one state veterinarian services the entire country's livestock needs and there is limited knowledge and available training for farmers wanting to try new or innovative practices.
    b. Access to markets. The number of facilities and infrastructure able to store or process the raw products locally is limited. In the livestock sector, the SACEP has supported the establishment of a mobile slaughtering unit (MSU). However, its utilization is growing slowly as changes in livestock producers' and butchers' behaviors and slaughter practices take time. In parallel, the construction of a static slaughtering unit (SSU) started under the SACEP will be completed under the SAFPROM. The Slaughter and Meat Supply Act 2015 (entering into force in 2019) will accelerate the hygienic slaughtering of livestock and allow for the increased access of fresh, chilled meat products to local markets, resulting in increased returns on investments made by livestock producers.
    c. Access to finance for smallholder farmers. Access to finance is constrained by the lack of adapted financial instruments, the high perceived risk of farming operations and the low financial literacy of these producers. The agriculture sector accounted for less than 1 percent of total commercial bank loans to the private sector in 2017, although the sector was about 6.5 percent of the national GDP in 2015/2016. The proportion of urban adults who own at least one bank account is 58 percent, compared to 34 percent of rural adults and only 20 percent for those relying on agricultural incomes[9].

17. In the fisheries sector, a lack of capacity and infrastructure for efficient value adding activities continue to restrict best practices. Cold storage, ice-making facilities, ramps for vessel landing and fish markets are missing or insufficient throughout the country and most of the value-adding of fish caught is done outside of Samoa (about half of Samoa's fish exports goes to canneries in American Samoa). While the establishment of a new cannery in Samoa is questionable (because of the size of the market and lack of competitiveness), opportunities exist for import substitution through pre- to post-harvest improvements to increase the value of fish products, reduce waste, maintain quality, and diversify markets towards higher value domestic markets.

18. Producer organizations have been historically weak or absent in Samoa, largely attributed to a lack of trust outside of the core family or community network. This lack of collective approach has created bottlenecks when trying to access advisory services, inputs or markets. This is changing though, particularly with successful examples, such as the Samoa Banana Growers Association which, under SACEP, has been able to export green bananas from Samoa to New Zealand for the first time in 20 years.

19. While Samoa has made significant progress in many areas of gender mainstreaming, such as becoming the first Pacific Island nation to ratify the Convention for the Elimination of Discrimination Against Women (CEDAW) in 1992 and recently passing legislation to allow special measures to increase female involvement in parliament, gender gaps persist. Overall, female labor force participation remains low, with the most recent ILO figures finding 23.7 percent female, and 40.6 percent male participation.[10] Women also make up more of the non-economically active population (55.3 percent) than men (44.7 percent). This category includes those engaged in subsistence agriculture. According to the Samoa Hardship and Poverty Study women working in the subsistence agriculture sector are the most

[9] 2015 Financial Services Survey
[10] World Bank 2019 Labor force participation rate, male (% of male population ages 15-64) (modeled ILO estimate) drawing on International Labour Organization, ILOSTAT database (Data retrieved in September 2018)

vulnerable group in the country. In line with the rest of Samoa, however, women engaged in farm work tend to have higher levels of education than men. It is also more likely that an educated farm labor force will be open to modern farming techniques and tools[11] which will be encouraged for climate-smart technologies and adaptation measures under the MGP. In the small-scale fisheries sector, women hold a very important role, particularly related to reef gleaning for fish and invertebrate (lobsters, trochus, sea cucumbers, giant clams, etc.), for commercial or subsistence purposes. Women are also important actors in the post-harvest value chain as they process fish products (drying or smoking) and sell in markets or at roadside stalls. Small-scale artisanal fisheries typically employ a significant proportion of women throughout the value chains.

20. Institutional context: The Government of Samoa (GoS)'s Agriculture Sector Plan (ASP) 2016-2020 provides the framework to guide coherent programs and actions from all key stakeholders to achieve the goal of increased food, nutrition and income security in Samoa. Under this plan, additional attention is being paid to build the institutional capacity of the Ministry of Agriculture and Fisheries (MAF) to manage the sector-wide program. A lack of data was identified as a challenge to planning and monitoring in the agriculture sector, so the MAF is working closely with the Samoa Bureau of Statistics to strengthen its data collection systems, analysis and reporting. Samoa has an Aquaculture Development and Management Plan (2013-2018), a Tuna Management Plan (2017-2021) and a Coastal Fisheries Development and Management Plan (2013-2016) - all coming to an end and lacking a comprehensive, updated and detailed strategic framework.

21. A key outcome in the ASP is to increase the supply and consumption of competitively priced, domestically produced food. Building on the achievements of SACEP, the Plan looks to extend and scale up the adoption of new technologies, strengthen farm business management skills and enhance producer linkages to sustainable and profitable markets. Improving access to productive resources, financial services and business skills particularly for women is also a key objective. Global experience has shown that increased access by women to income generating opportunities and social decision-making empowerment at the community level contributes to improved HH nutrition status.

C. Relevance to Higher Level Objectives

22. In supporting farmers and fishers to improve their livelihoods in a sustainable way, the project will contribute to Sustainable Development Goals particularly SDG 1 (no poverty), SDG 2 (zero hunger), SDG3 (good health and well-being), SDG5 (gender equality), SDG 8 (decent work and economic growth), SDG 10 (reduced inequalities), SDG 14 (life below water) and SDG 15 (life on land).

23. The World Bank Group's Regional Partnership Framework (RPF PIC9) for FY17 to FY21, which was discussed in February 2017 (Report #100997-EAP), covers nine small Pacific Island countries (PIC9), including Samoa. The RPF PIC9 identifies four areas of focus: (i) fully exploiting the available economic opportunities; (ii) enhancing access to employment opportunities; (iii) protecting incomes and livelihoods; and (iv) strengthening the enablers of growth and opportunities (macro-economic management, infrastructure and addressing knowledge gaps). Alongside this, the Pacific Eight Systematic Country Diagnostic (SCD), found very important solution areas for Samoa include increasing incomes from agriculture and coastal fishing, preventing NCDs and strengthening disaster risk preparedness.

24. The proposed SAFPROM generally supports both the RPF focus areas and the Samoa-specific solution areas in the

[11] *http://www.sbs.gov.ws/index.php/new-document-library?view=download&fileId=1845*

SCD. More commercially-viable farming practices and better access to markets will make economic opportunities available to most Samoans. Improved skills and farming infrastructure and practices will protect incomes and livelihoods in the face of natural disasters and a changing climate. Promoting the consumption of locally produced food will support sector sustainability, a healthier diet and less dependence on food imports.

25. The FY2017-20 Strategy for the Development of Samoa highlights increased agricultural production as a priority area to which the SAFPROM will contribute. The project is also contributing to the GoS' ASP 2016-2020, and its four projected outcomes, namely: (i) sector coordination improved and investments increased, (ii) increased supply and consumption of competitively priced domestically produced food; (iii) sustained increase in production, productivity, product quality, value-adding and marketing of agriculture and fisheries products; and (iv) sustainable agricultural and fisheries resource management practices in place and climate resilience and disaster relief efforts strengthened. The WB has a long-standing experience in supporting the GoS to assist smallholder producers increase their production and help them access inputs, services and markets. While it will be the first re-engagement of the International Fund for Agriculture Development (IFAD) in Samoa in two decades, the IFAD brings a lot of expertise and knowledge from other countries in community-based agriculture development, access to markets and financial services. The joint investments by the WB and IFAD will complement GoS' strategies for the benefit of the agriculture sector.

26. Fish resources are transboundary by nature and the project has benefits that will spill over national boundaries. The homogenous nature of Pacific Island Countries fish populations at the species level suggests connectivity for most species of importance to coastal fisheries. For example, tagging studies show that mahi-mahi and trevallies undergo long distance migration which is likely to extend to other pelagic species. Effective management of these stocks in Samoa will therefore contribute to the sustainability of regional stocks. In addition, Samoa's fisheries sector activities are conducted in accordance with agreed regional approaches to fisheries management. Samoa is a signatory to the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, it is a member of the Western and Central Pacific Fisheries Commission (WCPFC), a member of the Pacific Islands Forum Fisheries Agency (FFA), and a member of the Pacific Community (SPC). Samoa is also signatory of the Tokelau Arrangement (TKA)[12], a regional agreement to promote optimal utilization, conservation and management of South Pacific Albacore Tuna fishery. Samoa has also endorsed the regional approach to coastal fisheries management, the Noumea Strategy: "A New Song for Inshore Fisheries, Pathways to Change"[13]. The Noumea Strategy has been endorsed by PICs and Territories[14] in recognition of the interconnectedness of all Pacific fisheries, fish stocks, fishing communities and fishing industries. The Noumea Strategy specifically recognizes that the challenges faced in coastal fisheries management are common to every Pacific Island, and that a regional management approach is necessary. The activities to be financed under SAFPROM assist Samoa to contribute to the regional obligations and aspirations of these arrangements. Given the similarities in the fisheries sector between Samoa and other PICs, most activities developed under the project will be relevant regionally, as it will create experiences that can be adapted and transposed to other countries in the region. The project will support the enhanced management of shared fish resources such as tuna and associated species, through better engagement in regional processes and improved monitoring control and surveillance (MCS) at sea and in ports. SAFPROM activities are in line with the *"Future of Fisheries: A Regional Roadmap for Sustainable Pacific Fisheries"*, which was endorsed by Pacific leaders in 2015. While not joining the PROP Series of Projects, SAFPROM will still benefit from, and

[12] Signatories to the agreement are Tokelau, Vanuatu, Australia, Cook Islands, New Zealand, Niue, Samoa, Tonga, Tuvalu, Fiji, and Solomon Islands.
[13] Approved by the ninth SPC Heads of Fisheries Meeting, New Caledonia (March 2015) and the 93rd Forum Fisheries Committee Meeting in Tuvalu (May 2015). Endorsed by the 11th Ministerial Forum Fisheries Committee Meeting in Tuvalu (July 2015).
[14] Approved by the ninth SPC Heads of Fisheries Meeting, New Caledonia, March 2015, and the 93rd Forum Fisheries Committee Meeting, Tuvalu, May 2015. Endorsed by the 11th Ministerial Forum Fisheries Committee Meeting, Tuvalu, July 2015.

contribute to, the regional goals of sustainable fisheries management and is aligned with the PROP objectives (see Annex 4).

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

To increase the productivity and access to markets by selected producers, to improve management of targeted productive natural resources and, in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency.

PDO Level Indicators

27. In the context of the SAFPROM, "targeted productive natural resources" will explicitly refer to fisheries (not covered by the "productivity" part of the PDO to avoid risk of increased fishing pressure) and mixed tree-crop farming systems (notably cocoa and coconut on the Savai'i island). This will contribute to the overall climate-resilience of these production systems (stated as an objective of the ASP 2016-2020 reflected in the SAFPROM Theory of Change).

28. The PDO level Indicators include:
    - Increased productivity for targeted beneficiaries, in targeted value chains, for crops and livestock, measured by (i) increased yields of selected crops (Chinese cabbage, tomatoes, bananas, cocoa wet beans); and (ii) increased lambing and calving rates and pigs weaned per sow per year;
    - Improved access to markets for targeted beneficiaries, in targeted value chains, measured by increase in the value of sales of selected crops and livestock producers;
    - Improved management of productive natural resources, measured by (i) number of targeted beneficiary fishers adopting new technologies or practice for improved sustainable fisheries; and (ii) number of Community-based integrated land management plans for mixed tree-crop farming systems completed and implemented; and
    - Number of direct beneficiaries, gender-disaggregated with a minimum of 30 percent of female.

B. Project Components

29. The SACEP (closed in December 2018) has demonstrated how investments in public infrastructure (Mobile Slaughtering Unit, Tissue Culture Laboratory) and access to finance for smallholder farmers (matching grants and Development Bank of Samoa (DBS) loans) can start transforming the agriculture sector in a country like Samoa, by contributing to import substitution and generating a more commercially-oriented sector. The government of Samoa plans to build on these achievements and take advantage of the opportunities they presented. The SAFPROM has been designed using the foundations laid by the SACEP with the major objective of consolidating them.

30. Through its objectives of increasing crops and livestock productivity, access to markets, as well as improving the management of targeted fisheries and mixed tree-crop farming systems, this project will contribute to: (i) import substitution and increase the supply and consumption of domestically produced food; (ii) boosting exports of selected commodities, and (iii) strengthening resilience of farming and fishing households to climate change and climate-induced disasters (cyclones, heavy rains, prolonged dry seasons, flooding/land slices). It is proposed that

SAFPROM will have four components. Sub-component 1.2 on shared fisheries management and grants under the matching grant program (MGP in sub-component 2.2), as well as the contingent emergency response component (component 4) will be 100 percent financed by IDA. All other components will be equally split between IDA and IFAD at IDA 71.5 percent / IFAD 28.5 percent, or at other percentage as may be otherwise specified in the Disbursement and Financial Information Letter (DFIL).

31. **Component 1: Strengthening National Institutions (IDA - US$9.31 million (national IDA: US$5.12 million - regional IDA: US$4.19 million) and IFAD Grant – US$1.35 million).** This component will aim at creating an enabling environment for increased productivity and access to markets for target farming and fishing households and private sector along the targeted value-chains (inputs suppliers, agro-processors, etc.). It will address institutional capacity gaps both within MAF and national producers' organizations and stakeholders, through the implementation of a training and capacity building plan developed on the basis of an *agriculture sector and MAF skills gap assessment* conducted during SAFPROM preparation. The capacity building plan includes elements to integrate climate adaptation into agriculture, fisheries and food security policies and broader development planning, extension methodology and technical approaches to climate resilient mixed tree-crop farming systems. To encourage more female farmers/fishers, the Component will also work with groups, including the Samoan Women in Business Development Inc., Samoa Farmer's Association and Samoa Women's Association of Growers, to identify gender-specific constraints and activities to mitigate them.

    a. *Sub-component 1.1. - Institutional capacity building for crops and livestock (IDA – US$3.39 million (national IDA – US$3.15 million and regional IDA – US$0.24 million) and IFAD Grant – US$1.35 million).* This sub-component will implement short and long-term training and capacity building plans for the MAF and national producers' organizations and support the review of regulatory and policy frameworks in targeted value-chains, notably on climate-smart agriculture, livestock and crop extension and veterinary services. It will notably: (i) support Samoa in becoming a member of the World Organization for Animal Health (OIE - including financing membership fees), which will build Samoa and MAF's veterinary capacity for the early detection and better control of animal diseases; (ii) strengthen Samoa capacity to participate in international fora, (iii) help develop or enhance national standards affecting the capacity of Samoan agricultural products to reach specific high-value markets; (iv) provide support for carrying out household surveys on consumption to strengthen data around nutrition and markets; and (v) support the rehabilitation of the MAF infrastructure, including the MAF office on Savai'i and the construction of a small veterinary laboratory staffed with a fulltime veterinary assistant.

       For this, this sub-component will work closely with producers' organizations, build their capacity (training, platform, registration) and strengthen public-private policy dialogue. The sub-component will also support applied research programs. Finally, regarding community engagement in more sustainable tree-crop farming systems, this sub-component will promote resilient farming systems and inclusive value chains at village level, by supporting the GoS' program for district development planning and using established channels of communication and community engagement.

    b. *Sub-component 1.2 - Strengthening management of the region's shared oceanic and coastal fisheries (IDA – US$5.92 million (national IDA – US$1.97 million, regional IDA – US$3.95 million)).* On fisheries, this sub-component aims to strengthen management of Samoa's shared oceanic and coastal fisheries resources and promote climate resilient fishing communities through investment in five areas: (i) strengthen monitoring, control and surveillance (MCS) of oceanic and coastal fisheries; (ii) strengthen Samoa's engagement in regional and international fisheries fora and formal fisheries negotiations; (iii) strengthen Samoa's National Observer

Program; (iv) strengthen Samoa's capacity to export fish and fish products; and (v) promote sustainable coastal fisheries through strengthening existing and development of new Community-Based Fisheries Management Plans (CBFMP) and aligning them with the Regional Roadmap for Sustainable Pacific Fisheries. Component activities will aim to enable individuals and institutions at the national and local level increase profits and improve management and governance of coastal resources and improve oversight and value of oceanic fishing activities within Samoa's EEZ including enhancing transparency in transshipment related services.

Specific investments to be financed under this sub-component will include: (a) feasibility, assessment and design studies to identify the necessary activities; (b) implementing short and long-term training and capacity building plans; (c) the development of a National Fisheries sub-sector Policy (including its regional dimension) that will integrate climate change adaptation and mitigation, and will inform the next Agriculture Sector Plan, as well as carrying out training and supporting the review and update of the Recipient's legislation and procedures to ensure that all fisheries monitoring, control and surveillance and related enforcement activities carried out by the Recipient are compatible with international law; (d) development and implementation of strategies to enhance competitiveness of the domestic longline fleet; (e) strengthen Samoa's capacity to participate in regional and international fora, by supporting broader and deeper engagement in the Western and Central Pacific Fisheries Management Commission (WCPFC), Forum Fisheries Agency (FFA) and the Pacific Community (SPC) regional dialogue and meetings to strengthen Samoa's negotiating capacity in the sustainable management of shared oceanic and coastal fisheries resources in view of climate change; (f) strengthen existing and develop new CBFMP; and (g) rehabilitate the existing hatchery facility in Apia. This sub-component will also invest in: (h) supporting the rehabilitation of the Fisheries Division's MCS office in Apia. Further, it will invest in (i) carrying out the following activities to support fisheries activities in the Recipient's territorial sea:

- upgrading equipment and software relating to the Recipient's fisheries information management systems and strengthening human resources skills on monitoring, control and surveillance;
- improving data collection through e-monitoring and e-reporting; and
- potentially replacing, maintaining and/or operating MAF's vessels, should the economic analysis reflect a robust investment and adequate recurring operation and maintenance budget in the MAF's annual budget;

(j) supporting fisheries monitoring, control and surveillance activities in the Recipient's exclusive economic zone through provision of pro rata share of fuel costs for conducting joint (unarmed) regional patrol operations and boarding inspections; (k) strengthening capacity of the monitoring of fishing activity by observers and (l) carrying out the activities listed in part (i) above to support fisheries activities in the Recipient's exclusive economic zone. These activities will all be carried out in tandem with the broader set of oceanic and coastal fisheries activities supported by other Pacific Island countries engaged in the Bank-financed PROP. Implementation of the activities (j), (k) and (l) will be conditional upon the Samoa fisheries laws and regulations being consistent with the provisions of Article 73 of UNCLOS.

32. **Component 2: Strengthening the performance of selected value-chains (IDA - US$8.25 million (national IDA: US$6.97 million - regional IDA: US$1.28 million) and IFAD Grant – US$1.29 million).** The objective of this component is two-fold: (i) increasing on-farm productivity in Fruits & Vegetables (F&V), tree-crop and livestock farming households who wish to upgrade to semi-commercial status and promoting sustainable fisheries options for fishing households and organizations, and (ii) strengthening linkages between those farming/fishing households and other value-chain actors, including input suppliers, agro-processors and traders. The component will have two sub-components: (i) the first sub-component will support the rehabilitation or construction of infrastructure for which

feasibility studies have demonstrated that they help structuring the value-chains, and (ii) the second sub-component will offer matching grants through two windows:

a. *Sub-component 2.1 - Public Good Infrastructure (National IDA - US$1.79 million and IFAD Grant: US$0.72 million).* This sub-component will finance feasibility, assessment and design studies to identify the necessary activities; and subject to the outcome of such studies the development and improvement of infrastructure and equipment of a public good nature. It will include the completion of the Static Slaughter Unit (SSU) and an associated waste rendering plant to produce high-protein animal feed, started under SACEP. Based on the model established under SACEP, it will support feasibility studies, works and equipment of key collective infrastructures that have been identified as bottlenecks for the development of the sector. These feasibility studies will include strong consultation with private sector, to ensure there is no unfair competition and assess the private sector's appetite to be involved, either through attracting co-financing or managing the facility. In Savai'i, for crops, it includes the rehabilitation of the F&V packhouse that was destroyed during Cyclone Evan in 2012. For mixed tree-crop farming systems, and to improve access to planting materials and to markets in Savai'i, the sub-component shall also include the rehabilitation of small feeder roads to upland farms; the establishment of strategic field nurseries (for cocoa and coconut seedlings) with associated rainwater harvesting structures; and the installation of improved crop drying facilities at market aggregation points to assure quality control in particular for niche export products. In the fisheries sector, planned infrastructure and large assets to be financed by the Project include the construction of two new public cold storage facilities at the fish markets in Upolu and Savaii. This sub-component will also finance supervision of activities carried out under this sub-component.

   All infrastructures will be built or rehabilitated using disasters-resilient standards and materials that are more resistant to cyclones and other disasters. Prior to any investment, feasibility studies will be conducted that will assess the social, environmental, financial, and economic feasibility of the investment, as well as propose facility management mechanisms (including, for example, through public-private partnerships).

b. *Sub-component 2.2: Matching Grant Program (IDA - US$6.45 million (national IDA: US$5.17 million and regional IDA: US$1.28 million) and IFAD Grant – US$0.58 million).* The MGP will provide technical assistance and grants to support activities and investments which aim to: (a) help farmers to increase their on-farm productivity and fishers to improve the management of their fishery resources; and/or (b) enhance market linkages and/or business relations for target farmers and fishers with other value chain actors. It will comprise:

   (i) Small grants targeting about 700 individual subsistence and semi-commercial farmers and fishers to improve their productive activities for commercial purposes. A specific attention will be given to proposals coming from youth and women. This window will build on the SACEP MGP for its implementation. Priority will be given to farmers who received training during implementation of SACEP but did not access matching grants, as well as others new to the program such as fishers, fish farmers and mixed tree-crop farmers. To be eligible, investments under this first window should include the introduction of innovations (technologies or practices), among a list of available and adapted technologies and practices that will be outlined in the MGP Operating Manual. For farmers, this list will build on climate-resilience research begun under SACEP, such as field trials to improve livestock and crop production and improve the availability and variety of nutritious food products. The MGP will notably give priority to those innovations that promote climate-smart agriculture. These possibly include climate-change mitigation (intensification of livestock production, pasture management, improved feeding rations and practices using local products); and adaptation (by promoting inter alia poly-tunnels to protect crops against heavy rains, water collection and small-scale irrigation to cope with prolonged dry seasons, resilient multi-tiered tree crop canopies and introduction of new drought resistant crop varieties). For fishers, this window could allow for upgrading of fishing vessels to improve safety standards (using the Pacific regional harmonized approach) and

post-harvest capability or fuel-efficient practices/gear, funding for Occupational Health and Safety (OH&S) equipment (Pacific regional standards), vessel modifications, fishing gear that comply with regulations for sustainable fisheries management and do not increase fishing pressure, or 'grab bags' to improve safety at sea for fishers. However, these criteria will be assessed during implementation so as to be able to determine if further improvement is needed to ensure effective implementation and increase likelihood of achieving the intended results. In order to reduce fiduciary risk and improve efficiency, and unless agreed in writing between the GoS and the World Bank (WB), the window will be implemented through an E-voucher system, adapted from the Agriculture & Fisheries Cyclone Recovery project (AFCRP) to fulfill GoS' pre-auditing requirements and accounting system; and:

(ii) Larger grants for about 25 producers' organizations (registered groups and cooperatives) to establish or strengthen the market linkages. Micro, Small and Medium Enterprises (MSMEs) that demonstrate contractual arrangements with subsistence/semi-commercial farmers/fishers as their business partners will also qualify for this 2nd window. It aims to support capital investments and specific training and Technical Assistance needs (as identified in the business plan) for groups and MSMEs. Examples of such target investments could include (but not limited to) equipment for post-harvest conservation (ice machine for fishers' groups), equipment for processing F&V or facilities for livestock feed production (mills or mineral lick blocks). For coastal fisheries, it will provide the opportunity to strengthen the implementation of the CBFMP, that notably supports climate-resilient practices including stock enhancement programs, no-take reserves and alternative livelihood options such as eco-tourism.

33. The MGP will carefully select the grant recipients from eligible beneficiaries to maximize the impact of the investments. As such, the overall selection criteria will focus on existing/expected market linkages and strong commitment of the grant beneficiaries to commercial production, among others. In addition to the grant, the technical divisions of MAF, SBEC and agribusiness specialists from the project will offer tailored technical assistance support to improve beneficiaries' production skills as well as linkages with the buyers, especially for the grant recipients of the second window. Both windows will target 30 percent of female farmers/fishers and will work with local organizations, such as the Samoan Women in Business Development Inc., Samoa Farmer's Association and Samoa Women's Association of Growers to tailor outreach and support.

34. Under both windows, a minimum contribution from the beneficiaries will be required (percentage to be determined in the MG Operating Manual) which will be covered by the grant recipients and/or bank loans. The Development Bank of Samoa (DBS) and commercial banks will be invited to review the grant-supported investments for their loan appraisals. As in the SACEP, such loans will be guaranteed by the Small Business Enterprise Center (SBEC). Partial guarantees will be encouraged according to the international best practices of the credit guarantee schemes.[15] Among other technical support to the grant beneficiaries, the project intends to provide financial literacy training and facilitate the access to financial services by the project beneficiaries. In this context, support to the financial institutions including technical assistance will also be provided by the project.

