GOVERNMENT OF SAMOA
SAMOA AIRPORT AUTHORITY
SAMOA AVIATION INVESTMENT PROJECT

PACIFIC AVIATION INVESTMENT PROGRAMME

FINAL REPORT

Report Prepared for:
World Bank

Report Prepared by:
CB GROUP

On Behalf of:
Chief Executive Officer
Samoa Airport Authority

Date Issued: OCTOBER 2013
Acknowledgment

The team wishes to formally acknowledge all those interviewed and consulted and especially the support of the following organisations

Land Transport Authority

Ministry of Women Community and Social Development

Ministry of Natural Resources and Environment

Ministry of Works Transport and Infrastructure

Nuanua O le Alofa

Samoa Bureau of Statistics

Samoa Land Corporation

Samoa Trust Estates Corporation

Samoa Water Authority

Village mayors and communities of Satapuala, Satui and Mulifanua

Samoa Airport Authority
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PREFACE

The two main documents as required under this consultancy are the Environmental Management Plan (EMP) and a Social Assessment (SA) which are included in this document as annexes 2 and 3 respectively. These are being presented to the Samoa Airport Authority for the purpose of submission to the World Bank in order to progress appraisal for the Samoa Aviation Investment Project (SAIP), and finalise approvals leading to the implementation phase.

1. The Team

The EMP and SA were combined efforts of a team of 4 specialists Faamausili Chris Solomona (Team Leader), Ms Ofeira Vitoria Faasau (Environment Specialist) and Ms Rachel Hunt (Social Analyst). Ms Fiona Sapatu a Town Planning Specialist also joined the team to provide further assistance and advice with the development of the EMP.

Importantly the team acknowledges the support of the SAA management and project team and staff in providing guidance with regards to future Faleolo airport development, logistical support and leading the team consultations as well as assisting in interviews with pivotal stakeholders.

2. Approach

Public Awareness

a. TV: A TV panel discussion to introduce SAIP to the public was organised on a popular Samoan television daily magazine programme called Le Lali. The programme was attended by senior members of SAA management, each being given a topic area of the project to speak on and followed by a question and answer session which was carried out as a combined team session.

b. Newspaper: A press release was prepared but was dropped in favour of the PIB which will be sent to newspapers to be included in later issues.

c. PIB: A public information bulletin (PIB) was prepared as per the Terms of Reference. This was approved by the Samoa Airport Authority and the World Bank and will be disseminated to the appropriate authorities and media together with the EMSF. The PIB can be viewed on the SAA and World Bank websites and will be made available at a number of locations – namely – the Faleolo International Airport Terminal, the Nelson Memorial Public Library, offices of MWTI and SAA and copies are kept by the respective village mayors (Sui o Nu’u). The document is being forwarded to local newspaper and radio sources for release. This is attached as Annex 6.

d. Website: The Samoa Airport Authority now has a website where all of this information will be posted and now can reach a much wider international audience. This has been one of the early positive outcomes of SAIP. The website address is www.samoaairports.ws

Site visits

e. Two site visits were conducted with the consultant(s) to the project footprint areas.

f. A site visit along the runway and apron areas which are planned to be rehabilitated under the SAIP was conducted as part of the public consultations so that major stakeholders viewed firsthand the areas which the SAIP is looking to rehabilitate and the urgency with which it is required.
Public Consultations

g. Because of the urgency of the project and taking into account the timing factor, two group consultations were held to try and gauge the views of stakeholders to meet deadlines and to deal with the geographical spread of all the stakeholders involved. The major intended stakeholders were interviewed privately. A list of all those who attended the consultations and were visited by the team is provided as Annex 5. The villagers (through the village mayors) were also asked to provide additional and current information on their communities using a village profile form attached as Annex 7.

h. Individual appointments were made to specific heads of agencies, ministries including NGOs to talk impacts the SAIP would have and for their views as to how the project could enhance positives for both SAA and them. These would be the specific group that would be invited to a proposed final presentation on the findings and to continue to ask for their support in all facets of the SAIP. A formal record of all minutes and meetings is included in Annex 4.

Desk Research

i. Statistical research: Statistical collation based on the 2011 census was undertaken for the select villages which would then be combined with the profiles to be used to form a current profile of social conditions in the area.

j. Appropriate Legislation: A review of the appropriate legislation was undertaken and is included in the EMP.

k. Document Search: Extensive search of past and relevant documents was undertaken by the team to assume a holistic summary or history of airport development at Faleolo and hence allowing the team to produce an EMP which best suits the proposed activities of the SAIP. All documents are listed in a bibliography as Annex 8.

l.

3. Environmental Management Plan and Social Assessment (EMP/SA)
The EMP and SAs are presented in this report as two separate documents and have been done so firstly, to ensure each of the focus areas outlined in the ToR (attached as Annex 1) were achieved at its highest possible level and secondly officials, both internal and external at any level of the project would be able to refer to any of the areas or documents with ease for whatever reason.

Generally the Social Assessment has not identified any real issues that would affect general populations near proposed project areas and the main footprint of the works, the airport. On the other hand the EMP has identified potential issues relating especially to certain quarry areas that may be utilised under the project. This issue must be adequately addressed by SAA and all relevant stakeholders to ensure that all notable negative impacts on both the ecosystem and human population are minimal or nil if at all possible.

4. Overall Findings

As a result of consultations the following areas have been placed as priority amongst the various other issues that were voiced by participants. Importantly being

- protection and perhaps a reconsideration of an alternative site for the quarry in realisation of threats to valuable resources namely the water aquifers as a result of reopening the old Olo quarry;
- importance of having environmental safeguards in place to protect resources local communities and prominent industries like tourism that rely upon for example the foreshore and lagoons;
• awareness and proper implementation of health and safety practices to ensure protection of all citizens from possible harm during project implementation;
• anticipation of opportunities mainly employment for communities near the project area;
• relocation of the airport runway realising the impact of climate change and sea level rise and
• fostering support and encouraging open working relationships and dialogue between the project and communities and its stakeholders in anticipation of successful outcomes.

5. Priority

Except for the issue of the quarry the project does not foresee any other major obstacles preventing the progress of the works and while there is a real sense of support from all those who were consulted common sense also prevails in that all considerations regarding all factors which may spoil the optimistic outcome must be entertained and hence the following consideration

**Consideration**

*That SAA convene an early conference particularly with MNRE, STEC, LTA and SWA to discuss the options regarding the quarry and to raise a most appropriate way forward before final documentation and tendering process commences. While the quarry contains quality material consideration of its important water resource is of utmost importance.*

6. Final Remarks

Apart from the production of the documents for the appraisal process the exercise has also provided valuable insight into some of the underpinning themes which could be harnessed further by the SAA project team at all levels of the project and especially at the implementation stage. These 3 include but not limited to:

a) Understanding and appreciating the functions of the different interest groups to guarantee successful outcomes.

b) Encouraging dialogue and participation at community level in turn providing a sense of security and ownership of the project by all and

c) Developing a greater sense of resources in and around the area and working towards a common goal of ensuring its protection and sustainability now and in the future.
ANNEX 1 TERMS OF REFERENCE
TERMS OF REFERENCE FOR ENVIRONMENT SPECIALIST

PACIFIC AVIATION INVESTMENT PROGRAM

PROPOSED SAMOA AVIATION INVESTMENT PROJECT (SAIP)

1. BACKGROUND

1.1 The Government of Samoa and the World Bank are planning a project to improve international airport infrastructure in Samoa (Samoa Aviation Investment Project) as part of the regional Pacific Aviation Investment Program (PAIP) aimed primarily at improving airport safety and security across the Pacific. The candidate airports in Samoa are Faleolo International Airport on Upolu. The project is expected to comprise a set of physical aerodrome improvements and institutional strengthening activities. Primary beneficiaries are air travelers throughout the Pacific Islands, as well as the national and regional administrative bodies and personnel involved in air transport management, freight and passenger air service providers. Other indirect beneficiaries are tourism-related services and seasonal labour markets. The project development objective is to improve operational safety and oversight of international and domestic air transport infrastructure. The project is expected to comprise of four components:

Component A: International Airport Infrastructure Investments
This component will invest in aviation infrastructure to meet and maintain ICAO safety and security standards. Potential investments include runway and apron rehabilitation, and energy efficient LED airfield lighting upgrades. It will also contribute to regional safety and security through the introduction of improved regional navigation and communication technologies and enhancements for air traffic control. The focus will be on improving safety and security as well as operating efficiency. All project activities will take place within existing airport land.

Component B: Strengthening Policy and Regulatory Capacity, and Training
This component will finance technical assistance to Samoa’s CAD to strengthen its capacity to provide effective safety and security oversight. Investments may include setting up an electronic data collection system and targeted technical assistance aimed at addressing ICAO audit findings. Training activities will also be financed. Funding under PAIP from the Government of Australia will also be made available for ongoing safety and security oversight services and general support provided by PASO. This component may assist the GoS in developing their overall policy for the sector, particularly with regard utilization of existing aerodromes, SAA’s community service obligations, and air transport impacts and interrelations with other key sectors such as tourism, maritime and road transport, disaster and medical emergency response.
Component C: Strengthening airport operations and management capacity
This component would help strengthen SAA through training in priority areas and the development of an integrated MIS system. Technical assistance may also be provided in areas such as development of non-aeronautical revenues.

Component D: Project Support
The Samoa project will receive support provided by the PAIP Technical and Fiduciary Services Unit (TFSU), project management consultant service costs, project financial audits, and other project support costs would be financed under the project.

1.2 In order to support finalisation of the SAIP project preparation, an Environmental Management Plan (EMP) and Social Assessment is required to identify any environmental and social issues, and develop acceptable mitigation measures. These documents are well advanced for other PAIP Phase 1 countries, and it is anticipated that this assignment will review and build on the EMP and Social Assessment of the Tonga Aviation Investment Project (TAIP).

2. ASSIGNMENT BACKGROUND

2.1 The EMP and SA involve examining the project’s socio-cultural, institutional, historical and political context, and stakeholders’ views and priorities for the sustainable development of the project activities in Samoa. The SA will also be used to identify important stakeholders and analyze relationships among them as well as promoting their participation in project activities where applicable in the most appropriate ways to local conditions and enhance benefits if any to the local population.

2.2 Further, the social assessment will confirm what Bank safeguard policies are triggered and what safeguards instruments, if any, should be prepared to manage impacts. Activities mentioned above under Component A, International airport Infrastructure Investments, trigger the World Bank Environmental Assessment Policy OP4.01. No involuntary resettlement is envisaged (Operational Policy 4.12) The Social Assessment will also assess the zone of influence of the project in order to characterize the Indigenous Peoples (IPs) who may be present in this area and determine whether any policy response is required. Given the nature of the proposed activities, ‘the project area’ is expected to be limited to the airport area (runway/terminal), but this should be verified through the social assessment.

Foreseen Environmental and Social Impacts
2.3 The current scope of the project is limited to the existing physical footprint of Faleolo Airport, which is situated on, and surrounded by a buffer of Government-owned land, and the proposed quarry site located at Olo. No new land or asset acquisition is envisaged.

2.4 Physical works will be undertaken on (i) specific runways, taxiways, and apron areas which will be rehabilitated at Faleolo airport; and (ii) on installation of agreed air traffic navigation, surveillance and weather reporting equipment.

2.5 Except for transport of materials and equipment, all impacts will occur within the airport precincts and quarry.

2.6 An environmental/social safeguards specialist will be contracted to develop an appropriate Environmental Management Plan, and Social Assessment, sufficient to support project preparation of the SAIP project and suitable for any EIA requirement under the PUMA EIA Regulations. The Consultant will also be required to undertake associated stakeholder and public consultations as necessary to meet World Bank [PUMA EIA] requirements.

3. Objective

3.1 The main objective of this consultancy is to prepare an Environmental Management Plan (EMP) and Social Assessment (SA) for the SAIP project and investments, acceptable to SAA, the Government of Samoa (GOS), and the World Bank. The EMP shall cover all environmental aspects of the project, including materials sourcing, and clearly define how they will be mitigated during construction. It shall also be suitable for any EIA requirement under the Planning and Urban Management Agency (PUMA) EIA Regulations and will form part of the contract documents.

4. Scope of Services

4.1 The detailed scope of services to be provided includes the following activities:

**Part 1: Preparation of the EMP and SA for the anticipated SAIP investments.**
The Consultant shall prepare an EMP and SA acceptable to SAA, the GOS and World Bank. This shall include close liaison with the CEO, Samoa Airport Authority, Ministry of Environment, Samoa, and other relevant stakeholders.
The EMP shall cover all environmental aspects of the anticipated SAIP project, including materials sourcing, and clearly define how they will be mitigated during construction. It will also form part of the future contract documents. The Consultant shall review and take into account the existing EMP for TAIP which is expected to form the foundation of the EMP for SAIP, and the Environmental and Social Management Framework (July 2013) for the Pacific Aviation Investment Project. Other relevant material being developed as part of the SAIP project preparation shall also be considered.

In developing the EMP and the SA, the following tasks are expected to be undertaken:

(i) Preparation
1. Obtain project briefing from the World Bank Task Team Leader
2. Screen the proposed project against the Bank’s social safeguard screening checklists and policies to determine applicability
3. Review national legislation and regulation pertinent to the project and its impacts.

(ii) Baseline Data Survey
1. Confirm the project’s footprint and surrounding areas for Faleolo International Airport – Upolu and Olo Quarry with GOS;
2. With the Samoa Bureau of Statistics, and data from the Population and Housing Census 2011 and the Household Income and Expenditure Survey 2008, analyse as relevant the socio-economic status of people in the project areas compared with District and national averages for: a) Demographic and cultural characteristics, b) Household income levels, c) Household expenditure levels, d) Occupations of household members of economically active age, e) Education levels of Heads of Household, f) Types of dwelling, and g) Percentage who do not speak Samoan or English.
3. Screen the proposed quarry site at Olo for potential impacts to be included in mitigation planning.

Where available, disaggregate the above data by gender.

Part 2: Public Consultations shall be undertaken by the consultant. Minutes of consultation meetings shall be properly documented and provided in a separate report annexed to the final EMP and SA reports. It is anticipated that focus group discussions to obtain information from various groups of stakeholders will be undertaken by the Consultant in order to confirm any social, gender, IP or vulnerability issues emerging from the analysis of the secondary data; to identify any other safeguards issues, propose avoidance or mitigation measures; and to serve as a component of normal community project consultation, feedback and disclosure process. Separate sessions should be organized for women as appropriate.
The Consultant will:

- Consult with relevant Government officials (Ministry of Works, Transport and Infrastructure, Ministry of Women, Community and Social Development, Ministry of Natural Resources and Environment, Planning and Urban Management Authority, Samoa Airport Authority)
- Prepare a brief Public Information Bulletin (PIB) about the proposed project for clearance with the Bank Task Team Leader and concerned officials. Include details of the ‘go-to’ agency for members of the public to contact with suggestions or comments. The extent of community consultations will depend upon the consultant’s assessment of the zone of influence of the project.
- In areas adjacent to Faleolo Airport and Olo Quarry, with facilitation from the Ministry of Works, Transport and Infrastructure inform the public about the meeting in appropriate languages and media, invite and hold semi-structured interviews or a focus group meeting with:
  
  a. Village Pulenu’u (mayors) in the areas of impact
  b. Matai of the ‘aiga
  c. Representatives of any project area community organisations – for example, the SAA Facilitation Committee, Tamaiti Samoa, Women’s Group, Farmers’ Co-Op, tourism entrepreneurs, relevant NGOs
- With reference to the PIB, describe to the participants the proposed project and its expected positive and negative impacts
- Confirm/identify any impacted persons or resources they use within the area of influence of the project
- Discuss community development aspirations for the area; note any opportunities to enhance the benefits of the proposed aviation project that might respond to community aspirations
- Clarify for the participants what will happen next, and where to direct comments, enquiries, recommendations or complaints. A grievance redress mechanism should be established that is accessible to local stakeholders. This should to the extent possible be based on existing practices.
- Make minutes/summary notes at the meeting, recapitulate discussions and decisions, and if possible obtain signatures to the notes of at least two attendees
- Ensure that for each meeting, a signed attendance and contact register is completed and retained for reporting and future communications.

5. **Deliverables**

5.1 The Consultant shall submit the following reports in relation to this assignment:

**Part 1:** Environmental Management Plan (EMP) for the anticipated SAIP investments, acceptable to the SAA, GOS and World Bank. This shall also include an application and EIA satisfying PUMA regulations, or a memo outlining why EIA licences are not required.
**Part 2:** Report of public consultations including the minutes of public consultations; any issues arising and proposed amendments to the EMP that may be recommended as a result of these public consultations.

This report shall include any specific recommendations on:

- a. Any further planning actions required to take account of vulnerable members of society, and any special needs to ensure respect of livelihoods, culture, custom, institutions and language that might be impacted by the project in the sub-project areas
- b. Any suggestions emerging from focus group discussions regarding the project (for example under SAA’s community service obligations or corporate social responsibility activities)
- c. A Stakeholder analysis and draft ongoing Stakeholder Communications Plan
- d. References to the Samoa Environmental Codes of Practice
- e. A Monitoring and Evaluation Plan including community participation
- f. A draft timeline and budget for the proposed consultation, monitoring and evaluation activities.

Meeting attendance records and minutes are to be annexed.

Draft reports of the EMP and SA are expected to be produced to assist in public/community consultations and early review by the Client; these reports will be finalized after the planned public/community consultations and shall reflect the consultations accordingly.

**6. Qualifications and Experience**
6.1 The Consultant will hold a relevant tertiary qualification in Environmental Science (or similar), Sociology, Anthropology or some cognate social science and will have familiarity with and experience in application of World Bank Safeguards policies. S/he will have relevant skills and experience in statistical analysis, community consultation in the Pacific region and report writing. Ideally s/he will speak Samoan. Experience in undertaking similar work in the Pacific region will be an advantage.

