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Samoa Health System Strengthening Program

P164382

Environmental and Social Systems Assessment

PRELIMINARY DRAFT FOR REGIONAL OPERATIONS COMMITTEE

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1. Introduction

1.1. Country Context

Samoa is a small Polynesian island state located in the South Pacific with an estimated population of 193, 483 people in 2017 distributed among the two main islands (Upolu and Savai'i) and two smaller islands (Apolima and Manono). Despite being classified as an upper middle-income country with a GNI per capita of US$4,100 in 2016, Samoa's economic development opportunities are constrained by specific challenges including excessive distance from the center of economic activities and foreign suppliers, small domestic market with low purchasing power, and high frequency and intensity of natural disasters exacerbated by climate change.

Health outcome indicators have been steadily improving over the past three decades in Samoa. Life expectancy in Samoa is now the highest in the Pacific, increasing from 65 years in 1990 to 75 years in 2015, with women having higher life expectancies at 78 years compared to men at 71.8 years. It also has among the lowest infant mortality rates (IMRs). Morbidity and mortality patterns show that rising NCDs have become the top cause of mortality in the county. NCDs account for 75% of the total disease burdens in 2016 and more than half of all premature deaths in the country. The major NCDs affecting Samoa are diabetes, ischemic heart disease (IHD), cardiovascular disease (CVD), asthma, chronic obstructive pulmonary disease (COPD) and cancers. In Samoa, obesity rates for women is 65.5%, much higher than that of men which is 43.6%. The Global School Survey conducted in 2010 in Samoa amongst 13-15-year-old found that 43.4% of boys and 59.1% of girls were overweight. The proportion of women who are above a healthy weight increases gradually with age. The rate of increase in obesity appears to be greatest between the ages of 25 and 54 years during which time pregnancy and menopause onset may both have an impact.

Life-style related risk factors drive the most death and disability related with NCDs, underscoring the importance of changing behaviour. Overall, the top risk factors that account for the most disease burden in Samoa in 2016 were closely linked to NCDs and included: high body-mass index, high fasting plasma glucose, dietary risks and high blood pressure. Since 2005, these four risk factors, plus impaired kidney function and high total cholesterol, have seen double digit increases of around 20%. Samoa is among the countries with highest obesity rates in the Pacific. Obesity rates have grown from 25.5% in 1978 to 67.5% in 2001, with higher obesity prevalence among women. What is of particular concern is that several studies of Samoan children have shown an increasing trend of childhood obesity, with a transition from preschool-aged to primary-school aged increasing in body mass index after entry into primary school . In addition, tobacco smoke as a risk factor remains high, with smoking rates of 35.8% for men and 15.5% for women over the age of 15.

Lack of effective care model for NCDs is the significant system weakness. Gaps include low screening rate, weak follow-up and referral, as well as lack of a patient tracking system, indicating a lack of a systematic NCD disease management in the country. As a result, most of the patients in Samoa have not been detected, diagnosed and put under regular disease treatments. The National Non-Communicable Disease (NCDs) Cost Analysis Study found that utilization of essential NCD medicines is very low in Samoa compared to other developing countries and that NHS paid on average 3-6 times the WHO benchmark price for the NCD medicines.

The Country has two referral hospitals: Tupua Tamasese Meaole (TTM) National Hospital is the main national referral hospital located in Apia, Upolu, and Malietoa Tanumafili II Hospital (MTII) on Savai'i island. In addition, there are eleven primary health facilities consisting of six District Hospitals (3 in Upolu and 3 in Savai'i), and five health centres (3 in Upolu and 2 in Savai'i). The rural health facilities are strategically placed based on population size and distance. The allocation of resources (personnel, equipment, supplies, infrastructure and vehicles) is skewed towards TTM hospital, and the primary health care facilities are under-resourced and under-staffed. Doctors are concentrated in the main referral hospital in Apia with the other 11 primary health care facilities almost exclusively staffed by nurses with physician visiting only one day a week. Basic infrastructure, diagnosis equipment and competencies are lacking in the primary health care facilities and therefore the facilities lack the capacity to diagnose and manage chronic NCDs.

1.2. Background

This Environmental and Social Systems Assessment (ESSA) has been prepared to support the World Bank-financed Samoa Health System Strengthening Program ("the Program"). The Program's objective, which will be implemented under the Program for Results Financing (PforR) instrument, is to improve the Ministry of Health's service delivery quality and capacity for addressing non-communicable diseases (NCDs). This will be accomplished by supporting the key interventions of Samoa National Non-Communicable Disease Policy and Action Plan (2019-2023) focusing on strengthening Primary health care and building an integrated service delivery system to address NCDs. The implementing agency is the Samoa Ministry of Health (MoH).

The ESSA is intended to ensure that PforR operations are designed and implemented in a manner that maximizes potential environmental and social benefits, while avoiding, minimizing, or otherwise mitigating environmental or social harm. The purpose of the ESSA is to: (i) review the environmental and social management rules and procedures and institutional responsibilities that are being used by the government for the implementation of the PforR; (ii) assess the implementing agency's institutional capacity and performance to date to manage potential adverse environmental and social issues under the PforR; and (iii) recommend specific actions for improving the implementing agency's capacity to effectively manage environmental and social issues during implementation.