35. Operational procedures and details for the MGP (including the grant sizes under the two windows; the percent matching contribution required from beneficiaries; eligibility criteria; and conditions for the grant and eligible expenditures) will be described in a detailed Matching Grant Operating Manual that will constitute a disbursement condition for sub-component 2.2 once the project is effective. A full review of the MGP will be conducted two years after project effectiveness to assess the overall implementation progress, performance and the efficiency of the

15 World Bank. 2015. "Principles for Public Credit Guarantee Schemes for SMEs". One of the principles is risk sharing between the lenders, borrowers and the guarantors.

implementation arrangements, and make any necessary modifications, if necessary, subject to mutual agreement by both the Government and the World Bank.

36. **Component 3: ASCD establishment and project management, M&E and communications (IDA – US$2.40 million (national IDA – US$1.87 million and regional IDA – US$0.53 million) and IFAD grant – US$0.96 million).** As part of a government request for centralized project support, this component will support the establishment of the Agriculture Sector Coordination Division (ASCD) to sit within MAF, which will be staffed by a Sector Coordinator at Assistant CEO level, and four Principal Officers for Financial Management, Procurement, Monitoring & Evaluation and Safeguards. The ASCD will coordinate the SAFPROM implementation, collaborate with the other relevant MAF Divisions and will support the coordination of other development projects in the sector. The ASCD will be the core division responsible for the overall coordination of the project's implementation including the day-to-day project activities, compliance with the provisions of the Financing Agreement and government policies and guidelines, project administration, preparation of grant withdrawal applications, and maintenance of records[16]. The ASCD (and notably the M&E Principal Officer) will ensure the monitoring of project's activities and coordination of reports from agencies, organizations and beneficiaries that will be part of the SAFPROM execution. The ASCD will be absorbed into MAF operating costs during SAFPROM implementation, becoming a sustainable coordination division for future projects, the implementation of the ASP 2016-2020 and the development of the next ASP (2021-2025) together with the Policy and Planning Division.

37. To ensure knowledge dissemination, support Citizen Engagement, increased uptake of the MGP, and spur more demand for locally produced, high-quality produce, the ASCD will also carry out a range of communications activities. These may include, but are not limited to, radio shows/interviews, media articles and press releases, TV documentaries and short videos, as well as social media outreach through both national and World Bank Pacific channels. These will keep the general public aware of project activities and progress, and more targeted campaigns will encourage certain behaviors such as improved nutrition (building on the 'Eat a Rainbow' campaign done under SACEP with the Ministry of Health (MoH), encouraging kids and schools to eat F&V from all the colors of the rainbow).

38. **Component 4: Contingency Emergency Response (CERC - Total Cost: US$0).** Following an eligible crisis or emergency, the Recipient may request the Association to re-allocate project funds to support emergency response and reconstruction. This component would draw from the uncommitted grant resources under the project from other project components to cover emergency response. A CERC Project Operations Manual, acceptable to the Association, for the implementation of the Contingency Emergency Response Plan, will be prepared and constitute a disbursement condition for this sub-component.

Strategic Alignment:

39. **Citizen Engagement.** Taking into account beneficiary needs and feedback will be an important part of SAFPROM, particularly under the MGP, where farmers and fishers are expected to take the lead in developing their business plans. For public infrastructure, pre-feasibility studies will include extensive consultation with potential beneficiaries through focus group discussions and even participatory planning, notably on fisheries related ones. The project's communication and outreach strategy and tools will also support effective citizen engagement. The ESMF has included consultation with key project stakeholders to provide information on the proposed project, the potential social and environmental risks and has contributed to overall project design. SAFPROM will ensure that citizen engagement during implementation is effective and monitor whether beneficiary feedback is indeed considered. The

16 While WB is funding Safeguards and Procurement Principal Officers, they will be only work on WB-financed agriculture projects. More details are in III. Implementation Arrangements.

Result Framework includes two intermediate indicators: (i) Beneficiaries that feel project investments reflect their needs (disaggregated by gender), which will be informed by satisfaction surveys conducted at key project delivery intervals; and (ii) Grievances registered related to project delivery of project benefits that are addressed (disaggregated by gender).

40. **Climate change and Co-benefits.** Samoa, like many PICs, is facing rising vulnerability from climate change. Increasing periods of drought during and outside the dry seasons, intensive wet seasons (affecting farmers without greenhouses) are already impacting the agriculture sector and ocean acidification is also affecting Samoa's fisheries. SAFPROM investments in the agriculture and fisheries sectors will need to adopt 'climate smart' practices, and mainstream a disaster risk reduction approach, to reduce the vulnerability of rural communities. The pasture forage supplies for ruminant livestock is one example. Estimated pasture forage supplies were calculated at decrease to 30 percent of optimal yield during long periods of drought, leaving an only limited safety margin. With increasing cattle and sheep populations, these deficits will increase over time. Three interventions will be required to counter this trend: (i) pasture improvement to increase yields on existing pasturage, (ii) introduction of new, drought-resistant forage and legumes, and (iii) measures to ensure dry-season forage supplies though the planting of fodder banks for sheep and developing addition feed by-products from existing plant materials. As stated above, and to encourage further farmer and fisher-led adoption of improved practices and technologies, the MGP will include stricter conditions for investments, requiring level of innovation and climate-resilience.

41. SAFPROM proposed interventions are also designed to maximize mitigation potential. GHG accounting (see Annex 6) demonstrates that the project can constitute a sizeable net carbon sink of slightly over 40,000tCO2 eq per year over 20 years, thus −803,000tCO2 eq in total, mainly due to sustainable land use change, the introduction of improved management practices in existing grasslands and agricultural management practices such as water conservation techniques (especially for perennials crops). On the contrary, sources of GHG emission are: (i) the increase livestock herd size, despite better productivity, and (ii) the increased fish catches, even if more sustainable and with lower post-harvest losses.

42. **Nutrition.** Samoa's growth is constrained by high instances of obesity and non-communicable diseases, with more than 40 percent of deaths the result of diabetes, stroke and heart disease. Food and live animal imports remain significant and these low-cost, low-quality imports often crowd-out local produce. The SACEP initially included activities targeting improvements of Samoan diets and while the SACEP Market Survey has shown reasonable success in import substitution for beef, continued efforts for both market supply and dietary change is needed under SAFPROM. While diversifying the production at farm level contributes to availability of more diversified food, it is alone insufficient to drive changes in HHs' consumption behavior. Intensified communication and awareness campaigns about the importance of consumption of local products, and their impact on nutrition will therefore be conducted under SAFPROM. To align with the MoH strategy, close collaboration will take place with the IDA-funded Samoa Health Systems Strengthening Program, currently under preparation, to:

    a. Co-finance vegetable gardens in the primary schools with MAF providing a coach and support to the school staff, students and parents to maintain the garden, while MoH and Ministry of Education, Sports and Culture (MEST) will drive the education and communication associated with consuming these gardens' produces.
    b. Co-finance a household/consumer survey on consumption of tobacco, alcohol, unhealthy food, vegetables and healthy local agriculture products, from which behavior-change communication priorities will be developed and monitored during project implementation. SAFPROM will specifically ensure that the survey sample includes rural and agriculture-based HHs, notably some supported by the project.

c. Finance a socio-economic study for coastal fisheries to enhance understanding of the use and consumption of marine resources by HHs.

43. **Maximizing Finance for Development**. Through the MGP the project will leverage private sector investment from individual farmers/fishers, producers' organizations and MSMEs, to match their commitment for improved farming/fishing practices, innovative and climate resilient technologies and tools and, where appropriate, supporting private investment that have public good nature (e.g. food safety through food processing units or cold storage facility).

44. While these are some areas the project will promote increased private sector engagement in the near-term, there is also a strong rationale for short-term public-sector investments, in order to support longer-term private investment in the farming and fisheries sectors. It will therefore complement existing efforts to build this engagement, including upgrading policy and regulations to make them more conducive to the private sector.

45. Agriculture and fisheries are often 'risky' business pursuits due to uncertain cash flow and production, particularly in the face of climate change. To 'de-risk' farmers and fishers moving into more commercial activities, the project will support innovations in climate-smart techniques and tools, to support more stable and predictable returns. These investments will generally be new and unfamiliar, so public support will encourage their initial uptake.

46. Value chain analyses will be done for fisheries, crops and livestock to determine gaps and end market needs. The analyses will acknowledge that these are not stand-alone sectors, but that they are also dependent on outside infrastructure and environmental factors such as roads, airports, seaports, boat ramps and government policies. They will help inform where public investment is of most value, but also identify opportunities to encourage private investment through better incentives or a reduction in transaction costs. One example of this recommended in the agricultural value chain is strengthened food safety systems, which was started in SACEP through establishing the MSU and will be continued in SAFPROM with the completion of a SSU. This public investment will reduce the risk associated with local meat and encourage private investment through the rental of its use. End markets and suppliers rely on having raw material (meat, crops or fish) that is dependable and of a high enough quality.

47. While SACEP focused on individual farmers for the MGP, SAFPROM will also allow producers' organizations to access the MGP for larger-scale investments. Through this window, the project will reduce private sector investment risk by subsidizing new technologies and allowing 'market pull' to determine the investments. Commercial finance will be increased by supporting interested farmers, fishers and producer organizations to access credit through the Development Bank of Samoa and/or other commercial banks to cover their portion of the matching grant.

48. Using the WBG's endorsed MFD flowchart decision matrix, the following public-sector interventions were identified to enable the private sector to grow:
    a. *Input supply* – quality and efficient regulatory oversight of inputs and input markets including seeds, machinery, agrochemicals and fertilizers – and generating demands from the farmers as an incentive for private inputs suppliers to develop their market and make innovative technologies and inputs available. This will be done through prioritization of climate-smart and innovative technologies being used by the MGP farmers and cooperatives. Business Plans will be a key component of the matching grants, supporting farmers to identify key inputs needed and show the demand to private-sector suppliers.
    b. *Production* – investing in increasing smallholder / SME productivity, quality and diversification opportunities. The project will support the development of semi-commercial operations and the improvement of quality

produce. This, in turn, will enable a more reliable supply for the private sector, including supermarkets, butchers, and hoteliers.

c. *Processing and Post-Harvest Handling* – providing training and support. With a focus on quality and access to markets, the project will increase the demand for quality post-harvest processing and handling, creating an opportunity for private-sector activities. The second window of the MGP will absorb part of the risk associated to develop the value-chain and establish private agro-processing and marketing operations.
d. *Distribution and Marketing* – linking smallholder producers to urban markets through the value chain and creating export opportunities by establishing missing links (producers' organization organizing their marketing or SMEs engaging into contractual arrangements with producers).
e. *Leveraging commercial finance for agriculture and agribusiness operations* – The MGP beneficiaries will be required to self-finance or use bank loans to cover a percentage (final amount to be determined through the MGP Operating Manual) of the eligible investment costs. The project will engage the Development Bank of Samoa and commercial banks in the MGP process to mobilize additional financing that would help increase the sustainability of the project impact.

C. Project Beneficiaries

49. **Direct beneficiaries**. According to the 2015 Samoa Agriculture Survey, over 28,000 HHs are engaged in agriculture or fisheries, but only about 5,500 are defined as "*farm households*" (HH with main source of income being growing crops, raising livestock or fishing) and slightly over 1,000 are producing for sale. The direct project beneficiaries ("selected producers" from the PDO) will include those livestock, crops and fishery producers and processors moving towards more commercial operations. The project will also support appropriate producers' organizations and MSMEs in the farming and fishing subsectors and their value chains, to improve the productivity and linkages to markets.

50. For the purposes of the project (using 2012 Cyclone Evan Post-Disaster Needs Assessment (PDNA)'s definition), *subsistence* farmers/fishers are HHs that produce for home consumption but do not sell; *semi-commercial* produce largely for home consumption but also sell small amounts in the market; and *commercial* producers produce primarily for sale either in local markets or for export. The project will primarily target those *subsistence* or *semi-commercial* smallholder producers motivated to become commercial. With an estimated 1,500 farming or fishing HHs and value-chainactors that will benefit from the project, notably through the two windows of the MGP, the project has the capacity to positively impact the agriculture and fisheries sectors and benefit a significant share of semi-commercial farming and fishing HHs.

51. Finally, the entire MAF and other key partners will benefit from the project. SAFPROM will operationalize the establishment of the ASCD in MAF which will coordinate the Government's program and agriculture sector initiatives from all development partners. Secondly MAF staff will benefit from the implementation of a capacity building and training program developed on the basis of a capacity assessment and gap analysis. Training of subject-matter specialists (entomologist, pasture management expert, veterinarian – as per identified need) will strengthen the Ministry's service delivery and thus indirectly benefit all farming and fishing HHs in the country.

52. **Gender.** While there are traditional male/female roles in the production cycle, agricultural labor in Samoa is usually shared. The exception is fishing, where women and older men glean the lagoons and inner reefs while younger men fish the outer lagoons, reefs, and sea[17]. Women also take an active role in various fisheries activities, including

[17] Samoa Post Disaster Needs Assessment (2013)

aquaculture (such as sea grapes), fish trade, surveillance of fish reserves, functioning of community associations, or in tourism activities. At the HHs level, and while many men and women undertake similar subsistence tasks, their time allocation and roles are often different. A recent gender assessment[18] found the top two subsistence activities for women were the production of clothing/furniture and collecting water and firewood, while for men they were construction/repair work and farm production, the latter of which is more likely to be income generating.

53. Female labor force participation remains approximately half that of male's and, in the agricultural sector, women are predominantly involved in F&V farming, which is not as well remunerated as livestock and fishing. Across this sector, gender disparities vary in magnitude, but are consistently found in farm and land ownership, as well as in women's lack of visibility in agricultural decision making.

54. Under the SACEP, a clear difference was found in the proportion of female versus male semi-commercial or commercial farmers, compared to the proportion of subsistence farmers in Samoa. While 30 percent of subsistence farmers are female, only 20 percent of semi-commercial and commercial farmers participating in SACEP were female. Breaking it down further by commodity, for cattle, the gender gap was the most extreme, where just 14 percent of cattle farmers were female, compared to fruits and vegetables where 37 percent were female. This is consistent with findings from the *Samoa Country Gender Assessment of Agriculture and the Rural Sector* which argues that recognizing, formalizing and strengthening women's role in agricultural production, processing and selling is key to growing the sector sustainably [19]. Accordingly, the project will pay special attention to women headed households in all intervention areas, including capacity building and skill development trainings which will help them to participate and benefit from the project. A targeted approach will be taken to increase the number of women participating in the MGP through cattle, sheep and piggeries, in order to reduce the gap that currently exists in female-led/managed semi-commercial and commercial agricultural activities, as well as a gap in potential earnings. A minimum of 30 percent of individual MG will be attributed to female farmers/fishers to help them upgrading from subsistence to semi-commercial and from smaller to larger local markets as well as export-oriented commercial farming/fishing. The project will continue to work with the Samoan Women in Business Development Inc. and other relevant women's business incubators and NGOs to ensure the appropriateness of activities and support outreach to female farmers.

55. The *Samoa Country Gender Assessment of Agriculture and the Rural Sector* also provided the following recommendations for improved gender equality in agriculture, notably: (i) institute the first in a four-step process for gender mainstreaming within MAF, (ii) selected staff receive training in gender mainstreaming and develop action plans, (iii) introduce a gender focal point, (iv) prioritize increasing women extension officers as outlined in the ASP to ensure more women have access to women extension officers, (iv) encourage more young women to develop careers in agriculture, and (v) work with the Samoan Farmers Association to provide support to women farmers who wish to develop floriculture businesses. In particular, SAFPROM will contribute to recommendation (iv) *Encourage more young women to develop careers in agriculture*, which is aligned with the MAF ASP's target of increasing women's engagement in agriculture and rural livelihoods. The desired results include increased capacity among rural women to run successful chicken farming enterprises; improved skills and knowledge in fruit growing, processing, preservation, business enterprise and marketing; and increased capacity to develop viable small-scale fisheries value added and marketing enterprises.

[18] Samoa Country Gender Assessment of Agriculture and the Rural Sector, June 2018 (Ref. SAP 2017/37)
[19] This report is currently in draft and has been produced by the Pacific Community (SPC) with support from IFAD.

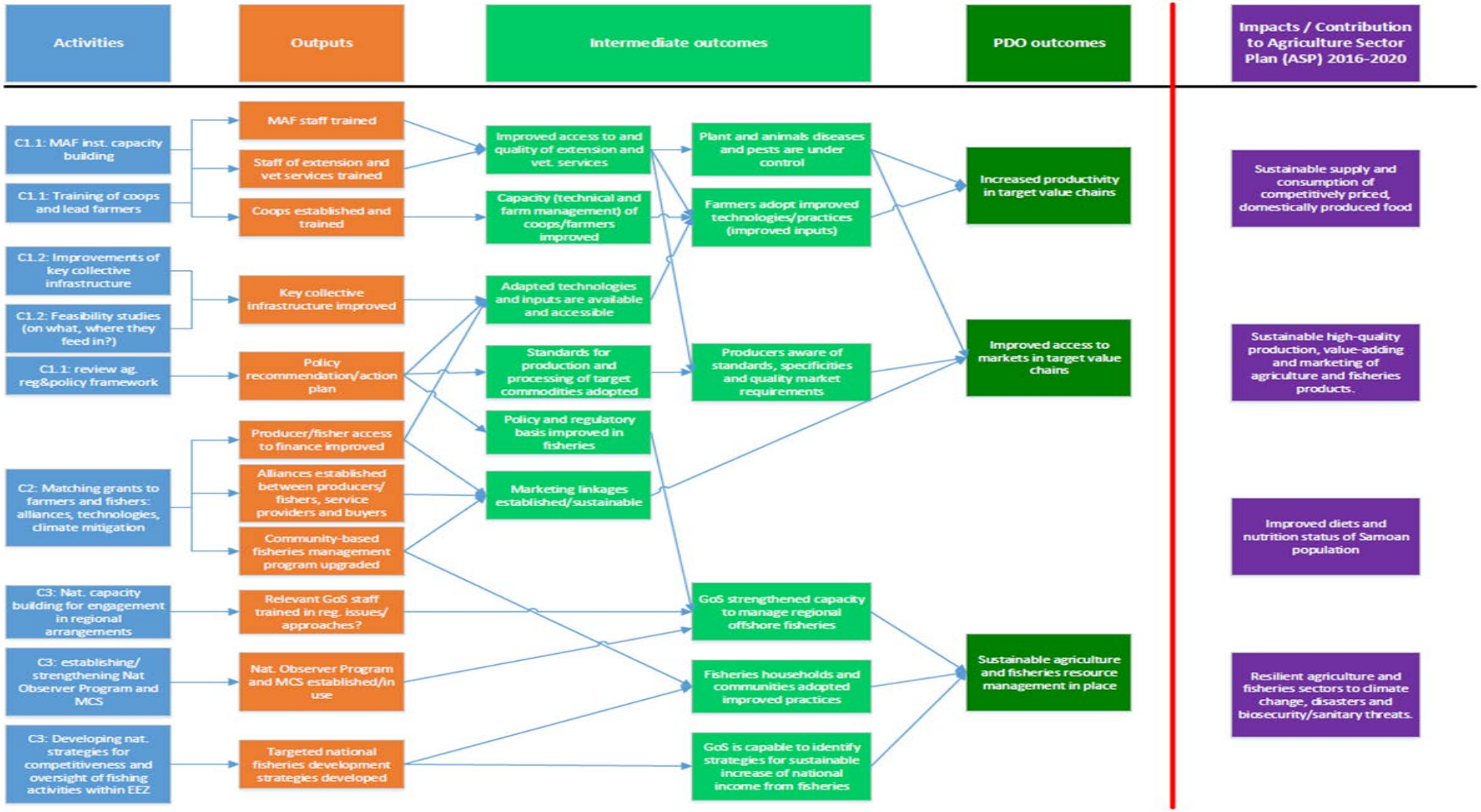
Gender gap	Activities	Measurement
The difference between female-male led/managed agriculture or fisheries activities on a subsistence level (30:70), compared to a semi-commercial or commercial level (20:80). This gap is particularly apparent in livestock, where remuneration is higher.	(i) Training on business plan development, commercial agriculture, productivity gains, market access, cooperatives management focusing on women (ii) Awareness activities about the MGP focusing on women (iii) At least 30 percent of MG attributed going to women-led farms.	Increased ratio of women in semi-commercial and higher-value agriculture or fisheries activities within project areas. Baseline: 20 percent (based on women-led projects supported under SACEP) Target: 30 percent

56. **Scope: Target Value Chains and geographical coverage.** Given the size of the country, the geographical coverage of the SAFPROM will consolidate the model of the SACEP and remain national, using a demand-driven approach, notably for the MGP. The SAFPROM will continue to focus on livestock and F&V – with the new addition of the fisheries sub-sector and mixed tree-crop farming systems, notably cocoa and coconut in Savai'i, which is made possible through the IFAD co-financing. Options to expand the scope of the SAFPROM to additional commodities such as taro or other cash tree crops (coffee) was explored during preparation. However, given the presence and involvement of other development partners in similar or identical areas (notably the UN agencies, the Ministry of Foreign Affairs and Trade (MFAT) New Zealand, the Department of Foreign Affairs and Trade (DFAT) Australia, China, and the European Union (EU)), and the agreed objective of the SAFPROM to consolidate results from the SACEP, the decision was taken not to include them. In the crop sub-sector, high-value spices and honey value-chains may be included, as they are a diversification option for F&V and mixed tree-crop farming systems producers using the same production systems. During preparation, value-chains analyses were undertaken to point out the existing gaps in the value-chains and clearly assess the markets' opportunities.

D. Results Chain

57. The development of the project's Theory of Change (see next page) and experience from the SACEP have clearly demonstrated that some conditional outcomes will be required to contribute to the goals stated in the Samoa ASP and achieve the proposed PDOs of increased productivity and access to market and sustainable productive natural resources (fisheries and mixed tree-crop farming systems) management. These crucial intermediate outcomes are notably: (i) controlled plant and animal diseases and pests, (ii) better adoption by farmers and fishers of innovative technologies and practices, (iii) stronger linkage between farmers and the markets through these alliances and better understanding by the farmers of markets' requirements, and (iv) more adapted policy and regulatory framework. These expected outcomes will be addressed through the proposed activities under the three components.

SAFPROM's Theory of Change



E. Rationale for Bank Involvement and Role of Partners

58. The GoS has identified increased agricultural production as a priority area in the FY17-20 Strategy for the Development of Samoa. The Government plays a critical role in providing access to capital for higher-level technologies through the MGP, which farmers would usually find challenging directly through banks. The Government is also well placed to provide a conducive environment for better market linkages at the national, regional and international levels and will target activities to include women.

59. Through SACEP, on which this project will build, the WB has experience in supporting agriculture in Samoa, particularly through the matching grants program and enhanced linkages to markets, as well as the use of eVouchers which were undertaken through the AFCRP. The WB also has experience in developing and implementing agriculture and rural development projects in Papua New Guinea and Solomon Islands, and fisheries projects throughout the region.

60. With GoS endorsement, this project will be joint a World Bank-IFAD investment, bringing increased benefits to the government and project beneficiaries. Combining project activities will reduce the workload and simplify the process for the government, and IFAD's worldwide experience with community agriculture and linkages to markets and finance will support the beneficiaries. SAFPROM will be the first IFAD engagement in Samoa for 20 years, so working with an established project structure and an institution with a strong relationship with the GoS, will provide a smoother entry point.

61. The WB and IFAD have established a good dialogue with development partners already supporting the agriculture and fisheries sector in Samoa, particularly the Food and Agriculture Organization of the United-Nations (FAO - and notably its recently delivered *Global Action Programme on Food Security and Nutrition in Small Island Developing States*), DFAT, ACIAR, and the Chinese Government. This will allow the new project's design to be built on complementarities with others, using each development partner's comparative advantage.

62. A new project being carried out by ACIAR, the *Improving small ruminant production and supply in Fiji and Samoa*, represents a valuable opportunity to share knowledge and lessons learnt. The four-year project will start in 2019 and will focus on sheep and goats in the two countries, aiming to address constraints of low on-farm productivity for local sheep and goat meat producers that could be very relevant for SAFPROM beneficiaries.

F. Lessons Learned and Reflected in the Project Design

63. **Matching Grants Program (MGP)**. The design of the MGP benefitted strongly from the experience and lessons learnt from the past World Bank projects[20] and the SACEP grant assessment and disbursement process. While successful overall, some areas of improvements which have been identified from the SACEP MGP include: (i) The lack of good information sharing between MAF, SBEC and DBS which led to duplication of effort and inefficiencies; (ii) The grant disbursement process, which was based on advancement of cash to farmers for subsequent acquittal of expenses, lacked transparency and control, and led to significantly increased follow up effort and some defaults on grant agreements detected late.

[20] The best practices and lessons learned are extracted from: World Bank. 2017. "Lessons learned from World Bank projects using matching grants", and World Bank. Forthcoming. "How can matching grants in agriculture facilitate access to finance? - learning from the World Bank Group's experience with matching grants for agriculture."