**7. Institutional Arrangements**
7.1 The Consultant shall report directly to the Team Leader, CB Group. The Specialist will be required to work closely with the CEO SAA, the Ministry of Environment, Samoa, and other relevant stakeholders. Contractual oversight and support will be provided by the PAIP Technical and Fiduciary Services Unit (TFSU) based in Tonga.
ANNEX 2 – ENVIRONMENTAL MANAGEMENT PLAN (EMP)
GOVERNMENT OF SAMOA
SAMOA AIRPORT AUTHORITY
SAMOA AVIATION INVESTMENT PROJECT

PACIFIC INVESTMENT AVIATION PROGRAMME
INVESTMENTS

Environmental Management Plan

Report Prepared for:
World Bank

Report Prepared by:
CB GROUP

On Behalf of:
Chief Executive Officer
Samoa Airport Authority

Date Issued: October 2013
Revision: B
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### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CI</td>
<td>Compliance Inspector</td>
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<tr>
<td>CIMP</td>
<td>Coastal Infrastructure Management Plan</td>
</tr>
<tr>
<td>COEP</td>
<td>Codes of Environmental Practice</td>
</tr>
<tr>
<td>DC</td>
<td>Development Consent</td>
</tr>
<tr>
<td>DMO</td>
<td>Disaster Management Office</td>
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<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<tr>
<td>EMP</td>
<td>Environmental Management Plan</td>
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<tr>
<td>ESSAF</td>
<td>Environmental &amp; Social Screening Assessment Framework</td>
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<tr>
<td>GOS</td>
<td>Government of Sāmoa</td>
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<tr>
<td>IAMP</td>
<td>Infrastructure Asset Management Program</td>
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<tr>
<td>IDA</td>
<td>International Development Association</td>
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<tr>
<td>IPA</td>
<td>Isikuki Punivalu and Associates Limited</td>
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<tr>
<td>LTA</td>
<td>Land Transport Authority</td>
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<tr>
<td>MOF</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>MNRE</td>
<td>Ministry of Natural Resources and Environment</td>
</tr>
<tr>
<td>MWCSOD</td>
<td>Ministry of Women, Community and Social Development</td>
</tr>
<tr>
<td>MWTI</td>
<td>Ministry of Works, Transport and Infrastructure</td>
</tr>
<tr>
<td>NDMO</td>
<td>National Disaster Management Office</td>
</tr>
<tr>
<td>PEAR</td>
<td>Preliminary Environmental Assessment Report</td>
</tr>
<tr>
<td>PST</td>
<td>Project Support Team</td>
</tr>
<tr>
<td>PSTES</td>
<td>Project Support Team Environment Specialist</td>
</tr>
<tr>
<td>PUMA</td>
<td>Planning and Urban Management Agency</td>
</tr>
<tr>
<td>PUMB</td>
<td>Planning and Urban Management Board</td>
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<tr>
<td>SA</td>
<td>Social Assessment</td>
</tr>
<tr>
<td>SIAM-2</td>
<td>Second Infrastructure Asset Management Project</td>
</tr>
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<td>WB</td>
<td>World Bank</td>
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</table>
1 EXECUTIVE SUMMARY

This Environmental Management Plan (EMP) has been developed for the activities planned for funding under the Samoa Aviation Infrastructure Project (SAIP). The proposed activities will involve civil works in aviation infrastructure at Faleolo International Airport located on Upolu Island. Proposed activities will mainly involve construction works on existing infrastructure and installation of air traffic navigation, surveillance and weather reporting equipment.

The Project is not expected to have any significant and irreversible adverse impacts on human health and/or the natural environment. Modest and temporary negative environmental impacts may be caused during implementation of the civil works and during operation and maintenance of the resulting infrastructure. The main expected impacts during the implementation period include minor clearing of vegetation, securing of gravel, asphalt and other building materials from existing quarry, or materials supply firms, generation of wastes from packaging materials and construction activities, management of waste materials generated from removal of outdated equipment, potential pollution from construction equipment, and generation of noise and dust from operation of construction machinery.

The social and economic impact of the proposed works is overall positive due to improving compliance with core safety and security obligations, creation of employment, better and faster access to markets, opportunities for jobs and improved social infrastructure. There will be no land acquisition for any of the project activities.

Specific environmental issues, required measures to mitigate any associated potential negative impacts for the physical works, associated monitoring requirements, institutional arrangements and reporting and institutional strengthening to insure proper actions are taken in a timely fashion are detailed in this EMP.

- For the design phase:
  Design will be undertaken by suitably qualified design consultants. Design and Supervision of the proposed activities will be funded by SAIP. All design will be compliant with the applicable environmental and social legislation of Samoa and consistent with the relevant guidelines and policies of the World Bank. It will take into account feedback from stakeholder consultations. The EMP is subject to any modifications during this phase once designs are finalised and ready for construction.

- For the construction phase:
  Contractors will be required to follow the mitigation measures included in this EMP. The Contractor will also be required to use quarry, and building materials suppliers that are duly licensed by the GoS. Any waste disposal sites used must be officially designated by the GoS and/or local authorities.

- For the operation phase:
  Ongoing maintenance requirements will be incorporated into operational plans of SAA, and will include mitigating and monitoring activities indicated in this EMP.
2  INTRODUCTION

Samoa is geographically compact by Pacific standards with its two main islands accounting for nearly the entire land area therefore facilitating internal transport and public service delivery. Samoa is small in size, with a land area of 2,820 square kilometres and a population close to 200,000. Its transport modes are via air, sea and land. The two main islands are well served by tar-sealed ring- and cross-island roads. Samoa’s geographically compact nature and its road and shipping network make transport between and within islands relatively easy especially to basic public services. There is an international port in Apia which links Samoa and her main trading partners. Regular flights are available on a daily basis to cater for international and inter-island air travel.

Samoa is vulnerable to natural disasters, particularly tropical cyclones, storm surges, flash floods, earthquakes and tsunamis which is a major concern because it is estimated that 70 percent of the country’s population and infrastructure, including the main international airport at Faleolo, are located in low lying coastal areas. These are the main contributing factors to the deterioration of its transport infrastructure causing it to become unsafe and inefficient for public use. Therefore, it is important that Samoa prioritises development projects that enhance the safety and security of its transport infrastructure to natural disaster and impacts of climate change and comply with international standards.

The main national policy document, Strategy for the Development of Samoa 2012 – 2016 recognises that an efficient transport system is vital to sustain and enhance economic growth and contributes to improved quality of life for all Samoans. The Government of Samoa (GoS), with WB support, undertook a series of projects from 1999 through 2003, Infrastructure Asset Management Project (IAMP) aimed at meeting vital priorities and strengthening management in the transport and coastal infrastructure sector. The objectives of the IAMP was continued and extended by the Samoa Infrastructure Asset Management Phase 2 (SIAM-2) project in 2004 and expected to be fully completed in 2014. The development objectives are (a) enhancing the economic, environmental and social sustainability of transport and coastal infrastructure assets; and (b) managing those assets, natural resources and responding to national emergencies through an effective partnership with the private sector stakeholders. The Aviation Component included improvements to air traffic control operations which required the purchasing of an instrument landing system (ILS) funded by the GoS and the installation of an Asset Management Software funded under SIAM-2. During this period in 1999 and 2000, SAA also undertook improvement civil works to extend runway, apron and taxiway pavements and overlay with asphaltic concrete (AC), upgrade airfield lighting, provide new control tower and fire station, upgrade existing passenger terminal and apron drainage and repair damage seawall.

Presently, the GoS and the WB are proposing a project that will continue what has already been implemented and to be in line with national development strategies, specifically for the Aviation Sub-Sector. This project aims to improve the international airport infrastructure in Samoa known as the Samoa Aviation Investment Project (SAIP). This is part of the regional Pacific Aviation Investment Program (PAIP) with the primary target of improving airport safety and security across the Pacific. The selected airport is the Faleolo International Airport located on Upolu Island. The project development objective is to improve operational safety and oversight of international and domestic air transport infrastructure.
3 PROJECT DESCRIPTION

The Project Development Objective (PDO) of the SAIP is to improve operational safety and oversight of international air transport and associated infrastructure. The activities planned under the project for the Faleolo International Airport is consistent with this PDO and are presented below.

3.1 Brief Summary of Project Components

The following table lists those activities funded under the SAIP that have potential environmental effects:

Table 1: Component A – Aviation Infrastructure Investments

<table>
<thead>
<tr>
<th>Sub-Project Description</th>
<th>Nature of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faleolo Airport runway shows numerous cracks primarily in touchdown zone, both aprons and taxiways. As a matter of urgency, apron, taxiway and eastern turning nodes will be renewed. For the runway, localised repairs will be completed and whole surface rejuvenated. New markings will also be done for the runways.</td>
<td>Civil works</td>
</tr>
<tr>
<td>Replace existing low intensity runway lighting with high intensity lighting</td>
<td>Civil works and equipment replacement/ installation</td>
</tr>
<tr>
<td>Upgrading of generator capacity for disaster resiliency and other energy efficiency measures such as terminal lighting</td>
<td>Equipment replacement/ installation</td>
</tr>
<tr>
<td>Installation of two 100,000 litre water tanks for airport facilities</td>
<td>Civil works and equipment replacement/ installation</td>
</tr>
<tr>
<td>Installation of air traffic control equipment such as ceilometers, signal lamps, radios, backup generators/improved power supplies to replace existing systems</td>
<td>Equipment replacement/ installation</td>
</tr>
<tr>
<td>Provision of air navigation aids such as Automatic Dependent Surveillance-Broadcast (ADSB) including ground stations and the equipping of aircraft.</td>
<td>Equipment replacement/ installation</td>
</tr>
<tr>
<td>Provision of Automatic Weather Observation Stations (AWOS).</td>
<td>Equipment replacement/ installation</td>
</tr>
<tr>
<td>Provision of the VSAT secure communications system allowing for voice and data communications on safety and security via a fullmesh closed network connecting regional CAAs, airports and air service providers.</td>
<td>Equipment replacement/ installation</td>
</tr>
<tr>
<td>Provide one replacement fire safety vehicle or refurbish existing two fire safety vehicles currently inoperative and also provide other necessary firefighting equipment including protective clothing.</td>
<td>Equipment replacement/ installation</td>
</tr>
</tbody>
</table>
Provision of CCTV equipment for the terminal area. | Equipment replacement/installation
---|---
Provision of equipment for routine airfield maintenance such as tractors, grass cutters and runway sweeper attachments. | Equipment acquisition
Procurement of Design & Build Consultant for aviation investments. | Consultant Services

**Table 2: Component B – Aviation Sector Reform and Training**

<table>
<thead>
<tr>
<th>Sub-Project Description</th>
<th>Nature of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide support to CAA and Line Ministries to improve various aspects of managing aviation infrastructure and operations, and civil aviation oversight including but not limited to: (i) development of technical regulations and manuals and assistance in implementation; (ii) commercialization of operations and performance monitoring; (iii) developing new sources of revenue; and (iv) implementation of agreed corrective action plans following ICAO audits.</td>
<td>Consultant Services</td>
</tr>
<tr>
<td>Providing industry support training including staff secondments to similar overseas agencies.</td>
<td>Training</td>
</tr>
<tr>
<td>PASO Safety and Security Oversight Programs</td>
<td>Consultant Services</td>
</tr>
</tbody>
</table>

**Table 3: Component C – Strengthening Airport Operations and Management Capacity**

<table>
<thead>
<tr>
<th>Sub-Project Description</th>
<th>Nature of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samoa Airport Authority Strategy and Business Plan and Samoa National Aviation Strategy</td>
<td>Consultant Services</td>
</tr>
<tr>
<td>Implementation of SAA Strategy and Business Plan</td>
<td>Consultant Services</td>
</tr>
<tr>
<td>Technical Assistance for Project Preparation</td>
<td>Consultant Services</td>
</tr>
</tbody>
</table>

**Table 4: Component D – Program Support**

<table>
<thead>
<tr>
<th>Sub-Project Description</th>
<th>Nature of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support to the Technical and Fiduciary Services Unit (TFSU)</td>
<td>Consultant Services</td>
</tr>
<tr>
<td>Project Support Team</td>
<td>Consultant Services</td>
</tr>
<tr>
<td>Operating Costs</td>
<td>Financial Services</td>
</tr>
<tr>
<td>VSAT Annual Subscription</td>
<td>Financial Services</td>
</tr>
</tbody>
</table>

The only Component that will involve activities with potential environmental effects is Component A involving civil works. As indicated in Table 1 above, there are only 3 sub-projects that will require civil works: resurfacing of airport pavements; upgrading of runway lighting; and installation of water tanks.
4 ENVIRONMENTAL PROFILE OF THE PROJECT AREA

4.1 Physical Environment

4.1.1 Land Use

The Locality

Faleolo International Airport is located on the west coast of Upolu island and is 30 km west of Apia. The total land area of the airport site is approximately 3,439,827.959 square meters (850 acres or 385 hectares). The subject site is located in a predominantly agricultural area with some residential properties to the east and south and some business, administration and educational areas to the west and south. The Pacific Ocean is immediately to its north. Aggie Greys Lagoon Resort and Golf Course is directly adjacent its western boundary and Mulifanua village and Mulifanua wharf further west. The area immediately to the east and south is Satapuala village and consists of residential properties, some small businesses of tourist fale operations and shops along the main West Coast Road, Police Faleolo Outpost, primary and secondary schools. The nearest school is located about 400 metres south from the airport entrance. A new hospital is also located to the west of the school and about 500 metres from the main entrance to the airport. The majority of land, approximately 6,910 acres, directly south of the site is Government-owned and administered by the Samoa Trust Estates Corporation (STEC). It is primarily used as agricultural land for coconut plantations, grazing land for livestock and taro and banana plantations leased by local villagers. The site of the Olo quarry is located within this area approximately 7 km to the south west of the main entrance to project site. A local water bottling company, Pacific Waters is located in this area about 4.6 km south from the airport main entrance as well as Samoa Water Authority boreholes and water pump stations. There is also an Oil Processing Plant situated about 4 km south west of the main entrance to the site. At the north-western end of the site along the coast, the Ministry of Agriculture and Fisheries are developing a fish nursery for research and harvesting.

The Site

The project site is highly modified and land within the property boundaries has been cleared of vegetation to meet airport standards. Most of the site has been covered with pavement or buildings and associated structures. The site has been landscaped with ornamental plants and trees and grass lawns regularly mowed. Coconut and secondary forest area exists over an area along the south-western part of the site acting as a buffer zone between the western end of the runway and the main West Coast Road. There are no cultural/heritage sites or significant vegetation identified at the site. The Airport currently consists of the runway (3 km long and 45m wide), apron and taxiways, terminal building, SAA administration building and associated buildings, Control Tower, Fire and Rescue Station, old hangar building, new cargo building, car parking area, restaurant facility, multipurpose building and bathrooms, meteorological weather stations and staff residential buildings. There is site drainage with 5 cross culverts underneath the runway and discharging into the sea. A boat ramp is located along a point west of the rock seawall that protects the shoreline of the site. Perimeter fencing surrounds the entire property with locked
gates at various points to facilitate access for SAA workers. The main points of entrance and exit are well defined and controlled by SAA staff. Activities within the fenced area are restricted and managed to enhance airport operation.

4.1.2 Geology, Topography and Soils

Geologically, the entire study area is on Mulifanua volcanics which is mainly olivine basalt soil (clay, silty clay soil texture) weathered to a depth of 10 metres to 20 metres. It is characterised by thin soil cover, with soil surface consisting of unweathered boulders common on uneven surface at 10 degrees to 15 degrees slopes. The western part of the runway was dug down to the underlying basaltic rock to facilitate the required runway length and grade.

The high elevations of the site are about 19m above mean sea level (amsl) along its southern section and about 17m amsl along the western section of the runway. The lower elevations, about 2m amsl are found along its northern and eastern sections where its lowlying and flat. Sand and other sediments of the Tafagamanu sands form a strip along the shoreline. The lagoon extends northwards of the site about 2 km to the barrier reef formation.

4.1.3 Climate

Due to its geographical location, Samoa has a wet and dry climatic season with prevailing South-Easterly winds most of the year. The average temperature in the project area recorded at the Faleolo climate station for the year 2011 is 22.7-30.9°C. The wet season extends from October to March with maximum precipitation levels at 672.7mm. The dry season is from April to September with minimum precipitation levels at 22.2mm. Table 5 below displays average monthly climate indicators as recorded from climate station at Faleolo.

---

Table 5: Rainfall and Temperature Data Recorded at Faleolo Climate Station 2011

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainfall</td>
<td>672.7</td>
<td>452.7</td>
<td>97.8</td>
<td>145.6</td>
<td>30.2</td>
<td>58.0</td>
<td>22.2</td>
<td>76.4</td>
<td>29.6</td>
<td>238.0</td>
<td>383.1</td>
<td>230.8</td>
<td>2437.1</td>
</tr>
<tr>
<td>Max. Temp</td>
<td>29.7</td>
<td>30.0</td>
<td>31.5</td>
<td>31.6</td>
<td>31.5</td>
<td>31.3</td>
<td>31.3</td>
<td>30.4</td>
<td>30.6</td>
<td>31.0</td>
<td>30.8</td>
<td>30.8</td>
<td>30.9</td>
</tr>
<tr>
<td>Min. Temp</td>
<td>22.2</td>
<td>22.5</td>
<td>22.6</td>
<td>23.3</td>
<td>22.8</td>
<td>23.0</td>
<td>22.2</td>
<td>22.4</td>
<td>22.0</td>
<td>22.6</td>
<td>23.3</td>
<td>23.1</td>
<td>22.7</td>
</tr>
</tbody>
</table>

Source: MNRE, Meteorology Division, 2012

4.1.4 Water Resources
The runway and apron area is located in the lowest part of the site and there are six open stormwater channels which form part of the drainage catchment of the area and drain water from the road, paved surfaces, inland slopes and surrounding land, to the coast. There are inland aquifers where the Samoa Water Authority has installed production boreholes close to the area of the quarry at Olo and Mauga to the southwest of the airport. The sea is the receiving environment for the road and pavement derived stormwater. Overflowing of the drainage system can potentially cause the water draining to the sea to be of a poor quality in terms of silt, contaminants and potentially rubbish. Underground cross culvert pipes are provided under the runway, however, some of the existing culvert pipes are blocked, which prevents water flow.