The ESSA is a World Bank document requirement for PforR investment operations. It is prepared by Bank staff through a combination of reviews of existing program materials and available technical literature, interviews with staff or representatives of government, health care facilities (HCF) at various levels and medical waste disposal centers, and consultations with key stakeholders and experts. The findings, conclusions, and opinions expressed in the ESSA document are those of the World Bank. The draft ESSA report was shared with counterparts prior to the ESSA consultation meetings held in Samoa in [xxxxxx]. Comments received during the stakeholder and public consultations were incorporated into the final ESSA report as appropriate. [to be updated after appraisal stage consultation]

1.3. ESSA Methodology

The preparation of the ESSA involved an assessment of the Samoan system for EHS and social management; a review of the effectiveness of the system in addressing the EHS and social issues associated with the PforR; and an evaluation of the institutional capacity of the implementation agency. The methodology involved: (i) identification of the potential impacts from the activities to be supported by the PforR; (ii) a desk review of the laws, regulations, requirements, and guidelines on the EHS and social management to prevent or mitigate the identified aspects; (iii) meetings and interviews with key stakeholders ranging from implementing agencies, local environment protection and land resources departments, representatives from health care facilities, government officials and individuals; and (iv) visits to a number of HCFs at various levels and medical waste disposal centres.

[consultation to be finalised during appraisal. Additional detail will be provided, and the ESSA will be update to reflect the additional information provided]

The ESSA team visited a half the HCF in Samoa including rural district hospitals and township healthcare centers, as well as a sample of village healthcare stations. Observation and discussions during these visits provided a greater understanding of the potential environment and social impacts associated with these types of activities and capacity and procedure of government departments in dealing such impacts, including relevant measures currently adopted in accordance with relevant laws and regulations.

This ESSA has been prepared in accordance with the Bank Policy on PforR financing (OP/BP 9.00).

2. Program Description

2.1. Program Scope

The proposed Program for Results (PforR) will support a subset of the Government's draft National NCD Policy and Action Plan 2019-2023 with the focus on scaling up the essential interventions of NCD control at the primary health care and community setting. The Program corresponds to all five key strategic areas of the government Action Plan: (1) Governance, Leadership and Partnership; (2) Health promotion, advocacy and risk reduction; (3) Health system Strengthening to address NCD; (4) Surveillance, Monitoring and Evaluation. Table 1 illustrates the relationship between the government program and the Program for Result.

Result Area 1: Minimize risk factor and change behaviour through enhanced policy intervention and promoting healthy lifestyle through community engagement. The goal of this Result Area is to support the GoS's efforts to minimize the risk factors for leading chronic conditions in the country and thereby curbing the rising prevalence of NCDs. The proposed PforR will finance two sets of actions:

1. *Enhancing the effectiveness of macro-policy interventions through impact assessment of NCD taxation policies*: The PforR Program will support the establishment and institutionalization of this mechanism to monitor the implementation of NCD taxation policies with the aim to help strengthen the use of taxation policy as a response to the NCD crisis. The World Bank will work closely with the GoS and provide technical assistance to the extent possible.
2. *Promoting healthy lifestyle through community engagement*: The most prominent risk factors for NCDs in Samoa are overweight and obesity, which are largely life-style related. Samoa has one of the highest adult obesity rates in the Pacific region. The PforR Program will focus on strengthening health promotion activities to address overweight and obesity through four main activities:

    - Capacity building of the Village Women's Committees (VMCs) to undertake health promotion activities and conduct NCD risk assessments with a particular focus on Women.
    - Body Mass Index monitoring among school children i.e. prospective monitoring of child health indicators through the school nurse programs with referrals for children identified at risk for NCDs to health education and physical activity programs. This will include engaging NGOs, such as Nobesity[1] to provide physical activity camps.
    - Provision of education by village women's committee on healthy eating and risk factors for NCDs for children, parents, teachers and school committees.
    - Healthy lifestyle media campaigns incorporating healthy lifestyle ambassadors and champions.

Result Area 2: Increase early detection of NCD patients through the expansion of PEN Fa'a Samoa and health facility visit screening: This result area focuses on the second step of the NCD control cascade, which is to enhance early detection and screening of major chronic conditions in Samoa. There are two major approaches for screening of NCD patients in the country:

[1] Nobesity Samoa: launched in 2015 by an NGO whose main objective is to encourage and inspire kids to start making good healthy choices at a young age and install healthier habits while they're young.

1. *Accelerated expansion of PEN Fa'a Samoa to rural villages*. Early detection, referral, treatment and care of NCD patients are vital and have direct impact on the reduction of preventable disability and death. The GoS, in collaboration with WHO, has initiated a Samoa version of WHO's Package of Essential Tools for Non-Communicable Disease Interventions (PEN). However, after three years of implementation, PEN Fa'a Samoa has been rolled out to only 17 villages out of 431 villages in Samoa. The proposed operation therefore will finance and support the expansion of PEN Fa' a Samoa screening through: refining and updating PEN protocol for community-based screening; having the district hospitals perform the screening, working together with the VWC; the district hospitals and community health centers will be responsible for ensuring that the high-risk groups, identified through the screening, actually go to the health facilities for diagnosis.
2. *Institutionalization of routine screening at the health facility level*. NCD screening and diagnosis will be integrated into the routine health facility visits of all publicly funded health facilities. Non-NCD patients aged 20 and above who present to a publicly funded health facility, will be screened for NCD risk factors including BMI, blood pressure, and blood glucose. Screening protocols for NCDs will be updated and enhanced, and training provided for the health service providers. The proposed PforR Program will also support the strengthening of the country's referral and diagnostic capacity as necessary and enhance the referral and diagnosis through registration and tracking of persons identified as high risk or diagnosed as NCD patients.