64. Therefore, and with respect to (i), a coordinated approach to information collection and management will be agreed between the three agencies and a common platform based on the project Management Information System (MIS) be established. With respect to (ii) the adoption of the e-voucher system developed for the AFCRP (closed in 2016); the Project would increase transparency, reduce transaction costs and improve the effectiveness of project monitoring. Payments under the first window of the MGP would proceed according to the standard process, except that there would be no cash advances to farmers or fishers. The funds would, instead, be paid into the e-voucher Trust Account and actual transfer of cash to an external entity (i.e. the telecommunications provider and the participating merchants) would only occur after the purchases of farmers or fishers had been verified and reconciled by MAF and MOF, significantly improving transparency and control.

65. **Market Linkages.** The SACEP pilot initiative on linking farmers to markets through contractual arrangements has demonstrated that, while it takes time to change smallholder producers' behaviors and overcome the lack of trust they have towards buyers (stores, retailers and supermarket), it is possible with intense communication and education on the benefits associated with it to successfully improve linkages. These linkages promote increased quality through market requirements, mitigate fluctuations in availability of those products and ensure regular incomes to smallholder producers that integrate such initiative. According to the SACEP-implemented 2018 Market Survey, demand for meat, vegetables and fruits increased between 2013 and 2017, representing an opportunity for continued growth under SAFPROM. Meat saw the highest absolute value increase in demand, with total meat purchases going from SAT33 million to SAT48 million over these four years. Vegetable purchases almost doubled over the same period (SAT3 million to SAT5.9 million) and fruits purchase increased from SAT0.6 million to SAT1.2 million. Import substitution was evident for both meat and vegetables, with the proportion of local to imported produce increasing over the survey timeframe (see table below). All three items saw increases in their absolute value of purchases.

PRODUCE	2013	2017
IMPORTED MEAT	90 percent	86 percent
LOCAL MEAT	10 percent	14 percent
IMPORTED VEGETABLES	39 percent	34 percent
LOCAL VEGETABLES	61 percent	66 percent
IMPORTED FRUIT	44 percent	45 percent
LOCAL FRUIT	56 percent	55 percent

66. A final important lesson from the SACEP relates to the crucial role played by the extension and advisory services and their delivery systems. Some of the MGP sub-projects did not generate the expected benefits and this was mainly due to limited adoption of improved and innovative practices or technologies (for instance, improved feeding rations in poultry production). The main reason for this was the lack of capacity of the MAF to supervise and advise closely the farmers that received support from the MGP. The SAFPROM will use this experience to put a strong focus on enhancing the extension and advisory services delivery systems, by assessing the needs in the sector (both publicly and privately provided) and financing gaps pointed out, notably by training subject-matter specialists, or utilizing the partnerships established between private sector and producers' groups through the MGP to incentivize private deliver of extension services.

III. IMPLEMENTATION ARRANGEMENTS

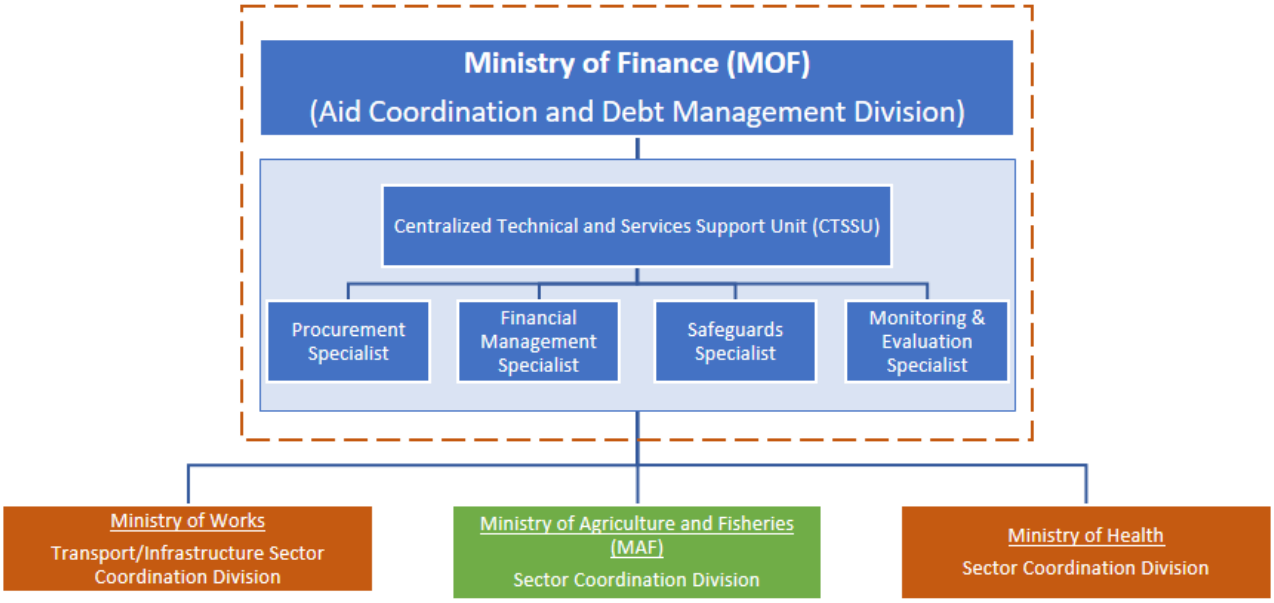
A. Institutional and Implementation Arrangements

67. The Executing Agency for the SAFPROM will be the MoF.

68. The Ministry of Agriculture and Fisheries (MAF) will be the implementing agency (IA) for the components 1 to 3 of the project. The MoF will be the implementing agency for the Component 4 (would the CERC be activated).

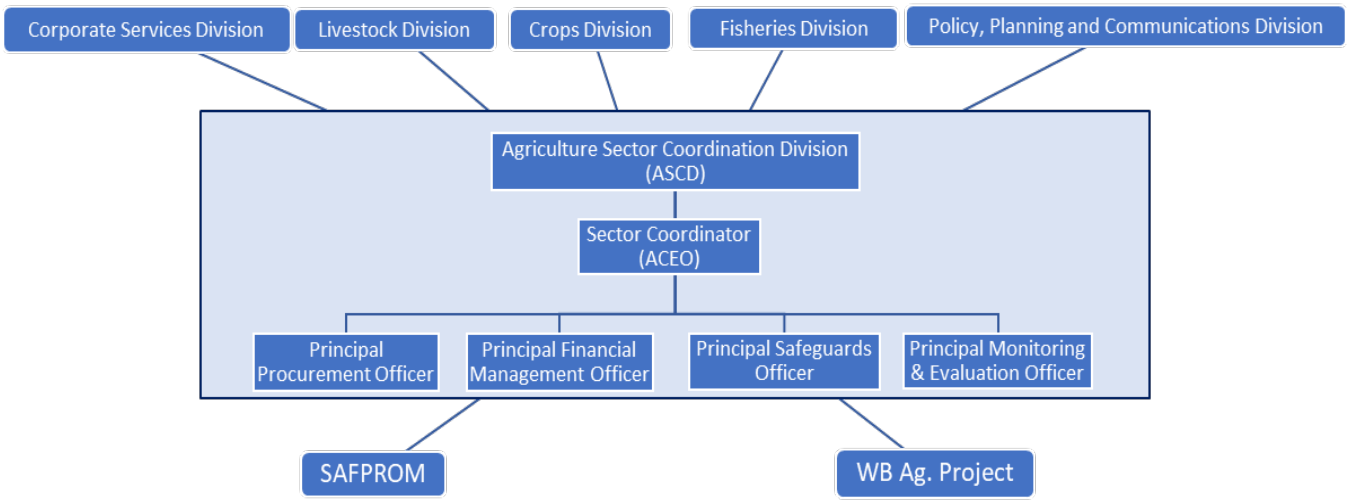
69. The GoS has established a Centralized Technical Services and Support Unit (CTSSU) to sit within the Ministry of Finance. The CTSSU will be staffed with international experts in Safeguards, Procurement, Financial Management and Monitoring and Evaluation who will provide advice and hands on assistance, as well as capacity building and guidance for the different government Ministries implementing World Bank-funded projects. It has been indicated that this unit may support all donor-funded projects in the future. Diagram 1 outlines the CTSSU.

Diagram 1: Centralized Technical and Services Support Unit organizational chart.



70. As part of this transition, new World Bank projects, including SAFPROM, will no longer establish their own Project Management Units. Instead, those tasks will be undertaken by each lead Ministry through a Sector Coordination Division. In SAFPROM's case, the Agriculture Sector Coordination Division (ASCD) sits within the MAF and has been staffed by a Sector Coordinator at Assistant CEO level, and four Principal level officers for Monitoring and Evaluation (M&E), Safeguards, Procurement and Financial Management (FM). These are nationally recruited positions to be engaged on individual contracts aligned with Public Service Commission (PSC) terms and conditions for an anticipated period of two years – while funded by the project - after which they will progressively be integrated into the national budget and transition into the public service so that the ASCD continue coordinating the sector development post-SAFPROM completion. The ASCD will be responsible for the day-to-day coordination of the implementation of the components 1 to 3, oversee fiduciary and safeguards compliance, monitoring and coordination of the project, as well as coordination between the project and the different Divisions within MAF. Diagram 2 outlines it.

Diagram 2: Agriculture Sector Coordination Division organizational chart.



71. These arrangements were approved by the Cabinet Directive FK (17) Special 13 dated 22 November 2017. By Letter dated 2 May 2018, the PSC conveyed its approval for the establishment of the ASCD and the recruitment of the five keys positions described above.

72. However, based on SACEP experience, such team of five will be insufficient to coordinate the implementation of the SAFPROM as efficiently and effectively as required, particularly with other projects running parallel. The ASCD theoretical structure already includes three additional Senior Officers (Procurement, FM and M&E) and the SAFPROM will finance their recruitment on individual contracts for the length of the project. It will also integrate additional staff financed by the project through term contracts, and notably: (i) an Operations Officer for the general running and management of project activities, (ii) an MGP Manager in charge of monitoring and supervising the implementation of sub-component 2.2, (iii) one M&E Officer to report to the Principal M&E Officer, (iv) a Junior Accountant to report to the Principal FM Officer, and (v) support staff (Secretary, driver).

73. Project oversight will be ensured by the *Agriculture Sector Advisory Committee* comprising representatives from the MAF, the MoF, the Ministry of Foreign Affairs & Trade (MFAT), the Ministry of Commerce, Industry & Labour (MCIL), Ministry of Natural Resources & Environment (MNRE), the Scientific Research Organization of Samoa (SROS), the Ministry of Women, Community & Social Development (MWCSD), the Samoa Tourism Authority (STA), the Ministry of Health (MOH), and Civil Society Representative and Private Sector Representatives.

74. To support project implementation of component 1 to 3, the following will be prepared and adopted by the ASCD (see Annex 2 for details):
    a. SAFPROM Standard Operating Procedures (SOP) shall be prepared no later than six months after project effectiveness. It will include institutional arrangements for day to day execution of the Project, including procurement, safeguards, financial management and M&E.
    b. A MGP operations manual to detail the arrangements and procedures for the MGP.

75. To support project implementation of component 4, the following will be prepared and adopted by the MoF, in close collaboration with MAF:
    a. A CERC Operations Manual to detail any special institutional arrangements for coordinating and implementing the Emergency Response Part.

76. An annual work plan and budget will be submitted for World Bank review by August 15 each year the project is active. The *Matching Grant Program Steering Committee* established by the Government of Samoa under SACEP will include the Ministry of Commerce, Industry and Labor (MCIL) and be continued to oversee the running of Sub-Component 2.2. The Committee's task will involve oversight on the e-Voucher system.

B. Results Monitoring and Evaluation Arrangements

77. The M&E System of SAFPROM will aim to assess whether the expected changes described in the Theory of Change (see Diagram 3 in Annex 2), and translated into indicators in the Results Framework, effectively take place. It includes internal progress monitoring, a Management Information System (MIS) and independent impact evaluation surveys (Annual surveys and Matching grant impact assessment). The overall M&E system is built on the SACEP experience, addressing some of the challenges including lack of accurate data and record keeping. Some of the activities that were successful under SACEP including conducting Annual Market Survey and regular monitoring activities will be retained and consolidated under SAFPROM.

78. The overall responsibility for the project monitoring, evaluation, and reporting rests with the ASCD team, specifically with the Sector Coordinator and the Principal M&E Officer. Building on the challenges faced during SACEP to collect day-to-day data, two M&E Specialists will be recruited to assist the M&E Principal Officer, one in Upolu and one in Savai'i.

79. The M&E system aims to collect the data and information on the project implementation and impacts to:
    a. Ensure a high level of transparency and accountability in the delivery of project activities;
    b. Improve the effectiveness of day-to-day decision-making through the provision of timely information to project managers and staff;
    c. Enhance the ability of the *Agriculture Sector Advisory Committee* to hold project staff accountable for effective delivery of annual work programs and to adjust project activities as needed;
    d. Empower key stakeholders and project beneficiaries to provide timely feedback to project management and staff ensuring that the project adapts to remain responsive to their needs;
    e. Capture and communicate lessons learned to improve performance during project implementation and to allow other similar and related projects to benefit from improved practices; and
    f. Verify the achievement of project objectives and outcomes through the collection and analysis of high quality socio-economic and farming/fishing practice data and information.

80. At project implementation mid-term, a full review will be organized with the WB and IFAD, to assess progress towards reaching the PDO and implementation bottlenecks. The M&E section of the SAFPROM SOP will describe: (i) what data and information needs to be collected (on which project systems, inputs, processes, results, and impacts); (ii) who, how and when it will be collected; (iii) how it will be stored, processed and delivered; and (iv) who will have access to raw data, processed data and information.

C. Sustainability

81. *Institutional sustainability:* The GoS maintains a strong commitment to the continued growth and development of its agriculture and fisheries sectors. As outlined above, the GoS's *FY2017-20 Strategy for the Development of Samoa* highlights increased agricultural production as a priority area for Samoa, which the SAFPROM will contribute to. The

Agriculture Sector Plan (2016-2020) builds on the previous 4-year plan and outlines the key objectives and framework for achieving their goals – SAFPROM is aligned to this and its objectives of increasing the food, nutrition and income security in Samoa. Through the introduction of the CTSSU and ASCD, the project will also contribute to a more structured and long-term capacity building model for the government of Samoa. World Bank support throughout the project in key project management tasks and skills, through regular implementation support visits and dedicated training sessions, will continue.

82. With regards to public infrastructure being built or rehabilitated under the SAFPROM, pre-feasibility studies and development plans will look at the medium-term utilization of the facilities, their operating and maintenance costs and provide guidance on the best management methods, including users' fees. For instance, both the SSU and MSU initiated through the current SACEP generate revenues for the Government through fee-for-service slaughtering in a hygienic environment, matching the public funds needed for their functioning. It is anticipated that the demand for these services will increase as market access to hotels and supermarkets expands and food hygiene expectations increase.

83. *Economic sustainability*: The project will work with smallholder farmers and fishers who are motivated to move to more commercial operations. By using the Matching Grant model, farmers go through a full feasibility analysis, receiving training on best practices and innovative technologies, support to prepare a business plan and access credit (if needed). The funds will be granted on the basis of a profitable business plan, and therefore sustainability of the farming/fishing operations. The associated training and advisory services will provide farmers with consistent guidance for transitioning into commercial activities.

84. *Climate, disasters and environmental sustainability:* Training in best practices and new technologies to adapt to and mitigate climate change impacts, as well as how to reduce the farmers' own impacts on the land and sea, will promote environmental sustainability. Some examples of these include the introduction of new varieties of crops and breeds of livestock which are more resilient to the changing Samoan climate; innovative equipment to help farmers mitigate impacts such as water storage; training in the controlled use of pesticides and fertilizers to reduce damage to the crops and soil; and the promotion of better practices such as the waste management facility in the SSU. Infrastructures (offices, SSU, F&V pack-house) will be built using disaster-proof standards of construction to be more resilient to possible natural disasters (cyclones, earthquakes, tsunamis notably).

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

85. **Technical Analysis.** The project will work towards achieving its PDO by addressing the identified constraints. A lack of subject matter experts has been identified as a government-wide constraint for project implementation and will be addressed/minimized through capacity-building activities and the introduction of the CTSSU which is mandated to provide guidance and support to Sector Coordination Divisions in line Ministries, notably the ASCD in MAF.

86. Specialized training and knowledge on best practices is a crucial element of the adoption of improved farming and fishing practices by farming/fishing households. This gap will be filled through a continuous training program using extension staff from the technical divisions of the MAF and support to those involved in the project. Complementary to this is access to appropriate technologies and equipment and the finance to purchase it (affordability). Through the

MGP, farmers and fishers will work with the Development Bank of Samoa and the Samoa Small Business Enterprise (SBEC) to gain access to credit, as needed.

87. Studies will also be undertaken to better understand the market constraints and needs. This will identify further activities that the project can implement to increase access to markets for farmers and fishers. Improved quality and reliability of produce has already been identified as a constraint to accessing the higher value hotel market and collectively sourcing and selling products is a potential way to overcome this. Initial success has been seen under SACEP through a cooperative model and this will be expanded on in the SAFPROM. Lack of local post-harvest processing is also a key bottleneck to value-addition and access to markets for those smallholder producers. The second window of the MGP will address this bottleneck,

88. **Economic and Financial Analysis.** Annex 5 presents the economic and financial analysis (EFA) of the project. Investments are expected to generate a number of benefits such as the increase in some selected crops yields (F&V, cocoa, spices), reduction of animal mortality rates, increases in calving/lambing and off-take rates and increase in value of sales from smallholder and semi-commercial producers and fishers. Some of these parameters have been chosen as PDO-level indicators since project interventions should result in measurable impacts due to: (i) improved access to advisory services, (ii) enhanced access to innovative technologies and practices by farmers and fishers, (iii) improved availability of inputs: seeds, animal feeds and breeds, and (iv) strengthened infrastructure network. The project is also expected to create a number of positive externalities, such as institutional strengthening, enhanced capacities of stakeholders, better food safety, higher OH&S standards (notably at sea) or higher adaptability to climate-change and resilience to disasters. These benefits were not fully quantified due to the difficulty to attributing a monetary value to their contribution to the PDO.

89. The project includes investments of a public good nature that, while they will not yield direct quantifiable economic benefit, will serve as a launch pad for eventual private sector participation and contribute to overall productivity and linkage to markets' improvements. At the moment the Samoan private sector for agriculture is too small and lacks the wherewithal to invest to the extent that it could compete with imports.

90. The EFA uses "with or without project" scenarios, livestock herd dynamics models that look at different productivity factors - supported by cost-benefit analysis to assess the overall viability of the project, through the calculation of SAFPROM's Internal Rates of Return and net present value. The results, detailed in Annex 4, indicate that the project is economically justified. The analysis also demonstrates that the SAFPROM is aligned with the WB's goal of increasing shared prosperity. Under the current assumptions (Annex 5), the Internal Rate of Return is 10 percent and the net present value at US$26.2 million. The project is sensitive to changes in some of the project's variables, including increase in investments costs.

91. Environmental externalities were calculated by using the EX-ACT, a tool developed by FAO, to calculate the economic value from the GHG mitigated. EX-ACT enables investment planners to design program activities that target high return outcomes in terms of climate change mitigation and is intended to complement conventional ex-ante economic analysis[21]. The result shows a project marginal carbon emission savings of 812,571 tCO_2-eq over 20 years, equivalent to 40,629 tCO_2-eq per year (see Annex 5 paragraph 15).

21 EX-ACT. User Manual: "Estimating and Targeting Greenhouse Gas Mitigation in Agriculture", FAO, WB and IRD

B. Fiduciary

(i) Financial Management: The existing FM systems are assessed as adequate to meet the FM requirements as stipulated in Bank Directive: Investment Project Financing. The Project's overall FM risk is rated "moderate". MAF through the ASCD, will prepare budgets for the whole project which will be required to be broken down by year with appropriate levels of detail (for example, Component or Category). MoF will co-ordinate and authorize the funds flow and make all payments for the Project. Separate Designated Accounts (DA) for the IDA and IFAD will be established for the Project (refer Disbursement Section in Annex 2). Funds will flow from the IDA or IFAD to GoS into the DAs for advances, or to the nominated GoS bank account for reimbursement of pre-financed expenditures. Funds can also flow to contractors via direct payment or to supplier's commercial bank for special commitments.

92. MAF and MoF uses the GoS' accounting system (Finance One) and operates on a cash basis of accounting. Copies of all accounting records for the project will be required to be maintained and made available to both auditors, the WB and IFAD as required. Unaudited interim financial reports (IFRs) will be prepared on a quarterly basis, while an annual audit of the Project financial statements will be required. The audited financial statements, audit report, and management letter must be received by the WB within six months of the end of the fiscal year. The audited financial statements and audit report shall be made publicly available by the Recipient in a manner acceptable to the WB according to the General Conditions of IDA Grants. The project could use four disbursement methods: (i) advances; (ii) direct payment; (iii) reimbursement, and (iv) special commitments. Direct payment would only be used for large payments or when payments are in currencies that the borrower may have difficulty obtaining. Reimbursement would only be used if the GoS funds were used for project expenses rather than expenditure being through the DAs.

(ii) Procurement: The IDA grant will finance the costs of the completion of the Static Slaughter Unit, other small infrastructure or equipment (such as the rehabilitation of the MAF office in Savai'i, the replacement and/or maintenance of MAF's vessels or cold rooms in main fish markets); and individual consultant(s) and/or firms to provide technical assistance, capacity building and to support project implementation. Procurement for SAFPROM, including under IFAD co-financing, will be carried out in accordance with the WB Procurement Regulations for IPF Borrowers (Procurement Regulations), July 2016 (revised November 2017 and August 2018), as well as the provisions stipulated in the Financing Agreement.

93. A procurement risk assessment of the IA (MAF) has been carried out and the overall procurement risk rating is "substantial". Key procurement risk areas include contract management and procedural compliance. The CTSSU established within the MoF will serve to provide support to the IA in the areas of project management, procurement, financial management, safeguards, and M&E. This unit will be comprised of international experts. In addition, the ASCD will be established within MAF and will house dedicated resourcing at the Principal and Senior Officers level to support the IA and to mitigate risks (project management, procurement, financial management, safeguards, and M&E). Project preparatory activities have been carried out in advance of Project effectiveness utilizing funds made available through a Programmatic Preparation Advance (PPA) (P167305). These preparatory activities have been detailed in a simplified Project Procurement Strategy for Development (PPSD) and related procurement plan. In addition, a Project procurement plan for the first 18 months of the Project has been prepared and is detailed in the SAFPROM PPSD.

94. The use of the WB's Systematic Tracking of Exchanges in Procurement (STEP) system will be mandatory for use under the SAFPROM. This system is currently being used on a number of projects in Samoa and ongoing face-to-face training

is being conducted in country on use of the system. A number of the preparatory procurement activities have already been loaded to STEP and approved.

C. Safeguards

(i) **Environmental Safeguards:** The project would finance a number of small-scale, household-based farming (i.e. livestock and development) and community fisheries production/marketing subprojects through a small grants scheme. Negative environmental impacts associated with these activities are expected to be minor, localized and temporary primarily because of their small-scale and household/community focus. The project would support the development and improvement of collective infrastructure and/or equipment (.i.e. completion of the SSU, rehabilitation of government offices, construction of a small veterinary laboratory, rehabilitation of small rural feeder roads, renovation of a fruit and vegetable pack house, renovation of local fish markets). These small-to-medium scale investments have the potential to cause some minor adverse environmental and social impacts, however these are readily managed through standard mitigation measures. **OP4.09 Pest Management** has been triggered to ensure a rational use of pesticide and insecticide when controlling plants' pests and livestock diseases, but also the safe handling and storage of such products by the users.

95. **OP4.04 Natural Habitats.** The project activities will interact with natural habitats through the mixed tree-crop farming systems (cocoa and coconut) and aquaculture activities. While the project will not finance any activities that significantly convert or degrade any protected areas or natural habitats as the screening procedures in the ESMF will exclude all subprojects with these impacts. However, given the close interactions with natural habitats, this policy is triggered to ensure that the ESMF (and subsequent environmental management regimes) adequately assesses and protects natural habitat integrity. Natural habitats and agroforestry/aquaculture productivity are interdependent so ensuring that habitat integrity is maintained will promote the sustainability of these enterprises.

96. **OP 4.36 Forests** is triggered as a precaution. The mixed tree-crop farming systems component – cocoa and coconut production – will focus on rejuvenation/rehabilitation of existing agroforestry activities and will not permit further expansion of crop footprints. It will be important therefore to ensure that the ESMF has rigorous assessment and management processes to ensure that forest values are not impacted as a result of the project investments. Similarly it will be important to ensure that feeder roads are rehabilitated to ensure minimal impacts on forest habitats. Healthy forest ecosystems are critical to agroforestry productivity so there is an incentive to minimize impacts; however it will be important to closely regulate grant investment to ensure there is no incremental impact on forest cover. The integrity of upland forest cover in Samoa is also critical in protecting reef communities from erosion and sedimentation impacts resulting from forest clearing.

97. An Environmental and Social Management Framework (ESMF - disclosed on Bank's external site and in-country on January 31st, 2019) is proposed as the safeguards instrument given that the specific locations of the investments will not be known until implementation and will be determined through the grant process. The ESMF incorporates: (i) the requirements of the World Bank Group's Environmental, Health and Safety Guidelines (EHSGs) and industry specific guidelines for agribusiness, food production and pesticides management; (ii) regarding OP 4.09, the SACEP Integrated Pest Management Plan (IPMP) that has been redisclosed and will be complied with under SAFPROM and strengthened with the support of a Pest Management Advisor recruited by the project.