4.1.5 Natural Hazards
Parts of the runway and apron are within the Coastal Flood Hazard Zone (CFHZ) and the engineered seawall is generally within both the Coastal Erosion Hazard Zone (CEHZ) and the CFHZ. With the exception of some sections to the west, most of the runway is within 50 metres of the coast. There is evidence of erosion along the existing seawall which was constructed with the intention of reducing the rate of erosion. However, the seawall is unlikely to withstand a cyclone or ongoing erosion.

The distance of the runway from the coast and its importance as the only international airport in Samoa, combined with the variable level of protection results in this runway and terminal being at high risk and susceptibility.

The runway is also at risk from stormwater runoff channelled towards the coast from the parking areas, terminal, hangar, main road and inland slopes. Drainage culverts under the runway are to be regularly maintained and cleared of siltation to allow for free flow of water toward the coast.

4.2 Biological Environment
4.2.1 Coastal Resources
The closest sensitive natural habitat is the marine environment, including reef located off the coast. The barrier reef which is generally intact provides protection along the coast, about two kilometres away. Within the reef the lagoon averages
1.5 metres in depth and supports abundant marine biodiversity. Gastropod snails (*Nerita plicata* and *Littorina coccinea*), Zanthid crabs, bryozoans and ascidians are common in the intertidal rocky shoreline zone. Beyond the shore edge, wave action and re-suspension of sediment creates a fringe with relatively low species diversity. Beyond this fringe zone, the lagoon supports a diverse association of corals and coral dwelling flora and fauna. There are no marine protected areas along the stretch of the coast adjacent to the site.

### 4.2.2 Bird Life

The area is utilised by bird species that are considered to be of significance. These three species, including two migrant waders, the Pacific Golden Plover or Tule (*Pluvialis fulva*), the Wandering Tattler or Tuli Alomamala (*Heteroscelus incanus*) and one land bird, the Pacific Grey Duck or Toloa (*Anas superciliosa*) were identified to be important due to their habit of congregating on the runway and surrounds, and potentially posing a bird strike risk to arriving or departing aircraft. Further, the toloa is identified to have a medium extinction risk and a high cultural significance. The two waders are present at the site in their highest numbers over the period of September to April of every year. Other common species include the Jungle Myna (*Acridotheres fuscus*), Polynesian Triller (*Lalage maculosa*), Reef heron (*Egretta sacra*), Banded rail (*Rallus philippensis*) and Swamp hen (*Phorphyrio melanotus*).

### 4.3 Socio-Economic Environment

#### 4.3.1 Social Significance

Faleolo Airport is the gateway to and from Samoa and is therefore an important and integral part of Samoan daily life. It represents a place where families and friends meet and greet and bid each other farewell. In particular, the villages of Satapuala being approximately 950 meters away to the east from aircraft ground movement and Mulifanua to the west are connected to this project area as the closest communities to the project area. Noise and fumes from aircraft fuel are a common part of their living environment. However, noise levels and fumes were not raised as an issue during village consultations. Furthermore, fishermen and shellfish gatherers from these villages and other surrounding communities use the lagoon off-shore from Faleolo for daily sustenance. There is informal access along the coastal margin of the site that is used by the local fishermen and seafood gatherers.

#### 4.3.2 Economic Significance

The cash economy of the surrounding villages is a mix of traditional and non-traditional work. A number of residents are employed in plantation work, fishing and agricultural/cultivation activities. There are also three primary schools and one large secondary school in the area. There are also many churches and a number of small shops and home occupations throughout the surrounding area of the project site. Faleolo International Airport and Aggie Grey’s Lagoon Resort are the main commercial activities that provide employment opportunities for the local villagers. A complete social profile of the area is provided in the social assessment document provided as annex 2 in the main report.
5 POTENTIAL ENVIRONMENTAL ISSUES

As mentioned in section 4, the only civil works expected will involve the upgrading of existing infrastructure on existing land within the Faleolo International Airport property boundary. There will also be minor civil works required for the installation of certain equipments such as the water tanks.

5.1 Summary of Potential Environmental Issues

Potential environmental issues associated with the rehabilitation works of runway, taxiways and apron include:

- Materials Extraction and Supply (Gravel, Concrete, Asphalt, etc.)
- Earthworks management
- Noise
- Dust
- Chance Find of Cultural Artifacts
- Management of Solid Wastes (Non-Hazardous)
- Emissions from Construction Equipment
- Fuel and Oil Spills From Construction Vehicles
- Worker Health and Safety
- Management of Oil and Fuel for Construction Equipment
- Traffic Management
- EU Standards for Key Equipment

The main issues for equipment replacement/installation are:

- Disposal of Packaging Wastes
- Worker Safety During Installation

The major issues during operation relate to solid waste management and drainage maintenance.

5.2 Consultation Plan

A panel consisting of SAA project team appeared on one of the local TV stations on 20th September 2013 in a discussion program in English and Samoan that is designed to promote public awareness for government projects and initiatives and other public events. The project was discussed and the public was informed of consultations that would take place at Faleolo International Airport on the 18 and 24 September 2013. Feedback from the consultations has been taken into account in Section 6 following, which describes the mitigation and monitoring measures to manage environmental and social impacts.

There will be more public announcements once the project is in its implementation phase. Relevant authorities and affected stakeholder meetings will be held as required to inform
the public when significant works are scheduled. Local leaders, civil society groups and members of the public will be invited to attend.

5.3 Complaints

At public consultations, attendees will be informed about the mechanism for suggestions and complaints. SAA/MWTI will display at its offices and airports a poster informing the public in Samoan and English how to lay a complaint about the project. This will specify the name and contact details of the Airport Manager or other local Complaints Officer to whom to address their grievance.

Any member of the public who suffers some adverse effect from the project is invited to write or come to the SAA Office and present their issue to the Complaints Officer. They may bring a supporter or advisor if they wish. The Complaints Officer will record the complaint, and propose a solution within seven working days. If the complainant is not satisfied with the outcome, the Complaints Officer will inform them how to take up the issue with the Project Implementation Office for mediation, or direction if necessary to the appropriate legal remedy. Complaints reports will comprise a matrix including:

- Name and contact details of complainant
- Gender of complainant
- Category of complaint – e.g. impacts on land or vegetation, construction impacts such as dust or noise, accidental damage to persons, accidental damage to personal property
- How the complaint was resolved
- Time taken to resolve
- Any associated costs.

The responsible SAA Manager will report on Complaints to the Project Implementation Office in regular project reports. Summary records of complaints will be disclosed in reporting under the ESMF. Personal details will not be disclosed.
### MITIGATION AND MONITORING PLANS

#### 6.1 Mitigation Plan

<table>
<thead>
<tr>
<th>Issue</th>
<th>Mitigating Measure</th>
<th>Responsibility</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
</table>
| **Materials Extraction & Supply (Gravel, Concrete, Asphalt, etc.)** | Use quarry that is deemed to have minor impacts on the environment. This can be determined by contractor preparing an EIA for aggregate and sand extraction sources including a Quarry Management Plan to be in accordance with COEP 8: Quarry Development and Operations. Submit to MNRE for approval.  
- Earth materials must be obtained from officially licensed and approved quarries and copies of the relevant licenses made available by the Contractor for inspection at the site.  
- Use materials supply companies with valid operating licenses.  
- All delivery trucks must be covered or water sprayed to prevent dust generation during transport.  
- Delivery trucks that do not close properly and/or are loaded with materials that exceed the limits specified by Samoan regulations which result in spillage en route to the project site will be denied access to the project site.  
- Material should be delivered at off-peak hours in accordance with traffic management plan (see below).  
- On-site material storage close to the work area will be identified in due course, It should be covered and/or water sprayed, off-site material should be stored in buildings near the construction site. | SAA/PST/Contractor  
Contractor | Planning and Design Phase Construction start | Once development consent issued by MNRE Materials supply completed |
| **Earthworks Management** | Must be in accordance with COEP 13 – Earthworks.  
- Sediment erosion control plan for all earthworks to be prepared by contractor, approved by PSTES, monitored and implemented specifically in areas close to the sea and marine environment.  
- Earthworks to be undertaken during dry season or when weather conditions are favourable.  
- Install silt traps in all temporary and permanent drains where work is occurring in or within 30 metres of such drains.  
- All the runoff from the project area shall be collected and diverted to facilities for removal of sediment i.e. silt ponds.  
- Runoff from project area shall not be discharged into adjacent sea without effective | SAA/PST/Contractor | Before Construction Phase | Construction end |
### Environmental Management Plan

<table>
<thead>
<tr>
<th><strong>Noise</strong></th>
<th>Must be in accordance with relevant noise levels detailed in the PUMA Noise Policy.</th>
<th>Contractor</th>
<th>Construction start</th>
<th>Construction end</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conduct activities during normal working hours but at times that does not affect normal airport operation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>If activities must be conducted in the evening and/or weekend, provide local affected groups with at least one week notice of start and completion times. There must be no works taking place on Sunday.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any construction equipment deemed too noisy by SAA shall be replaced.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Dust</strong></th>
<th>Refer COEP 2 and COEP 8 for dust suppression measures.</th>
<th>Contractor</th>
<th>Construction start</th>
<th>Construction end</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Keep construction area and access roads sprinkled with water, particularly during dry, windy conditions (source of water collected, from rain storage tanks or river/local watercourse, to be detailed by Contractor in Construction EMP).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Management of Solid Wastes (Non-Hazardous)</strong></th>
<th>Waste materials (including scrap and packaging) that cannot be recycled or reused are to be disposed at sites/locations officially designated by the government.</th>
<th>Contractor</th>
<th>Construction start</th>
<th>Construction end</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scrap materials that can be recycled are only to be provided to operators officially licensed to conduct recycling/recovery.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Components that have remaining useful life are to be stored and/or used at other local airport locations as the need arises.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Litter control at all facilities within the airport boundaries.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Emissions from Construction Equipment** | Any construction equipment deemed by SAA/MNRE/LTA to be discharging emissions that have excessive smoke or foul odours shall be replaced. | Contractor | Construction starts | Construction ends |

| **Worker Health and Safety** | Follow WB/IFC EHS Guidelines ([www.ifc.org/ifcext/sustainability.nsf/content/EHS Guidelines](http://www.ifc.org/ifcext/sustainability.nsf/content/EHS Guidelines)) Sections 2 (Occupational Health and Safety) and 4.2 as presented in Attachment 3. | Contractor | Construction starts | Construction ends |

<table>
<thead>
<tr>
<th><strong>Traffic Management (Equipment, materials deliveries, waste materials removal)</strong></th>
<th>Refer COEP 12 for Traffic Control During Construction</th>
<th>SAA (based upon Contractor inputs)</th>
<th>Before any construction starts</th>
<th>Construction ends</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Traffic Management Plan prepared to minimize disruption to normal airport traffic patterns, consistent with overall project implementation schedule</td>
<td>Contractors</td>
<td>Construction start</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implement Traffic Management Plan</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


**Environmental Management Plan**

### Chance Find of Cultural Artefacts
- Refer COEP 9 for Archaeological Sites and COEP 13 for Cultural Preservation measures
- Cease work immediately
- Fence area to limit access
- Contact Ministry of Education, Sports and Culture
- Work is not to proceed until official approvals are provided

<table>
<thead>
<tr>
<th>Issue</th>
<th>What parameter is to be monitored</th>
<th>Where is the parameter to be monitored</th>
<th>How is the parameter to be monitored/ type of monitoring equipment</th>
<th>When is the parameter to be monitored-frequency of measurement or continuous</th>
<th>Responsibility and Means of Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials Extraction and Supply (Gravel, Concrete, Asphalt, etc.)</td>
<td>EIA prepared for best quarry location Development Consent issued</td>
<td>MNRE-PUMA</td>
<td>Technical Review</td>
<td>During Planning and Design Phase</td>
<td>MNRE-PUMA/SAA; PUMA Development Consent (DC) and EIA approved. Quarry License Permit.</td>
</tr>
<tr>
<td></td>
<td>Validity of supplier permit or license</td>
<td>Entrance to construction site</td>
<td>Visual</td>
<td>First delivery</td>
<td>Project supervising</td>
</tr>
</tbody>
</table>

### Management of Oil and Fuel for Construction Equipment
- Refer COEP 5 for Construction Camps
- Fuel and oil stored in bunded area with impervious base, all fuel and oil transfers from storage to construction vehicles takes place in this area

### Fuel and Oil spills From Construction Vehicles
- Refer COEP 5 for Construction Camps
- Drainage from bunded area with impervious base directed to oil/water separation unit (collected oil recycled by licensed operators or disposed at official government approved disposal sites
- Major spills or leaks immediately covered with sand or similar absorbent, placed in sealed containers and disposed by licensed operators or taken to official government approved disposal sites.

### 6.2 Monitoring Plan

**Table 7: Monitoring Plan – General Civil Works, Construction and Equipment Replacement**
### Earthworks Management

- **Erosion and Sediment Control Plan prepared and approved**
  - PSTES/MNRE-PUMA
  - Technical Review
  - During Planning and Design Phase

- **No earthworks to be undertaken during rainy periods**
  - Construction site
  - Observation
  - Rainy days, random times

- **Silt traps installed on permanent and temporary drains**
  - Construction site
  - Visual
  - At all times

- **Silt/sediment ponds installed for treatment of all runoff before it is discharged into sea**
  - Construction site
  - Visual
  - Clear water discharged
  - At all times

### Noise

- **Activities conducted during normal working hours**
  - Construction site
  - Observation
  - Monthly, random times

- **Local affected groups notified in advance of any off-hour work**
  - Local village, schools, etc.
  - Consultation
  - Monthly

- **Noisy equipment replaced as instructed by MNRE-PUMA/LTA**
  - Construction site
  - Observation
  - Monthly, random times

  - Local village, schools, etc.
  - dB meter
  - If there are complaints
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Monitoring Location</th>
<th>Monitoring Frequency</th>
<th>Monitoring Method</th>
<th>Other Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust</td>
<td>Noise levels</td>
<td>Construction site and access roads</td>
<td>Mostly during hot, dry, windy conditions if there are complaints</td>
<td>Observation</td>
<td>PSC regular reports and Complaints Register. PUMA CI monthly compliance reporting and Stop Notice or Stop Order if breach of DC conditions</td>
</tr>
<tr>
<td>Dust</td>
<td>Construction site and access roads watered</td>
<td>Construction site and access roads</td>
<td>Mostly during hot, dry, windy conditions if there are complaints</td>
<td>Observation</td>
<td>PSC regular reports and Complaints Register. PUMA CI monthly compliance reporting and Stop Notice or Stop Order if breach of DC conditions</td>
</tr>
<tr>
<td>Management of Solid Wastes (Non-Hazardous)</td>
<td>Unused, non-recyclable wastes sent to government approved disposal site</td>
<td>Disposal site</td>
<td>Monthly</td>
<td>Observation</td>
<td>PSC regular reports and Complaints Register. PUMA CI monthly compliance reporting and Stop Notice or Stop Order if breach of DC conditions</td>
</tr>
<tr>
<td>Management of Solid Wastes (Non-Hazardous)</td>
<td>Recyclable wastes accepted by licensed operators</td>
<td>Waste storage area</td>
<td>Monthly</td>
<td>Scheduled waste transfer</td>
<td>PSC regular reports and Complaints Register. PUMA CI monthly compliance reporting and Stop Notice or Stop Order if breach of DC conditions</td>
</tr>
<tr>
<td>Management of Solid Wastes (Non-Hazardous)</td>
<td>Useable components properly stored or sent to other airports</td>
<td>Equipment storage area</td>
<td>Monthly</td>
<td>Monthly</td>
<td>PSC regular reports and Complaints Register. PUMA CI monthly compliance reporting and Stop Notice or Stop Order if breach of DC conditions</td>
</tr>
<tr>
<td>Emissions from Construction Equipment</td>
<td>Equipment with excessive emissions replaced</td>
<td>Construction site and access roads</td>
<td>Weekly, random times. More often if problem persists</td>
<td>Observation</td>
<td>PSC regular reports and Complaints Register. PUMA CI monthly compliance reporting and Stop Notice or Stop Order if breach of DC conditions</td>
</tr>
<tr>
<td>Worker Health and Safety</td>
<td>World Bank/IFC Guidelines followed</td>
<td>Construction site</td>
<td>Weekly, random times. More often if violations are observed</td>
<td>Observation</td>
<td>PSC regular reports and Complaints Register. PUMA CI monthly compliance reporting and Stop Notice or Stop Order if breach of DC conditions</td>
</tr>
<tr>
<td>Traffic Management</td>
<td>Traffic Management Plan properly implemented</td>
<td>Construction site and access roads</td>
<td>Monthly, random times. More often if violations or complaints occur</td>
<td>Observation</td>
<td>PSC regular reports and Complaints Register. PUMA CI monthly compliance reporting and Stop Notice or Stop Order if breach of DC conditions</td>
</tr>
<tr>
<td>Chance Find of Cultural Artefacts</td>
<td>Discovery site</td>
<td>Observation</td>
<td>Time of discovery, weekly thereafter</td>
<td>PSC regular reports and Complaints Register. PUMA CI monthly compliance reporting and Stop Notice or Stop Order if breach of DC conditions</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>----------------</td>
<td>-------------</td>
<td>--------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Work stopped</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area fenced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authorities contacted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approvals received?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management of Oil and Fuel for Construction Equipment</th>
<th>Oil/fuel storage area</th>
<th>Observation</th>
<th>Weekly, random times. More often if problem persists</th>
<th>PSC regular reports and Complaints Register. PUMA CI monthly compliance reporting and Stop Notice or Stop Order if breach of DC conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil/fuel stored in bunded area with impervious base?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All oil/fuel transfers take place in this area?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fuel and Oil spills From Construction Vehicles</th>
<th>Oil/fuel storage area</th>
<th>Observation</th>
<th>As required When spill occurs</th>
<th>PSC regular reports and Complaints Register. PUMA CI monthly compliance reporting and Stop Notice or Stop Order if breach of DC conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil collected from separator and received by licensed operator?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major spills treated rapidly in accordance with mitigation plan?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>World Bank/IFC Guidelines for Key Equipment</th>
<th>On Site</th>
<th>Fire truck: emission levels (CO, HC, NOx)</th>
<th>Acceptance Test</th>
<th>PSC; World Bank/IFC Certificate or official documentation of Approval stating that systems satisfies all operational code compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Bank/IFC Guidelines for fire truck, fire safety equipments and all aviation equipments included in bid documents?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.3 Costs

The estimated cost for implementing the mitigation measures and monitoring plan necessary for the SAIP is provided in the Table 8 below. The costs during construction shall be part of the contractor’s civil works package. While the costs associated in assisting the PUMA Inspector Officer in the implementation of the EMP and conducting relevant environmental training shall be included in the construction supervision cost.