Result Area 3: Provide integrated NCD disease management with strengthened PHC and patient tracking system: This result area aims at strengthening and reorienting the service delivery system to address secondary prevention of NCDs through integrated service provision with the district hospitals at the centre. The PforR Program will focus on two trace conditions: hypertension and diabetes, as cardiovascular diseases and diabetes are the top two NCD conditions in the country. The PforR Program will aim to achieve the objectives through a set of reform actions including:

1. *Establishment of a multi-disciplinary team stationed at district hospitals* which will include a primary care physician, nurses, nutrition assistant (where available or function performed by a nurse trained with relevant knowledge and skill), allied health workers, and VWC. They will have clearly defined functions and will play the central role in the service delivery chain covering early detection, screening, chronic disease management, infectious disease control, immunization, community outreach and tracking and management of NCD patients in their catchment area.
2. *Need-based infrastructure and equipment investments*. These will be provided to enhance service accessibility, diagnostic and treatment capacity at the district hospitals. Based on a health facility readiness survey the infrastructure investment needs include the construction of two health centres into district hospitals; and building doctors accommodation quarters to accommodate the redeployment of physicians to the rural health facility.
3. *Development of evidence-based NCD management pathways for all levels of the health system to guide health workers through the clinical decision-making process.* Intensified systematic training will be provided to the health care workers on the management of NCDs using the Chronic Care Model, with emphasis on a people-centered approach.
4. *Ensuring reliable, uninterrupted, and affordable essential drug supply* which will include creating a facility-specific essential NCD drug list; improving drug supply planning through linking the coverage and patient treatment data with drug utilization forecasting; enhancing the compliance with

standard operating procedures for daily monitoring of these essential drugs. Accountability mechanism should also be established for drug management and supply planning.

5. *Establishment of an essential patient tracking system* (to track patients from screening to treatment) is critical for integrated NCD disease management. A mobile App-based patient management system, which will be compatible with the envisioned e-health system being developed by the ADB, will be developed at the district hospital level to ensure the management of NCD patients.

Result Area 4: Strengthen Program stewardship, M&E and build institutional capacity: This result area will focus on strengthening the policy formulation and program implementation capacity of the GoS, in particular the multi-sectoral National NCD Committee to ensure the achievement of intended PforR Program results. The actions to be supported by the PforR Program in this result area include:

1. strengthen Program stewardship and build implementation capacity of the GoS by supporting capacity building and technical assistance needed through formulation and execution of an annual capacity building plan for the National NCD control program. The annual plan needs to be reviewed and endorsed by Samoa Health Program Advisory Committee (HPAC).

2. build up Program M&E capacity by supporting GoS's plan and efforts to build a routine data reporting and collection system for the implementation of the NCD control program, in anticipation of the comprehensive e-Health system.

3. health workforce development and training by supporting GoS's efforts to strengthen human resources for health, which will include development of the terms of reference (TORs) for the multi-disciplinary team to be stationed at the district hospitals and establishing the health workforce planning mechanism

2.2. Geographic Scope

The Program interventions are targeted at the entire population of Samoa and hence the geographic scope is the entire Samoan territory, comprising the main islands of Upolu and Savai'i and two smaller inhabited islands, Apolima and Manono. Within Samoa the physical interventions will be undertaken at the various hospitals and health centres and health-care waste management sites.

The current service delivery system in Samoa is largely publicly-owned and heavily hospital-centric, with patients bypassing primary health care (PHC). Samoa has one main referral hospital: Tupua Tamasese Meaole (TTM) National Hospital situated in Apia, Upolu. A district hospital is situated on Savai'i - Malietoa Tanumafili II Hospital (MTII) - in the village of Tuasivi. There are 11 primary health facilities comprised of 6 rural district hospitals (3 on Upolu and 3 on Savai'i), and 5 health centers (3 on Upolu and 2 on Savai'i). The rural health facilities are strategically placed based on population size and distance (see Figure 1).