98. An environmental and social assessment (ESA) was prepared for the Static Slaughter Unit (SSU) under the Samoa Agriculture Competitiveness Enhancement Project (SACEP). This ESA will be updated, pursuant to the ESMF, to ensure

that potential impacts from solid waste disposal and wastewater treatment are minimized. Enabling works for the SSU have commenced under SACEP; however the design of the wastewater treatment system is continuing.

99. The project also includes a Contingency Emergency Response Component to support emergency activities that ensure continued achievement of the project development objective. The ESMF will outline the approach and principles for managing potential E&S impacts and risks of the CERC including a screening process in accordance with the World Bank's Rapid Response to Crises and Emergencies: Procedural Guidelines.

(ii) Social Safeguards: The Project is likely to have a positive impact on rural communities and local economies in Samoa by supporting the development of commercial and semi-commercial farming households and enterprises, improving the management of community and offshore fisheries, supporting linkages and access to local and international markets, supporting complimentary rural livelihood opportunities and promoting improved nutrition.

100. The World Bank's policy on Involuntary Resettlement (OP/BP 4.12) has been triggered. No involuntary land acquisition is expected under the project. The majority of sub-projects will be undertaken on customary land with the voluntary participation of grants scheme recipient landowners. The only exception will be the siting of collective infrastructure facilities which will be either on Government-owned land or land secured via voluntary land donation. These activities may also result in the minor damage/loss of food gardens, economic assets and small structures and in turn affect rural livelihoods. A Resettlement Policy Framework (RPF) was prepared and disclosed in-country and on the WB website on January 31st, 2019 to address these potential scenarios. In fishery, certain activities may involve the restriction of access to natural resources and/or marine protected areas which local people may depend upon for their livelihood. A Process Framework, which is included in the RPF, was developed in compliance with OP4.12 requirements to address these potential issues.

101. Other social risks of the project activities include community dissatisfaction/perceived inequities regarding allocation of household/community grants, and the potential to reinforce gender inequities within rural households and communities. These impacts are expected to be minor and readily managed through inclusive stakeholder consultation, communication and outreach, effective grievance redress and targeted gender and GBV risk management interventions.

(iii) Grievance Redress Mechanisms: The project will establish a Grievance Redress Mechanism (GRM) to allow Project affected people/beneficiaries, project staff/volunteers and other stakeholders to seek satisfactory resolution to grievances they may have in relation to the Project. The GRM will help to ensure that rights and interests of affected people/beneficiaries are protected, and concerns are adequately addressed. The grievance process is based upon the premise that it imposes no cost to those raising the grievances (i.e., Complainants); that concerns arising from project implementation are adequately addressed in a timely manner; and that participation in the grievance process does not preclude pursuit of legal remedies under national law. The GRM will allow the potential affected people to use different channels to report on their grievance. An indicator in the Results Framework about *Grievances registered related to delivery of project benefits that are addressed* will monitor the efficiency of such mechanism.

102. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-

compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

V. KEY RISKS

103. The overall implementation risk rating is Substantial.

104. Samoa's economy is narrowly based and highly vulnerable to external shocks. Its external public debt as a proportion of GDP has increased quite rapidly in recent years, from around 30 percent at the end of FY08 to about 55 percent at the end of FY15 and the country faces a high risk of debt distress, largely due to its vulnerability to natural disasters. Another major natural disaster in the next few years could threaten macro stability and large parts of the government will have to shift their attention to disaster recovery and reconstruction efforts. To mitigate some of the risks, the WB is working with the GoS on a Development Policy Operation including a Catastrophe Deferred Drawdown Option, which is able to provide substantial, quick-disbursing finance in the immediate aftermath of a natural disaster.

105. Delays in implementing key activities in the recently closed SACEP and AFCRP, as well as the proposed organizational reform leading to the newly established ASCD in the MAF to coordinate all donors supported project are reasons to rate both implementation capacity and fiduciary risks at Substantial at this stage. These risks are being mitigated through the establishment of the CTSSU at the MoF that will provide support to the ASCD and the recruitment of qualified FM and Procurement Principal Officers within the ASCD.

106. **Climate and Disaster risks:** Samoa faces a high level of impact and exposure to climate and disaster risks, according to the WB's Climate and Disaster Risk Screening Tool for agriculture which identifies short- and long-term risks to the project in order to support improved design. The areas of high risk include:

a. Exposure of the project location. This is due to past impacts of climate and geophysical hazards, and the likelihood of them happening in the future.
b. Impacts on the project's physical infrastructure and assets. Climate and geophysical hazards are likely to significantly impact the structural integrity, materials, siting, longevity and overall effectiveness of the project's investments.
c. Risk to the outcome service delivery of the project. While soft components such as training and policy reform will help reduce the level of risk and impact, the context of the Samoan agricultural sector is such that they are not enough to avoid or even significantly decrease the risks to the project outcome.

107. This exposure threatens the development objective and potential benefits for targeted farmers. The project will reduce some of these risks through capacity building within MAF for more climate-informed policies and approaches, promoting the adoption of climate-smart activities and technologies by farmers through the MGP, monitoring and information gathering systems and emergency planning, the CERC component of the project, as well as other WB and development partner support for emergency recovery and response.

VI. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Samoa

Samoa Agriculture & Fisheries Productivity and Marketing Project (SAFPROM)

Project Development Objectives(s)

To increase the productivity and access to markets by selected producers, to improve management of targeted productive natural resources and, in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency.

Project Development Objective Indicators

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Increased productivity, for targeted beneficiaries, in targeted value chains for crops and livestock							
Increased yields of five targeted crops and livestock (Yes/No)		No	No	No	No	Yes	Yes
Yield (per acre) of Chinese Cabbage (Tones/year)		2.00					2.40
Yield (per acre) of Tomato (Tones/year)		1.50					1.80
Yield (per acre) of bananas (Tones/year)		5.00					5.50
Yield (per acre) of cocoa wet beans (Tones/year)		0.08					0.10
Sheep Lambing rate (Percentage)		80.00					88.00
Cattle calving rate		55.00					61.00

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
(Percentage)							
Number of piglets weaned per sow (Number)		11.00					16.00
Improved access to markets, for targeted beneficiaries, in targeted value chains							
Average value of sales of fruit and vegetables growers and livestock producers (in SAT) (Amount(USD))		3,999.00	4,100.00	4,200.00	4,400.00	4,600.00	4,800.00
Improved management of targeted productive natural resources							
Targeted beneficiary fishers adopting new technologies or practices for sustainable fisheries (Number)		0.00	50.00	100.00	200.00	400.00	500.00
Community-based Mixed Tree-Crop Farm Management Plans developed and implemented (Number)		0.00	0.00	2.00	4.00	8.00	9.00
Overall							
Number of direct beneficiaries (Number)		0.00	500.00	1,000.00	2,000.00	4,000.00	5,000.00
Including women (Number)		0.00	200.00	400.00	800.00	1,600.00	2,000.00

Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Strengthening National Institutions							
Beneficiaries receiving training (Number)		0.00	500.00	1,000.00	1,500.00	2,000.00	2,000.00
Of which women (Percentage)		0.00	30.00	30.00	30.00	30.00	30.00
Standards, policies, regulatory documents or guidelines adopted (Number)		0.00	0.00	2.00	4.00	5.00	5.00
Communication and public awareness strategies developed and implemented (Number)		0.00	1.00	2.00	2.00	2.00	2.00
Functioning and Dedicated MSC Office which participates in regional activities established (Yes/No)		No	No	Yes			Yes
Community Based Fisheries Management Plans approved by Village Councils (Number)		101.00	105.00	115.00	125.00	130.00	131.00
Including approved CBFMP which align with the Regional Roadmap for Sustainable Pacific Fisheries (Number)		0.00	5.00	15.00	30.00	50.00	52.00
Increase number of CBFMP villages with high performance (Number)		53.00	55.00	60.00	70.00	75.00	75.00
Strengthening the performance of selected value-chains							
Cattle offered for hygienic		400.00	800.00	1,200.00	1,800.00	2,400.00	3,000.00

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
slaughter (Number)							
Farmers or fishers who received individual matching grants under window 1 (Number)		0.00	150.00	400.00	700.00	700.00	700.00
Of which female (Percentage)		0.00	30.00	30.00	30.00	30.00	30.00
Registered cooperatives, groups or MSMEs received matching grants under window 2 (Number)		0.00	0.00	10.00	20.00	20.00	20.00
MGP on-time loan repayments (for loan proponents only) (Percentage)		75.00	75.00	75.00	80.00	85.00	90.00
Groups of farmers and fishers formally registered (Number)		0.00	5.00	15.00	25.00	30.00	30.00
Women in semi-commercial and higher-value agriculture or fisheries activities within project areas (Percentage)		20.00	20.00	25.00	25.00	30.00	30.00
Share of locally produced pork meat sold by retail and food service channels (Percentage)		22.00	22.00	25.00	30.00	35.00	35.00
Share of locally-produced fruits and vegetable sold by retail and food service channels (Percentage)		51.00	51.00	55.00	60.00	61.00	61.00
ASCD establishment and project management, M&E and communication							
Beneficiaries that feel project investments reflected their needs (Percentage)		0.00	0.00	80.00			80.00

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Grievances registered related to delivery of project benefits that are addressed (Percentage)		0.00	0.00	100.00	100.00	100.00	100.00
Land area under sustainable farm management practices (Hectare(Ha))		0.00	200.00	500.00	1,000.00	1,800.00	2,000.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Increased yields of five targeted crops and livestock	Out of 7 value-chains to be monitored, the indicator target will be achieved if at least 5 of them are reaching their target (as matching grants are demand-driven)	Bi-annual	Project Management Information System (MIS)	Farmers' records book triangulated with Impact surveys at mid-term and the end	MAF ASCD
Yield (per acre) of Chinese Cabbage	20% increase per acre expected	Bi-annual	MIS	Farmers' record books	ASCD
Yield (per acre) of Tomato	20% increase per acre expected	Bi-annual	MIS	Farmers' record books	ASCD
Yield (per acre) of bananas	10% increase per acre expected (average weight of 17kg per bunch - 250 plants and 230	Annual	MIS	Farmers' record books	ASCD

	bunches with a 5% losses in a standard spacing)				
Yield (per acre) of cocoa wet beans	25% increase per acre expected	Bi-annual	MIS	Farmers record books	ASCD
Sheep Lambing rate	Measured as the number of lambs born within a year over the number of breeding ewes.	Annual	MIS	Farmers' record Books	ASCD
Cattle calving rate	Measured as the number of calves born within a year over the number of breeding cows. 10% increase expected.	Annual	MIS	Farmers' record Books	ASCD
Number of piglets weaned per sow	Baseline calculated on the basis of 1.5 litters per year per sow - 8 piglets born per litter and 12.5% mortality prior to weaning (1 piglet dead per litter) - therefore 7 + 4 = 11 weaned piglets per year per sow.	Annual	MIS	Farmers' Record Books	ASCD
Average value of sales of fruit and vegetables growers and livestock producers (in SAT)	20% increase in value of sales is expected from F&V farmers and 10% for livestock producers (livestock farming requiring more time)	Annual	MIS	Farmers record books and Impact Assessment survey at mid-term and endline.	ASCD
Targeted beneficiary fishers adopting new technologies or practices for sustainable fisheries	Number of fishers using at least 1 new technology or practice introduced by various capacity building activities or other SAFPROM	Annual	MIS	E-voucher and captured in MIS. Triangulated with mid-term and endline Impact Assessment surveys	ASCD

	interventions.				
Community-based Mixed Tree-Crop Farm Management Plans developed and implemented	Focus on Savai'i for the first phase. 9 Districts covered, 1 plan per district. "Implemented" defined by at least 10% of the annual budget allocated to the plan being effectively spent.	Mid-Term and endline	MAF Policy and Planning Division	n/a	ASCD
Number of direct beneficiaries	Direct beneficiaries defined as recipients of MG and/or attending training and/or direct users of built/rehabilitated infrastructure	Annual	ASCD	MIS	ASCD
Including women	Idem				

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Beneficiaries receiving training	Include farmers and fishers receiving trainings on technical skills, farm management, cooperative management, business development, as well as MAF staff, related farmers' organizations and fishery associations staff	Annual	MIS	Training registration captured in the MIS	ASCD

Of which women	SACEP benefited only 20% women so the target is increased to 30%				
Standards, policies, regulatory documents or guidelines adopted	'Adoption' level will depend on the category of document.	Annually		Regular Monitoring and Evaluation activities	ASCD
Communication and public awareness strategies developed and implemented	Includes (i) SAFPROM specific communication strategy and (ii) nutrition and healthy diet sensitization strategy. 'Implementation' defined as 20% of the annual planned budget effectively spent.				ASCD
Functioning and Dedicated MSC Office which participates in regional activities established	MCS Office constructed, equipped and in operation (staffed). "Participating in regional activities" entails attending regional training on MCS organized by regional institutions involved in fisheries, taking part of joint surveillance or pilot monitoring activities together with other Pacific countries or regional bodies (such as FFA, FAO, SPC or WCPFC) or joint research programs.	Mid-term then end of project.	Fisheries Division of MAF		ASCD
Community Based Fisheries Management Plans approved by Village Councils	Completed CBFMP approved by Village Councils and facilitated by the	Annual	Community-based fisheries	CBFMP reports	MAF fisheries division and ASCD

	Fisheries Division. Completed Fisheries Management Plans could be partially implemented through the MGP.		management program (CBFMP)		
Including approved CBFMP which align with the Regional Roadmap for Sustainable Pacific Fisheries	The Regional Roadmap for Sustainable Pacific Fisheries was approved by Pacific leaders in 2015. It is expected that at least 40% of CBFMP will be aligned.	Annual	MAF Fisheries Division and ASCD	Review of CBFMP within the framework of the Regional Roadmap	Fisheries Division MAF
Increase number of CBFMP villages with high performance	CBFMP achieving High Performance (80%-100% score) on 6 Monthly Reviews (6MRs) by Fisheries Division and participating communities	Anuual	6MR	6MR reports	Fisheries Division and ASCD MAF
Cattle offered for hygienic slaughter	Includes cumulative number of cattle slaughtered through the Mobile and Static Slaughtering Units (MSU and SSU) and privately-managed slaughterhouses accredited by the GoS.	Bi-annual	Baseline: 400 through MSU only at the end of SACEP. MIS	Report from Veterinary Services (APHD)	APHD and ASCD
Farmers or fishers who received individual matching grants under window 1		Bi-annual	MIS		ASCD
Of which female					
Registered cooperatives, groups or MSMEs received matching grants under window 2	Formally registered groups includes cooperatives, producers' organizations or	Bi-annual	MIS		ASCD

	associations, and common interest groups with legal status				
MGP on-time loan repayments (for loan proponents only)	Over 30 days portfolio at risk (PAR30 - total loan amount of loans in arrears/total MGP portfolio outstanding) - for the value of loans at risk since are behind on payments of more than 30 days.	Quarterly (it is recorded monthly but SBEC reports quarterly to MAF)	SBEC report from Banks information	Portfolio reports from banks	SBEC and ASCD
Groups of farmers and fishers formally registered	'Formally registered groups' includes cooperatives, producers' organizations or associations, and common interest groups with legal status.	Bi-annually	MIS		ASCD
Women in semi-commercial and higher-value agriculture or fisheries activities within project areas	The difference between female-male led/managed agriculture or fisheries activities on a subsistence level (30:70), compared to a semi-commercial or commercial level (20:80). This gap is particularly apparent in livestock, where remuneration is higher.	Annual	MIS	Farmers books and MGP impact assessment surveys (HHs)	ASCD
Share of locally produced pork meat sold by retail and food service channels	Ratio of locally produced pork / total quantity sold through the domestic retails and food channels, including	Annual	Baseline: SACEP Market Survey 2017	Annual Market Survey. The survey will include selection of hotels and restaurant to be	ACSD

	restaurants and hotels			monitored.	
Share of locally-produced fruits and vegetable sold by retail and food service channels	Ratio of locally-produced selected F&V / total quantity sold through the domestic retails and food channels, including restaurants and hotels.	Annual	Baseline: SACEP Market Survey 2017	Annual Market Survey. The survey will include selection of hotels and restaurant to be monitored.	ASCD
Beneficiaries that feel project investments reflected their needs	Citizen engagement indicator	Mid-term and endline	Beneficiaries' surveys	Satisfaction surveys at mid-term and endline	ASCD
Grievances registered related to delivery of project benefits that are addressed	Citizen engagement indicator	Bi-annual	GRM	GRM	ASCD
Land area under sustainable farm management practices	The indicator measures, In hectares, the land area for which new and/or improved sustainable farm management practices have been introduced. Land is the terrestial biologically productive system comprising soil, vegetation, and the associated ecological and hydrological processes; Adoption refers to change of practice or change in the use of a technology promoted or introduced by the project; Sustainable Farm Management (SFM)	Annual	MIS	Farmers' record book triangulated with mid-term and endline Impact Assessment surveys	Crops and livestock Divisions MAF ASCD

	practices refers to a combination of at least two technologies and approaches to increase land quality and restore degraded lands for example, agronomic, vegetative, structural, and management measures that, applied as a combination, increase the connectivity between protected areas, forest land, rangeland and agriculture land.				

ANNEX 1: Detailed Project Description

COUNTRY: Samoa
Samoa Agriculture & Fisheries Productivity and Marketing Project (SAFPROM)

1. As demonstrated in the project's Theory of Change, achieving the Development Objectives of increased productivity and access to markets in target value-chains and improved sustainability of target fisheries will necessitate important outcomes to be delivered, including (i) adoption of improved technologies and practices by farmers and fishers, (ii) control of animals and plants' diseases and pests, (iii) sustainable linkages between producers and other stakeholders of the value-chains (inputs suppliers, agro-processors, traders) established, and (iv) upstream MAF capacity built. The design of the SAFPROM has been developed to address these and building on strong foundations that the SACEP has laid down.

2. The SACEP (closed in December 2018) has demonstrated how investments in public infrastructure (Mobile Slaughtering Unit, Tissue Culture Laboratory) and access to finance for smallholder farmers (matching grants and DBS loans) can start transforming the agriculture sector in a country like Samoa, by contributing to import substitution and generating a more commercially-oriented sector. The GoS plans to build on these achievements and take advantage of the opportunities presented. The SAFPROM will notably continue using matching grants in response to the two major market failures in the country: (i) low awareness and confidence among the farmers/fishers about the available innovations for climate-resilience and natural resource conservation that can improve their productivity and bring positive externalities in the society; and (ii) very limited supply of long-term finance for agriculture sector in the Samoan financial market. The DBS has been by far the largest lender in the sector but has limited outreach and capacity to expand smallholder financing. The limited capacity is a common issue among domestic commercial banks that are interested in the sector but still not very active in lending even for short-term working capital requirements.

3. In the tropical Pacific, fish is a cornerstone of food security, with average annual consumption of fish (including shellfish) by coastal rural populations ranging from 50–146 kg in Polynesia. In this context, coastal aquatic systems currently deliver most of the benefits from fisheries that directly affect islanders throughout the Pacific including in Samoa, such as food security, nutrition and jobs. Coastal fisheries production has not increased significantly in the 15-year period 1999–2014 despite indications at the national level of increasing fishing pressure. This suggests that the fish resources that support coastal fisheries are fully or over-exploited. This situation is further exasperated by the impacts of climate change in coastal areas with the Pacific projected to experience higher than average impacts. Also, because the population is increasing, the per capita production of fish from coastal fisheries is decreasing, at a rate of approximately 6 percent in the period 2007-2014, and so achieving sustainable management of fisheries is critical. This reduced availability of fish will likely be associated with further changes in diet towards highly processed imported foods contributing to obesity levels and NCDs. Adaptive responses to "fill or minimize" the food gap includes reducing pressure on reef fisheries, improving access to nearshore pelagic fisheries through anchored FADs and fully utilizing marine resources.

4. The Noumea Strategy notes that inshore fisheries provide the primary or secondary source of income for up to fifty percent of households in the Pacific region, but that coastal fisheries resources are declining. Some key challenges identified for the Pacific region include an inadequate focus on coastal fisheries management by fisheries agencies compared to the offshore tuna sector; outdated management policy, legislation and planning, with little or no monitoring of effectiveness or sustainability; poor stakeholder collaboration/connection at the national and regional

levels, and; inadequate compliance with fisheries rules and variable/inadequate sanctions.

5. In the SAFPROM project, offshore and coastal fisheries activities will contribute to Samoa's commitment to relevant regional agreements, such as the Noumea Strategy and the Tokelau Arrangement, mentioned above. Taking a coordinated approach to fisheries will allow Samoa and other Pacific Island countries to share knowledge and resources and tackle collective challenges, such as the growing impacts of climate change on fish stocks and their environment. While community-based fisheries management plans will allow local flexibility and tailoring, to achieve regional results, they will be combined with the development and resourcing of relevant and effective monitoring, control and surveillance mechanisms, which SAFPROM will support.

6. The project will work with the entire Ministry of Agriculture and Fisheries to develop and strengthen its capacity, including policies that directly impact regional fisheries priorities such as improved coastal fisheries management. Because of the multi-sectoral nature of the project, regional activities are combined with domestic activities as they are often interrelated and cannot be separated.

7. Through its objectives of increasing crops and livestock productivity, access to markets, as well as improving the management of targeted fisheries, this project will continue contributing to: (i) import substitution and increase the supply and consumption of domestically produced food; (ii) boost exports of selected commodities, and (iii) strengthen resilience of farming households to climate change and climate-induced disasters (cyclones, heavy rains, prolonged dry seasons) – all objectives spelled out in the ASP 2016-2020.

8. It is proposed that SAFPROM will have four components.

9. **Component 1: Strengthening National Institutions (IDA - US$9.31 million (national IDA: US$5.12 million - regional IDA: US$4.19 million) and IFAD Grant – US$1.35 million).** This component will aim at creating an enabling environment for increased productivity and access to markets for target farming and fishing households and small private sector along the targeted value-chains (inputs suppliers, agro-processors, etc.). It will address institutional capacity gaps both within MAF and national producers' organizations and stakeholders, through the implementation of a training and capacity building plan developed on the basis of an *agriculture sector and MAF skills gap assessment* conducted during SAFPROM preparation. The capacity building plan should notably include elements to integrate climate adaptation into agriculture, fisheries and food security policies and broader development planning, extension methodology and technical approaches to climate resilient tree-crop farming systems. To encourage more female farmers/fishers, the Component will also work with the Samoan Women in Business Development Inc. to identify gender-specific constraints and activities to mitigate them.

    a. *Sub-component 1.1. Institutional Capacity Building for crops and livestock (IDA – US$3.39 million (national IDA – US$3.15 million and regional IDA – US$0.24 million) and IFAD Grant – US$1.35 million).* This sub-component will implement short and long-term training and capacity building plans, support the review of regulatory and policy frameworks, notably on climate-smart agriculture, livestock and crop extension and veterinary services. It will support Samoa in becoming a member of the World Organization for Animal Health (OIE - including financing membership fees), which will build Samoa and MAF's veterinary capacity for the early detection and better control of animal diseases. A special focus will be given to developing national standards affecting the capacity of Samoan agricultural products to reach specific high-value markets. For this, this sub-component will work closely with producers' organizations and build their capacity (training, platform, registration) to strengthen the public-private policy dialogue. In close collaboration with the ACIAR,

this sub-component may support applied research and pilot programs, such as a sheep genetic improvement program and vaccination trials against sheep diseases. To strengthen data around nutrition and markets, the project will also work with the upcoming Samoa Health System Strengthening Program (P164382) to co-finance a household survey on consumption, which will now include questions on food choices and be sent to rural households as well as urban. This baseline data will inform behavior change communications in Component 1.c. and, through related activities, will aim to shift consumption patterns with a long-term objective of reducing obesity and NCD risks. Finally, regarding community engagement in more sustainable tree-crop management in Savai'i, this sub-component will promote resilient farming systems and inclusive value chains at village level, by supporting the GoS' program for district development planning and use established channels of communication and community engagement. It will support the rehabilitation of MAF infrastructure, including on Savai'i island, the MAF office and the construction of a small veterinary laboratory with fulltime veterinary assistant.

b. *Sub-component 1.2. Strengthening management of the region's shared oceanic and coastal fisheries (IDA – US$5.92 million (national IDA – US$1.97 million, regional IDA – US$3.95 million)).* This sub-component aims to strengthen management of Samoa's shared oceanic and coastal fisheries resources and promote climate- and shocks- resilient fishing communities through investment in five areas: (i) strengthen monitoring, control and surveillance (MCS) of oceanic and coastal fisheries; (ii) strengthen Samoa's engagement in regional and international fisheries fora and formal fisheries negotiations; (iii) Strengthen Samoa's National Observer Program; (iv) Strenghten Samoa's capacity to export fish and fish products; and (v) promote sustainable coastal fisheries through strengthening existing and development of new Community-Based Fisheries Management Plans (CBFMP) that are adapted to, and mitigate climate change. Component activities will aim to enable individuals and institutions at the national and local level to increase profit and improve management and governance of coastal resources and improve oversight and value of oceanic fishing activities within Samoa's EEZ including enhancing transparency in transshipment related services.