Table 8: Summary of Estimated Costs for Implementation of Mitigation and Monitoring Plans

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Total Cost (US$)</th>
<th>Costs Covered By</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Environment Health and Safety personnel (one person for 8 months @ $1,500/month)</td>
<td>18,000</td>
<td>Contractor</td>
</tr>
<tr>
<td>Environmental Management capacity building program/training to be undertaken by the Project Supervision Consultant</td>
<td>5,000</td>
<td>Design and Supervision Consultancy</td>
</tr>
<tr>
<td>Environmental impact monitoring (allow $500/month for 8 months)</td>
<td>4,000</td>
<td>Project Design and Supervision Consultancy</td>
</tr>
<tr>
<td>Mitigation measures (included in project costs)</td>
<td>To be determined during detailed design as part of project design costs</td>
<td>Contractor</td>
</tr>
<tr>
<td>Development Consent and Environmental Permits</td>
<td>500</td>
<td>SAA</td>
</tr>
</tbody>
</table>
7 INSTITUTIONAL ARRANGEMENTS

7.1 Compliance with Government of Samoa and World Bank Safeguards Policies

Samoa’s Planning and Urban Management (Environmental Impact Assessment) Regulations 2007 sets out when a comprehensive or preliminary Environmental Impact Assessment (EIA) is required and prescribes the format of reporting. It does not specifically mention an EMP, however, it prescribes the preparation of a Baseline and Compliance Monitoring Schedule, which shall accompany an EIA and facilitates the assessment of a Development Consent Application (DCA) allowing the Agency to make an informed and sound decision. This document would outline a programme for baseline and compliance monitoring. The EMP Guideline 2011 (draft) prepared by PUMA states that an EMP “is a monitoring schedule that specifies mitigation measures actioned by contractors or proponent to reduce potential environmental impacts that were identified for a proposed development.” It goes on further to define an EMP as “an environmental planning tool that integrates and implements the environmental management commitments, conditions and statutory requirements that a development proposal may or must observe to alleviate unnecessary or reasonably avoidable adverse effects of the development.” Therefore, this EMP seeks to be acceptable with the requirements of the PUMA EIA Regulations 2007 and in accordance with the PUMA EMP Guideline.

This EMP also seeks to satisfy the requirements outlined in the World Bank’s Operations Manual 4.01 Environmental Assessment (EA). The overall PAIP has been designated as “Category B”. A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas – including wetlands, forests, grasslands, and other natural habitats – are less adverse than those of Category A projects. The manual states that an EMP is an instrument that details (a) the measures to be taken during the implementation and operation of a project to eliminate or offset adverse environmental impacts, or to reduce them to acceptable levels; and (b) the actions needed to implement these measures. For many Category B projects, the EA may result in a management plan only. This EMP has been prepared to satisfy the EA requirements of the WB for the preparation of the SAIP.

For the purpose of our report, the TOR stipulated the need to prepare an EMP. At the planning phase of the project, an EIA will be required by MNRE to be prepared for large scale developments that cost above SAT$1,000,000. Moreover, the EIA will assist design consultants in finalizing the best and preferred option that promotes best environmental practice. The EMP will be integrated into the EIA and technical design and included in all bid documents and contracts for all civil works.

Public consultations to discuss the draft EMP was conducted on 18 September 2013 with relevant authorities and on 24 September 2013 with affected stakeholders and villages at the Faleolo International Airport. Documentation of Public Consultations is attached in Appendix 2 of main report.
A total of 59 people attended the public consultations and 10 Government officials and 4 NGO representatives were interviewed. Most of the questions and concerns raised related to:

- Cost of business – additional cost to the general public and the business community for SAA cost recovery;
- Equal opportunity for local businesses to bid for project contracts;
- Consider impact of climate change and vulnerability to natural hazards in designs – sea level rise, coastal erosion, coastal flooding, cyclones, etc.;
- Project to consider future EPC solar panel projects near to the site of the airport and address issues accordingly;
- Evidence of coastal erosion along existing seawall;
- Project compliance with legal procedures to avoid project delays eg. Issues with the village;
- Lack of coordination between the Ministries and Authorities;
- Lack of community consultations - possible delay in project;
- Possible historical and cultural sites especially in the area where the Olo quarry is located;
- Quarry site – previous application to reopen quarry was declined by PUMA due to potential impact to underground aquifers. May need to explore other alternative sites further south of the STEC lands at Afolau or Saleimoa;
- Project management must prepare and have in place a contingency plan during construction and operation;
- Quarry operations to be managed properly such as no works on Sundays and during village curfews and comply with times of operation, truck loads to be covered securely to avoid spillage on roads and adjacent properties;
- Method of extraction of aggregates, use of dynamites poses safety risk for workers and also security issue in case of vandals gaining possession of explosives;
- Road safety for pedestrians and traffic, especially school children;
- Prioritizing local youths for employment during project implementation especially for manpower/labour.

The public was informed that issues raised will be incorporated into and addressed in the EMP and proper mitigation actions developed. These will then be considered and reflected in the designs of the project.

In accordance with WB policy, the EMP in English and Samoan language will be disclosed locally at Nelson Memorial Library, MWTI and SAA offices. It will also be posted on MWTI and SAA websites as well as the WB Infoshop.

### 7.2 Environmental Regulatory Framework

The following is a summary of key Acts and Regulations applicable to the proposed project as well as the Ministries and Authorities that will govern project implementation.

*Planning and Urban Management Act 2004 – MNRE/PUMA*

This is the main environmental legislation that relates to the proposed project. This Act establishes the Planning and Urban Management Agency (PUMA) with primary responsibility for ensuring sustainable development through the protection and management of the
country's natural resources and the control of pollution. This is done mainly through a
development consent system.

**Samoa Waste Management Act 2010 – MNRE/DEC**
The proposed project seeks to comply with the WMA 2010 by implementing waste
management measures during and after construction works as well as in the operational
phase of the airport infrastructure and equipments.

**Samoa Disaster and Emergency Management Act 2006 – MNRE/DMO**
The design of the proposed development takes into consideration the provisions of the
DEMA 2006 and seeks to put in place measures to minimise threats to life, health and the
environment from natural disasters and other emergency events.

**Samoa Occupational Safety and Health Act 2002 – MCIL**
The construction and operation activities of the airport infrastructure and installation
procedures of equipments will provide for the safety, health and welfare of all its workers
and employees.

**Samoa Coastal Infrastructure Management Plans 2002 – MNRE/PUMA**
The site of the proposed development is situated within the Coastal Erosion Hazard Zone
and Coastal Flood Hazard Zone. The upgraded runway, taxiways and apron must be designed
to be above flood levels and drainage network maintained to alleviate flooding at the site.

**Samoa Codes of Environmental Practice 2007 – MNRE/PUMA**
The project will be designed and constructed in accordance with the COEPs so as to apply
best environmental practices and ensure sustainable development activities are upheld
throughout works. The following must be adapted into the design: COEP 2 – Road Planning,
Design and Construction; COEP 3 – Consultation; COEP 5 – Construction Camps; COEP 7 –
Slope Stability; COEP 8 – Quarry Development and Operations; COEP 9 – Gravel Extraction;
COEP 11 – Drainage; COEP 12 – Traffic Control During Construction; and COEP 13 –
Earthworks.

**PUMA Planning Policy: Noise Standards (Revised) 2011 – MNRE/PUMA**
The development must comply with the revised PUMA Noise Standards that states the
permitted noise levels during construction works and operation phase.

**Fire and Emergency Services Act 2007 – FESA**
The project proposes to purchase one fire vehicle or refurbish 2 firefighting vehicle currently
inactive as well as fire safety protective clothing.

**Water Resources Management Act 2008 – MNRE/WRD**
This Act covers protection of water resources from contamination. All requires adherence of
all development consent and EIA to provisions of water resources management plans.

**Samoa Water Authority Act 2003 – SWA**
This Act covers protection of water resources and reticulation of water to customers.

This Act covers the control and management of infrastructure works.
Land Transport Authority Act 2007 – LTA
This Act covers the operation and management of quarries or gravel pits.

Lands, Surveys and Environment Act 1989 – MNRE
This Act ensures and promotes the conservation and protection of the natural resources and environment of Samoa.

Taking of Lands Act 1964 – MNRE/LMD
This Act provides for the taking of land for public purposes and payment of compensation for such land.

Watershed Protection Management Regulations 1992 – MNRE/Forestry Division
This Regulation provides for management and protection of watersheds.

Samoa Trust Estates Act 1990 – STEC
This Act covers the re-organization of STEC which also alienates the Olo Quarry to Government.

7.3 Institutional Arrangements and Reporting
To ensure that the proposed mitigation measures will be implemented by the contractor/s during the construction stage, the design engineering consultant will undertake the following:

- Clearly define in the tender and contract documents the contractor’s obligation to undertake and implement environmental mitigation measures as specified in this EMP. The same shall be appended in Contract Specifications.
- The cost for the recommended environmental mitigation measures will, where possible, be itemized as cost items in the Bill of Quantities (BOQ). Such allocation of a cost item to specific environmental mitigation measure will be crucial to assure their actual implementation. During procurement or bidding, the bidders will be specifically instructed to include these cost items as line items in the BOQ to form part of their financial bids; and
- Explicitly require the contractor to recruit an environmental, health and safety personnel who will be specifically responsible in handling environmental issues of the project.

The contractor will be responsible for the implementation of environmental mitigation measures during construction and shall employ an environment, health and safety (EHS) personnel who will supervise implementation of the contractor’s environmental responsibilities as stipulated in the contract and liaise with the PUMA, SAA and MWTI on such matters. Likewise, the EHS personnel will also be responsible for environment, health and safety aspects of work sites and shall submit monthly reports to SAA, MWTI and PUMA on the status of implementation of mitigation measures, including complaints received and actions taken as well as other environmental issues relating to the project. The contractor, in coordination with the project supervision consultant (PSC), shall set up a grievance redress committee that will deal with any complaints during project implementation.
Also, during project implementation, the PUMA Compliance Inspector with the assistance of the PSC shall monitor the compliance of the contractor in accordance with the Monitoring Plan. The PUMA shall submit copies of monthly compliance report to SAA and MNRE-PUM Board describing the status of implementation of environmental mitigation measures by the contractors. Included in the report are additional mitigation measures that may need to be implemented, incidents of non-compliance with development consent conditions, complaints received from local residents, NGOs, etc. and ways and means by which, they were addressed or settled.

It is advisable that the Project Support Team, through its Environment Specialist (PSTES), assist the PUMA CI in monitoring the progress of the construction on its environmental aspect. The PSTES shall provide hands-on training to the PUMA throughout various stages of the construction. The PSTES shall also assist the PUMA in preparing monitoring reports regarding the performance of the contractors in terms of compliance with the relevant national environmental regulations, quality standards and the implementation of environmental specifications in accordance with the contract provisions. Ministry of Health (MOH) may conduct periodic monitoring to ensure worker health and safety.

During project implementation, the SAA, through the Project Support Team Manager (PSTM), will report to the WB every 3 months on the progress of the project based on the monitoring reports submitted by the PUMA/PSC and the contractor.

Upon project completion and subsequent acceptance by the SAA, the SAA Operations/Maintenance Manager will be responsible for the operation and maintenance of the infrastructure investments implemented under the SAIP. Routine and random environmental monitoring will be undertaken by PUMA to assess compliance with the required mitigation measures and applicable environmental laws and regulations.

Table 9 summarizes the various institutional responsibilities for the implementation of the EMP at various stages of the project.

**Table 9: Responsibilities for Implementing the EMP**

<table>
<thead>
<tr>
<th>Project Stage</th>
<th>Responsible Organization</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detailed Design</td>
<td>SAA, PST, MWTI with the design engineering consultant</td>
<td>Incorporate mitigation measures into engineering design and technical specifications</td>
</tr>
<tr>
<td></td>
<td>SAA, PST and PUMA-MNRE</td>
<td>Review and approve environmental mitigation and management measures</td>
</tr>
<tr>
<td></td>
<td>SAA and PST</td>
<td>Allocate appropriate budget to undertake environmental monitoring and capacity building for SAA staff and contractors</td>
</tr>
<tr>
<td>Construction</td>
<td>Contractor (through its EHS representative) with assistance of PSC and PSTES</td>
<td>Implement required environmental measures and submit monthly reports to SAA PCM and PUMA regarding status of such</td>
</tr>
<tr>
<td>Role</td>
<td>Action</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>SAA PSTES with assistance of PUMA CI</td>
<td>Supervise contractor’s implementation of environmental measures on a daily basis. Enforce contractual requirements.</td>
<td></td>
</tr>
<tr>
<td>PUMA CI, PSC, PSTES</td>
<td>Audit construction phase through environmental inspections and collect monitoring data. Submit monthly reports to SAA and MNRE.</td>
<td></td>
</tr>
<tr>
<td>PSC, PSTES</td>
<td>Assist the contractor in the formulation of a grievance redress committee. Provide awareness/training to workers and technology transfer to the contractor.</td>
<td></td>
</tr>
<tr>
<td>PUMA CI, PSC, PSTES</td>
<td>Ensure compliance with Government legal requirements during construction. Review complicated issues arising from the Project.</td>
<td></td>
</tr>
<tr>
<td>SAA (Project Support Team Manager)</td>
<td>Submit quarterly progress reports to WB.</td>
<td></td>
</tr>
<tr>
<td>MOH</td>
<td>Undertake periodic monitoring of the project.</td>
<td></td>
</tr>
<tr>
<td><strong>Operation</strong></td>
<td><strong>PUMA Compliance Inspector/SAA Maintenance Manager</strong></td>
<td>Undertake routine environmental monitoring and prepare corresponding reports.</td>
</tr>
</tbody>
</table>
8 INSTITUTIONAL STRENGTHENING

The current institutional structure of the SAA does not provide for an environmental engineer to oversee environmental aspects of all aviation transport developments and activities to be in accordance with the Samoa COEPs and local environmental regulations and policies.

The tools and guidelines developed to provide environmental assessment and monitoring procedures for road and quarry works and associated activities such as the Samoa Codes of Environmental Practice (COEPs) is seriously underutilised, overlooked and requires review for it to be relevant to the Samoan context. Furthermore, proper training of all stakeholders from the public and private sector is needed. The COEPs were developed with the assistance of consultants and was adopted by Samoa under the WB’s SIAM-2 project. PUMA has undertaken trainings for staff and local contractors but it has not been effective due to low attendance and turnover of agency staff. Also, some of the codes need to be reviewed and made applicable and relevant to the local Samoan environmental, social, political and economic context. There are new codes that need to be developed such as sand mining and reclamation to provide for prevailing activities that are causing significant impacts on the environment. Furthermore, a user’s guide needs to be prepared for the COEPs both in English and Samoan language to ensure that it can be easily applied and comprehended by all levels of the Samoan community leading to the enhancement and promotion of environmental management awareness and education.

Moreover, as identified above, with reference to the capacity of the MNRE, SAA and MWTI staff in environmental management of aviation infrastructure projects, often the problem is the incorporation of the requirements for environmental mitigation and monitoring in the contract documents even though the EMP was adequately prepared. Because of this, it becomes difficult to enforce the needed environmental mitigating measures in projects, particularly due to lack of reference to these items in the project contract. It is important that this item be adequately emphasized in the role of the MNRE-PUMA Compliance Inspector, SAA Project Support Team Environment Specialist and MWTI Civil Aviation Manager for compliance by the contractor.

Table 9: Implementation Schedule

<table>
<thead>
<tr>
<th>Project Phase</th>
<th>Issue</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detailed Design</td>
<td>Inclusion of engineering measures to manage quarry development and operations</td>
<td></td>
</tr>
<tr>
<td>Prior to commencement of construction activities</td>
<td>PUMA inspector (with assistance from PSC &amp; PSTES) to review and approve contractor’s method statements</td>
<td>Once</td>
</tr>
<tr>
<td>Upon mobilization of PSC</td>
<td>Training for SAA, PUMA-MNRE, LMD-MNRE, MWTI (hands-on training will also be provided by the PST Environment Specialist during monitoring of the performance of contractors)</td>
<td>Once</td>
</tr>
<tr>
<td>During Construction</td>
<td>Monitoring</td>
<td>Refer to Appendix D</td>
</tr>
<tr>
<td>During Construction</td>
<td>Reporting:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Contractor to PSC/PUMA inspector</td>
<td>Monthly</td>
</tr>
</tbody>
</table>
As part of the TOR of the EA/EMP and Capacity Building Contract, a comprehensive training program must be formulated and implemented in line with institutional building and capacity building of staff from various agencies dealing with environmental regulations and control, especially the PUMA CI and Land Management Officer, MNRE. The topics that should be covered in the training must cover environmental management and related issues relevant to the road construction sector in Samoa and those covered in the COEPs such as: COEP 2 – Road Planning, Design and Construction; COEP 3 – Consultation; COEP 5 – Construction Camps; COEP 6 – Road Construction Erosion Control; COEP 7 – Slope Stability; COEP 8 – Quarry Development and Operations; COEP 9 – Gravel Extraction; COEP 11 – Drainage; COEP 12 – Traffic Control During Construction; and COEP 13 – Earthworks.