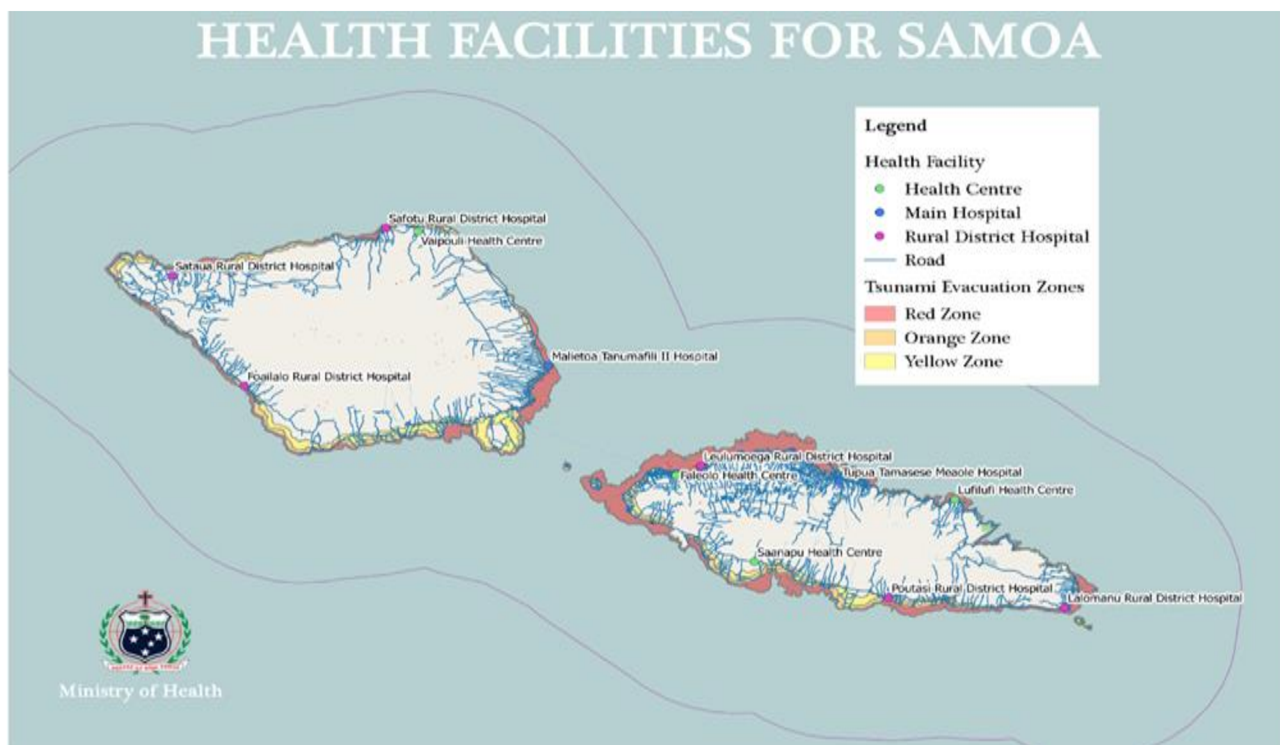

Figure 1 Samoa health facilities location

2.3. Implementing Agencies and Partners

The Program funded under the PforR supports Samoa's National NCD Control Policy and Action Plan; therefore the existing institutional framework of the country will be followed to implement the Program. This includes Health Program Advisory Committee (HPAC)[2] and the National NCD Committee (which includes representatives of the Ministry of Women, Community, and Social Development; MESC; Ministry of Agriculture and Fisheries; National Council of Churches; Samoa Family Health Association; Samoa Red Cross; and National Kidney Foundation).

The MOH will implement the Program as the authorized line agency of the GoS and engage health facilities at all levels, communities, schools, churches, and civil society organizations on both islands in Program implementation, as needed. The Health Sector Coordination, Resourcing and Monitoring (HSCRM) Division will perform day-to-day program management by coordinating, planning, ensuring budget availability, addressing cross-divisional issues, hiring of the IVA, and overall monitoring of and reporting on the PforR Program progress. This PforR Program governance structure (presented in Figure below) is aimed at ensuring Government ownership and alignment of the PforR Program with the National NCD Control Policy and Action Plan.

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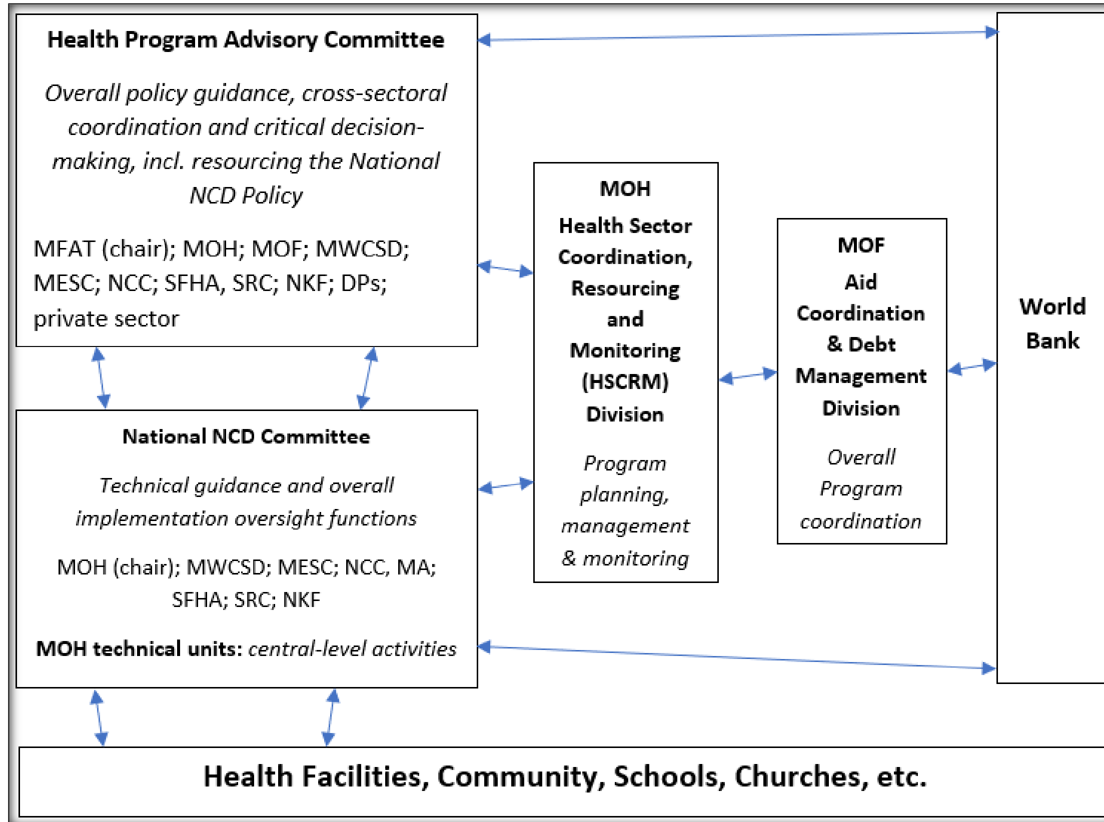
[2] The HPAC's existing advisory tasks include the following: provide overall policy and strategic guidance on health sector program implementation and propose corrective action, if needed; approve health sector program progress reports; endorse plan of works; ensure that priority programs, including the National NCD Policy, are sufficiently resourced; ensure that externally supported health sector programs are in accordance with Samoan Government's policies, priorities and plans; provide advice on way forward with regards to problematic concerns in the health system; and provide advice on technical assistance reports and recommendations.