Specific investments to be financed under this sub-component will include: (a) feasibility, assessment and design studies to identify the necessary activities; (b) implementing short and long-term training and capacity building plans; (c) the development of a National Fisheries sub-sector Policy (integrating adaptation to, and mitigation of climate change) that will inform the next Agriculture Sector Plan, as well as carrying out training and supporting the review and update of the Recipient's legislation and procedures to ensure that all fisheries monitoring, control and surveillance and related enforcement activities carried out by the Recipient are compatible with international law; (d) development and implementation of strategies to enhance competitiveness of the domestic longline fleet; (e) strengthen Samoa's capacity to participate in regional and international fora, by supporting broader and deeper engagement in the Western and Central Pacific Fisheries Management Commission (WCPFC), Forum Fisheries Agency (FFA) and the Pacific Community (SPC) regional dialogue and meetings to strengthen Samoa's negotiating capacity in the sustainable management of shared oceanic and coastal fisheries resources; (f) strengthen existing and develop new CBFMP that address climate change; (g) rehabilitate the existing hatchery facility in Apia. This sub-component will also invest in: (h) supporting the rehabilitation of the Fisheries Division's MCS office in Apia. Further, it will invest in (i) carrying out the following activities to support fisheries activities in the Recipient's territorial sea: (A) upgrading equipment and software relating to the Recipient's fisheries information management systems and strengthening human resources skills on monitoring, control and surveillance; (B) improving data collection through e-monitoring and e-reporting; and (C) potentially replacing, maintaining and/or operating MAF's vessels, should the economic analysis reflect a robust investment and adequate recurring operation

and maintenance budget in the MAF's annual budget; (j) supporting fisheries monitoring, control and surveillance activities in the Recipient's exclusive economic zone through provision of pro rata share of fuel costs for conducting joint (unarmed) regional patrol operations and boarding inspections; (k) strengthening capacity of the monitoring of fishing activity by observers and (l) carrying out the activities listed in part (i) above to support fisheries activities in the Recipient's exclusive economic zone. These activities will all be carried out in tandem with the broader set of oceanic and coastal fisheries activities supported by other Pacific Island countries engaged in the Bank-financed PROP. Implementation of the activities (j), (k) and (l) will be conditioned to the Samoa fisheries laws and regulations are consistent with the provisions of Article 73 of UNCLOS.

10. **Component 2: Strengthening the performance of selected value-chains (IDA - US$8.25 million (national IDA: US$6.97 million - regional IDA: US$1.28 million) and IFAD Grant – US$1.29 million).** The objective of this component is two-fold: (i) increasing on-farm productivity in F&V and livestock farming households who wish to upgrade to semi-commercial status and promoting sustainable fisheries options for fishing households and organizations, and (ii) strengthening linkages between those farming/fishing households and other value-chain actors, including inputs suppliers, agro-processors and traders. The component will have two sub-components: (i) the first sub-component will support the rehabilitation or construction of infrastructure for which feasibility studies have demonstrated that they help structuring the value-chains, and (ii) the second sub-component will offer matching grants through two windows.

    a. *Sub-component 2.1 - Public Good Infrastructure (National IDA - US$1.79 million and IFAD Grant: US$0.72 million).* This sub-component will include (a) carrying out feasibility, assessment and design studies to identify the necessary activities; (b) subject to the outcome of such studies the development and improvement of infrastructure and equipment of a public good nature, targeted at the MAF divisions of Livestock, Crops and Fisheries. It will include the completion of the Static Slaughter Unit (SSU), started under SACEP. Based on the model established under SACEP, this sub-component will support feasibility studies, works and equipment of key collective infrastructures that have been identified as bottlenecks for the development of the sector. It includes, on Savai'i island, a fruits and vegetable (F&V) packhouse which would help farmers improving F&V packaging. Associated to the SSU and built on the same site, the project will support the establishment of a small-capacity rendering plant to process slaughter waste from the new abattoir into meat meal. This will address directly two issues: (i) it will decrease the quantity of slaughter waste to be treated from the SSU (environmental-friendly), and (ii) it will convert these slaughter waste into valuable animal protein, which is very scarce in Samoa, to be added to the feeding rations of pigs and poultry notably. As a possible profitable activity, this plant will be open for private management under a small Public-Private Partnership. On tree-crop, and to improve access to planting materials and to markets, the sub-component shall also include the rehabilitation of small feeder roads to upland piedmont farms; the construction of strategic field nurseries (cocoa and coconut seedlings) with associated rainwater harvesting structures; and the installation of improved crop drying facilities at market aggregation points to assure quality control in particular for niche export products. For the Fisheries Department, planned infrastructure and large assets to be financed by the Project include the construction of two new public cold storage facilities at fish markets for Alia fishers in Upolu and Savai'i. These infrastructures will be built or rehabilitated using disasters-resilient standards and materials to be more resistant to cyclones and other disasters. Prior to any investments, feasibility studies will be conducted that will assess the social, environmental, financial, and economic feasibility of the investment, as well as propose facility management mechanisms (including, for example, a public-private partnership).

b. *Sub-component 2.2: Matching Grant Program (IDA - US$6.45 million (national IDA: US$5.17 million and regional IDA: US$1.28 million) and IFAD Grant – US$0.58 million).* The Matching Grant Program will support activities and investments which aim to: (a) help farmers to increase their on-farm productivity and fishers to improve the management of their fishery resources; and/or (b) enhance market linkages and/or business relations for subsistence and semi-commercial farmers and fishers with other value-chain actors.

Table 1.1: MGP: description of the two windows

	Window 1: Small grants	**Window 2: Large grants**
Target beneficiaries	700 subsistence and semi-commercial farmers (F&V and livestock) and fishers	20 producers' organizations (registered groups and cooperatives) and MSMEs contracting smallholder farmers/fishers
Grant size	(to be confirmed in the MGP Operating Manual)	(to be confirmed in the MGP Operating Manual)
Grant coverage	Percentage of eligible investment costs to be confirmed in the MGP Operating Manual	
Eligible investments	• Investments to introduce innovations (technologies or practices) that will be defined in the MGP Manual (e.g. alia poly-tunnels, water collection and small-scale irrigation system) • Other investments for grater production and commercial activities	• Investments that enhance the market linkages and/or business relations with smallholder farmers/fishers (e.g. post-harvest processing equipment)
Selection criteria	• Preference will be given to farmers/fishers not benefited from other grants including SACEP • Quality of the business plans that demonstrates the likelihood of success • Existing/expected market linkages and strong commitment in the commercial production	• Existing/expected market linkages and strong commitment in the commercial production • Verifiable market opportunities for further expansion • Capacity of the management of the organizations and MSMEs • Quality of the business plans

11. The MGP will be managed through close collaboration between the ACSD, the Crops, Livestock and Fisheries Divisions, and the Small Business Enterprise Centre (SBEC). ACSD oversees the entire MGP process building on its experience in SACEP while SBEC identifies beneficiaries, provides training and supports the business plan development. The technical divisions of MAF, supported by Component 1 of the project, provide relevant extension support and advisory/veterinary services along their daily operations. The project will establish a coordinated approach for information collection and management supported by a common platform based on the project MIS.

12. The grant applicants will be screened and verified by SBEC and ACSD though awareness raising workshops and field visits. The initial training before the grant disbursement will focus on the target innovations (Window 1) and basic business skills including marketing and financial literacy (Window 1 and 2). The window 2 will involve additional assessments and training to make sure that the grant recipients handle larger and more complex investments. The MGP committee will select the grant recipients based on the selection criteria and recommendations from ACSD. The committee will include agribusiness specialists and representative(s) from the financial institutions, among others.

13. The grant recipients are required to cover the rest of the eligible investment costs (Percentage to be confirmed in the MGP Operating Manual) by themselves or rely on bank loans. Both cash and in-kind contributions are allowed as long as they are clearly defined in the business plans. The DBS and commercial banks will be invited to review the business plans during the MGP committee discussions and after the grant approvals. The banks conduct their loan

appraisal processes independently from the grant process. As in the SACEP, such loans will be guaranteed by the SBEC. The project encourages the use of partial guarantees according to the international best practices of the credit guarantee schemes.[22] The grant recipients will be encouraged to use the mobile accounts and savings accounts made available through the E-voucher for effective business management. Such collaboration, task sharing and coordination will be described in a Memorandum of Understanding (MoU) being signed between the GoS (MoF and MAF) and the DBS and SBEC respectively. This MoU will constitute a disbursement condition to sub-component 2.2.

14. Through the MGP, the project intends to reduce the gap between the supply and demand of financial services including savings, payments, and credit. Savings and payments are critical for effective business management, and credit can enhance the sustainability of the commercial activities. However, the penetration of such financial services is limited in the agriculture sector in Samoa. The project will introduce these financial services to the grant recipients depending on their needs through the initial training, the e-voucher and technical support. On the supply side of finance, the project will introduce potential customers (grant beneficiaries) to the banks through the MGP and provide technical assistance to upgrade the financial services in the sector. Among others, technical support to enhance the SBEC guarantee scheme would help strengthen the agriculture finance market in the country

15. Unless otherwise agreed to by the Government of Samoa and the Bank in writing, the Government of Samoa shall ensure that the E-Voucher system shall be developed and implemented in accordance with the details set forth in the MGPOM.

16. The system provides several advantages over the manual system previously employed under SACEP: (i) no cash is disbursed to recipients; they only receive credit which can be expended on a restricted set of goods or services; (ii) the progress of the beneficiaries activities, the actual purchases made and the complete financial position of the entire system is transparent through largely automated processes; and (iii) the effort required by project staff to monitor grant recipients activities and to reconcile financial information is greatly reduced. Figure (1) illustrates this process schematically.

17. Although the E-voucher system was successfully used under AFCRP, it has been unused for two years or more and it must be recognized that there will be some set up effort and cost. This will also provide an opportunity to strengthen the system and to implement some of the recommended improvements already identified.

18. Through the second window of this sub-component, fisheries sector investments will help implementing the existing and new Community-based Fisheries Management Program (CBFMP) developed under the sub-component 1.2. The Project will invest in and expand the CBFMP to include support for improved fisher community capacity and access to new income generating activities. Specifically, the Project will invest in improving compliance with safety-at-sea regulations and use the MGP for alia fishers to purchase safety gear grab bags. The Project will also invest in improved capacity to export fish and fish products through provision of training on improved handling and post-harvest practices for alia fishers as well as introduction of adequate onboard fish storage. Investments in this area will also benefit from provision of technical assistance to promote post-harvest value adding among local fishers and fisher groups through improved access to the restaurant market. This Component will also support development of Samoa's giant clams community-based grow-out schemes for export to the marine aquarium market. Over 100 villages have joined the CBFMP since inception. The Component will continue to support existing CBFMP climate-resilient practices including stock enhancement programs, no-take reserves and alternative livelihood options.

22 World Bank. 2015. "Principles for Public Credit Guarantee Schemes for SMEs". One of the principles is risk sharing between the lenders, borrowers and the guarantors.

19. The Project's investments in improving and expanding community engagement in the aquaculture subsector reflect Samoa's Aquaculture Management and Development Plan, 2013-2018, that prioritizes promotion of improved aquaculture management practices and improved human resource capacity to manage and develop aquaculture. This Plan specifically prioritizes investment in high priority commodities such as Giant clams (Hippopu spp. and Tridacna spp.) and Sea grapes (Caulerpa racemose) based on the high feasibility rating for these species in terms of availability of seed, technical knowledge, required infrastructure, marketability and use in community-based restocking enhancement programs.

20. Giant clams were flagged as a priority species for investment as they are considered a high value species for the marine aquarium market and are considered a delicacy in Samoa. Under sub-component 1.2, the project will invest in rehabilitation of the existing hatchery facility in Apia to ensure a reliable supply of spat for culture and community-based restocking. Establishment of this clam hatchery will support reintroduction of clams to villages with reserves established under the Fisheries Division extension program, through matching grants provided to the communities to finance the implementation of their CBFMP. The project will invest in improvements in community management of the giant clams through provision of extension services and technical assistance to support communities toward generating an additional revenue stream through facilitating access to the marine aquarium trade.

21. Sea grapes are already harvested and sold fresh in Samoa. There is a strong local market for sea grapes. Investment in this species will promote transplantation to support local demand of edible seaweed. The Fisheries Department will invest in improving and adapting existing techniques to implement transplantation in different locations. As such, the project will first undertake a thorough cost-benefit analysis of appropriate farming techniques to support expansion of sea grape production under sub-component 1.2. Based on the findings of this analysis, the project will invest in farming sea grapes for nutrition and food security purposes through matching grants to fishers and communities under sub-component 2.2. Investments will include roll-out of appropriate sea grape farming techniques, farm trials using improved techniques at selected sites and training of stakeholders, staff, women's committees and youth groups on the nutritional value of seaweed.

22. In addition to the grant, the project will offer tailored technical assistance support to improve beneficiaries' production skills as well as linkages with the buyers. The Crops, Livestock and Fisheries Divisions of the MAF will also provide extension support, advisory/veterinary services and monitor the investments through close collaboration with SBEC and ACSD. The grant recipients of the second window will benefit from additional training to ensure group solidarity, strengthen the involvement of smallholder farmers/fisheries, and enhance their commercial activities. The MGP will have a robust monitoring and evaluation framework backed by the MIS to monitor the progress of the investment projects and assess the impact.

23. Operational and procedures specificities (including two windows grants size, percent matching contribution by beneficiaries, eligibility criteria, conditionality of grant, ineligible expenditure notably on fisheries) of the MGP will be described in a detailed Matching Grant Operating Manual that will constitute a disbursement condition for this component 2 once the project is effective.

24. **Component 3: ASCD establishment and project management, M&E and communications (IDA – US$2.40 million (national IDA – US$1.87 million and regional IDA – US$0.53 million) and IFAD grant – US$0.96 million).** As part of a government request for centralized project support, this component will support the establishment of the Agriculture Sector Coordination Division (ASCD) to sit within MAF, which will be staffed by a Sector Coordinator at Assistant CEO level, and four Principal Officers for Financial Management, Procurement, Monitoring & Evaluation and Safeguards.

The ASCD will coordinate the SAFPROM implementation, collaborate with the other MAF Divisions including Livestock, Crops and Fisheries, as well as the Public Service Commission (PSC) and will support the coordination of other donor-funded agriculture projects. The ASCD will be the core unit responsible for the overall coordination of the implementation of the component 1 to 3 of the project including the day-to-day project activities, compliance with the provisions of the Financing Agreement and government policies and guidelines, project administration, preparation of grant withdrawal applications, and maintenance of records[23]. The ASCD (and notably the M&E Principal Officer) will ensure the monitoring of project's activities and coordination of reports from agencies, organizations and beneficiaries that will be part of the SAFPROM execution. The ASCD will be absorbed into MAF operating costs during SAFPROM implementation, becoming a sustainable coordination division for future projects, the implementation of the ASP 2016-2020 and the development of the next ASP (2012-2025) together with the Policy and Planning Division.

25. To ensure knowledge dissemination, support Citizen Engagement, increased uptake of the Matching Grant Program, and spur more demand for locally produced, high-quality produce, the ASCD will also carry out a range of communications activities, similar to those done under SACEP. This may include, but is not limited to, radio shows/interviews, media articles and press releases, TV documentaries and short videos, as well as social media outreach through both national and World Bank Pacific channels. These will keep the general public aware of project activities and progress, and more targeted campaigns will encourage certain behaviors such as improved nutrition. This will build on the 'Eat a Rainbow' campaign done in Partnership with the Ministry of Health under SACEP, which encouraged kids and schools to eat all the colors of the rainbow.

26. **Component 4: Contingency Emergency Response (CERC - Total Cost: US$0).** Following an eligible crisis or emergency, the Recipient may request the Association to re-allocate project funds to support emergency response and reconstruction. This component would draw from the uncommitted grant resources under the project from other project components to cover emergency response.

23 While WB is funding Safeguards and Procurement Principal Officers, they will be only work on WB-financed agriculture projects. More details are in III. Implementation Arrangements.

ANNEX 2: Implementation Arrangements and Support Plan

COUNTRY: Samoa
Samoa Agriculture & Fisheries Productivity and Marketing Project (SAFPROM)

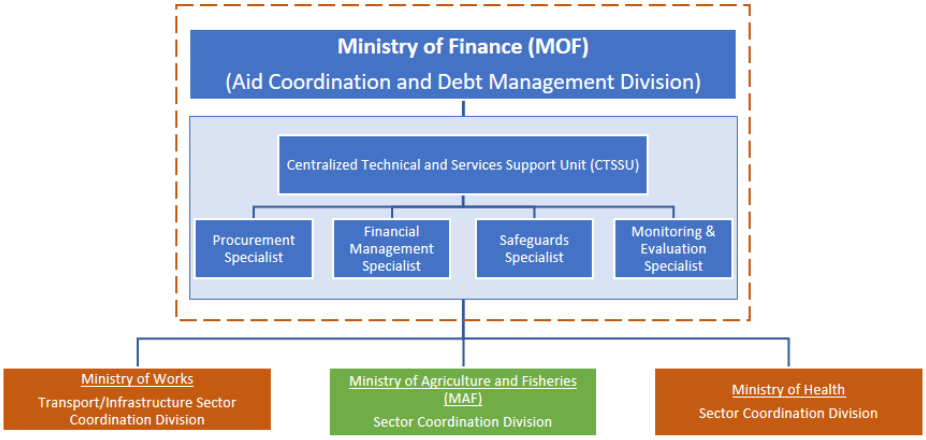
A. Institutional and Implementation Arrangements

1. The Ministry of Finance (MoF) will be the Executing Agency for the SAFPROM.

2. The Ministry of Agriculture and Fisheries (MAF) will be the implementing agency (IA) for the components 1 to 3 of the project. The component 4 (CERC) will be implemented by the MoF, would the CERC be activated.

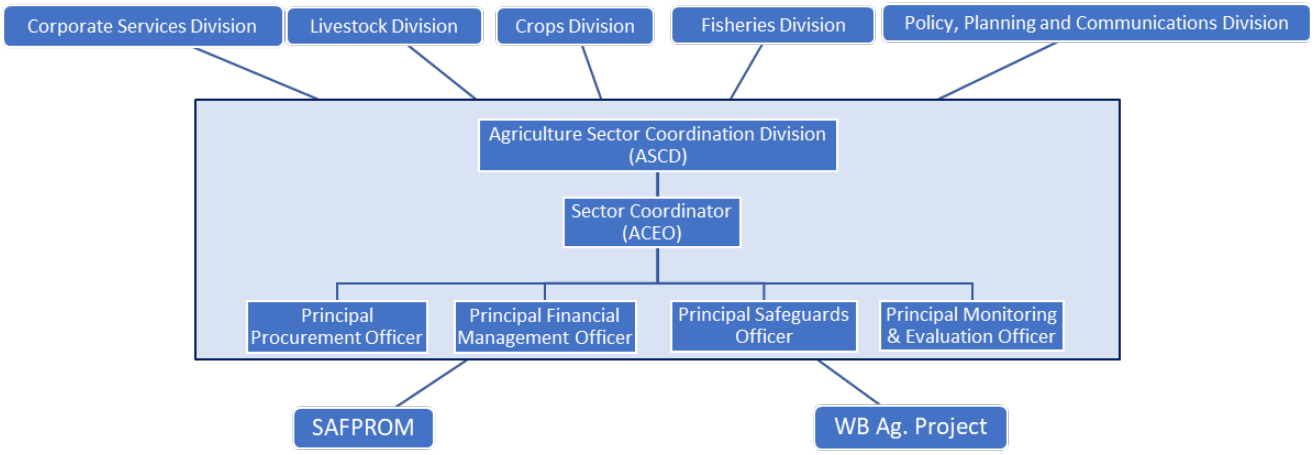
3. The GoS has established a Centralized Technical Services and Support Unit (CTSSU) to sit within the MoF. The CTSSU will be staffed with international experts in Safeguards, Procurement, Financial Management and Monitoring and Evaluation who will provide advice, as well as capacity building and guidance for the different government Ministries implementing World Bank-funded projects. It has been indicated that this unit may support all donor-funded projects in the future. Diagram 1 outlines the CTSSU.

Diagram 1: Centralized Technical and Services Support Unit organizational chart.



4. A part of this transition, new World Bank projects, including SAFPROM, will no longer establish their own Project Management Units. Instead, those tasks will be undertaken by each lead Ministry through a Sector Coordination Division. In SAFPROM's case, the Agriculture Sector Coordination Division (ASCD) sits within the MAF and has been staffed by a Sector Coordinator at Assistant CEO level, and four Principal level officers for Monitoring and Evaluation (M&E), Safeguards, Procurement and Financial Management (FM). These are nationally recruited positions to be engaged on individual contracts aligned with Public Service Commission (PSC) terms and conditions for an anticipated period of two years - while funded by the project - after which they will progressively be integrated into the national budget, so that the ASCD continue coordinating the sector development post-SAFPROM completion. The ASCD will be responsible for the day-to-day coordination of the implementation of components 1 to 3 of the project, monitoring and coordination, as well as coordination between the project and the different Divisions within MAF. Diagram 2 outlines the ASCD.

Diagram 2: Agriculture Sector Coordination Division organizational chart.



5. These arrangements were approved by the Cabinet Directive FK (17) Special 13 dated 22 November 2017. By Letter dated 2 May 2018, the PSC conveyed its approval for the establishment of the ASCD and the recruitment of the 5 keys positions described above.

6. However, based on SACEP experience, such team of five will be insufficient to coordinate the implementation of the SAFPROM as efficiently and effectively as required, particularly with other projects running parallel. The ASCD theoretical structure already includes three additional Senior Officers (Procurement, FM and M&E) and the SAFPROM will finance their recruitment on individual contracts for the length of the project. It will also integrate additional staff financed by the project through term contracts, and notably:

   (i) An Operations Officer for the general running and management of project activities.
   (ii) An MGP Manager in charge of monitoring and supervising the implementation of Component 2.
   (iii) An M&E Officer to report to the Principal M&E Officer
   (iv) One Junior Accountant to report to the Principal FM Officer
   (v) Support staff (Secretary, driver).

7. Project oversight will be ensured by the *Agriculture Sector Advisory Committee* comprising representatives from the MAF, the MoF, the Ministry of Foreign Affairs & Trade (MFAT), the Ministry of Commerce, Industry & Labour (MCIL), Ministry of Natural Resources & Environment (MNRE), the Scientific Research Organization of Samoa (SROS), the Ministry of Women, Community & Social Development (MWCSD), the Samoa Tourism Authority (STA), the Ministry of Health (MOH), and Civil Society Representative and Private Sector Representatives.

8. To support project implementation of components 1 to 3, the following will be prepared and adopted by the ASCD:

   (i) SAFPROM Standard Operating Procedures (SOP) shall be prepared no later than six months after project effectiveness. It will include institutional arrangements for day to day execution of the Project; the preparation and successive updates of the Procurement Plan and its implementation arrangements;

implementation arrangements for the Safeguards Instruments; budgeting, disbursement and financial management arrangements; Project monitoring, reporting, evaluation and communication arrangements; and any other administrative, financial, technical and organizational arrangements and procedures as necessary.

(ii) A MGP operations manual to detail the arrangements and procedures for the MGP including the eligibility criteria, procedures and guidelines for the selection, approval, administration and supervision; the arrangements in relation to the E-Voucher System; and any other administrative, financial, technical and organizational arrangements and procedures as necessary. To support the implementation of this, the ASCD shall, prior to the implementation of the E-Voucher System:

a. Enter into a memorandum of understanding with each relevant supplier, on terms and conditions acceptable to the Association, including, inter alia, the relevant procedures and audit requirements; and
b. Through MOF and MAF, enter into an agreement to hire a service provider to serve as a payment system operator to implement the E-Voucher System, on terms acceptable to the Association, including, inter alia, the relevant procedures and audit requirements.

9. To support project implementation of component 4, the following will be prepared and adopted by the MoF:

(iii) A Contingent Emergency Response Component (CERC) Operating Manual to detail any special institutional arrangements for coordinating and implementing the Emergency Response Part; specific activities which may be included in the Emergency Response Part, Eligible Expenditures required therefor ("Emergency Expenditures"), and any procedures for such inclusion; financial management arrangements for the Emergency Response Part; procurement methods and procedures for the Emergency Response Part; documentation required for withdrawals of the Emergency Expenditures; application of any relevant Safeguards Instruments to the Emergency Response Part; and any other arrangements for the coordination and implementation of the Emergency Response Part.

10. An annual work plan and budget will be submitted for World Bank review by August 15 each year the project is active.

11. The *Matching Grant Program Steering Committee* established by the Government of Samoa under SACEP will include the MCIL and be continued to oversee the running of Sub-Component 2.2. The Committee's tasks will involve oversight on the e-Voucher system, including tasks such as entering into an MoU with relevant supplier(s); hiring a service provider as a payment system operator and; hiring a consultant to manage the set-up and day-to-day running of the e-Voucher system.

B. Procurement

12. **Institutional arrangement for procurement.** The IA will be responsible for ensuring the procurement requirements of all the sub-components are met. They will receive procurement support from ASCD Principal Procurement Officer (financed by the WB), and CTSSU's Procurement Specialist.