On this note, the assistance of the Project Support Team Environment/Social Specialist will be useful. The PSTES will be responsible for the following tasks:

- Review prevailing government regulations in Samoa and WB guidelines governing the assessment and management of environmental impacts of aviation infrastructure projects;
- Identify the procedural tasks required to be performed by PUMA CI, Land Management Officer, SAA Engineers to meet the requirements of these regulations and guidelines;
- Assess the capacity of the MNRE and SAA and determine the training needs to respond to the requirements in conducting environmental monitoring and implementation of mitigation measures of aviation infrastructure projects;
- Prepare a short-term staff training prospectus and associated materials to meet immediate needs;
- Undertake training workshops that will include the following topics:
  - Establishment of baseline data at the start of the project for reckoning project environmental impacts;
  - Preparation of EMPs and incorporation of mitigating measures in contract documents and specifications for Consulting Services and Works contracts;
  - Procedures for monitoring the implementation of mitigating measures including target parameters, frequency, responsibilities and means of monitoring;
  - Health and safety procedures in project implementation.

A typical MNRE/SAA/MWTI staff training will consist of lecture-type presentation of the general procedure and requirements for effective environmental monitoring. This will be followed by a more detailed on-the-job and hands-on training at the construction site where the trainees will participate in the activities of the PST environment specialist/aviation procurement specialist/pavement engineer/electrical engineer/building engineer and construction supervision staff in reviewing the contractor’s reports, periodic monitoring inspections, and deliberation of environmental issues involving the contractor and the project stakeholders, and finally the accomplishment of environmental reports. The field
Trainings should coincide with peak work activity at the site to provide a first hand observation of the following environmental issues:

- Erosion and slope stability issues;
- Discharges to water bodies;
- Disturbance on biodiversity;
- Dust suppression;
- Exhaust emissions;
- Noise abatement measures;
- Protection against oil spillage;
- Waste management;
- Quarry, borrow pits and asphalt plant operations;
- Site health and safety, sanitary facilities, etc.;
- Public safety, traffic management, child safety, etc.;
- Documentation in dealing with public complaints and conflict resolution.
ANNEX 3 – SOCIAL ASSESSMENT (SA)
GOVERNMENT OF SAMOA
SAMOA AIRPORT AUTHORITY
SAMOA AVIATION INVESTMENT PROJECT

PACIFIC AVIATION INVESTMENT PROGRAMME

Social Assessment

Report Prepared for:
World Bank

Report Prepared by:
CB Group

On Behalf of:
Chief Executive Officer
Samoa Airport Authority

Date Issued: October 2013
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1. INTRODUCTION

This Social Assessment has been prepared for the planned activities for the Samoa Aviation Investment Project (SAIP) and will examine the project’s socio-cultural, institutional, historical and political context and stakeholder’s views and priorities for the sustainable development of the project activities in Samoa. It will also be used to identify important stakeholders and analyze relationships among them as well as promoting their participation in project activities where applicable in the most appropriate ways to local conditions and enhance benefits (if any) to the local population.

This assessment will also confirm what World Bank safeguard policies are triggered and what safeguards instruments, if any, should be prepared to manage impacts. It follows on from the EMP provided in Annex 1.

2. PROJECT LOCATION

The Faleolo International Airport is located on the North West coast of the island of Upolu and is the gateway to and from Samoa and is an important and integral part of Samoan life. It is a place where families and friends meet and greet and bid each other farewell. In particular, the villages of Satapuala being approximately 950 meters away to the east from aircraft ground movement and Mulifanua to the west are connected to this project area as the closest communities to the project area.

The SAIP planned footprint is not expected to trigger any of the World Bank (OP4.10 and OP4.12) social safeguard policies as all activities listed under Component A are to be carried out within the vicinity of lands owned by the Samoan Government and no new land or asset acquisition is envisaged for these activities. Except for transport of materials and equipment, all impacts will occur within the airport and quarry precincts. Therefore, this Social Assessment will address the zone of influence for this project which includes the villages which border the Airport and settlements situated on the roads where materials and equipment are planned to be carted through. It provides an overview of the current social status of the settlements close to the project area and examines how best the project will operate and provide positive outcomes in relation to the issues raised in the consultations with stakeholders and village communities.

3. PROJECT SIGNIFICANCE

The main undertaking for the SAIP is to improve safety and security at Faleolo international airport. One of the requirements to be fulfilled before and during implementation of the project is to ensure that all essential checks and balances are met to achieve minimal disruption and impact to the environment and its indigenous persons. Although the objective is for improvements to be delivered mainly for the airport, opportunities in many forms for all and the environment are anticipated. These may include but are not limited to

- Employment opportunities
• Improved access especially for plantation roads
• Supports opportunities for further growth in other sectors like tourism and agriculture
• Enhanced quality of the surrounding environment both physical and social mainly through public awareness of the areas under assessment as very little seems to be
• Reinforcing working relations among the different communities and with SAA to improve relations with SAA’s satellite villages which have been rather precarious rapport in the past.

4. Settlement – Zone of Influence

The social assessment for the SAIP involves 6 villages that are in the anticipated zone of influence of the project. These are the villages of Satapuala (east and north of the Airport), Samea, Paepaeala, Fuailoloo, and settlements of Olo and Sagafili (all to the south and west of the Airport). The proposed quarry site is part of the 6,910 acres of land which is owned by the Samoa Trust Estates Corporation (STEC) and runs parallel to the southern boundary of Samoa Airport Authority lands. In essence, the entire project will be undertaken on Government owned lands (SAA and STEC). However, because the aggregate will need to be carted from the quarry to the Airport grounds, it is envisaged that this may trigger the involvement of these villages as the current road networks run through some village roads and plantations.

The cash economy of the surrounding villages is a mix of traditional and non-traditional work. A number of residents are employed in plantation work, fishing and agricultural/cultivation activities. There are also three primary schools and one large secondary school in the area. There are also many churches and a number of small shops and home occupations throughout the surrounding area of the project site. Aggie Grey’s Lagoon Resort, Le Vasa Resort, Aiport Lounge and the Transit Motel are the main commercial activities that provide employment opportunities for the local villagers.

Fig 1. Map – showing project zone of influence from Satapuala to Fuailoloo in the blue box

1 Map Outline from Wikipedia: Samoa
5. Social Structures

The proposed zone of influence of the project spans two territorial constituencies - that of Aana Alofi No.3 and Aiga I le Tai. The village of Satapuala lies in the Aana Alofi No. 3 constituency and the rest of the villages are included in the Aiga I le Tai constituency.

The political structures of these villages are administered in accordance with the faa Samoa (the Samoan way) like all other village communities in Samoa – it is a highly hierarchical society with very specific roles. Each has a council of chiefs (males and females alike except for some villages who do not allow female matais) called the Alii ma Faipule from where the village mayor is chosen. Other social groups include untitled men’s and women’s groups (aumaga and aualuma) who support the house of the matais or village council. There is also a women’s committee which is divided into two or more sub groups (varies from village to village) who are tasked with administering and overseeing child health and village sanitation related programmes (Komiti Tumama) and the others tasked to support traditional activities such as weaving and which support cultural and traditional practice. Decision-making is by and large left to the matais (chiefs) – the reason being that the matais (chiefs) are given their titles by their families and therefore, they speak on behalf of their families and the expectation is their decisions are also conformed to by their families. Herein lays the hindrance in trying to convince the general public to attend consultations which their matais are party to.

The village mayor – Sui o le Nuu (SN) is the representative and voice of government in village affairs and vice versa and therefore any organisation (including government) who proceeds to engage the village in any formal activity (e.g consultations) requires working together with the MWCSD of whom the SNs are responsible to.

Historically, all these villages were relocated in the 1940s to make way for the airport.

6. VILLAGE PROFILES

This section aims to provide a snapshot for the villages lying in the zone of influence. It has been derived and condensed from Samoa’s 2011 Population and Housing Census, public consultations and village profiles given by the village mayors.

Satapuala

Satapuala is the village which borders the Airport on the south eastern side. Once a coastal village, but relocated inland to make way for the airport in the 1940s, the village holds the view that they were unfairly removed from their lands and have had a long-standing dispute with Government and have made numerous calls over the years for the Government of Samoa to have their lands returned. This has continued after Government brokered a land swap as compensation with their leaders in the 1980s exchanging land at a ratio of 2 acres of WSTEC land opposite the airport gate to 1 of their acres which now forms the crash site for the airport at the eastern end of the runway. In the 2011 Census, Satapuala’s population was 1396 - 696 females and 699 males, living in 168 households. The village is part of the A’ana Alofi #3 electoral constituency and is about 40 minutes west of Apia, Samoa’s capital and borders the Airport on the eastern side of the runway. Satapuala has a ‘young population’ in that 48% of their village population is younger than 20. However, even though their basic education statistics are quite impressive, in 2011, statistics showed that 50% of
residents were engaged in domestic duties and 3% were unemployed. According to the village mayor, these figures remain largely the same. The main sources of cash income for this village are paid formal employment, fishing and produce sales. There are also a number of village stores in operation in the village. Of those who are employed, almost half are engaged in the skilled agricultural and forestry sector, the next being the service industry at 18%.

The villagers also use the lagoon next to the runway to fish and collect seafood because their village fishing grounds has been marked a conservation area. Land is abundant and arable – excellent for crops/plantations and the main crops which are grown both for subsistence use and commercial are the taro (colocasia esculenta), taamu (the Giant Taro alocasia macrorrhiza), bananas (musa acuminata), cocoa (theombroma cacao) and coconut (cocos nucifera). Vegetables are also grown and sold – mostly cabbages, beans and cucumbers. Fish is also sold for additional income for families. Livestock is also plentiful with 106 families raising free range chickens, 115 families that own pigs, and 9 families who own cattle.

There are a number of cottage industries working in the village of Satapuala. Convenience stores, vegetable stalls, vendors selling pancakes, pork cakes and Samoan cocoa. They also have a group who sell young green coconuts at their bus stand which is opposite the Airport entry – they have even organized a timetable stipulating which group sells at a particular time and day.

Satapuala also hosts a village school – Satapuala Primary School which caters for the first 8 years of school. The school has 7 teachers – 3 males and 4 females. The village also hosts the District College – Aana Alofi III College. A new National Hospital, being built from US financial assistance is nearing completion and is next to the College – this also stands to become a lucrative possibility for village earnings given its location. Currently, villagers have to travel about 4 ½ miles to get to the nearest district hospital.

In Satapuala, the 2011 census showed that 43% of the population had completed primary school level and 46% had completed secondary school. 94% of the population had attained their Pacific Secondary School Certificate or below.

According to the village mayor, there are 4 families, to his knowledge, that have food insecurity but are being helped by their village community.

With regards to housing in the village, village housing is quite cluttered – with villagers preferring the roadside - though there is a lot of unutilized land further inland - 37% live in Samoan-style houses and the remaining houses are ‘European-style’. All houses have access to electricity, mostly pre-paid meters, and access to water is also very good with the village predominantly receiving their water from government sources – both metered and un-metered. Most of their cooking is done in a separate structure and 86% use wooden stoves to cook their meals - the remaining using gas and charcoal.

Their main form of transportation is the public transport buses as only 25 families own motor vehicles. Travelling on public transportation can prove quite costly as it is $3.00 one way to Apia in a bus; $40.00 to Apia one way in a taxi; and if you have agricultural produce it will cost you an extra $100 on the bus.
Noise pollution is the only issue mentioned by villagers emitting from the Airport especially when airplanes take off and land when they are in church or having evening prayers and is especially harsh for the elderly and children when they are sick.

**Fuailolo’o**

Fuailolo’o is a village on the west coast of Upolu and is part of a number of villages which make up Mulifanua. It falls in the boundaries of the Aiga i le Tai constituency (literally Family through the Ocean) as it encompasses the western tail end of Upolu and the little islands of Manono and Apolima which lie in between the islands of Upolu and Savaii. The area provides the setting for numerous Samoan legends and is steeped in oral traditions and folklore. Mulifanua is also the site where numerous shards of Lapita pottery were found and also evidence of ancient settlements was discovered in the hills in the 1970s. The island of Manono is one of the heritage sites identified by Samoa. The village of Fuailolo’o population was 1,173 in 2011 – 597 males and 576 females living in 162 households. 49% of the population is under 20 and 53% are in the ‘economically active’ age groups. The area has rich fertile soils suitable for crop and tourism development and because the families are growing in numbers and development – some of the villages have entered into an agreement with STEC for some land that they can plant and then return when STEC is ready to use.

More than 80% of the village has completed either primary or secondary school with 3% claiming that they never went to school. 94% attained their Pacific Secondary School Certificate or below with a few following on to tertiary level. About 39% of the total village population is working in formal employment; 48% noted domestic duties and 3% were unemployed. Those who were noted in the formal employment sector were involved mainly in Agriculture (35%), Accommodation (11%) and Fishing and Restaurants (both 9%). Housing is evenly split with about 44% living in European style housing and 41% living in Samoan style houses.

The land tenure in Fuailolo’o is typical of a lot of Samoan villages across the country – a large bulk is customary land with pockets of freehold land and in Fuailolo’o’s case 71% is customary land, 3% is freehold and 26% is leased land. The bore holes and water pumps further inland from the village has made it possible for 88% of this village to have metered treated water. The only problem identified by the village mayor is that the pressure is very weak. Electricity is also available to all the villagers and 90% are using the pre-paid system of electricity with only 5% using the normal paid electricity and another 5% who use alternative sources of lighting.

Public transportation is widely used as 76% of the villagers do not own vehicles. To get to the Airport, it will cost $1.00 one way on the bus and $20.00 in a taxi. To get to the Leulumoega District Hospital would be $1.50 in a bus and $20.00 in a taxi and to go to Apia would be $3.00 by bus and $60.00 in a taxi. A couple of families own the public transportation vehicles currently in use.

There are a number of small businesses in the village - trading stores (but mostly for basic necessities – most people still go to Apia for their purchases), roadside vendors selling fish, vegetables. The village also runs a vegetable project aside from their main crops – which are taro, taamu, bananas, cocoa, coconuts, ufi, and a variety of flaxes used for weaving sleeping and fine mats. Remittances from family overseas also play a very important role in the village economy. But still, the village...
mayor estimated that perhaps about $\frac{3}{4}$ of the village do not have food security because of the low incomes they receive.

Fuailolo’o has a primary school with a school roll of 270 – and have 7 teachers – 3 females and 4 males. They also have a village health centre which does not have a resident doctor or nurse, but the clinics are held at the health centre every Tuesday.

Livestock is also plentiful in the village with 111 of 162 households raising chickens; 122 families owning pigs and 3 villagers owning cattle.

**Olo, Paeapaeala and Samea/Satui**

Because these villages all share one village mayor and are located along the possible route for the contractors to cart equipment and aggregate, the data has been merged for their settlements. These villages and settlements also include STEC workers who reside on STEC land at their workplace and also, like Satapuala, some of these residents originally owned the lands which now constitute Samoa Airport Authority lands and where Aggie Grey’s Resort and Spa is located, but were resettled further inland when the Airport was built in the 1940s.

In the 2011 Census, the head count for these villages was 335 – 173 males and 162 females. 47% of their population was under the age of 20 and about 60% were in the economically active category. 37% completed primary school and 55% completed secondary school. A further 6% carried on to tertiary studies and 1% never went to school. 48% carried out domestic duties and 40% held paying formal employment, mostly in agriculture (10%), fishing (21%) and the service industry (27%). About 30% live in Samoan-styled houses and the remaining in European styled housing. There are a number of trading stores in the villages, there are also street vendors selling pancakes or pork cakes on the road. There are also roadside stalls where the villagers can sell their fish, shellfish and molluscs and also vegetables including pumpkins, cabbages, tomatoes and eggplants. The village mayor estimated that possibly 14 families do not have food security in the village. There are no school buildings in the area. The closest school to these villages is about a mile away and the nearest hospital is, again, the Leulumoega District Hospital.

The land tenure for these areas is, in total, 84% is customary land, 5% is freehold and 11% is leased land. Their water source comes mainly from the SWA water pumping stations with 80% getting metered water and 20% utilizing rain water. Again the problem like Fuailolo’o – the pressure is weak. Electricity is readily available as 80% of the residents subscribe to the prepaid meters, 4% use the normal electricity payment system and 16% use other sources of lighting. Transportation is predominantly public transport because 68% do not own bikes or motor vehicles. Only 14 families own cars according to the village mayor and often some families without vehicles borrow the cars for emergencies. Otherwise, it costs $1 on a bus and $20 in a taxi to the Airport; $2.50 on a bus or $30 in a taxi to get to the Leulumoega District Hospital; and $3.00 or $60.00 in a taxi to go to Apia.

Livestock is also kept by a number of villagers – 45 household raise chickens, 31 raise pigs and 2 families have cattle.
7. **Main Findings**

The findings listed below is a summary of the consultations and interviews undertaken on the 18th and 24th of September 2013 at Faleolo. Just over 60 participants in total were involved. A full copy of the minutes of all discussions and consultations is included as annex 3 of the main report.

1. Equal opportunity for local businesses to bid for project contracts or if local businesses do not have the capacity to carry out the works, at least have a requirement for local business to partner with international companies who bid for local contracts;
2. Project compliance with legal procedures to avoid project delays eg. Issues with the village;
3. Lack of coordination between the Ministries and Authorities;
4. Lack of community consultations - possible delays in project when there is the possibility for opposition from villagers due to misunderstandings;
5. Possible historical and cultural sites especially in the area where the Olo quarry is located;
6. Quarry site – previous application to reopen quarry was declined by PUMA due to potential impact to underground aquifers. May need to explore other alternative sites further south of the STEC lands at Afolau or Saleimoa;
7. Project management must prepare and have in place a contingency plan during construction and operation; consideration of the special needs community with regards to these major changes if it involves shifting to temporary terminal in the event of apron reconstruction/rehabilitation;
8. Quarry operations to be managed properly such as no works on Sundays and during village curfews and comply with times of operation, truck loads to be covered securely to avoid spillage on roads and adjacent properties;
9. Method of extraction of aggregates, use of dynamites poses safety risk for workers and also security issue in case of vandals gaining possession of explosives;
10. Road safety for pedestrians and traffic, especially school children – including improvements to road networks where trucks will travel;
11. Prioritizing local youths for employment during project implementation especially for manpower/labour.