Figure 1: Program Governance Structure



A number of Government Departments will need to be involved in the management of environmental and social risks associated with various PforR components including the following:

- Ministry of Health: overall management of the Program and responsible agency for the coordination of environmental and social risk management. Includes specific responsibilities for management of health care waste;
- Ministry of Natural Resources and Environment (MNRE): provision of advice and issuing of permits for construction of RDH and associated civil works; waste management regulation; environmental and social assessment; land acquisition and compensation.
- Ministry of Education: activities taking place within schools including BMI screening of pupils;
- Department of Women, Community and Social Development (DWCSD): coordinating stakeholder engagement activities with communities and local authorities; formal coordination of village women's committees.

2.4. Potential Environmental and Social Risks

The following sections describe the potential environmental and social risks associated with the Program. Health and safety risks (both worker and community) are considered under environmental risks; while the social risks section considers the potential for resettlement and land acquisition,

vulnerable groups and stakeholder engagement. Section 2.5 describes the results of the Concept-stage screening against the core principles under OP9.00.

The Program does not include programs or activities that could cause significant harm to the environment or significant adverse social consequences. On the contrary, the Program is expected to result in significant positive environmental and social benefits.

Risks to indigenous peoples have not been considered further as the vast majority of the Samoan population is recognised as indigenous and no indigenous minority groups exist within the country. Notwithstanding, the risk assessment considers the potential impacts on vulnerable populations within the Samoan community. In this context a key consideration is the Program's overall objective to improve health outcomes for the Samoan population, particularly those with less adequate access to health care.

Table 1: Screening for potential environmental and social risks of PforR Activities

Project activity	Environmental and social issues
Results area 1: minimise risk factors and change behaviour through enhanced policy intervention and promoting healthy lifestyle through community engagement.	
Enhancing the effectiveness of macro-policy interventions through impact assessment of NCD taxation policies, including implementation monitoring mechanism.	No anticipated negative environmental or social impacts. *There is no DLI associated with this activity.*
Promoting healthy lifestyles through community engagement. This includes building capacity of village women's committee; BMI monitoring as part of school nurse program; promoting healthy eating and engaging healthy lifestyle ambassadors.	No anticipated negative environmental or social impacts from promoting health lifestyles. Positive impacts are likely to include improved health outcomes and monitoring due to increased awareness, and access to treatment and prevention. Capacity building activities are also likely to be positive. *There is no DLI associated with this activity.*
Results areas 2: increase early detection of NCD patients through expansion of PEN Fa'a Samoa and health facility screening	
Accelerated expansion of PEN Fa'a Samoa program in up to 26 villages, which involves screening for NCD risk factors including BMI, blood pressure, and blood glucose.	Potential environmental impacts related to (small) increase in medical waste within villages. There will be a need for clear communication and stakeholder engagement to encourage participation. The Pilot program indicates that implementation of the PEN Fa'a Samoa in chosen villages will lead to positive health impacts. All individuals over 18 years will be encouraged to participate, with specific training provided to local implementers (village womens committee) to support those who are considered vulnerable to participate.

	DLI1: Percentage of the citizens 21-50 years in PEN Fa'a Samoa districts recording reduction of weight (by gender). *DLI2: Number of districts with PEN Fa'a Samoa rolled out according to updated protocol.* *DLI3: Percentage of high risk people identified through PEN Fa'a Samoa who are confirmed whether they have an NCD or not within 60 days at designated health facility.*
Integration of routine NCD screening for those over 18 at health facilities.	Potential (small) increase in medical waste within health care facilities due to higher patient numbers and nature of diagnostic testing for NCDs. Health outcomes are likely to be positive for those who participate, including those who are considered vulnerable. *DLI5: Number of hypertensions and diabetic patients managed by rural health facilities have their condition under control following WHO protocol.*
Results area 3: Provide integrated NCD disease management with strengthened primary health care and patient tracking system	
Establish multi disciplinary team at each district hospital including .	No anticipated negative environmental or social impacts. Positive impacts are likely to include improved health outcomes due to improved access to medical treatment. *DLI4: Number of rural district hospitals with a multi disciplinary team in place according to defined TOR.*
Need-based infrastructure and equipment investments including accommodation quarters and construction of rural district hospital on MOH/GOS leased land.	Typical E&S Impacts associated with construction include noise, dust, increased traffic, construction waste, restricted access, OHS, and presence of construction workers. Impacts can be managed through good site management and good practice construction processes. Careful consideration of the construction risks to patients will be required if works take place on existing health care facilities, particularly in relation to patient safety and continuity of health care services. New facilities may result in the need for land acquisition. Preference will be given to voluntary land donations secured through engagement with land owner/s and local community. Involuntary land acquisition is considered unlikely. *There is no DLI associated with this activity.*
Development of NCD management pathways for all levels of the health system including clinical guidelines and training.	No anticipated negative environmental or social impacts. Positive impacts are likely to include improved health outcomes due to increased awareness, and access to treatment and prevention. *Linked with DLI 3 and 5.*
Ensuring reliable, uninterrupted, and affordable essential drug supply	No anticipated negative environmental or social impacts.