13. **Applicable procurement regulations.** Procurement for the SAFPROM, including under IFAD co-financing, will be carried out in accordance with the World Bank Procurement Regulations for IPF Borrowers (Procurement Regulations), July 2016 (revised November 2017 and August 2018), and the provisions stipulated in the Financing Agreement as well as the Government's procurement requirements (as detailed in the *Public Finance Management*

Act 2001 (Section XII Procurement and Contracts); Treasury Instructions - Section 6: Procurement & Contracting (Part K Amended 2016); Procurement Guidelines: Goods, Works & General Services (Amended 2016); Procurement Guidelines: Consulting Services (2014); and B4 Schedule: Thresholds and Approvals). For international competitive procurement activities, the Bank's Standard Procurement Documents (SPD) shall be used.

14. **Procurement risk assessment.** A procurement risk assessment of the IA responsible for implementing the procurement activities under the Project was carried out and the overall procurement risk rating is "substantial". The new centralized support arrangements at the sector and central government agency level and the implementation arrangements may pose some initial risk to project implementation, particularly in the early phases of establishment. However, to minimize these early risks, the fast tracking of the recruitment of the CTSSU and ASCD personnel is already in progress. The main procurement risks identified for SAFPROM are:

    (a) Limited number of sufficiently qualified and experienced contractors in the market;
    (b) Limited capacity of the Government staff with regards to procurement and contract management;
    (c) Lack of knowledge and practice in application of the WB requirements detailed in the Procurement Regulations; and,
    (d) Lengthy approval and clearance processes.

15. The following mitigation measures are proposed:

    (e) IA will apply the procurement procedures detailed in the PAD and will develop detailed checklists to ensure consistent and compliant project procurement.
    (a) A Principal Procurement Officer will be hired and placed in the ASCD and a Procurement Specialist (from CTSSU) will provide support to the IA.

16. **Procurement types.** The various types of procurements to be financed by the proposed IDA grant and indicative cost estimates are noted in the following table and described below.

Table 2.1 Procurement Types

Type of Procurement
1. Works (US$4.10 million equivalent)
2. Goods (US$3.27 million equivalent)
3. Consulting Services (US$3.41 million equivalent)

17. **Procurement of works.** The procurement of works will include the completion of the works for the Static Slaughter Unit (SSU), fruit and is also planned to include the procurement of a vegetable packhouse, small veterinary clinic, small feeder roads and field nurseries, cold storage facilities, office refurbishments/construction.

18. **Procurement of goods.** The procurement of goods will include the prefabricated SSU and may also include the procurement of a marine vessel, vehicles and other farm machinery and equipment.

19. **Procurement of consulting services (firms and individuals).** It is anticipated that several specialist individual consultants and/or firms may need to be hired to support efforts to build technical capacity.

20. **Advance Contracting.** Provision for Advance Contracting will be included for the procurement process for SSU construction works phase 2 and the prefabricated SSU. As the design has already been completed for the entire SSU, MAF will be able to conduct the procurement process prior to signing of the Legal Agreement for the new Project (as detailed in para. 5.1, Section V. "Procurement Provisions" of the Borrower Regulations). Advance contracting may also be used for other activities prior to the signing of the Legal Agreement (as agreed).

21. **Frequency of procurement supervision.** In addition to the prior review to be carried out by the WB, implementation support missions will be undertaken at least once per year. One in five procurement packages not subject to WB prior review will be examined ex-post on an annual basis.

22. **Procurement Plan.** A draft Procurement Plan has been prepared for the Preparation Advance covering the key Project preparatory activities. In addition, a Project Procurement Plan will be prepared and detailed in the PPSD.

C. Financial Management

23. *Summary:* The existing FM systems are assessed as adequate to the meet the FM requirements as stipulated in Bank Directive: Investment Project Financing. The Project's overall FM risk is rated "moderate".

24. *Budgeting:* MAF through the ASCD, will prepare budgets for the whole project which will be required to be broken down by year with appropriate levels of detail (for example, Component or Category). MAF through ASCD will review this document and report on the analysis of budget vs. actual expenditure and incorporate this into the project reports and at summary level in the IFRs and the annual audited financial statements in accordance with IPSAS cash basis standard in the actual versus budget comparison statement.

25. *Counterpart Funding:* As the Project is funding 100 percent of eligible expenditure and inclusive of tax, no counterpart funding is envisaged.

26. *Funds Flow:* MoF will co-ordinate and authorize the funds flow and make all payments for the Project. Separate Designated Accounts (DA) for the IDA and the IFAD will be established for the Project (refer Disbursement Section below). Funds will flow from IDA and IFAD to GoS into the Designated Accounts for advances, or to the nominated GoS bank account for reimbursement of pre-financed expenditures. Funds can also flow to contractors via direct payment or to supplier's commercial bank for special commitments.

27. *Accounting and Maintenance of Accounting Records:* MoF and MAF uses the Samoa Government's accounting system (Finance One) and operates on a cash basis of accounting. Copies of all accounting records for the project will be required to be maintained and made available to both auditors, the WB and IFAD, as required.

28. *Internal Controls; including Internal Audit:* Government agencies in Samoa are required to comply with the financial management processes and procedures detailed in the "*Public Finance Management Act (PFMA) 2001*" and "*Treasury Instructions (TI) 2015*". These are considered satisfactory for this project. An internal audit (pre-audit process) function is furthermore performed by the Samoa Audit Office over government ministry transactions processed through the Finance One system.

29. *Periodic Financial Reporting:* Unaudited interim financial reports (IFRs) will be prepared on a quarterly basis. The financial reports will include an analysis of actual expenditure for the current period, year to date and for the cumulative to date, plus outstanding commitments, compared against total project budget, and as required under Government of Samoa PFMA and TI. The format of the IFRs will be consistent with the format approved by GoS and WB and used for all existing WB funded projects in Samoa. The IFRs will be forwarded to the World Bank within 45 days of the end of each calendar quarter.

30. *External Audit:* An annual audit of the Project financial statements will be required. The audited financial statements, audit report, and management letter must be received by the WB within six months of the end of the fiscal year. The audited financial statements and audit report shall be made publicly available by the Recipient in a manner acceptable to the WB according to the General Conditions of IDA Grants. The Samoa Audit Office is responsible for the audit of public assets, liabilities, equity and money and the audit of financial statements of public bodies and related agencies. The audited Project financial statements are to be prepared in accordance with the "International Public-Sector Accounting Standard Under the Cash Basis of Accounting", as required by MoF for all projects. There are currently no overdue audits.

(ii) Disbursements

31. *Disbursement Methods and supporting Documentation Arrangements:* The project could use four disbursement methods: (a) advances; (b) direct payment; (c) reimbursement, and (d) special commitments. Direct payment would only be used for large payments or when payments are in currencies that the borrower may have difficulty obtaining. Reimbursement would only be used if the Government of Samoa funds were used for project expenses rather than expenditure being through the Designated Account. Special commitments may be needed if goods are purchased from overseas. Disbursements will be against List of Payments and Statements of Expenditure. Required supporting documentation for disbursements will be outlined in the Disbursement and Finance Instructions Letter (DFIL).

32. *Designated Account:* The Project will need separate Designated Accounts for IDA and IFAD Advances, with the currency of the Designated Account in USD, to be held at the Central Bank of Samoa. The ceiling of the IDA Designated Account will be specified in the Disbursement and Financial Information Letter (DFIL).

33. *IFAD Co-financing*: Both sources of funding (IDA and IFAD) will contribute to the activities under components 1.1, 2 and 3 of the project as per the agreed fixed percentages indicated in the DFIL. Component 1.2 and 4 will be fully financed by IDA. Each Withdrawal Application will be funded according to the percentage of project financing provided by the two funding sources, i.e. for the first 5 disbursement categories in the disbursement table of the Financing Agreement (Schedule 2, Section III.A) or in para 34 Eligible Expenditures below, category (1) will be financed by IDA 71.5 percent and IFAD 28.5 percent; the remaining categories (2), (3), (4) and (5) will be fully financed by IDA. IFAD co-financing will be administered by IDA under a Letter of Appointment signed between the two agencies. The Letter of Appointment will indicate that IFAD appoints IDA as Cooperating Institution in line with the General Conditions of IFAD.

34. Eligible Expenditures

Category	IDA Grant Amount of Grant Allocated (expressed in Dollars equivalent)	IFAD Grant Amount of Grant Allocated (expressed in Dollars equivalent)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, works, non-consulting services, consulting services, Operating Costs and Training and Workshops under the Project, except for Parts 1.2 and 4 of the Project	9,020,000	3,600,000	Percentage as specified in the Disbursement and Financial Information Letter
(2) Goods, works, non-consulting services, consulting services, Operating Costs and Training and Workshops under Parts 1.2 (a) to (i) of the Project	5,650,000		100 percent financed by IDA
(3) Goods, non-consulting services, consulting services, Operating Costs and Training and Workshops under Parts 1.2 (j), (k) and (l) of the Project	270,000		100 percent financed by IDA
(4) Matching Grants under Part 2.2 of the Project	4,310,000	0	100 percent financed by IDA
(5) Emergency Expenditures under Part 4 of the Project	0		100 percent financed by IDA
(6) Refund of Preparation Advance	700,000		Amount payable under IDA grant pursuant to Section 2.07(a) of the General Conditions
TOTAL AMOUNT	19,950,000	3,600,000	

35. Disbursement Conditions:

a. for payments under Category (3) unless and until IDA is satisfied that Samoa's fisheries laws and regulations are consistent with the provisions of Article 73 of the United Nations Convention on the Law of the Sea, and specifically that: (i) vessels and their crew arrested in Samoa's exclusive economic zone shall be promptly released upon the posting of a reasonable bond or other security; (ii) penalties imposed by Samoa for violations of fisheries laws and regulations in Samoa's exclusive economize zone may not include imprisonment, in the absence of agreements to the contrary by the states concerned, or any other form of corporal punishment; and (iii) in cases of arrest or detention of foreign vessels, Samoa shall promptly notify the flag state, through appropriate channels, of the action taken and of any penalties subsequently imposed.

b. for Matching Grants under Category (4) unless and until IDA is satisfied that: (i) the Recipient has adopted the MGP OM; and(ii) the financial institution MoUs (between MOF and MAF the Development Bank of Samoa and SBEC) have been signed.

c. for Emergency Expenditures under Category (5), unless and until IDA is satisfied that the conditions relevant to the CERC specified in the Financing Agreement have been met.

36. *Project Preparation Advance (PPA – Category (6)):* as part of the preparation of new projects (transport, agriculture and health notably) under the current IDA cycle, the GoS requested a programmatic PPA to support the preparation of new proposed IDA-financed projects, including the SAFPROM. The PPA of US$ 700,000 was utilized to recruit consultants for the ASCD, as well as to prepare the PPSD, the safeguards instruments (ESMF and RPF) and specific sub-sectors technical studies (fisheries, crops and livestock). Several rounds of consultations with citizens and stakeholders were also supported, using PPA funds.

37. *Funding Sources*

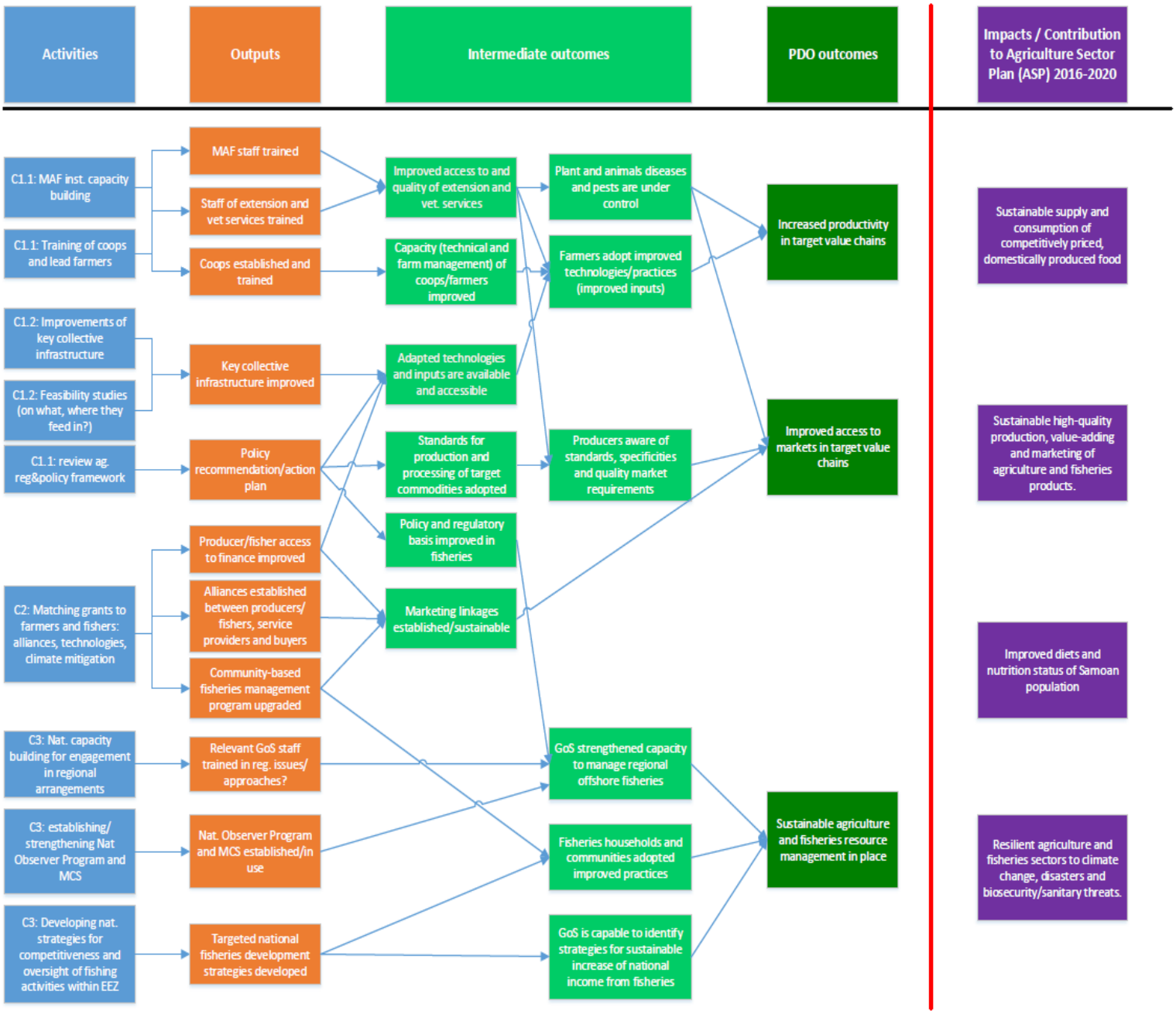
Source	**Amount** ($ million)	**Share of Total** (%)
World Bank – National IDA Grant	13.95	59%
World Bank – Regional IDA Grant	6.00	26%
IFAD - Grant	3.60	15%
Total	**23.55**	**100%**

38. *Retroactive Financing:* No retroactive financing is envisaged.

D. Monitoring and Evaluation framework

39. The M&E System under SAFPROM will assess the project's progress against the Theory of Change (see Diagram 3 below) and related indicators in the Results Framework. It includes internal progress monitoring, a Management Information System (MIS) and independent impact evaluation surveys (annual surveys and a matching grant impact assessment). The overall M&E system builds on the SACEP experience and addresses some of the challenges such as the need for more accurate data and record keeping. Some activities that were successful under SACEP, including the Annual Market Survey and regular monitoring activities, will be retained and consolidated under SAFPROM.

Diagram 3: SAFPROM Theory of Change



40. The overall responsibility for the project monitoring, evaluation, and reporting rests with the ASCD team, specifically with the Sector Coordinator and the Principal M&E Officer. In response to challenges faced during SACEP to collect day-to-day data, two M&E Specialists will also be recruited to assist the M&E Principal Officer, one in Upolu and one in Savai'i.

41. The M&E system will collect data and information on the project implementation and results to:
    a. Ensure a high level of transparency and accountability in the delivery of project activities;
    b. Improve the effectiveness of day-to-day decision-making through the provision of timely information to project managers and stakeholders;
    c. Enhance the ability of the *Agriculture Sector Advisory Committee* to hold project staff accountable for effectively delivering annual work programs and to adjust project activities as needed;
    d. Empower key stakeholders and project beneficiaries to provide timely feedback to project staff, in turn supporting the project to adapt and respond to their needs;
    e. Capture and communicate lessons learned to improve performance during project implementation and to allow similar or related projects to benefit from this shared knowledge; and
    f. Verify the achievement of project objectives and outcomes through the collection and analysis of high quality socio-economic and farming/fishing practice data and information.

42. The M&E section of the SAFPROM SOP will describe: (i) what data and information needs to be collected (on which project systems, inputs, processes, results, and impacts); (ii) who, how and when it will be collected; (iii) how it will be stored, processed and delivered; and (iv) who will have access to raw data, processed data and information.

43. *Results Framework:* According to the 2015 Samoa Agriculture Survey, over 28,000 HHs are engaged in agriculture or fisheries, but only slightly more than 1,000 are producing for sale. The direct project beneficiaries will include those livestock, crops and fisheries smallholder producers and processors moving towards more commercial operations.

44. The Project Development Objective of the SAFPROM project is "to increase the productivity and access to markets by selected producers, to improve management of targeted productive natural resources and, in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency". The Results framework includes PDO-level indicators on productivity, value chains and improved management for fisheries. Some are existing indicators from SACEP and will be kept under SAFPROM because they proved valuable and accurate, and to maintain consistency between measuring the success of both projects. Baseline data for some indicators will also be sourced from the MGP Impact Assessment and Annual Market Survey from SACEP.

45. In general, the Results Framework indicators have been simplified and their methods of measurement defined more clearly to address some issues raised under SACEP such as inconsistent reporting and difficulties in obtaining the data needed. There are several new intermediate-level indicators on capacity building, adopting new technologies and practices as well as beneficiary satisfaction. Some indicators include gender targets and the activities associated with them will encourage female beneficiaries to run farms and add value to their existing agricultural production.

46. An important tool to collect data and track project implementation will be the Farmer Record Book. SACEP had difficulties collecting accurate data due to a lack of farm records. The Farmer Record Book will be introduced to at least 20 percent of beneficiaries who will be trained and responsible for keeping records of their production and sales. This will strengthen M&E while establishing good practices among those farmers.

47. *Internal progress monitoring:* The M&E Principal Officer will coordinate data collection activities based on the requirements of the results framework, and as set out in the SAFPROM SOP. The Principal Officer will be assisted by the M&E specialists based in Savai'i and Upolu. Internal progress monitoring will include the following activities:
    a. Routine monitoring: regular data collection and field visits to monitor project implementation and data verification.

b. Farmer Record Books: formal recording of farm production and sales will be randomly introduced to 20 percent of the Matching Grant Beneficiaries who will receive special training for this.
c. M&E workshops and consultations: to discuss the project implementation, identify challenges and potential solutions.
d. M&E work plan: a detailed plan will be developed to outline M&E priorities, schedules, and how data will be analyzed, compared, reviewed and how associated tools will be utilized.

48. Much of this data, including data from the Farmer Record Books, will be transferred to the MIS for analysis, storage and presentation to help track project implementation. Some of the data regarding capacity building and adoption of new technologies and farming practices will also be recorded in the MIS.

49. *Independent impact evaluations:* The impact evaluation surveys will measure indicators related to the project development objective, such as increased productivity in crops and livestock, sustainable management of fisheries, and improved access to markets. Some indicators (such as access to markets) will be measured only through these surveys, while for others (such as productivity), the surveys will serve to verify data obtained from Farmer Record Books and extension visits.

50. Annual Market Surveys which have been piloted under SACEP will continue under SAFPROM to measure project achievements related to the respective value chain and sales. Furthermore, the MGP Impact assessment will be conducted as an independent external evaluation at project mid-term and end-line. Both the MGP Impact Assessments and the Annual Market Surveys will contribute to the monitoring of project PDO- and intermediate-level indicators. The results from the MGP Impact Assessment will be triangulated with the statistical trends from the Farmer Record Books to verify the quality of data and record keeping of farmers. In addition, the Results Framework will look at beneficiary satisfaction indicators including (i) beneficiaries feel that project investments reflect their needs, and (ii) grievances registered and addressed, relating to the delivery of project benefits. These citizen engagement-related indicators will be studied as part of independent progress monitoring.

51. *Management Information System (MIS):* Emphasis will be placed on ensuring that a functioning MIS is implemented as soon as possible after commencement of the project. This will enable operational data, as well as information relating to some of the indicators specified in the Results Framework, to be collected in an accurate and timely manner and presented effectively to all stakeholders. The difficulties encountered with SACEP where MIS development was slow and relatively narrow in scope, will be addressed by:
    a. Developing a generalized MIS architecture capable of supporting the needs of the project as well as anticipated future needs of MAF. This will be based on a modular design with clear interfaces so that information from applications developed by related institutions and stakeholders may be consolidated and presented effectively, as they become available. The concept is illustrated in Fig.(1).
    b. Following an implementation plan based on addressing immediate requirements, prioritized according to the schedule of SAFPROM project activities and developed in several stages.
    c. Ensuring that adequate technical resources are allocated to MIS development, especially software development personnel.

52. As much as possible, the overall aim will be to capture information as it is created, by integrating the MIS within normal work processes. This will provide information on many of the output indicators of the Results Framework. Key points of integration are likely to be:
    a. MGP Beneficiary assessment and creation of agreements. Key elements of business plans, observations

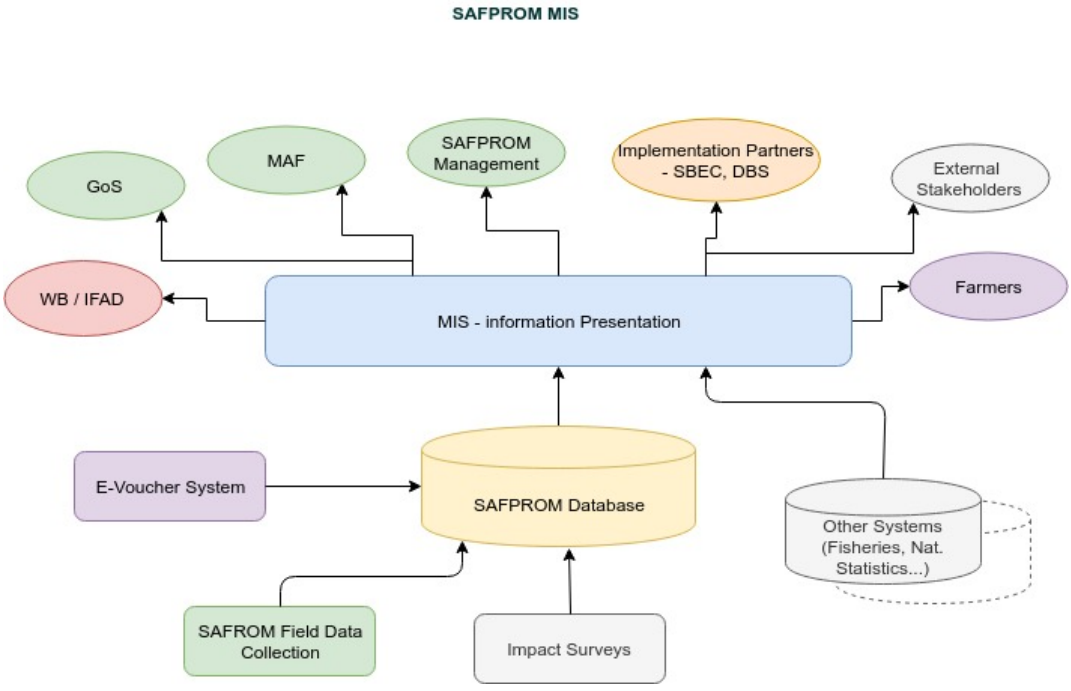
during assessments and the financial and physical milestones will be recorded.

b. The disbursement of grant tranches, their acquittal and observations made during field visits, will be recorded. The implementation of the e-voucher system for disbursement will ensure that accurate data on progress of beneficiaries' activities are available quickly and automatically.
c. Field data will include extracts from farmer record books as well as other observations made by extension officers and M&E officers. The use of mobile "apps" for recording such information efficiently and with authenticity, through geo-tagging, will also be pursued.

53. Implementation of the MIS will be the responsibility of the M&E Principal Officer, who will engage external technology providers, including software developers and consultants, as needed. This will need a good understanding of the requirements of the Results Framework, the overall M&E demands of the Sector, the management and reporting needs of the Project, including those of external stakeholders, and the requirements of the Finance function. Since the e-voucher system will be an important tool, which will yield much of the operational data, its implementation will be closely linked to the development of the MIS and close collaboration with the Finance function will be required.

54. Management of the e-voucher system and the MIS will require some technical capacity, beyond that available in MAF. This will be based on suitable contracting arrangements for maintenance and management of the Project's information systems combined with some responsibilities to be assumed by MAF IT staff.

Figure (1) – SAFPROM MIS



ANNEX 3: Budget

COUNTRY: Samoa
Samoa Agriculture & Fisheries Productivity and Marketing Project (SAFPROM)

1. The project will be financed by an International Development Association (IDA) Grant of SDR 14.4 million (US$19.95 million equivalent) to be implemented over six years. IFAD will co-finance with an additional grant of US$3.6 million. The total project cost is estimated at US$ 30.28 million, with contributions from crop and livestock farmers and fisherfolk estimated at US$ 4.45 million (in cash or in kind) and the other private sector players in the financial and other markets at US$ 1.53 million.