8. **Considerations/Recommendations**

Overall there is overwhelming support for the project. Some areas, however, which may require some fine tuning and consideration on the part of all involved in this project includes the following. From the findings of this social assessment, the following recommendations are put forward for consideration. The numbering of the recommendations coincides with the numbers in the findings.

1. That all works put out for tender under SAIP include a component which gives preference to local companies or at the very least, a certain percentage of works to be reserved for local companies;
2. That the local village communities be considered to provide assistance to local police in providing security for the project location and contractors while work is being carried out;
3. 4, 6 and 7 That consideration be given to the possibility of a SAIP steering committee which will include all major stakeholders (SAA, MWCS, MWTI, MNRE, Police and village mayors) to ensure that all players are fully aware and kept abreast of various
developments in the project so that necessary action is taken in a timely manner to avoid unnecessary delays;
4. and 5 That consideration be given to alternative sites for the quarry site or perhaps preferential consideration be given to contractors who have their own quarry sites;
5. That consideration for consultation with the special needs community to be carried out with any/all changes to the physical layout of any temporary structures to be erected whilst the project is being carried out;
6. 8 and 9 That consideration be given to adding these aspects into the tendering documents at the bidding stage;

9. Opportunities

The SAIP does, provide some scope to involving individuals and communities in the short and long term period as proposed in the following

Short term

- site securities.
- road and track maintenance crews to keep track free of any falling objects and trees which may hinder travel and safety of the public.

Long term

- Be involved in potential business and tourism industry development initiatives which may result from the project e.g trekking and other recreational activities that may be borne out of the activities at the quarry
- Receive long term employment with other employers around the vicinity given a proven track record with contractor or employer.

10. Moving Forward

On the whole there are no serious issues at this point that would deliver any major disruption relating to the project as seen and heard in the views and opinions shared by the audience consulted to date. However, consideration and perhaps acceptance of some of the recommended approaches by which stakeholders and the community seeing themselves becoming involved with the project will provide an enabling environment to deliver balanced development resulting in achievable, timely and successful outcomes.
Bibliography

Samoa Bureau of Statistics; 2011 Population and Housing Census, October 2012

Wikipedia maps: Samoa

Interview with Satapuala Village Mayor Ga Sakaria

Interview with Satui Village Mayor Letelemaanaa Sio

Interview with Togialelei Gary Tuiletufuga
ANNEX 4 – FORMAL RECORD of MINUTES OF CONSULTATIONS AND MEETINGS
1. Samoa Land Corporation is a Samoan Government Corporation which is charged with overseeing Samoan Government-owned lands. After exchanging pleasantries, Chris then outlined the SAIP and that CB Group had been contracted by the Samoa Airport Authority to undertake an EMP and SA for this project noting in particular that the project footprint was expected to only be within the vicinity of the SAA grounds and the Olo quarry. Afoa noted her full support for the project and was thankful for the opportunity for the Government of Samoa to access this financial support for such an important development to trigger other developments for Samoa. However, she quickly let us know that as much as she would like to assist, the Samoa Land Corporation does not oversee any lands in close proximity to the Airport and that we should go and see the Samoa Trust Estates Corporation (STEC) as they own the land directly opposite the airport. We told her that we would be seeing the STEC General Manager straight after seeing her.

2. She did however mention a few pointers to perhaps take into consideration when the time came:
   a. SAA could look into a possible land purchase from STEC for the selected quarry site.
   b. Excavating contractors too often leave gaping holes in the landscape which cannot be utilized for any other purpose after the required rock has been dug up. She gave the example of Vaitele and Leauvaa to name a couple, where contractors have just left the sites in a state such that it is now unable to be used for any other development or for housing (it fills up like a cauldron during the rainy season). So she asked whether SAA could also consider adding to the responsibilities for bidding companies during the EOI process on how they will deal with this problem after the project is finished – put responsibility on the contractors to tidy up after themselves.

3. With that our visit came to an end and she wished us well on this project and we thanked her for making time to see us.
put on hold by Cabinet, pending a decision on ‘certain developments’ that the Samoa Airport Authority planned to undertake.

2. He voiced his support for the SAIP but felt that perhaps Olo would not be the best place for the quarry as the settlement there is quite large now. And there are also developments which have occurred in this area since the last time the SAA excavated Olo for the airport runway extension in 1984. For example, the Samoa Water Authority has a water pumping station there now; and a bottled water company and STEC also has a coconut oil processing plant located at Olo (Renewable Energy Source project). A coconut replanting scheme is well in advance for the plant and STEC is working in close proximity with the Scientific Research Organisation of Samoa (SROS) to determine the best varieties to cultivate for renewable energy sources and possible crop development to cater for local demand and for export. He suggested a place called Afolau further inland from where Olo is located and has the same rock type as Olo. He estimated that it is situated about 1 ½ km from the main road and the turn off point is before the Olomanu Juvenile Centre. Afolau is a mountain so rather than digging into the ground you would be cutting in to the mountain. This option reinforces also the view of SLC CEO Afoa Arasi about the degradation of some of the lands used in the past for reclamation and roading projects which made certain pockets of lands unfit for any type of development and advised that the SAIP project carefully consider excavation methods to ensure the reusable status of the land proposed for the quarry.

3. Afolau is also far away from villages settlements and not much disruption to human settlement is perceived. Furthermore, Afolau has been used in the recent sea wall projects around Mulifanua.

4. A discussion followed about possible developments for STEC land (6,600 acres on Upolu and 7,239 acres on Savaii) but there were no other comments concerning SAIP, so the meeting ended at 3:00pm.

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MINUTES OF MEETING WITH MINISTRY OF WORKS, TRANSPORT AND INFRASTRUCTURE AND DIRECTOR CIVIL AVIATION
9 September 2013 – 3:00pm
Venue: MWTI Meeting Room, 4th floor TATTE Building

Present: Acting CEO, MWTI and Director Civil Aviation Nanai Junior Saaga
4 Senior officials of MWTI; Faamasili Chris Solomona (TL, CB Group), Ofeira Faasau (Environmental Specialist), Rachel Hunt (Social Analyst, CB Group)

1. After our team is welcomed by the Acting CEO, Chris explains why we requested a meeting with their office and then elaborates on the SAIP and CB Group’s role in the project.

2. The Acting CEO, Nanai then suggested a roundtable discussion on any issues any of his officials would like to bring up.

3. One of the MWTI officials noted that they had just finalized Samoa’s Transport Sector Plan and this project was well-timed. A discussion followed which highlighted concerns about the poor drainage next to the runway and runoff issues. There was also a question posed about whether an EIA was required. Chris and Ofeira explained that we were seeking an appointment with the CEO, Ministry of Natural Resources and the Environment to seek his approval for just the EMP to be carried out at this point as the assessments we are carrying out is for the World Bank’s final appraisal purposes of the grant.
4. Nanai expressed his interest in the Social Assessment we have been charged with and underlined how important this research would be given the sensitivities in handling the neighbouring villages in the recent past as these areas have been renowned for their unpredictability in their support or lack of for government developments. In particular, Satapuala which has had a long standing land alienation issue with Government. He also mentioned from his experience when he was with the Samoa Airport Authority during the time they extended the runway that tar was just dumped at the area behind the hangar and the heat which it emits is pretty bad. He advised that these things should be taken into serious consideration in our reports. We thanked him for his insight and that we took note of his concerns.

5. Nanai then also pointed out the wildlife which thrives at the airport that we should consider – though he admitted that wildlife is one of the issues low on the priority list of airports in general, given the danger posed for takeoff and landing aircraft, especially by birds. He then mentioned other issues which the SAIP would need to consider during the design/implementation phase – ICAO policies on carbon emissions which would require a quick turnaround time for aircraft, RNAV approaches, etc. We told them that we are sure all these things would be taken into consideration when the time came round.

6. With no further comments, the meeting adjourned at 4:15pm.

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**MINUTES OF FIRST CONSULTATION WITH VILLAGE MAYORS OF SATAPUALA, SATUI/SAGAFILI AND MULIFANUA (AIRPORT SATELLITE VILLAGES)**

**DATE:** Tuesday 17 September  
**TIME:** 2:00pm  
**VENUE:** SAA Conference Room

**Present:**
- Ga Sakaria, Village Mayor, Satapuala
- Letelemaana, Village Mayor, Satui
- Togialelei Gary Tuiletufuga, Village Mayor, Mulifanua
- Silimanai Ueta Solomona, ACEO, Aerodromes
- Enid Westerlund, Consultant, Business Development
- Tafilipepe Alefosio, SAA Consultant
- Tumanuvao Evile Falefatu, Chief Aviation Security
- Vai Palepua Solaeae, ACEO, Audit
- Faamausili Chris Solomona, CB Group (Team leader)
- Rachel Hunt, CB Group (Social Analyst)

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1. Faamausili welcomes everyone to the consultation and hands over to Silimanai Ueta for a complete overview of the SAIP for the village mayors’ benefit. Silimanai’s presentation was clear and concise - he also mentioned how the SAIP public awareness campaign would be implemented once the relevant documentation was received. The community awareness campaign includes a press release, a Public Information Bulletin which will be made available to the villages and copies would also be displayed at the Faleolo Airport terminal, the Nelson Public Memorial Library in Apia, and at various other locations including on the SAA website once the materials came to hand. Pictures of the damage to the airport runway and apron were also shown to the village mayors. Silimanai also stressed that for the SAIP, there would no land acquisition issues as the planned improvements to the airstrip are overlays and not extensions as such.

2. The village mayor of Satui, Letelemaana then spoke, voicing his and his village’s strong support for the project as he could see the urgency for the rehabilitative works to be carried
out at Faleolo International Airport. He also said, as in accordance with Samoan custom, wider consultations need not be carried out because whatever the matai (chiefs) agree to – the rest of the village will follow suit.

3. Faamausili explained the situation to the village mayors in that he agreed that Samoa has its own protocols and power structures but there are certain policies and procedures that need to be fulfilled for international donor organisations which require the extensive consultation format, especially for transparency purposes.

4. Ga Sakaria, mayor for Satapuala (the neighbouring village to the east of the runway), also voiced his support for the project, especially because there are no plans for taking any more lands which was his main concern. He offered help to provide security during the implementation phase as the matai (chiefs) of the villages would be the best people to ensure security and safe implementation of the project. He then digressed a little and told SAA that there was too much rubbish along the roadside leading to the airport.

5. Togialelei, the village mayor representative for Mulifanua suggested that before implementation of the project, the roads to and from the quarry need to be widened and fixed to reduce noise and dust pollution for the surrounding villages. He also requested whether SAA could include in the contracts for the service providers that wherever the aggregate will be mined from could the contractors level out the areas which they dug as in their past experience contractors leave and huge gaping holes are left behind unsuitable for plantations or housing. He also asked that the SAA have a good look at the project and how long it will last especially given climate change issues and the runway being so close to the sea.

6. Tafilipepe Alefosio then clarified other issues of the SAIP and gave examples of what the EMP and SA are looking to achieve.

7. Letelemaanaa and Togialelei both spoke on the issues of village curfews for evening prayers while the contractors’ trucks need to be carting rocks/aggregate. They asked whether the SAA could work closely with them in particular with regards to project timetables so that they are aware and can keep the villagers in the loop – they can also alter the times for their village curfews during daylight savings hours as needed but they need to be kept informed as the project develops.

8. It was agreed that the village consultations would be held separate from the group consultation to be held on 18 September (tomorrow). We agreed to Tuesday 24 September 2013 at 10:00am at the SAA Multipurpose Lounge to give the village mayors time to let the villagers know.

9. Tafilipepe thanks everyone for coming to the meeting. Meeting adjourns at 4:00pm.

**MINUTES OF MEETING WITH CEO, MINISTRY OF NATURAL RESOURCES & THE ENVIRONMENT, TAULEALEAUSUMAI LAAVASA MALUA**

**Date:** Tuesday, 17 September 2013 – 11:00am  
**Venue:** MNRE CEO Office, TATTE Building, Savalalo

**Present:** Taulealeausumai Laavasa Malua (TLM), CEO MNRE  
Faamausili Chris Solomona (FCS), CB Group  
Ofeira Vitoria Faasau (OVF), IPA

1. FCS provided an overview of the project and stated the recommendation by World Bank Specialists to reactivate the Olo Quarry to source resources for the project.

2. TLM stated the need to upgrade the seawall along the runway. This will allow for better drainage out to the sea. This will also protect the area from sea level rise and possible tsunami events.
3. TLM stated pristine aquifer in the area, where operators such as Allan Grey are currently extracting water from for their business. Therefore there is a concern of possible contamination if the Olo quarry is reactivated. However, there is the option of quarrying sideways instead of going vertically. TLM further stated that there are some alternative sites including the area near the prison or behind Mt. Olo.

4. TLM stated that another issue with quarry sites is after when it is no longer operating. It leaves big holes in the ground. There is no proper landscaping afterwards to allow the area to be used for other uses for example a sports field or another prison, etc.

5. FCS stated that according to the Patea (CEO STEC) the EFKS is requesting a recreational centre.

6. TLM emphasized the need to ensure waste from machinery and spillage to be managed and properly address in the study. This was noted to be included in the report.

7. TLM queried if there are plans to extend the runway. FCS stated extension of the runways is not part of the project. However, this might be possible under Japanese funding. TLM stated that if the runway is extended, sketches of options for extension of the runways should consider extending up to the golf course fale.

8. TLM stated that the material needed should be of high and good quality. Blue rock (black solid rock) is good quality but its porous rock and washed by underground springs. TLM mentioned that there is an existing Code of Environmental Practices (COEP) for Quarry.

9. FCS queried if an Environmental Impact Assessment (EIA) is still required for the project. TLM stated that the EIA is required for project with large scope such as the proposed project. TLM further stated there were EIAs prepared before for pass upgrading works for the runway as well as the quarry. Copies can be obtained from the Planning and Urban Management Agency (PUMA). FCS stated the need for an EIA to be prepared before the commencement of the project next year will be recommended in the report to the World Bank.

No further comments were provided.

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MINUTES OF CLUSTER CONSULTATION
18 SEPTEMBER 2013
FALEOLO INTERNATIONAL AIRPORT MULTIPURPOSE LOUNGE

Present: Representatives from various Government Ministries, Corporations, Commercial Banks, Airport Tenants, and the Private Sector. A list of participants is attached.

9:30am Bus departs Apia
10:30am Bus arrives – all participants taken on a site visit
10.50am Tumanuvao Evile welcomes everyone and immediately starts on the presentation – a brief outline about the various components of SAIP. He then invited CB Group to expand on the work that they are doing in relation to the SAIP. Chris Solomona explained the Social Assessment framework in detail, placing close attention on areas of cultural significance that may be affected by the project and Ofeira Faasau took on explaining the EMP portion.
We then moved on to the General Discussion whereby a lot of the discussion and questions were focused on the quarry site.

**GENERAL DISCUSSION (Q & A)**

1. The PUMA (Planning Urban Management Agency) representative revealed that the Olo Quarry that the SAIP is looking at extracting the aggregate from cannot be an option as their office had decided that there would be no more excavation done at Olo. Applications presented to their office in the past had been declined even though EIAs had been carried out.

2. Fiona Sapatu of IPA asked whether there is an alternative site that the SAA can source the required aggregate for the rehabilitation works to be carried out on the runway and apron.

3. PUMA replied that they (with SAA) could look at options when the time came.

4. Abigail Lee Hang of the Ministry of Finance asked whether the hangar would be refurbished under Component A of SAIP.

5. The SAA replied that the hangar is the responsibility of the private operators and will not be refurbished under SAIP.

6. Christine from the ANZ Bank asked whether any more land would be taken for a runway extension.

7. Chris (CB Group) replied that land acquisition is not an issue for the SAIP as all components are planned to take place within SAA lands and that we have initiated dialogue with the neighbouring villages on how the project will progress and trying to gauge any other issues which may affect them other than loss of lands which they will not have to worry about.

8. MoF representative asked whether there was any evidence of coastal erosion alongside the runway.

9. SAA (Silimanai Ueta) replied that they have noticed erosion in a seawall which they constructed in 2006 and part of this project looks at and tries to rectify these issues.

10. Semi Lesa (SWA) voiced their objection at the Olo Quarry being reopened for SAIP as their water aquifers are close to ground level now as maximum depth has been reached. Any more digging will harm their aquifers. And they also have bore holes just about 800m away from the quarry site.

11. Ofeira explained that we had found all of that out in our research and we have been advised that if there is to be any more excavation work to be carried out at Olo Quarry there will be no more digging just cutting at ground level or there is an alternative site which will also be looked at. But its just that the Olo quarry has been identified as the area with the best aggregate.

12. Ane Moananu (CEO of Samoa’s Chamber of Commerce) voiced her gratitude for this project initiative and welcomed the opportunity provided for local companies and contractors to bid for the various components and phases. She requested on behalf of all local companies to keep them in mind when the bids start coming in – if they cannot meet all the requirements for tenders then perhaps make it a requirement that overseas companies need to partner up with a local company.

13. Superintendent Paulo from the Ministry of Police reminded us of the legal side of things – looking at the required legislation for this Project and mentioned that it was a good start that SAA is working closely with the satellite villages to maintain security and order at the various sites.

14. Selina Lefao (Eveni Carruthers) asked how airline traffic will be managed when the implementation phase begins. Silimanai Ueta explained that most of the construction will take place during the day when there are no flights and work will cease at night. The rehabilitative works to the runway and apron is also planned to be carried out in sections to facilitate movement.
15. Selina also asked whether the terminal would be refurbished under SAIP. Silimanai Ueta answered that it was not – but SAA are currently in negotiations with the Japanese Government concerning the terminal.

16. MWITi’s representative, Muliagatele Paulino noted his full support for the SAIP as Aviation is included in the Transport Sector Plan looked after by his department. He also enquired about the specifications for the infrastructural work to be carried out – and he was told that that would be discussed when it comes to the design phase.