including updating the national essential drug list; developing an Electronic Pharmaceutical Inventory System; creating a facility specific essential NCD drug list; improving drug supply planning; enhancing the compliance with standard operating procedures for daily monitoring of these essential drugs; accountability mechanism for drug management and supply planning.	Improved drug supply planning should decrease disposal of out of date medicines, potentially reducing environmental impacts. *There is no DLI associated with this activity.*
Establishment of a patient tracking system (eg mobile app) to monitor screening to treatment pathways.	No anticipated negative environmental or social impacts. Positive impacts are likely to include improved health outcomes due to increased monitoring of NCD illnesses and tracking of follow up care. *Linked with evidence for DLI 1, 3,5.*
Result Area 4: Strengthen Program stewardship, M&E and build institutional capacity	
Strengthen Program stewardship and build implementation capacity through formulation and execution of an annual capacity building plan for the National NCD control program.	No anticipated negative environmental or social impacts. Positive impacts are likely to include improved capacity to manage NCD in the community and improved awareness of NCD management. *DLI6: Implementation Completion Rate of annual capacity building plan for NCD program.*
Build Program M&E capacity including building a routine data reporting and collection system for the implementation of the NCD control program.	No anticipated negative environmental or social impacts. *There is no DLI associated with this activity.*
Health workforce development and training including health workforce planning mechanism.	No anticipated negative environmental or social impacts. Positive impacts are likely to include improved waste handling procedures and OHS management. *Linked with DLI6.*

2.5. Core Principles Environmental and Social Risk Screening

This section describes the results of Concept stage screening of the Program against the environmental and social considerations under the core principles and key planning elements of OP9.00. The relevance of each core principle is considered with brief explanations for the conclusion reached.

2.5.1. Core Principle 1 – Assessment and Management

Environmental and social management procedures and processes are designed to (a) promote environmental and social sustainability in the program design; (b) avoid, minimize, or mitigate against adverse impacts; and (c) promote informed decision-making relating to a program's environmental and social effects.

The Program design has the potential to result in environmental and social effects; hence the Government system needs to be adequate to address the Core Principle and Key Planning Element requirements. Specifically the Planning Elements require: "…*an adequate legal and regulatory framework to guide environmental and social impact assessments*…"; and that the system incorporates "…*recognised elements of environmental and social assessment good practice*".

Potential environmental and social effects associated with the Program result from the increased health-care waste volumes, associated health and safety risks from waste management, environmental impacts associated with building construction and social impacts resulting from Program implementation, which are largely positive.

Core Principle 1 is relevant to the Program and an assessment of the Samoa Government system is discussed further in Section ____.

2.5.2. Core Principle 2 – Natural Habitats and Physical Cultural Resources

Environmental and social management procedures and processes are designed to avoid, minimize, and mitigate against adverse impacts on natural habitats and physical cultural resources resulting from the program.

The Program is not expected to cause adverse impacts on natural habitats or physical cultural resources (PCR). The potential impacts arising from the Program associated with these elements are health-care waste management (HCWM) and building construction. Initial screening of the Ministry of Health HCWM procedures by the Bank's safeguards specialists in April 2018 suggests there is very low potential for adverse impacts on natural habitats or PCR. HCWM procedures in Samoa are adequate to protect receiving natural environments from potential impacts (eg. wastewater discharge and solid waste impacts) and facilities to be upgraded under the program (eg. incinerators) will be on existing sites that do not include natural habitats. Similarly, the proposed health centre/hospital upgrades will not involve clearing of natural habitats and will be within existing disturbed village footprints. The assessment confirmed that Program investments would neither interact with natural habitats nor convert any critical natural habitats.

Impacts on PCR from the Program are not expected. While the Falelatai Health Centre is proposed to be reconstructed, the new site will be determined in close consultation with the customary landowners who will advise on the presence of any PCR so that they can be avoided in the design process.

Notwithstanding the non-applicability of this principle the *Lands Surveys and Environment Act 1989* Section 116 (4) requires that the preparation of all management plans (such as the Health Care Waste Management Plan) have regard to "…*the protection, conservation, and management of wildlife and*

natural features" in national parks and reserves and "*The protection of special features, including objects and sites of biological, archaeological, geological, and geographical interest*".

Core Principle 2 is not relevant to the Program.

2.5.3. Core Principle 3 – Public and Worker Safety

Environmental and social management procedures and processes are designed to protect public and worker safety against the potential risks associated with (a) construction and/or operations of facilities or other operational practices developed or promoted under the program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

The Program activities have the potential to impact public and worker safety; however many of these hazards are existing and well-understood have associated management systems to mitigate risks. There are risks to workers and the public from HCWM; however under this Program the risks to the public are considered low. Risks to workers responsible for handling and treating medical waste include infections and sharps-related injuries and these are discussed further below.

The Falelatai Health Facility was destroyed during Cyclone Evan in 2012 and is proposed to be reconstructed under the Program. The previous facility was situated close to the coast and therefore the risk of natural hazard impacts (predominantly cyclones) was exacerbated. It is proposed therefore that this facility be relocated further away from the coast to reduce this hazard. Furthermore, the facility will be constructed in accordance with the *National Building Code of Samoa 2017* which includes detailed provisions for natural disaster resilience.

Core Principle 3 is relevant to the Program.

2.5.4. Core Principle 4 – Land Acquisition and Natural Resource Access

Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.

The Program includes construction of two new rural district hospitals and worker housing. MOH have confirmed that works will take place on the sites of existing hospital/clinics and have provided evidence of lease arrangement made with land owners. However, as additional sites may be required as the Program evolves, it is possible that additional sites are required during implementation.