2. Project Financing Table: (IDA 100 percent for SC 1.2 (fisheries), grants and emergency response - and 71.5 percent for all other components; IFAD 0 percent for SC 1.2 (fisheries), grants and emergency response, and 28.5 percent for all other components)

Project Cost Summary (US$ Million)	Cost Including Contingencies	% of Total	IDA Financing	% Financing	IFAD Financing	% Financing
A. Strengthening National Institutions						
Institutional capacity building for crops and livestock	4.88	16.1	3.39	71.5	1.35	28.5
Strengthening management of the region's shared oceanic and coastal fisheries	5.92	19.5	5.92	100.0	-	-
Subtotal	10.80	35.7	9.31	87.3	1.35	12.7
B. Strengthening the performance of selected value-chains						
Public Good Infrastructure	2.52	8.3	1.79	71.5	0.72	28.5
Matching Grants in two windows	13.35	44.1	6.45	87.5	0.58	12.5
Subtotal	15.86	52.4	8.24	84.4	1.30	15.8
C. ASCD establishment and project management, M&E and communications						
ASCD establishment, project management, M&E and communications	3.62	12.0	2.40	71.5	0.96	28.5
Subtotal	3.62	12.0	2.40	71.5	0.96	28.5
Total PROJECT COSTS	30.28	100.0	19.95	65.9	3.61	15.0

3. Project Cost and Financing (US$ 30.28 Million)[24]

Components by Financiers (US$ Million)	IDA		The Government		Farmers		IFAD		PFI		Private		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Strengthening National Institutions														
Institutional capacity building for crops and livestock	3.39	69.5	0.14	2.8	-	-	1.35	27.7	-	-	-	-	4.88	16.1
Strengthening management of the region's shared oceanic and coastal fisheries	5.92	100.0	0.00	-	-	-	-	-	-	-	-	-	5.92	19.5
Subtotal	9.31	86.2	0.14	1.3	-	-	1.35	12.5	-	-	-	-	10.80	35.7
B. Strengthening the performance of selected value-chains														
Public Good Infrastructure	1.79	71.3	0.00	-	-	-	0.72	28.7	-	-	-	-	2.51	8.3
Matching Grants in two windows	6.45	46.8	0.33	2.5	4.45	33.4	0.58	5.8	1.35	10.1	0.19	1.4	13.35	44.1
Subtotal	8.24	50.8	0.33	2.1	4.45	28.1	1.30	9.4	1.35	8.5	0.19	1.2	15.86	52.4
C. ASCD establishment and project management, M&E and communications														
ASCD establishment, project management, M&E and communications	2.40	66.2	0.26	7.3	-	-	0.96	26.5	-	-	-	-	3.62	12.0
Total PROJECT COSTS	19.95	65.9	0.73	2.4	4.45	14.7	3.61	11.9	1.35	4.5	0.19	0.6	30.28	100.0

[24] GoS' contribution include in-kind contribution for community mobilization under sub-component 1.1, contribution to the MAF stimulus package and taking over ASCD staff salaries.

4. Project Components Project cost (US$ 30.28 M)

In accordance with the Operations Manual, farmer and fisherfolk counterpart contributions are expected to be in cash through the matching grants.

Components Project Cost Summary	(WST Million)					(US$ Million)				
	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs
A. Strengthening National Institutions										
Institutional capacity building for crops and livestock	7.24	5.16	12.39	42	16	2.78	1.98	4.77	42	16
Strengthening management of the region's shared oceanic and coastal fisheries	6.09	8.80	14.89	59	19	2.34	3.38	5.73	59	19
Subtotal	13.33	13.96	27.28	51	36	5.13	5.37	10.49	51	36
B. Strengthening the performance of selected value-chains										
Public Good Infrastructure	5.66	0.00	5.66	-	7	2.18	0.00	2.18	-	7
Matching Grants in two windows	27.79	6.72	34.50	19	45	10.69	2.58	13.27	19	45
Subtotal	33.45	6.72	40.16	17	52	12.86	2.58	15.45	17	52
C. ASCD establishment and project management, M&E and communications										
ASCD establishment, project management, M&E and communications	3.14	5.99	9.13	66	12	1.21	2.30	3.51	66	12
Subtotal	3.14	5.99	9.13	66	12	1.21	2.30	3.51	66	12
Total BASELINE COSTS	49.91	26.67	76.58	35	100	19.20	10.26	29.45	35	100
Physical Contingencies	1.25	0.06	1.31	5	2	0.48	0.02	0.51	5	2
Price Contingencies	1.47	1.14	2.61	44	3	0.18	0.14	0.32	43	1
Total PROJECT COSTS	52.64	27.87	80.51	35	105	19.86	10.42	30.28	34	103

ANNEX 4: Shared Coastal and Oceanic Fisheries and Rationale for Regional IDA

A. Regional Sectoral Context

1. Management of Tonga and Samoa's fisheries impacts neighboring PICs' fisheries.[25] Fish resources are transboundary by nature and both Projects generate tangible benefits that cross national boundaries. In terms of the level of interconnectivity within and between Central Pacific marine ecosystems, it is known that migratory pelagic species (e.g., tuna) move extensively between Central Pacific states. In addition, the homogenous nature of PIC fish populations, at the species level, suggests connectivity for most species of importance to coastal fisheries. For some species, such as spiny lobsters, there is genetic evidence that single stocks exist between certain states. And, for some deepwater snappers, there is evidence of connectivity, for example between Tonga's seamounts and Fiji's Lauan seamounts.[26] In addition, tagging studies show that mahi-mahi and trevallies undergo long distance migration which is likely to extend to other pelagic species. Effective management of these stocks in both Samoa and Tonga contribute to the sustainability of regionally shared stocks. In addition, the Tongan inshore commercial fishery and the Samoan community coastal fishery rely on regional larval recruitment of snappers and spiny lobsters, and larval export from both countries that contribute to the commercial fisheries of other PICs.

2. All of Samoa and Tonga's fisheries activities are conducted in accordance with agreed regional approaches to fisheries management. Tonga and Samoa are signatory to the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, they are both members of the Western and Central Pacific Fisheries Commission (WCPFC), members of the Pacific Islands Forum Fisheries Agency (FFA), and members of the Pacific Community (SPC). Tonga and Samoa are also signatory of the Tokelau Arrangement (TKA),[27] a regional agreement to promote optimal utilization, conservation and management of South Pacific Albacore Tuna fishery. The TKA is a complementary regional fisheries management agreement to the Parties of the Nauru Agreement (PNA) that targets skipjack, big eye and yellowfin tuna. The original cohort of PROP Projects are all members of the PNA, the Phase II cohort are members of the TKA. Both the TKA and PNA are sister agreements on regional management of shared tuna fisheries in the Pacific. Phase II of PROP permits inclusion of TKA member states. In addition, the new phase of PROP-aligned Projects are also designed in line with the *"Future of Fisheries: A Regional Roadmap for Sustainable Pacific Fisheries"*, endorsed by Pacific leaders in 2015.

3. In addition, both Tonga and Samoa are signatory to the regional approach to inshore fisheries management, the Noumea Strategy: "A New Song for Inshore Fisheries, Pathways to Change".[28] The Noumea Strategy has been endorsed by PICs and Territories[29] in recognition of the interconnectedness of Pacific fisheries, fish stocks, fishing communities and fishing industries. The Noumea Strategy specifically recognizes that the challenges faced in inshore fisheries management are common to every Pacific Island, and that a regional management approach is necessary. Samoa and Tonga's inshore commercial and community fisheries management activities are closely aligned with the Noumea Strategy. The Noumea Strategy notes that inshore fisheries provide the primary or secondary source of income for up to fifty per cent of households in the Pacific region, but that coastal fisheries

[25] The terms fishery and fisheries are used in different forms with respect to the nomenclature of specific legislation.
[26] Pers comm, Tim Adams, FFA.
[27] Signatories to the agreement are Tokelau, Vanuatu, Australia, Cook Islands, New Zealand, Niue, Samoa, Tonga, Tuvalu, Fiji, and Solomon Islands.
[28] Approved by the ninth SPC Heads of Fisheries Meeting, New Caledonia (March 2015) and the 93rd Forum Fisheries Committee Meeting in Tuvalu (May 2015). Endorsed by the 11th Ministerial Forum Fisheries Committee Meeting in Tuvalu (July 2015).
[29] Approved by the ninth SPC Heads of Fisheries Meeting, New Caledonia, March 2015, and the 93rd Forum Fisheries Committee Meeting, Tuvalu, May 2015. Endorsed by the 11th Ministerial Forum Fisheries Committee Meeting, Tuvalu, July 2015.

resources are declining. Some key challenges identified for the Pacific region include an inadequate focus on coastal fisheries management by fisheries agencies compared to the offshore tuna sector; outdated management policy, legislation and planning, with little or no monitoring of effectiveness or sustainability; poor stakeholder collaboration/connection at the national and regional levels, and; inadequate compliance with fisheries rules and variable/inadequate sanctions. The activities to be financed under both Projects contribute directly to the regional obligations and aspirations of these arrangements.

4. As such, the expected Pacific regional benefits generated by the Samoa and Tonga Projects include:

   a. Targeted support for improved management and compliance in the ***yellowfin, big eye and albacore tuna fishery*** will support Samoa and Tonga's commitments with the WCPFC and regionally-aligned and informed collaborative programs led by FFA. Both projects will support the enhanced management of shared fish resources such as tuna and associated species, through better engagement in regional processes and improved monitoring control and surveillance (MCS) at sea and in ports. This regional benefit will be formally monitored through PDO and/or Intermediate Results Indicators presented in the Results Framework of both Projects.
   b. Targeted support for improved science and management of the ***deepwater snapper fishery*** will elicit key lessons on stock assessment, larval exchange and regional biological connectivity that will inform parallel work in neighboring PICs and will be incorporated into the SPC's regional work on this important fishery on improved fishery management measures.
   c. Targeted support for improved management and compliance in the ***Samoa coastal community fishery*** and the ***Tonga inshore commercial fishery***, reflects Tonga and Samoa's commitments and obligations to the regional approach to coastal fisheries management, the Noumea Strategy. This work will also support Samoa and Tonga's regionally-aligned and informed collaborative programs led by SPC.

5. In both Projects, offshore and coastal (inshore) fisheries activities contribute to Tonga and Samoa's regional commitments and obligations to aforementioned regional agreements: Noumea Strategy and Tokelau Arrangement. Taking a coordinated approach to fisheries management permits Tonga, Samoa and other PICs to share knowledge and resources and tackle collective challenges, such as the growing impacts of climate change on fish stocks and their environment. While Samoa's community-based fisheries management plans (and SMAs in Tonga) will allow local flexibility and tailoring, to achieve regional results, they will be combined with the development and resourcing of relevant and effective MCS mechanisms, which both Project's will support.

B. Regional PROP SOP

6. Building on the original PROP Series of Projects, both Projects are aligned with the overarching Regional PROP objectives and contribute to the regional goals of sustainable offshore (oceanic) and inshore (coastal) fisheries management.

7. The original PROP was developed in 2013 as a SOP to be implemented in three phases, each six-years' in duration. Phase 1 began in 2014 and is under implementation in four countries (Federated States of Micronesia, Republic of Marshall Islands, Solomon Islands, Tuvalu) and one regional institution, FFA. Phase I national Projects share the same PDO and Results Framework. They also reflect the same component design drawing on a pre-set menu of agreed investment activities (Table 1). All four countries are members of the Parties of the Nauru Agreement (PNA) and operate the Vessel Day Scheme for their tuna purse seine fisheries and two long line tuna fisheries. The main tuna species targeted in the Phase I cohort are skipjack, bigeye and yellowfin.

8. Table 1 lists the menu of activities supported by PROP from which participating Phase I countries can select; all of which have a strong regional dimension with respect to the shared tuna resources (Component 1) and the shared coastal sea cucumber (or beche-de-mer) fishery (Component 2) in the Pacific Islands region.

9. Note: the regional work on the coastal sea cucumber fishery in the original PROP SOP was not tagged to leverage Regional IDA, rather, at the time, only the tuna fisheries were tagged for Regional IDA funding. Whereas, the Phase II PROP cohort expand on the coastal fisheries investments embedded in the original Phase I Projects and emphasize the inherent regional nature and benefits to be generated by the three Phase II Projects complementing the regional benefits generated by the PROP Phase I Project's investments in the regional coastal sea cucumber fishery (Component 2) and regional coastal fisheries habitats (Component 3).

Table 4.1: PROP Menu of Activities

Component
1: Sustainable Management of Oceanic Fisheries
Capacity building and institutional strengthening at both national and regional levels in the Vessel Day Scheme
Increased monitoring, control and surveillance to enforce tuna access rights regimes
Increased local value added to tuna products
2: Sustainable Management of Inshore Fisheries
Management of export and high-value fisheries
Rights for Stakeholder-Managed Fisheries
Linkages to Markets and Local Entrepreneurship and Skills Development
3: Habitat Conservation
Support to Marine Protected Areas and Marine Management Areas
4: Regional Coordination, Learning, and Monitoring and Evaluation

10. The Phase I cohort are midway through their Project cycle and are all undergoing moderate to comprehensive restructuring to adjust design issues related to: (i) the original Disbursement Linked Indicator (DLI) modality; and, (ii) to incorporate strategic opportunities in both oceanic and inshore fisheries given advancements made during the first stage of these Projects.

11. Phase II include new fisheries projects in Tonga, Samoa (not in the SOP) and Kiribati. The new Projects represent an evolution from the original architecture of the PROP SOP in Phase I by applying the myriad lessons learned from implementation of the Phase I cohort as well as expanded range of activities to reflect: (i) introduction of the Noumea Strategy on regionally shared coastal fisheries resources and the new regional commitment to the Noumea Strategy on coastal fisheries; and (ii) the specific regional context relevant to Tokelau Arrangement members countries versus the context of the members of the Parties of the Nauru Agreement.

C. Summary of National and Regional IDA Funds

12. The below table shows the Components and activities included in SAFPROM which will be supported by Regional IDA.

Component	Activity	National	Regional (Actual)	Rationale for Regional IDA
Component 1.1 Institutional capacity building for crops and livestock	Support the rehabilitation of the MAF infrastructure, including the MAF office on Savai'i, recurrent costs and MAF vehicles. (Total = US$1.6m)	200,000	106,000	The MAF office will support regional fisheries activities*
	Membership fee and participation in regional and international forums of the OIE (World Organization for Animal Health) (Total = US$0.3m)	33,000	66,000	This is a standard setting organization recognized by the WTO for trade of animals and animal products, including fisheries and aquaculture. MAF's membership will allow it a voice on the international stage, contribute to regional policy and benefit from shared knowledge.
	Regional study on remittances (Total = US$.3m)	33,000	66,000	This will have spillover benefits for Tonga, where remittances contribute almost 33 percent to GDP
Component 1.2 Strengthening management of the region's shared oceanic and coastal fisheries		1,975,000	3,950,000	This component will strengthen Samoa's MCS activities and promote sustainable coastal fisheries through strengthening existing and developing new Community-Based Fisheries Management Plans (CBFMP), both of which directly contribute to regional fisheries objectives outlined in the Noumea Strategy, of which Samoa, Tonga and Kiribati have committed to. It will also strengthen Samoa's engagement in regional and international fisheries fora and formal fisheries negotiations; strengthen Samoa's National Observer Program, and; develop Samoa's capacity to export fish and fish products.
Component 2.2 Matching Grant Program (Total = US$6.25m)	One third of matching grants will be allocated for fishers.	640,000	1,280,000	Fishers in Samoa experience many of the same challenges as those in Tonga and Kiribati, including growing impacts of climate change, reduced fish stocks and a lack of knowledge and awareness of best practices that are regionally promoted. Fishers taking part in the MGP will be provided training and extension services on more sustainable fishing

				practices and climate-smart activities and technologies. By supporting their involvement with CBFMPs, they will also support Samoa's commitment to regionally agreed frameworks, such as the Noumea Strategy.
Component 3 Agriculture Sector Coordination Division (ASCD) Establishment (Total = US$2.40m)		266,000	532,000	One third of the Agriculture Sector Coordination Division will support the Fisheries Division including their regional activities*
	Overall Totals:	**3,147,000**	**6,000,000**	

* The project will work with the entire Ministry of Agriculture and Fisheries to develop and strengthen its capacity, including policies that directly impact regional fisheries priorities such as improved coastal fisheries management. Because of the multi-sectoral nature of the project, regional activities are combined with domestic activities as they are often interrelated.

ANNEX 5: Economic and Financial Analysis

Currency Equivalents
Local currency = Western Samoa Tala (WST)
USD 1.00 = WST 2.70

Weights and Measures
1 acre (ac) = 0.40469 hectare (ha)
1 hectare (ha) = 2.417 acres (ac)
1 kilogram (kg) = 2.204 pounds (lbs)
1,000 kilograms (kgs) = 1 metric ton (mt)
1 kilometer (km) = 0.62 miles (mi)

Introduction

1. This working paper presents the economic and financial analysis of different investments anticipated under SAFPROM. The proposed overall grant of IDA US$ 19.95 million and IFAD US$ 3.6 million is primarily investing in goods of a public nature: public infrastructure (offices, laboratories and fishing ramps), a fishing vessel, technical assistance to GoS staff and the inception of the Agriculture Sector Coordination Division (ASCD) to better serve the crop, livestock and fishing communities. ASCD is described in the implementation section of the PAD but aims to have a singular division to coordinate the implementation and oversee all public investments in agriculture. The infrastructure and technical assistance investments are designed to bring government services closer to the communities and provide improved extension delivery in order to transform subsistence farmers to semi-commercial, and semi-commercial farmers to fully commercial. The underlying principle is import substitution through improving the quality and consistency of supply of domestic agricultural products.

2. SAFPROM is a follow-on project to the Samoa Agriculture Competitiveness Enhancement Project (SACEP) which introduced the concept of demand driven matching grants for on-farm productivity improvements. The matching grants have proved to be a successful tool to enable farmers to make the necessary physical investments, coupled with improved crop and animal husbandry practices to commercialize their activities. The investments included productive infrastructure such as fencing for paddocks, improved breeds, water tanks and feeders for livestock and tunnels for vegetable production. The lessons learnt from SACEP are being applied to SAFPROM in order to expand the project to more farmers and consolidate the successful interventions.

3. This paper will present the results of the financial analysis of proposed investments in livestock, crop and fishing models at household levels. It also includes the financial analysis of investments made in both mobile and static slaughter facilities. The analysis shows that the public investment in hygienic slaughter will continue to be a subsidized investment until farmers are able to pay true market rates for hygienic slaughter, which can only happen if the butcheries, supermarkets and hospitality industry gain confidence in the ability of the farmer and fisher folk to provide consistent supplies and thus create the necessary demand.

Methodology

4. The EFA of livestock projects (cattle, pigs and sheep), was supported by the “EcoRum” tool developed under the ALIVE Program30. EcoRum can be used for simulating the economic and financial performance of livestock projects. It is based on the demographic model drawn from the “DynMod” software (a user-friendly simulation

[30] Partnership for Livestock Development, Poverty Alleviation, and Sustainable Growth

tool, based on Microsoft Excel for the livestock demography of tropical domestic ruminants). EcoRum uses the DynMod spreadsheets for demographic projection and can be used to compare two scenarios, e.g. “with” and “without” a project.

5. The EcoRum demographic model can be used for the EFA of all ruminant systems (with the exception of fattening systems), namely, (i) pastoral or grassland-based system, semi-intensive ranches or intensive farms, (ii) mixed rainfed systems, (iii) mixed irrigated systems, and (iv) specialized semi-urban dairy systems. In the model, each herd is divided according to sex and three age groups (young, sub-adults and adults). The users can set the age class’ limits and set the period of analysis from 1 to 20 years.

6. The spreadsheets “Projection (Without)” (WOP) and “Projection (With)” (WP) in EcoRum contain the input parameters and results (demography, production and feed requirements) for the projections. The spreadsheet “Projection (Without)” corresponds to a reference situation (counterfactual), which can be used to evaluate the animals’ performances without any project. The results obtained from this spreadsheet will provide the baseline scenario. The spreadsheet “Projection (With)” corresponds to a scenario in which the user simulates a change: either an improvement linked to a livestock project or to an external shock, such as a drought or an epizootic disease. Comparing the results from these two spreadsheets (WOP-WP) allows calculating the incremental net benefits (e.g. increased meat, milk, hides & skins and manure production) arising from the project interventions.

7. Parameters needed to supply the WOP and WP spreadsheets in EcoRum are: (i) general parameters, (ii) demographic parameters, (iii) production parameters, and (iv) parameters linked to feed requirements. The model’s parameters can be obtained in several ways: (i) extracts from references in the scientific literature (FAO, CIRAD, ILRI), (ii) aggregation after data collection in the field, or (iii) estimates based on experts’ comments. While developing the WOP and WP scenario, the analyst performing the EFA worked closely with livestock experts to make the right modelling choices, so to avoid the herd modelling exercise from being irrelevant and EFA grounded on wrong assumptions.

8. The general parameters are the duration of the age groups, the size of the herd and the number of years of projection. The age group “adult” corresponds to all the animals that have reached the reproduction phase.
   The demographic parameters include:
   - The parameters of reproduction: (i) the annual birth rate (average number of parturitions per female in the herd throughout the year), (ii) the net prolificacy rate (average number of live offspring born per parturition); and (iii) the proportion of females at birth;
   - Mortality parameters: the probability of intrinsic natural mortality (mortality that would be observed if there was no offtake by the farmer);
   - Off-taking strategies (slaughter, sales, lending, etc.). The offtake can represent a “net off-take” i.e. a balance between the offtake and “imports” into the herd (purchases);

9. The production parameters include:
   - The average live weight of an animal per age group and the dressing percentage ("Carcass yield");
   - The average selling price of animals (in constant/ real prices);
   - The average milk yield per lactation (the duration of lactation and the milk yield per lactation should be inputted);

- The average weight of other outputs, such as hide and skin produced per animal slaughtered ("Skin"); the average weight of wool produced per animal and per year ("Wool"); the average weight of manure produced per animal and per day ("Manure");
- The parameters for estimating the feed requirements are based on the dry matter requirements per kg of live weight.

10. The "Results" section summarizes the results of the projection. It is made up of three sub-sections: the demographic results (herd growth rate, herd size and herd structure), the results for production (live weights equivalents, meat equivalents, financial equivalents, milk, hides, skins, wool and manure production) and the results for feed requirements. The "Graphic" section provides summary graphs that make it possible to visualize the livestock dynamics for the period considered, as well as the annual growth rates.

11. The analysis of the crop and poultry models used a simple excel based farm model gross margin analysis.

12. **Economic Analysis:** SAFPROM is based on a flexible funding mechanism responding to farmer demand. An overall internal rate of return has been calculated based on an assumption that 700 individual farmers would avail themselves of matching grants to a maximum of US$10,000 (WST27,000) per farmer/fisher folk. 30 additional collective grants by both farming and fishing associations/cooperatives to a total of US$40,000 (WST108,000) per association/cooperative would also be financed. The phasing of the matching grant is summarized in the table below:

Table 5.1: Proposed Matching Grant Phasing of Investments

Matching Grants Individual	-	150	150	250	150	700
Subsistence Cattle (30%)		45	45	75	45	210
Sheep (10%)		15	15	25	15	70
Piggery (5%)		8	8	13	8	35
Crops (30%)		45	45	75	45	210
Fisheries (25%)		38	38	63	38	175
Collective	**-**	**10**	**20**	**-**	**-**	**30**
Matching Grant recipients		5	10			15
Crops and Fishery recipients		5	10			15

13. The analysis assumes an overall MGF repayment rate of 75 percent by the project recipients, presented in two scenarios, one calculating the sensitivity analysis of the total IDA investment and the other calculating only direct investments made for the matching grant and associated training.

Table 5.2: Sensitivity Analysis

Scenario	EIRR	NPV (WST)	NPV (USD)
Project Costs with all investment costs including cost of public investments			
Base case	11%	77,796,536	$28,813,532
Costs increased by 10%	10%	71,065,891	$26,320,700
Costs increased by 20%	10%	54,747,396	$20,276,813
Cost increased by 50%	8%	44,143,311	$16,349,374
Benefits decreased by 10%	10%	63,286,237	$23,439,347
Benefits decreased by 20%	9%	48,775,939	$18,065,162
Benefits decreased by 50%	6%	5,245,043	$1,942,609

Scenario	EIRR	NPV (USD)	NPV (USD)
Direct Investment into matching grants and training of matching grant recipients			
Base case	20%	119,714,263	$44,338,616
Costs increased by 10%	19%	117,175,390	$43,398,293
Costs increased by 20%	18%	114,636,518	$42,457,970
Cost increased by 51.85.5%	16%	107,019,902	$39,637,001
Benefits decreased by 10%	19%	105,203,964	$38,964,431
Benefits decreased by 20%	18%	90,693,666	$33,590,247
Benefits decreased by 37%	14%	47,162,770	$17,467,693

14. As the project will be very much demand driven the analysis will used over time to determine the true value of the investment. The analysis has been presented in simple excel spreadsheets that can be used to calculate actual costs over time and thus can be a monitoring tool to track project progress.