17. MWITI also queried whether there were any plans in place for on-going maintenance once works was complete on the project. Sili answered that maintenance is ongoing and there is a 5 year major maintenance program in the present schedule.

18. Inter Island’s representative voiced his concern that their airline flies predominantly during the day. It was agreed that he would meet with SAA and other airlines about timetables and how best to coordinate movements once works begin.

19. EPC. Noticed that there was much rubbish at the land fill. This would be too close to where the set up of their 1.5 megawatt solar power location is proposed.

20. EPC noted their concern about the possibility of works interfering with the proposed site for their solar panels close to the hangar and had other technical questions. Silimanai Ueta replied that SAA is concerned about the possibility of glare from PVs if the panels are installed at the site that EPC has proposed. He added that further consultations will be carried out to answer their concerns at the Design and Implementation stage of the project.

21. Mataia Jesse (Seal&Strap) asked on how long the new overlay and apron would last. Sili responded that 14 years was possible baring any major natural catastrophe however, this would be discussed with contractor (which is a normal occurrence with projects of this size) during contractual negotiations. Mataia then suggested that SAA should consider adding a clause to the tender documents which allows bidders to estimate how long their proposed rehabilitated airstrip and apron would last and then any damages prior to this date would then mean the contractors will fix the damages at no cost to SAA.

22. MWITi (Muliaga) recommended that SAA put a proposal to Cabinet to set up a Working Committee for this project to expedite the process. Sili responded that at this stage, there is a committee and the Minister of Works is the chair and that there would be room for the proposed Working Committee at a later stage - once the project gets approval from the World Bank.

23. SWA (Semi) questioned the reason for reopening the old quarry at OLO?

24. Chris made reference to the quality of the rock available as identified by previous studies and works.

25. Selena asked about the length of time for construction. SAA quoted between 6 -8 months but depending very much on the weather conditions.

26. PUMA wanted to understand how SAA would deal with so much activity and movement during the implementation phase of construction – SAA responded that there would be extensive awareness programmes and coordinated timetables (airlines, service providers etc) would be prepared so all involved are kept in the loop as well as the public.

27. PPPS spoke on the importance of this coordination as they would need to organize refueling schedules and equipment if the aircraft are to be fueled at alternative site (Hangar) especially with extensive works on the apron which would affect their underground fuel lines and refueling outlets.

28. PUMA again asked why an EMP is being prepared rather than an EIA. Ofeira responded that the EMP was a requirement for the final appraisal by the World Bank and overall project preparation. However, once firm decisions have been made and designs and final decisions are made on sites for excavation and quarry it is assured that an EIA would follow to ensure compliance with local legislation and policies etc.
29. MoF wanted to know whether there would be another EIA required for a new terminal or would an EIA for this project suffice.
30. PUMA responded that unless there were to be major changes especially if moving to new site then would consider. However, SAA replied that this is not known at this stage until conclusion of discussions with donor and availability of a final concept for the terminal will they be able to meet with relevant authorities to finalise next steps.
31. Togialelei, Mayor and representative of Mulifanua village which borders the STEC lands and proposed site of the quarry on the West spoke on the following issues:
   a. Voiced disappointment with PUMA inability to properly monitor extraction of rocks for a recent sea wall project at his village by contractors – saying that they (contractors) did not attempt any re landscaping and that gaping holes were left after the project and now people are using it as a rubbish dump as well as breeding places for pests.
   b. Government ministries and agencies are not working together and supporting each other when it comes to big projects such as SAIP. It would appear to him that other Government Departments/Agencies are so eager to build walls to hinder progress by other Government Departments/Agencies. Walls which are unnecessary and hinder urgent projects such as SAIP which is vital for safety reasons.
   c. Suggested that SAA need to look at a 20 or 30 year plan regarding relocation of the airport given erosion and rising sea level – he is witnessing the same thing happening at his villages’ foreshore even with new sea wall in place now.
   d. SAA to also consider raising the lower side (East) of the runway strip to enable drains to flush properly given that what he has witnessed this morning with drain outlets being submerged at high tide.
   e. With reference to the sites being identified for excavation and quarrying he requested that there is a need to identify historical, culturally sensitive and significant areas and to be marked and preserved as the area is deemed as a potential tourism area providing employment and so forth.
32. Chris concluded by opening the invitation for those who wanted to participate in the village community consultations on Tuesday 24th September at 10.00am. Also opened invitation for participants to call or email if there were other concerns they wanted to follow up with SAA and the team.
33. Tumanuvao on behalf of SAA thanked the participants for their contributions and looked forward to working with all in future especially in the next phase of the project. Participants were then invited to lunch before departing for Apia.

12.30pm Consultation formally closed

MINUTES OF MEETING WITH GENERAL MANAGER, SAMOA WATER AUTHORITY, TAINAU MOEFAAOU TITIMAEA
23 SEPTEMBER 2013
2ND FLOOR, TATTE BUILDING

Present: Tainau Moefaaouo Titimaea (GM, SWA), Faamausili Chris Solomona (TL, CB Group), Enid Westerlund (Consultant SAA)

1. Supported the project but his main concern was mainly with the possibility of the water aquifer being disturbed by the re opening of the quarry.
2. Requested the surveying of the target area for quarrying and identify areas that would cause less of a threat to the aquifers. He will also be consulting further with his senior water engineers to discuss the project.
3. Quoted the water lens recently surveyed and now being used by a water bottling company was only 100 metres from the surface. Any quarrying he believes will have to progress horizontally and not downward around this area.

4. Made note that this is a very pristine aquifer and requested that extraction works once the project started needed to be monitored consistently to avoid any threat to the resource.

5. No further comments so we thanked him for his time.

MINUTES OF MEETING WITH NUANUAOLEALOFA (NOLA)
[NGO FOR PEOPLE WITH SPECIAL NEEDS]
23 SEPTEMBER 2013 – 3:00pm
GROUND FLOOR, NIA MALL, APIA

Present: NOLA President Milovale Lama
Nofovaleane Maposua
Faaolo Utumapu
Faamausili Chris Solomona (CB Group TL)
Enid Westerlund (Consultant, SAA)

1. Discussions revolved around ground handling issues which included
2. Accessibility – ramps for wheelchair and proper and comfortable embarking and disembarking on to aircraft. Accessibility also with regards to information so that special needs community was well versed with changes and developments at the airport if and when the project began.
   a. Also requested that emergency exits be reserved for special needs travelers for ease of exits in the event of an emergency on the aircraft
   b. Need for immediate access to toilets on the arrival area at Faleolo
3. The need for better and quality customer service for special needs travelers for e.g language used loosely by ground services in labeling blind and deaf rather insulting in this day and age.
4. Better understanding by ground handling staff of systems e.g different colour coded labels for certain action for instance green label on a wheelchair meant the chair should be handed over to the passenger on the tarmac and not taken into the off loading bay.
5. Requested a public awareness exercise for staff of SAA and airlines by the NOLA to ensure appreciation and understanding of the needs of this class
6. Better sharing arrangements between airlines of equipment for special needs travelers e.g hydraulic lifts for disabled persons
7. Recommendation that the facilitation and security meeting convened by the SAA twice a year be attended by the community to ensure that their needs are addressed in this forum from time to time and as needed.

PUBLIC CONSULTATIONS WITH AIRPORT SATELLITE VILLAGES
SATAPUALA, MULIFANUA, SATUIMALUFILUFI
24 SEPTEMBER 2013
VENUE: SAA MULTIPURPOSE LOUNGE

1. Tumanuvao welcomes everyone to the consultation and introduces the team. He then presented the project to the participants. The presentation was clear, concise and conducted in Samoan. He referred to the Lali programme prime time show which was aired
on Friday 13 September at 7:00pm local time in which the project was discussed on the popular talk show. He explained that it was a 5-year project funded by the World Bank and that the reason for the consultation today was in particular, for the first component which is expected to last for 8 – 12 months and costs US$32 million. He asked for everyone’s support and cooperation for this phase of the project.

2. He then handed the floor over to Faamausili who then proceeded to explain the final slide whereby elements of the EMP and SA were on. He explains the work that CB Group is undertaking for SAA and underlines the fact that there will be no lands taken for this project as it is contained in the airport boundaries as they stand today. There is also expected to be minimal disturbance to their day to day lives if everything goes well as involvement will be minimal if at all – perhaps they will only know there is something going on when the big trucks start travelling the roads.

3. Letelemaana (Satui village mayor) again voiced his and his village’s full support for the project as it is a project which will benefit all of Samoa and its development.

4. Ga Sakaria (Satapuala mayor) identified the site which is being earmarked for the quarry is quite important culturally though he did not elaborate – he suggested an alternative which is in his village and just before the Aana school buildings just across the entrance to the airport. He suggested that perhaps it would be a good idea for SAA management to ask around for potential quarry sites before selecting one. However, he went on to say, the roads to this other site needs to be improved too. He also asked the SAA project team to please review their decision to rehabilitate the runway where it currently stands because of issues like sea level rise which will impact on the runway hence it may not last.

5. Tafilepese Alefosio (matai Mulifanua and SAA Consultant) asked whether it could be stipulated in contracts as well that Sunday is a day of rest in Samoa and all work by contractors should cease on Sundays. He also mentioned that these kinds of infrastructural projects always leave the roads dirty because of the dirt transferred by trucks on to the roads which dries and then becomes very dusty. He advised that contractors should have proper trays on their trucks with a limit to each load and that also there should be a water truck on standby to wash off dirt from the trucks’ tyres before they travel on to the main road as well as the road itself.

6. Lili’a of Satapuala asked whether there is a committee that will address issues which may arise during project implementation and which they can bring their grievances to, for example, road safety issues. Faamu explained that when the time comes, SAA will talk to the Land Transport Authority and the Ministry of Police which are the bodies which deal with road safety; and then there are also the contact people at the SAA whom they can contact.

7. Mautofiga Malo Ioane of Satapuala stated his worry that often at quarry sites, dynamite is used and so he is concerned that, firstly, the safety of those living close to the site and secondly, these must be stored in a safe and secure place because if they fall in to the wrong hands there could be a real problem.

8. Faamu assured that SAA would look into this possibility when the time came but also needed to confirm the material extraction method and whether dynamites would be used.

9. Ga Sakaria again reiterated his point that the best security for these sites could and should be provided by the village matais because this area has been problematic in the past and the youth are not afraid of LTA or Police – they only respect their own matai.

10. Togialelei asked Faamausili for clarification of issues at hand - to give some examples of social or environmental influence which may affect villagers day to day lives to which Faamu obliged. Togialelei then suggested that once the big heavy machinery start works then please widen the roads to make them two lane roads and have signage for awareness and safety purposes.
11. Vaili Etelini of Satapuala thanked the presenters for such a clear and concise presentation – but asked whether footpaths could be put in place because there are a few schools on the main road. She was advised that all their suggestions would be looked at when the time came.

12. Another matai of Satapuala asked whether the truck loads could be kept level with their trays because rocks and other debris often fall off the backs of trucks (when overloaded especially if trucks are chasing timelines) and are left on the road – not only are they a hazard for other vehicles on the road but also for pedestrians on the road side as the rocks become potential bullets for those walking on the roadside and if a car happens to drive over one.

13. Peni of Satui requested whether SAA could take into consideration the very high unemployment rate among youth around these areas being consulted. Togiaelelei then suggested that perhaps a certain percentage of the workforce could be taken from the 3 villages surrounding the airport. There is also a great need for lighting on the roads.

14. Letelemaana then took the floor again to reiterate his point made at the beginning – that Government does not need to worry as they have their full support and they will take on looking after the project sites and workers in their respective areas.

15. Because there were no other questions or comments, Faamau then posed a question of his own to the participants – how will we deal with or monitor those people who have been ostracised from village affairs but still live in the village and are not obliged to partake in village matters (Samoan concept of being ‘i tua ma le nuu’). All 3 mayors repeated their assurance that Government should not worry about their villages because they are on hand, but to get the project started soon ☺ and to see whether their requests can be accommodated. This was posed as they village mayors and matais needed to be aware of such a situation given that it has occurred in other projects around Samoa.

16. Thus completed the second major consultation at 1:00pm.

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**MEETING WITH LAND TRANSPORT AUTHORITY ACEO (Procurement)**

Seimaleula Sinapati Ulberg  
Venue: LTA office Vaitele  
27 Sept 2013 - 3.00pm

Present: Seimaleula Sinapati Ulberg (ACEO), Faamausili Chris Solomon (TL, CB Group)

1. The meeting was a follow up as LTA could not attend due to a busy schedule on the week of the stakeholder consultations.

2. A general outline of the project was presented by Chris and Seimaleula raised the following:
   a. As of the latest transport sector plan there was no major activity (referring to options for relocation of airport) included in the 5 year plan.
   b. There are no plans for any new roads along the Faleolo area in the near future (period of the sector plan) as they would be concentrating on upgrading and maintaining existing roads
   c. Discussed a study that was convened recently on the state and quality of quarries. The study pinpointed safety and management of them as the major short fall. The only quarry that seemed to be on par with standards was the ACP quarry in Saleimoa. This was based on a remark that some of the areas used to extract rock and material was not well managed and when some of the projects were complete contractors made no effort to “tidy up” and ensure land was safe and reusable for other purposes.

3. The meeting concluded and Chris thanked Seimaleula for his time.
ANNEX 5 – LIST OF STAKEHOLDERS and those CONSULTED
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## SAIP PUBLIC CONSULTATION

### 24 Sept 2013

**FALEOLO INTERNATIONAL AIRPORT**

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ANNEX 6 – PIB – PUBLIC INFORMATION BULLETIN (ENGLISH AND SAMOAN)
Government of Samoa
Samoa Airport Authority

The World Bank

Project Information Booklet:
World Bank financed –
Samoa Aviation Investment Project (SAIP)
1. The Samoa Aviation Investment Project (SAIP)
The Government of Samoa with support from the World Bank and European Investment Bank are planning a Samoa Aviation Investment Project (SAIP) to improve Faleolo International Airport (FIA). The project is part of the regional Pacific Aviation Investment Programme (PAIP) to improve operational safety and oversight of international and domestic air transport infrastructure. The project is expected to comprise a set of physical aerodrome improvements and institutional strengthening activities for Faleolo International Airport. While benefitting both air travelers and freight and passenger services as well as all administrative bodies and personnel involved in air transport management, it will also be important for our tourism industry and labour markets.

2. What is involved in this project?
The project is primarily about improving airport safety and security and is designed around four main components:

- **Component A: International Airport Infrastructure Investments** – This component will invest in aviation infrastructure to meet and maintain international Civil Aviation Organisation safety and security standards at FIA. Some of the improvements will include runway and apron rehabilitation, strengthening emergency services, enhancing water supply and energy efficient airfield lighting upgrades. Other improvements will introduce improved regional navigation and communication technologies and enhancements for air traffic control at Faleolo.

- **Component B: Strengthening Policy and Regulatory Capacity and Training** – This component will assist the Ministry of Works Transport and Infrastructure and its Civil Aviation Division in developing sector policy, particularly with regard to utilization of existing aerodromes, SAA’s community service obligations, and how air transport impacts key sectors such as tourism, maritime and road transport, disaster and medical emergency response. Additionally it will support human resource development and data management capabilities essential to safety and security oversight.

- **Component C: Strengthening airport operations and management capacity** – The component will support SAA with business planning and strategy development, as well as technical assistance for operational management and training in priority areas.

- **Component D: Project Support** – Funding will also be available to SAA for support project management and implementation.

3. How will SAIP affect the general public?
Most members of the public would not notice any impact. The runway and apron rehabilitation would require materials to be transported, causing some disruption to traffic. The work within the airport boundaries would generate some noise, and there could briefly be some local odour from the materials. This should disperse quickly with no adverse impacts. The works will be scheduled during hours of daylight, and as far as possible, outside of busy airport operating times so as to avoid inconvenience to the travelling public. Overall the outcome would be positive as it would result in more efficient and safer air travel.

4. Why is this Project needed?
Air services are essential for travel to visit family and friends, for the import and export of goods, and a prerequisite for tourism development. Airport equipment and infrastructure is highly regulated by international compliance requirements, and in many cases existing airport infrastructure is well beyond its serviceable life. These investments are required to meet ICAO safety and security standards and recommended practices (SARP), as well as airline safety and security standards, ensuring that Samoa’s access to international markets and tourism can be maintained. Moreover, the proposed investments will preserve and extend the service life of existing infrastructure assets as well as reduce the energy consumption, thus helping to address the challenge of air transport and climate change.

5. What benefits will the Project generate?
SAIP will improve the aviation infrastructure and operations at SAA. Upgrades to the airport infrastructure will improve Samoa’s international compliance levels and this will in turn enable Samoa to explore opportunities for increased operations including more modern aircraft. It will be a boost for other sectoral development (i.e. tourism, exports) and for the image of Faleolo International Airport as the gateway to Samoa. The project will benefit the population of Samoa by ensuring that its international air travel connections are not reduced due to the failure to provide services in accordance with ICAO requirements. Individual travelers will benefit through the provision of safer international air travel, and more efficient operations in the aerodromes services. SAA will benefit by having significant reductions in operating costs through a more energy efficient and environmentally sustainable airport.

6. Will the Project require additional land? NO
All Project investments are on the existing airport footprints and no additional land is required.

7. What direct impacts will the Project have on the Samoan people?
In the long term -

- Provide opportunities for government development of tourism and agricultural sectors;
- Improve safety and security levels for air transport.

During construction –

- Some areas will be used temporarily by contractors to store or park heavy machinery and to establish facilities.
- It is likely to be dusty and noisy at the location of the works.
- A large amount of waste soil, rubble, and plant material will be created.
- There will be more vehicles, and heavy machinery, using the roads around the airport. This causes an increased risk of accidents for pedestrians and motorists.
Under the guidance of the Environmental Management Plan, the project will try to minimize dust and noise levels, as well as minimize the disruption to schools, churches and other important locations. A traffic management plan will be used to protect the safety of pedestrians and motorists. Waste will be composted, recycled and / or disposed of at a landfill.