Site visits by Bank staff to a total of 6 operational medical facilities (including district hospitals and health clinics) indicates that sites are clearly demarcated as health facilities and no informal structures, activities or dwellings were observed at any site. Works associated with the installation of incinerators will be undertaken within the boundary of existing landfill sites.

Core Principle 4 is relevant to the Program.

2.5.5. Core Principle 5 -Indigenous Peoples and Vulnerable Groups

Due consideration is given to cultural appropriateness of, and equitable access to, program benefits giving special attention to rights and interests of Indigenous Peoples and to the needs or concerns of vulnerable groups.

An assessment of the application of the Bank's policies on Indigenous Peoples in Pacific Islands has been undertaken as part of a wider, country-level social analysis of PIC countries[3]. This determined that Indigenous People policies are not typically triggered in the generally homogeneous island nations of Federated States of Micronesia, Kiribati, Marshall Islands, Palau, Samoa, Tonga and Tuvalu. No further assessment is made in relation to indigenous peoples in this ESSA.

Core Principal 5 is not relevant to the Program as it relates to Indigenous People.

The PforR will support a national level program and as such, will include those who are considered vulnerable. The program is designed to improve health outcomes of all participants and will include specific focus on groups such as women and children. As such the impacts on vulnerable groups will be limited if any, and with adequate focus, will likely benefit all groups.

Core Principle 5 is partly relevant to the Program as it relates to vulnerable groups.

2.5.6. Core Principle 6 – Social Conflict

Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

The Program will not exacerbate social conflict in fragile states, post-conflict areas or areas subject to territorial disputes, nor will the Program cause social conflict or impact distributional equity or associated cultural sensitivities.

Core Principle 6 is not relevant to the Program.

2.6. Program Social, Environmental, Health and Safety Risks

This section summarises the potential social and environmental risks associated with the Program. Where relevant, a brief discussion has also been provided on the issues that may both exacerbate or minimise risks.

[3] Environmental and Social Safeguard Instruments for the Pacific Island Countries. World Bank, 2015. This outlines that OP/BP 4.10 is not typically triggered in the generally homogeneous island nations of Federated States of Micronesia, Kiribati, Marshall Islands, Palau, Samoa, Tonga and Tuvalu. Depending on the specific project context, persons meeting the four defining characteristics of OP/BP 4.10 are likely to be found in Fiji, PNG, the Solomon Islands, Timor-Leste and may be found in Vanuatu.

2.6.1. Social Context

The *fa'amatai* system (village councils) is central to the organisation of Samoan society[4] and describes an all-encompassing traditional system of roles and responsibilities within the family and community. Inherent in the fa'amatai system is the welfare and well-being of the extended family ('aiga) and the protection of family property, consisting most importantly of customary land. Every family is headed by a matai or Sa'o (holder of traditional title) who is responsible for family affairs, particularly in relation to land and titles. They also represent the family at the *fono* (village council) who are responsible for maintaining law and order, provision for health and education services, and village development including community land use. The *pulenu'u* (village mayor) is the contact person and the conduit of information between the *fono* and the Government.

Traditional villages have long been organised around separate statuses for men and women in which executive power is vested in men. The decision-making forum is dominated by males as women rarely hold the traditional matai titles or participate in local government meetings. For example, 41 of the 240 traditional villages do not allow women to be bestowed with matai titles and 34 villages do not allow resident female matai to participate in village council meetings[5]. This is justified and motivated by cultural, religious, and social conventions.

Samoa used to have a service delivery model with a strong focus on health prevention, community empowerment and primary health care. Historically the Woman's committee in the villages (VWC) was the cornerstone of community engagement on health promotion, hygiene inspection and public health. VWC regularly worked with medical personnel to facilitate the access to health services. This successful use of VWC to promote health care has changed due to the refocusing of medical services in the regional centres. There has also been changes in institutional arrangements with control of the Women's Committees transferred to the Women's Division of the Ministry of Women Social and Community Development in 1991, whose mandate is broader than health alone[6].

The VWC traditionally undertake a range of activities in relation to community health. They host monthly visits of the district nurse to provide basic medical treatment, prenatal and postnatal care, and inspect the progress of health promotion activities in the village. All health promotion campaigns are administered by the local government and run by women's committees. Women were fully dedicated to doing these tasks for the benefit of the whole community[7].

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[4] State of human Rights Report (2015) Office of the Ombudsman and National Human Rights http://www.palemene.ws/new/wp-content/uploads/05.Annual%20Reports/OOTO/OO-NHRI-State-of-Hman-Rights-Report-2015-Eng.pdf

[5] Pa'Usisi Finau, Silia; Women's leadership in traditional villages in Samoa: the cultural, social and religious challenges, 2017

[6] Samoa: WHO, 2018; Engaging people for Health promotion: case study on primary health care

[7] Pa'Usisi Finau, Silia; Women's leadership in traditional villages in Samoa: the cultural, social and religious challenges, 2017 pg 175

2.6.2. Land Acquisition and Use

Construction of rural district hospitals and housing for doctors is included within the Program boundary of the PforR, which has the potential to impact land. Sites have been identified for planned activities and land requirements are limited, but this may evolve over the life of the project.

Typical risks associated with land acquisition include a lack of consultation, inadequate compensation amounts and arrangements, limited recognition of informal rights and lack of grievance system. In practice, the risks are considered limited due to existing social practices and legislative requirements and practice. Issues associated with land are further discussed in section xxx (legal review) and xxx (capacity assessment).