15. In addition to sensitivity analyses presented in Table 5.2, the economic indicators were also calculated for a scenario where public good benefits in the form of climate mitigation benefits are included. The project's annual net carbon balance of -40,629 tCO2 eq emissions (see Annex 6 for details) is multiplied by a shadow price of carbon as recommended in a recent World Bank Guidance Note (2017).[31] Considering a low value of the shadow price of carbon, the NPV increases to US$ 48.9 million (WST 132 million) and EIRR to 16 percent; considering a high value of the shadow price of carbon, the NPV increases to US$ 71.8 million (WST 193.9 million) and the EIRR to 21 percent.

16. **Financial Analysis:** The financial analysis looks at a number of potential livestock, crop and fishery investments in order to assess the financial viability over a twenty-year period of farmers and fisher folk who may avail themselves of the matching grant facilities. It is important to note that commercialization is possible only in the event that the farmer and fisher folk change behavior. Behavioral change is one of the most difficult things to achieve and/or quantify. One of the major hurdles that have prevented the commercialization of Samoan beef for

[31] The recent draft Guidance Note on Shadow Price of Carbon in Economic Analysis (September 2017) recommends "projects' economic analysis use a low and high estimate of the carbon price starting at US$40 and 80, respectively, in 2020 and increasing at an annual rate of 2.25% to US$50 and 100 by 2030.

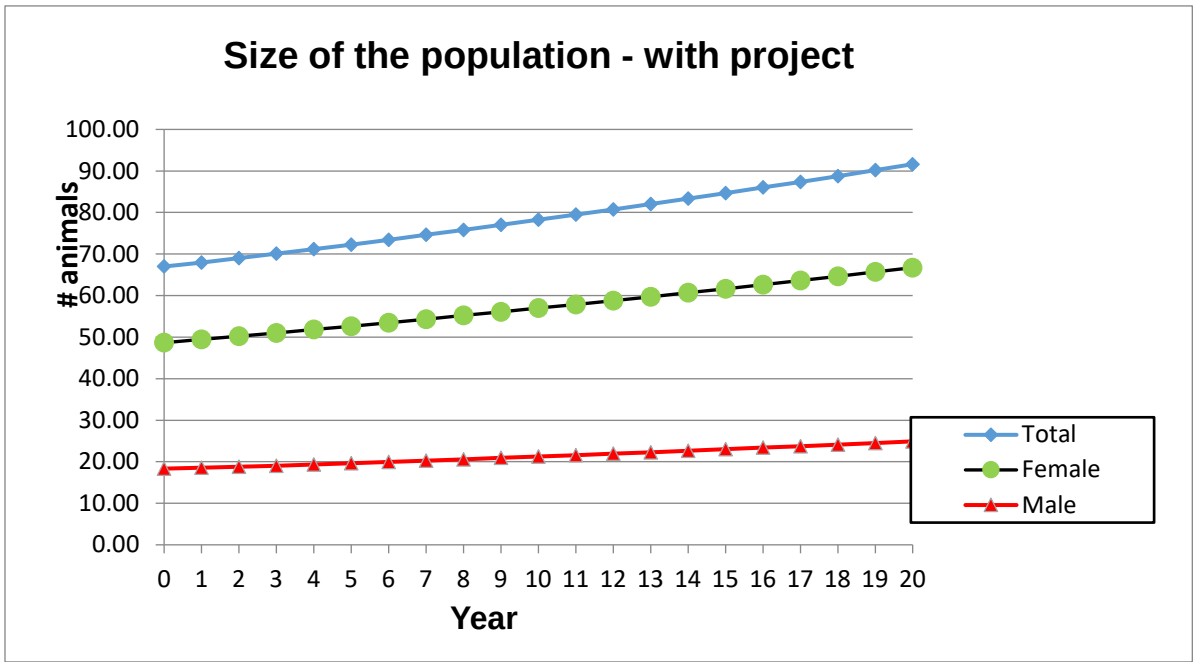
example, is that farmers have more demand in cattle for traditional ceremonial events (fa'alavelave), which generally results in unhygienic slaughter practices at farm level. SACEP introduced mobile slaughter units that can provide more hygienic slaughter, however the demand for the mobile slaughter far outweighed the ability of the 2 mobile units to respond, and so the overall benefits to the participating farmers were limited. SAFPROM is going to complete the building of a static slaughter unit (SSU) on Upolo island, which should avail the livestock farmers of more options for hygienic slaughter but given the current income levels of farmers the SSU costs will need to be subsidized by GoS.

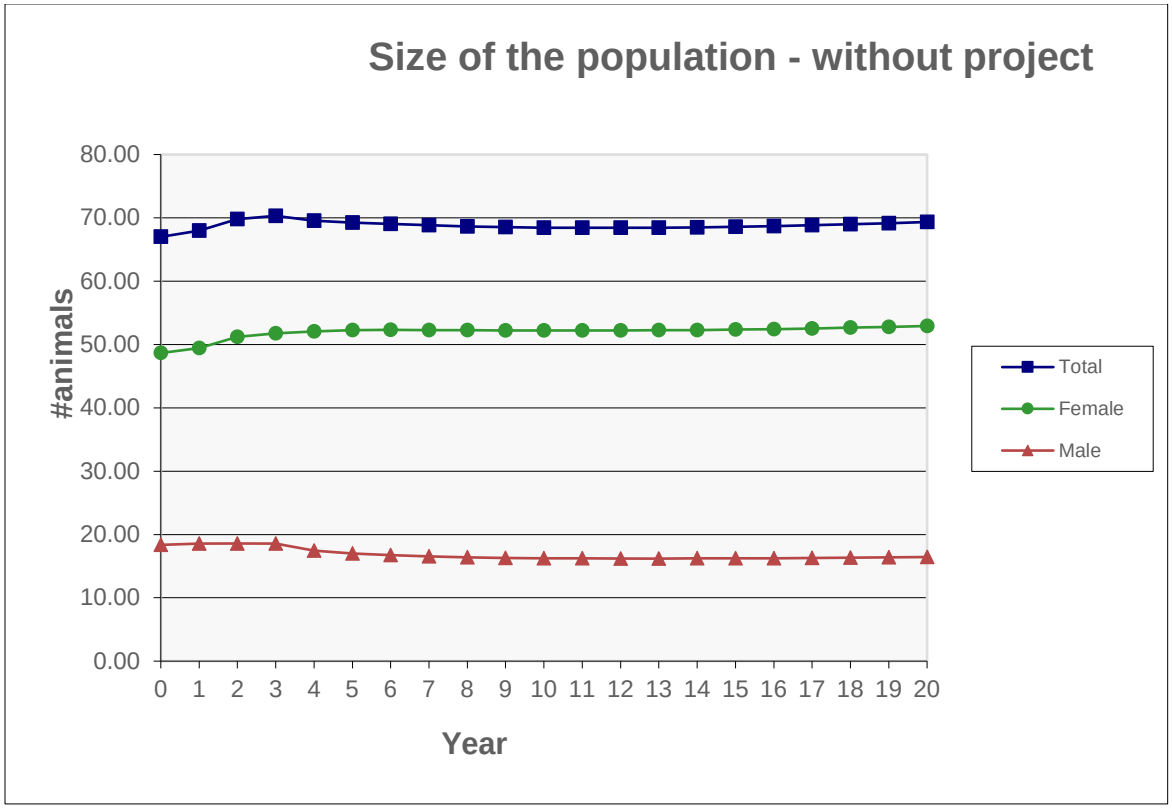
17. **Cattle**

Improving the Subsistence herd (67 herd size)

The critical constraint that limited herd improvement identified during SACEP, was the availability of good pasture. The livestock analysis for cattle assumes the rehabilitation of pasture heavily infested with fern which propagates through underground rhizome roots especially prevalent on Savai'i island. The pasture improvement is based on eliminating the ferns by spraying 1 acre of fern infested pasture with roundup and then planting taro as an eliminator on 10 acres overall. The taro which will be planted is sold to finance the planting of forage grass or legume. This approach has not been tried before in Samoa and is labor intensive. The analysis has looked at improving the subsistence herd through improved nutrition through better foraging, improved extension advice and training in reproduction management to reduce the interval between carving. In the with project scenario mortalities are reduced by 1 percent per year in all age classes going from a without project of 5 percent for juveniles to 4.3 percent and 3 percent to 2.3 percent for adults. The average growth is maintained at 0.3 percent owing to increased offtake in the female population. The average offtake is assumed at 20 percent but largely assumed to be in the sub-adult classes (1 to 3 years), which will provide better quality meat and daily growth performance. The ratio of adult male per female is kept at 5 percent.

18. As the graphs below demonstrate the improved management and access to improved slaughter, whether through mobile slaughter units on Savai'i or static slaughter on Upolu will result in an improved herd sizes.





19. As the analysis shows the investment at household level yields a positive IRR of 45 percent average over the 20 years. The forage grass will be propagated through the GoS veterinary unit which will develop a forage seedling nursery. The farmers would be expected to invest through the matching grant facility and the appropriate business development and extension services provided through SBEC.

20. *Multiplier Farmer (93 herd size)*
SACEP invested in a multiplier farmer model in which farmers with interest and ability agreed to multiply cattle for resale to other farmers for herd improvement. This model assumes herd improvement through Artificial Insemination (AI) or purchase from the Government who will be running an AI trial during SAFPROM. It is assumed that the multiplier farmers would be those most likely to invest in the collective grants in order to increase their pasture and to continue to grow their businesses after successfully completing the financing in SACEP. During SACEP the farmers were still piloting the business model and they will be provided with more intensive business management and marketing skills within SAFPROM to help stimulate demand. It is assumed that these are the farmers most likely to drive the livestock domestic market.

21. The analysis on the hygienic slaughter program for an existing starting herd size of 40,000 is unable to yield any scenario where IRRs could be calculated given slaughter prices of WST 35 (US$13) and mobile slaughter of WST 45 (US$17). In every case the negative cash flow results in an incalculable IRR and thus the hygienic slaughter is a public subsidized good. Impacts on improved food safety, therefore on public health, and structuration of the value-chains will be felt in the long term.

22. **Small stock (sheep and pigs):** A similar analysis has been undertaken for sheep. The Livestock division would assist farmers to develop a fodder bank of 0.5 acres per farmer to provide supplementary forage to sheep farms during periods of drought and the dry season. The farmers would also buy a diesel powered mini forage chopper on wheels and forage seed of the stylo variety, a tall high-protein legume supplied through GoS. The pig sow fattening is based on a model of 1 improved boar and 4 local sows. The boars where introduced through SACEP and will be sold to interested farmers. Improved feed will also be sourced by the veterinary services and sold to the farmers. The size 2 (approximately 15kg) is a popular local delicacy used for family celebrations and thus pigs have more potential because of the demand and that the local feed can be sourced from taro leaves, forage and coconut.

23. **Crops:** The investment in vegetable and fruit crops during SACEP proved positive and a number of SACEP subsistence farmers also received tunnel houses through a Chinese grant program which assisted them to begin semi-commercial farming. This has resulted in the markets increasing the quantities of locally produced vegetables. While the increase in vegetables available locally is anecdotal, the monitoring and evaluation indicators under SACEP provide evidence of increased production and revenue for vegetable crops. The vegetable farmers still complain of a lack of suitable seed, so the project will invest in the Crops division developing a seed policy for vegetables and fruits. The project will also look at more market related value addition for the fruits and vegetables under SAFPROM with fresh juice production being one of the areas that could be a potential area of import substitution to replace packaged juices. At the time of report writing there was no hotel and or food outlet that served fresh juices despite the availability of diverse and easily accessible fruit in the market. IFAD has done a detailed analysis on various crops that is summarized below. As shown in the table, all crop models have enhanced production levels and also higher net income in comparison to the WOP situation. It is noteworthy that the net income increase of agroforestry models are substantially higher due to introduction of pineapple, taro and citrus into the base crop stands. This indicates the viability of establishing climate resilient crop models and also justifies providing financial support for them. The labour use for organic and agroforestry cultures are notably higher in comparison to non-organic culture. This is partly because of the intensive care and maintenance that is needed to maintain organic production.

Table 5.3: Production and profitability improvement of crop models

Crop Models	Units	Production			FG Prices (US$)	MD WP [6]	Net Income (US$/ac)		
		WOP	WP [1]	% increase			WOP	WP	% increase
1: Yd increase of existing mixed-crop coconut									
1 (a) Conventional Farming	nuts/ac	1,200	3,040	153%	0.17[2]	8.0	146	322	121%
1 (b) Organic Farming	nuts/ac	1,200	2,920	143%	0.19[3]	9.0	146	373	156%
2: Convert mixed coconut to Tree-crop	nuts/ac	1,200	1,296	8%	0.17	32.4	152	723	376%
3: Rehab existing cocoa mixed-crop									
3 (a) Conventional Farming	Kg/ac	227	487	115%	2.03 & 2.44[4]	45.7	120	759	533%
3 (b) Organic Farming	Kg/ac	227	539	138%	3.29	54.1	120	780	551%
4: Convert existing cocoa land to Tree-crop models	Kg/ac	227	272	20%	2.44 & 2.86	49.2	168	925	451%
5: Productivity improvement of mixed-crop breadfruit	Kg/ac	1,200	6,800	467%	0.49[2]	68.0	435	2,374	446%

6: Productivity improvement of mixed crop Taro	Kg/ac	2,400	3,120	30%	1.22[2]	79.5	453	1,038	129%
7: Productivity improvement of Mono crop Taro	Kg/ac	2,400	4,576	91%	1.22	92.0	453	2,655	486%
10. Home garden Vegetable production (Tot Volume)	Kg/ac	216	858	297%	Many types[5]	80.0	42	79	85%

[1] At full development
[2] Samoa Bureau of Statistics, Local Market Survey, July 2018
[3] 10 percent higher than normal price as the premium for organic coconut
[4] Varies with the grade: Fermented Dried beans, Grade 3 (WOP) price – US$/kg 2.03; Grade 2 – 2.44; Grade 1 (fine flavoured) – 2.86; Organically certified Grade 1 – 3.29 (Sources: Commodity Market Review, World Bank, August 2018 https:// ycharts.com / indicators/world_cocoa_price; Whittakers Prices in Savai'i)
[5] Collected from the open market during the mission. Pumpkin: US$/kg 1.37; Chinese cabbage: 3.15; Head Cabbage: 4.02; Tomatoes: 4.98; Eggplant: 0.62
[6] Labor use for the model with project situation at full development, mostly family labor.

24. **Fisheries:** Livestock and crops were the basis of SACEP and thus there is baseline data and participating farmer case studies available which have been used to inform SAFPROM. Fishery investments will be the innovation within this project, with emphasis being placed on improving post-harvest handling, safety at sea and studies in aquaculture and potential fishery investments in sea grape, which has shown growth potential. The analysis has used sea grape as the proxy indicator to determine gross margin and it yields positive returns with the main investments being in the building of sea cages to grow and harvest the sea grapes. The preponderance of investments in the fisheries will be in improving the public good infrastructure as well as the data capture and analysis to inform fishery development nationally and regionally. Overall benefits to the various categories of fisherfolk are summarized as follows:

25. *Nearshore fishers and fish workers*
    - Better organized fishers in professional organizations
    - Reduction of post-capture losses
    - Access to microfinance understood and improved.
    - Destructive and illegal practices will decline, and resources will recover.
    - Revenue generating activities (post-capture) such as fish processing and improved linkages to domestic markets based on the training on quality and post-harvest handling.

26. *Small-scale offshore fishers (alia) and fish workers*
    - Increased potential to attract investments from the private sector.
    - Reduction of post-capture losses.
    - Increased quality of fish catches which will result in improved access to better domestic markets (restaurants and supermarkets) and eventually export markets and thus increased revenues.
    - Project investments in institutional strengthening will result in stronger alia association better equipped to negotiate prices and modalities with the private sector (restaurants, supermarkets and exporters).
    - The potential for increased job creation in post-capture and associated activities.

27. **Conclusion:** SAFPROM is an investment in improving the public goods in order to expand government service delivery. The on-farm investments are justified based on the financial analysis done at household levels, with the proviso that these investments will be demand driven and thus will depend on farmer interest in matching the project investments. The introduction of the association/cooperative grants will be very new and has been kept to 30 potential investments as the requisite investment in developing viable associations/cooperatives will need to be made in order to prepare the associations/cooperatives to take matching grants. Some analysis will need to be done on the viability of the associations prior to investing in them.

ANNEX 6: Greenhouse Gas Accounting
SAMOA: Agriculture & Fisheries Productivity and Marketing Project (SAFPROM)

1. **Motivation.** The World Bank *Environment Strategy* (2012) adopted a corporate mandate to account for the GHG emissions for investment lending. The quantification of GHG emissions is an important step in managing and ultimately reducing emissions as it provides an understanding of the project's GHG mitigation potential and can support sectoral strategies toward low-carbon development.

2. **GHG accounting methodology.** The World Bank has adopted EX-ACT, developed by the FAO in 2010[32] to estimate the impact of agricultural investment lending on the GHG emission and carbon sequestration in the project area. EX-ACT allows the assessment of a project's net carbon balance. The carbon balance is defined as the net balance across all GHGs expressed in CO2 equivalents (CO2e) that will be emitted or sequestered due to project implementation (With Project), as compared to a business-as-usual scenario (Without Project). EX-ACT is a land-based accounting system, estimating CO2e stock changes (i.e. emissions or sinks of CO2) expressed in equivalent tons of CO2 per hectare and year. The tool was designed using mostly data from the Intergovernmental Panel on Climate Change (IPPCC) Guidelines for National Greenhouse Gas Inventories (NGGI-IPCC, 2006), which furnishes EX-ACT with recognized default values for emission factors and carbon values in soils and biomass (the so-called "Tier 1 level" of precision).

3. **Assumptions in the EX-ACT model**. The project proposes several activities that were captured with the GHG accounting tool EX-ACT. The assumptions for this analysis were informed by discussions during project preparation stages and are aligned to the assumptions of the Economic and Financial Analysis (EFA) presented in Annex 3. The project area covers the two main islands of Samoa, Upolu and Savai'i. The climate and moisture regime in these regions is assumed to be tropical wet. The dominant soil type is volcanic. The project implementation duration is six years and the capitalization period assumed to be 14 years. Dynamics of implementation are assumed to be linear over the project period. Default Tier 1 coefficients are used. The project aims to increase productivity and access to markets by smallholder producers and improve management of fisheries and tree-crop, though investments in strategic public economic infrastructure, improve pasture for ruminants (Component 1) and increase access to on-farm innovative technologies and practices through a matching grant (Component 2: water conservation, intensification of livestock through improved animal health, better feeding and breeding, regeneration of existing cocoa and coconut gardens in Savai'i, use of manure in F&V farms, etc.). It is expected that about 2,000 smallholder farmers and fishers will be reached. The benefits would come from increased livestock productivity due to increase in livestock outputs (grassland management and forage cultivation) and increased crops resilience to climate change due to water harvesting and management, polytunnels to protect against heavy rains, etc.

4. The GHG calculation is based on the following elements, which are derived from the EFA and estimations from the technical experts in the task team and government team[33]: (i) conversion of degraded or set-aside lands into grasslands (3,000 ha), crops (500 ha) and perennials (200ha), (ii) livestock herd size and productivity increased with better husbandry practices (health, use of local feeding rations, breeding); (ii) improve existing rangeland and pasture management; (iii) incremental production from productivity increases (fruits, vegetables and tree-crop (coconut and cocoa)), with a shift from traditional cultivation to improved agronomic practices and water conservation; (iv) a slightly increased use of fertilizer and agro-chemicals; and (v) a slight increase in total fish catches, but more

[32] http://www.fao.org/tc/exact/ex-act-home/en/.
[33] Crops yields increases are extracted from the SACEP Impact assessment
Cattle herd size's increase extracted from the EcoRum model used for the EFA

sustainable (size and species) and with improved post-harvest practices (and so decreased losses).

5. The assumptions for the GHG calculation are summarized in the table below.

Table 1. Data inputs to EX-ACT in the Without Project and With Project Scenario

Activities	Without Project Scenario	With Project Scenario
Change in land use *(Comp. 1.1 and 2)*	No change: degraded lands will stagnate or worsen and set-aside lands remain.	Degraded land (1,500 ha) will be converted into grassland; set aside land (2,200 ha) will be converted into grassland, annual cropland and perennials (fruits and tree-crop).
Livestock population Growth *(Comp. 1.1 and 2)*	No or moderate increase in herd size, with traditional husbandry practices: Cattle 8,000 heads (no improved feeding); sheep: 2,000 heads (improved feeding for 20% of population and improved breeding for 10%); swine 101,000 heads; poultry: 550,000 heads	It is assumed that herd management is more efficient: improved health, feeding (20% and 80% of cattle and sheep population) and breeding (50% and 60% of the cattle and sheep population) - leading to mortality decrease, fertility increase and carcass weight increase. Herd size will increase at the beginning, then stabilize as compensated by a higher destocking rate. Resulting in cattle herd increase to cattle 10,000 heads; sheep: 5,000 heads; swine: 121,500 heads; poultry: 650,000 heads
Crops productivity increases *(Comp. 1.1 and 2)*	1,700 ha under traditional cultivation thereof: • F&V 3t/ha • Potatoes 3t/ha 10,000 Tree crops 4t/ha	1,700 ha under improved agronomic practices: • F&V 4t/ha under water conservation and manure application practices • Potatoes 5t/ha Tree crops without burning of biomass (compost)
Fisheries *(Comp. 1.2 and 3)*	6,200 t of pelagic caught per year, low management, 10 percent refrigerated	8,000 t caught but with sustainable management (size and species), higher fuel efficiency and 20 percent refrigerated
Grasslands management *(Comp. 1.1 and 2)*	3,000 ha: Moderately or severely degraded	3,000 ha: Improved without inputs management
Consumption of fertilizer and agro-chemicals (insecticides, herbicides) *(Comp. 2)*	Use (ton/year): Urea: 20t – Compost: 40t Insecticide: 15t	Use (ton/year): Urea: 60t (600 ha at 100kg/ha) Compost: 100t Insecticide (increase due to parasite treatment of livestock): 30t
MAF building to support market access (Comp. 1)	No buildings	Offices (concrete; 100m^2); development of 2 agricultural buildings (concrete 100m^2 each)

Source: Values stem from discussions with technical experts and team members, SACEP Impact Assessment and EcoRum herd model.

6. **Results** show that the project can constitute a sizeable net carbon sink of 40,629tCO2 eq per year over 20 years, thus −812,571tCO2 eq in total, mainly due to sustainable land use change, the introduction of improved management practices in existing grasslands and agricultural management practices such as water conservation techniques (especially for perennials crops). On the contrary, the main sources of GHG emission are: (i) the increase livestock herd size, despite the better productivity, (ii) the increased fish catches, even if more sustainable and lower losses, and (iii) the risk of some deforestation (to be prevented as much as possible through the safeguards instruments).

Table 2. Detailed Results Ex-ACT

Project Name	Samoa Agriculture & Fisheri	Climate	Tropical (Wet)				Duration of the Project (Years)	20		
Continent	Oceania	Dominant Regional Soil Type	Volcanic Soils				Total area (ha)	37900		
Components of the project	Gross fluxes Without	With	Balance	Share per GHG of the Balance All GHG in tCO2eq CO_2 Biomass	Soil	Other	N_2O	CH_4	Result per year Without	With	Balance
	All GHG in tCO2eq Positive = source / negative = sink										
Land use changes											
Deforestation	0	135,339	135,339	135,339	0		0	0	0	6,767	6,767
Afforestation	0	0	0	0	0		0	0	0	0	0
Other LUC	0	-515,854	-515,854	-53,904	-462,295		345	0	0	-25,793	-25,793
Agriculture											
Annual	0	-80,631	-80,631	0	-80,631		0	0	0	-4,032	-4,032
Perennial	37,718	-248,970	-286,689	-121,000	-2,380		-85,109	-78,200	1,886	-12,449	-14,334
Rice	0	0	0	0	0		0	0	0	0	0
Grassland & Livestocks											
Grassland	93,188	-361,409	-454,597	0	-454,597		0	0	4,659	-18,070	-22,730
Livestocks	1,212,993	1,435,905	222,912				52,815	170,097	60,650	71,795	11,146
Degradation & Management	0	0	0	0	0		0	0	0	0	0
Coastal wetlands	0	0	0	0	0		0	0	0	0	0
Inputs & Investments	7,422	16,027	8,605			6,976	1,629	0	371	801	430
Fishery & Aquaculture	61,809	220,152	158,343			158,343	0	0	3,090	11,008	7,917
Total	1,413,130	600,559	**-812,571**	-39,565	-999,903	165,319	-30,319	91,897	70,657	30,028	-40,629
Per hectare	37	16	-21	3.3	-26.4	4.4	-0.8	2.4			
Per hectare per year	1.9	0.8	-1.1	0.2	-1.3	0.2	0.0	0.1	1.9	0.8	-1.1

7. The monetary value of the GHG balance has been estimated and taken into account as economic benefit of the project in the Economic and Financial Analysis. The recent draft Guidance Note on Shadow Price of Carbon in Economic Analysis (September 2017) recommends “projects’ economic analysis use a low and high estimate of the carbon price starting at US$40 and 80, respectively, in 2020 and increasing to US$50 and 100 by 2030”. The calculation can be found in the economic analysis (Annex 5 paragraph 15).