8. **If there are disputes or grievances associated with the Project, how will they be addressed?**

Any disputes or grievances should be addressed to:
The General Manager
Samoa Airport Authority
FALEOLO INTERNATIONAL AIRPORT

9. **Will there be further consultations for the Project? YES.**

During the project, there will be monitoring and evaluation of the upgrades and there will opportunities for ongoing consultation with the community. Any persons with comments or queries are invited to contact the nominated SAA staff at the contact details provided in this booklet.

10. **Will the Environmental Management Plan be accessible to the public? YES.**

This document will be uploaded by the World Bank and Samoa Airport Authority websites, as well as hard copies available from the Samoa Airport Authority Head Office, the Nelson Memorial Public Library, in the Civil Aviation division of the Ministry of Works Transport and Infrastructure and the Ministry of Natural Resources and the Environment and the village mayors of Satapuala, Sagafili and Mulifanua.

The Environmental Management Plan also details a monitoring plan, for monitoring of impacts from construction and operation of the upgrades. SAA will ensure that the Project allows for stakeholders’ feedback during implementation and that relevant information about any major changes to project scope is also shared with the affected peoples and other stakeholders.

Should members of the public need more information or wish to provide comments and suggestions on the project, YOU ARE WELCOME TO EXPRESS VIEWS AND ASK QUESTIONS ON ANY ISSUES RELATED TO THE PROJECT. DURING WORK HOURS. Please contact the following SAA personnel on (0685) 23201 or (0685) 23202 or info@samoaairports.ws

Silimanai Ueta Solomona Jnr - Aerodromes
Tumanuvao Evile Falefatu - Aviation Security
Ms Enid Westerlund - Business Development
Malo o Samoa
Pulega o Malae Vaalele

Tusi o fa’amatalaga o le poloketi
Fa’atupeina e le Faletupe o le lalolagi
Atinae mo Vaalele Sivili I Samoa.
1. Atinae mo Vaalele Sivili I Samoa

Ua iai nei fuafuaga a le mali tutoatasi o Samoa faatasi ai ma le lagolagosua a le Faletupe o le Loloalagi (World Bank), faapea le Faletupe a Europa (European Investment Bank) ina ia fuafuaina se Atinae mo Vaalele Sivili a Samoa (Samoa Aviation Investment Project (SAIP)). O le manuia a lea poloketi mo le faaleleia, faamautuna, ma ia siitia I se tulaga maualuga le Saogalemu a le faaotinoa i galuaga le ma auaunaga tau vaalele sivili, faapea le faaotinoa o galuaga tetele mo le faaleleia ma le fausinaia o aseta I malae vaalele faavaomalo ma malae vaalele taiti a le atunu. O fuafuaga o leleina galuaga tele, mo le faaleleia o aseta taua I malaevaalele, faapea le aoaionoa o tomai moauma ma ia siitia ma faamulosia o le galuuge soosoo tauau a le Pulega o Malaevaalele, ma a latou paaga I le Malaevaalele faavaomalo I Faleolo. O le tauuuga ale a manuia tufusia ai le mamalu feaioti I le ea, o kamupani i latoa fana ma aumaia uta ma faamomoli, o kamupani vaalele ma auaunaga eseese mo pase siviliagaal I le ea, ae siliisili ona taua mo tupea tagata tafaai  maimoa mai I Samoa.

2. Aofale o lenei Atinae.

O le manuia a lenei galuaga tele ina ia faaleleia ma siitia le saogalemu ma malupuipiu o le ola lagonaia I vaega tetele e fa.

• Vaega A:

 Faaleleia o Aseta Tetele ma taua I le Malaevaalele Faavaomalo. O le vagea lenei e agai tonu I le faaleleia ma toe fausia o aseta tetele I Faleolo, ina ia auaia, faatamauina ma o gotasi ma tulafono faatonutoni o le Faaitapolotopota faatina o vaalele sivili a le laloagi (ICAO), e uiga I le Saogalemu ma taiala I le malupuipiu o le ola siosiomiaga I Faleolo. O nisi nei o vaega toe faaleleia, o le aula sese e folau ese atu i vaalele, atoa ai ma le nofoaga i tutu, teu ma lau eai se pasese ma uta a vaalele. O le toe faaleleia o le auaunaga tau fuimu ma le faaotinoa o pasese ma uta mai vaalele va aafia I se faalavelave faafuasei e ono maumaia ai le sofuu. O le toe faaleleia o nofoaga i tutu ma le suavai tauai ma mo le malaevaalele atoa ma ana paaga, atoa ai ma le toe faaleleia ma le sulina ma o moli o le aula sese e folau ese atu vaalele, I moli faaonopo nei e faatiitia ai le ola lagonaia mimoa ai le Malaga e seio leafoa ae tuumau te atoata pe sili atu foi se le latou malamalama. O nisi o vaega toe faaleleia, o seio leafoa vai le augea fatekonolosi faaonopoi nei mo le faaieteleia ma le saogalemu feoaiga le malaevaalele e seiomai le Malaga ma le Malaga mai a vaalele.  

• Vaega E:

Faamulosia o Tulafono Taiala, ma le Malasiga I le Faatonutonuia, Fausinaia ma le Puleaina o Tulafono Faavea ma Aoaga.

O le vaega lenei e faosaoani ai le Malagaaluga o Galuaga, Felaualiga Ma galuaga tetele, ma le vaega o Vaalele Sivili I le fausinaia o Tulafono Taiala mo le faaotinoa le faaotinoa o malaevaalele o loo I ai nei, o le faaotinoa o le faosaoani ma auanauga moa uma a le Pulega O Malaevaalele I nuu, aoga, faapiotopota, ma le malamalena I le atunu tauo, o faafleta ma aoga o felaualiga I le e I le vaega o Tagata Tafafo Maimoa mai, o le Gatafaale, Felaualiga I le beelee, o Faafelave faafuaitei malaevaalele faaotinoa le latou motifsia o le latou sosoei le a vai i le faaotinoa o le fesoasoani.

• Vaega I

Faaleleia o saoaluga i le malaevaalele o malaevaalele a le faatoauluia. O le faaleleia feoaila ma le faaotinoa o le faaotinoa o le faaotinoa o faalavalamo. O le faatoauluia feoaiga feoaila ma le faaotinoa.

3. Faafefa o le mamalo o o le atunu I leenae poloketi, SAIP

E tau le iloa o le mamalo o le atunu ni o latou aofagaina a leenae poloketi. Sei vagana ai galuaga faatino I le aualia sese e le vaega teu i vaalele le le a iai ni aofagaina i leenae poloketi. Ma le auaunaga taitotia e le aulua faaotino a le aulua faaotino a le aulua faaotino a le aulua faaotino a le aulua 1. Vaega Faaleleia o aseeta tetele ma toa I le Malaevaalele Faavaomalo, o le vaega e agai tonu I le Vaetele a le Poloketi / Galuaga tele.

4. Aisea e moomia ai le faatinoa o lenei galuaga tele?

E tau le faaotinaia I le vaega teu i leenae poloketi / Galuaga tele. E le afuaia o le aulua faaotinaia. O le faaotinaia i leenae poloketi / Galuaga tele. 

5. Faama Toanuia a le Malaga e faaotinaia Faalavelave faafuafei maiti eon o le Malaga a le Malaga a le Malaga a le Malaga a le Malaga. 

O le vaega lenei e faaosaoani ai I le Malagaaluga o Galuaga, Felaualiga 

O le vaega lenei e faaosaoani ai I le Malagaaluga o Galuaga, Felaualiga 

Ma galuaga Tetele, ma le vaega o Vaalele Sivili I le fausinaia o Tulafono Taiala mo le faaotinoa le faaotinoa o malaevaalele o loo I ai nei, o le faaotinoa o le faaosaoani ma auanauga moa uma a le Pulega O Malaevaalele I nuu, aoga, faapiotopota, ma le malamalena I le atunu tauo, o faafleta ma aoga o felaualiga I le e I le vaega o Tagata Tafafo Maimoa mai, o le Gatafaale, Felaualiga I le beelee, o Faafelave faafuaitei malaevaalele faaotinoa le latou motifsia o le latou sosoei le a vai i le faaotinoa o le fesoasoani.
5. O a ni Faamanuia o lea maua mai i lenei Poloketi?

O le a faaleleia atili ai galuenga faa-vaalele-sivili ma auanaga a le Pulega. O le faaleleia atili o galuenga tetele a le mala faalele faapea ai ma le ausia e Samoa o tulaga manaomia o mala faalele faava o malo. O lea ausia ai e Samoa le tali atu i tulaga moomia o vaalele faamone po nei. O lea siliia ai foi isi auanaga (tursi, oloa atua atu i tafe), ao se vaafa lelei foi lea mo le mala faalele faava o malo i Faleolo o se faata a tatale mo Samoa. O lea manuia ai foi tagata nui o Samoa i le maufina lea, o le a le faaitea ai femalagaiga e mafa mai i le ausia ina o alaiga faava o mala. E manuia ai foi tagata nui femalaga ai le saogalemu e femalagaiga o luga o le ea ato a ma le lelei o auanaga oseese i tonton o le mala vaalele. O lea faaitea ai tafe tuai a le Pulega e mafa mai i le faaogaina telei o le eletise ato a ma le faaumauina o lona siosiomaga.

6. Pe toe manaomia e lenei Poloketi ni elele faaopopo?
E leai

O galuenga uma o lea faatinoina i lenei poloketi e faatinoina lava i tonton o le malae vaalele

7. a ni aafiaga o tagata nui i lenei Poloketi?

Vaaga i le lumanai
- le avanoa e faatupulaia ai tulaga tau turisi ma faatoaga
- E faaleleia atili ai itu tau saogalemu i femalaga i le ea

Taimi o le faatinoga o galuenga
- O nisi o nofoaga e tumau o lea faaumai i lea faatuitia ai mea faaumai i le malae vaalele
- O le a lai ai le pefu ma le pao i nofoaga o lelei galuenga
- O le a lai ai foi se vaega o polapala ma lau le manaomia o lea faatupulaia
- O le a te lei naavale ma masani mana i le a faaogaina e ona aafiu ai le saogalemu le gata i tagata lautele ma taavale femalaga ai

I lalo o tala lai a le ofisa o le Siosiomaga, o lea taumafai le poloketi e faaitea ai le pefu, le pao ma le aafiaga o laulagi, faalesa ma isi nofoaga taua. Ua ai foi fauauga faataeliia i puipuipaa ai le saogalemu o tagata ma taavale femalaga ai. O otoa ma lapi a lea puipuipaa ma vaiai telei.
ANNEX 7 – VILLAGE PROFILE FORM
1. **Village Profile Data (Tala otooto o le tou afioaga)**
   A brief description of village and its relationship to Faleolo International Airport
   Faamatalaga puupuu pe iai ni aafiaga o le nuu e tu lata i le malae vaalele
   a. Aafiaga lelei
   b. Faafitauali

2. **Transport Data: (Femalagaiga)**
   1. Describe your village's current transport services (road). O a ni auala o femalaagaiga o loo faaaogaina e le tou nuu
   a. Who operates the services? O ai o loo gafa ma le faatinoina o lenei auaunaga?
   b. What types of vehicles (taxis, buses, carriers)/trucks? O a ituaiga taavale o loo faaaogaina

   2. What are the fares charged? Try to obtain the three most frequent destinations for the travelling villagers. E fia le totogi (pase) o nei taavale? Faamolemole fua lau tali poo fea ni vaega se tolu e masani ona agai iai le tou afioaga (taunuuga)?

4. Is there a trading store in the village? If no, how are goods ordered and paid for in the village? E iai ni faleoloa i le tou nuu? A leai, e faapefea ona fai faatau a tagata o lou nuu?

3. Economic Data: (Tamaoaiga / Atiinae)
a) What small businesses are found in the village? Type and Number. O a ituaiga pisinisitai i totonu o le tou afioaga? E fia?

b) What are the main crops grown by villagers? O a ni atinae tau faatoaga o loo faia i totonu o le tou nuu?

c) Do they have access to other food sources which they can sell such as fish, vegetables, etc? E iai nisi ituaiga meataumafa e pei o fualaaui aina, fualaaui faisua po o ia ma figota, e mafai ona faatau e le nuu mo se isi faasiliga?

d) What are the main sources of cash income for this village? O a ituaiga galuega o loo maua mai ai tupe a le afioaga?

e) Are there any families that have food insecurity (not enough food) in the village? If so, try to estimate the number of affected families. O iai ni aiga i totonu o le tou afioaga e le o lava mea taumafa? Faamata e fia ni aiga?

6. Social and Service Institutions: (Auaunaga Lautele)
a) Is there a lower/upper primary school in the village? Yes/No
   O iai ni aoga i totonu o le tou nuu? Ioe/Leai
      (i) a faapea o lau tali i le fesili lea e muamua o le ‘leai’ – o le a le mamao o le aoga e lata atu i le tou afioaga?
      (ii) a faapea o lau tali i le fesili 6 (a) o le ‘ioe’ e fia ni faiaoga i le aoga lea e i totonu o le tou afioaga? E fia alii faiaoga? Ape pe fia tamaitai aoga?

b) Is there a hospital or health centre in the village? Yes/No
   O iai se falema’i poo se falema’i faaitumalo in totonu o le tou afioaga? Ioe/Leai
      (i) a faapea o lau tali i le fesili o le ‘leai’ – o le a le mamao o le falemai e lata atu i le tou afioaga?
ANNEX 8 –BIBLIOGRAPHY


ANNEX 9 – PHOTOS
Quarry site at OLO – re-growth and site

Quarry - First Level

Quarry - Second Level
Rock – From last quarrying

STEC – coconut oil refinery and lamb farming

Foreshore next to runway – fishing
Main project footprint - Faleolo

Stakeholders on the west of the runway during field visit
ANNEX 10 – Presentations (Stakeholders and Village Communities)
Pacific Aviation Investment Programme

Samoa Aviation Investment Project (SAIP)

September 2013
Background

- To improve international airport infrastructure in Samoa to improve airport safety and security.

- Three (3) main components to the SAIP
  (i) infrastructure investments;
  (ii) aviation sector reform; and,
  (iii) strengthen the operations and management of airports
Component A: Faleolo International Airport Infrastructure Investments:

- Aviation infrastructure to meet and maintain ICAO safety and security standards including runway and apron rehabilitation and energy efficient LED airfield lighting upgrades

- Improved safety and security as well as operating efficiency

Reason for this component priority

*Deterioration of apron and runway areas* – Refer to pictorial descriptions as presented in the next few slides and after the field visit this morning
Ponding and cracking at apron
Ponding and need of better drainage
Runway cracking
Flush at turn bay
Crack of sealing on runway
Component B - Strengthening Policy and Regulatory Capacity, and Training

- Provide technical assistance to Samoa’s CAD to strengthen its capacity to provide effective safety and security oversight.

- Possible electronic data collection system and targeted technical assistance (ICAO)

- Assist GoS in developing overall policy for the sector, in utilization of existing aerodromes, SAA’s community service obligations, air transport impacts and interrelations with key sectors - tourism, maritime and road transport, disaster and medical emergency response.
Component C: Strengthening airport operations and management capacity

- This component would help strengthen SAA through training in priority areas and the development of an integrated MIS system. Technical assistance may also be provided in areas such as development of non-aeronautical revenues.
Expected Beneficiaries

- Travelers
- Service Providers
- Industry
- Community
Social AND Environment Management

• Before final appraisal by Donors (World Bank AusAID ... ) SA -social assessment and EMP or Environmental Management Plan needs to be carried out and provided to ensure stakeholders views are considered and essential national requirements and legislation etc., are fulfilled.
• Implementation for the SAIP should begin within the second quarter of 2014
Potential Social and Environment Impacts (challenges and opportunities)

• Social. Impacts on land or assets affecting community and persons around project area (quarry and foreshore)

• Environmental. Contamination from hazardous substances and milled waste. Traffic disruption, noise and vibration from transportation of materials and laying of resurfacing material.

• Contaminated stormwater discharging to coastal environment (rainy season?)
Discussion

• Views on the project as a whole (3 components) in relation to your own sector, industry, ministry or agency etc.,

• Discuss any issues regarding the Environment (airfield improvements and quarrying) and Social impacts of the project

• Any other issues you feel are of importance and relevance to further improve performance of the project that have not been discussed as yet.
PROJECT FOOTPRINT

265 acres

6,910 acres

kilometers
GALEUEGA FAALELEIA O LE MALAEVAALELE

Samoa Aviation Investment Project (SAIP)

Setema 2013
Aotelega o lenei galuega

- Faaleleia ole malaevaaelele l lona itu saogalemu ma le malu puipuia o tagata femalagaai.

- 3 ni vaega l lalo o lenei galuega tele
  
  (i) Faaleleia o le malae; e aofia ai ma le faaleleia o auanaga laveai ma auanaga mo vaalele sivili
  
  (ii) Faamalosia o faiga faavae ma tulafono faatonutonu ina ia o gatasi faiga a le tatou malae vaalele faavaomalo tusa ai ma taiala a nisi faalapopotopotoga faavaomalo e pulea vaalele sivili
  
  (iii) Faaleleia atili auauanaga a le malae vaalele l Faleolo l lana pulega ma galuega lautele
Vaega Faaletonu o le malae – Apron
Tele le vai e to’a – manaomia alavai lelei
Mavaevae vaega e tulaulelele ai vaalele
Malagalaga I le vaega e liliu ai
 Manaomia le toe faa ta ma toe vali
Vaega e faatino ai nisi o galuega mo le faaleleia o le malaevaaalele
Aafiaga tau I le soifua lautele ma le siosiomaga e ono tulai mai I lenei faamoemoemoe

1. Aafiaga o le siosiomaga
2. Aafiaga o Tama’ita’i
3. Aafiaga o le Autalavou
4. Aafiaga o tamaiti
5. Aafiaga o aiga
6. Aafiaga o tulaga faaleaganuu
7. Aafiaga o alamanuia poo atinae
ANNEX B Maps – Location for Water Bores Faleolo (SWA)