2.6.3. Vulnerable Groups and Equitable Access

Without adequate planning, there is a potential risk that vulnerable groups will be less able to participate in Program benefits than others, limiting the effectiveness of the Program. However, the likelihood of this risk materialising is low given the program design and scope. The four Program components are designed to benefit all residents of Samoa through improving access to health care for the diagnosis and treatment of NCDs. For example, the Program will introduce improved NCD screening in all health care facilities, and BMI will be checked for all school children. These activities will benefit a range of age groups across the community including youth, adults and the elderly, as well as other potentially vulnerable groups such as women or those with disabilities.

Some Program activities such as the PEN Fa'a Samoa will be limited to the additional 26 villages where the program will be expanded; similarly construction of new health facilities will also felt more acutely in particular locations. This will limit the benefits associated with the Program to those living in these areas, but this will affect all in the community equally and it is unlikely to have a disproportionate effect on vulnerable groups in these areas. Only the expansion of these activities to all areas would mitigate this risk but this is not possible within the financial scope of the Program.

Voluntary participation may mean that some groups, including those considered vulnerable, will choose not to participate in Program activities or seek treatment after initial screening. While they will still benefit from activities such as improved drug supply, increased medical capacity and improved guidelines, the full potential of the Program may not be realised. Health promotion activities will assist in raising awareness of the impacts of NCDs and help to mitigate this risk.

The issues associated with vulnerability are carefully considered within this document and are further assessed in Section xxx and xxx.

2.6.4. Environmental and Health and Safety Risks

The World Bank Group's Environmental Health and Safety (EHS) Guidelines for Health Care Facilities (2007) recognise three key EHS risk areas:

- Environmental – solid and liquid waste management, emissions to air and wastewater discharges;

- Occupational health and safety – including exposure to infections, diseases, hazardous materials and waste, and construction-related risks; and
- Community health and safety – including potential exposure to hazardous health care waste.

Solid and liquid waste management - subsequently referred to as health care waste management (HCWM) – includes handling, treatment and disposal of solid and liquid waste from medical procedures. Emissions to air from health care facilities include exhaust air from heating, ventilation, and air conditioning (HVAC) systems, ventilation of medical gases and fugitive emissions released from sources such as medical waste storage areas, medical technology areas and isolation wards. In addition, exhaust from medical waste incineration (if inadequately managed) can pose an environmental and community health and safety risk.

The Program activities are not expected to significantly increase the wastewater burden to be managed at health-care facilities. However it will be important to ensure that wastewater treatment systems at the two new district hospitals are constructed and operated in accordance with regulatory requirements.

2.6.5. Environmental Risks

The Program activities are not expected to increase environmental hazards. The activities under the Program with potential environmental risks – minor increase in HCW volumes and building construction – are not unprecedented and are currently managed under existing Samoan Government systems. Result Area 2 seeks to increase screening for NCDs amongst the Samoan population through the PEN Fa'a Samoa program. Screening involves generation of hazardous waste (eg. syringes from blood testing) and this - and subsequent medical treatment for those diagnosed - will result in a marginal increase in the volume of HCW generated by the Samoan public health sector in the short-term. HCW will also be generated at the two new district hospitals; however this can be managed under existing systems which will not be over-burdened. Of itself, the additional HCW does not significantly increase the environmental risk as the waste types are similar to those already being managed under the HCWM system. NCD treatment in Samoa does not involve the use of cytotoxic medicines and no radiotherapy is available in the country.

There is minor risk to the environment associated with HCWM on Savai'i. HCW is collected from the MT II hospital and health centres and transported to Vaiiata landfill for disposal. A recent assessment concluded that Vaiiata landfill is not suitable for HCW disposal due to the lack of cover material available following disposal of waste and the potential for groundwater pollution. There is also a minor risk of water pollution associated with cleaning of HCW bins at MT II hospital. HCW treatment at Vaiata landfill is inadequate as the incinerator is dysfunctional and waste is burned in situ at the landfill. This is considered to be more a health and safety issue as described below.

2.6.6. Health and Safety Risks

HCW includes all the waste generated within health-care facilities, research centres and laboratories for medical procedures; and includes sharps, non-sharps, blood, body parts, chemicals, pharmaceuticals,

medical devices and radio-active materials[8]. Portions of this waste carry greater potential for causing infection and injury than other types of domestic waste due to its contamination state and this necessitates proper handling and management[9].

Between 75% and 90% of the waste produced by health care facilities is equivalent to domestic waste and is considered ‘non-hazardous’ or general health care waste that can be disposed directly to landfill without any treatment. The remainder of the waste stream is considered hazardous and includes the following:

- Sharps waste - used or unused sharps (e.g. hypodermic, intravenous or other needles; auto-disable syringes; syringes with attached needles; infusion sets; scalpels; pipettes; knives; blades; broken glass);
- Infectious waste - suspected to contain pathogens that pose a risk of disease transmission (e.g. waste contaminated with blood and other body fluids);
- Pathological waste - human tissues, organs or fluids, body parts, foetuses, unused blood products;
- Pharmaceutical waste - expired or surplus pharmaceuticals and items contaminated by or containing pharmaceuticals;
- Cytotoxic waste - containing substances with genotoxic properties (e.g. cytostatic drugs used in cancer therapy; genotoxic chemicals);
- Chemical waste - containing chemical substances (e.g. laboratory reagents, disinfectants, solvents, waste with high content of heavy metals such as broken thermometers and blood-pressure gauges containing mercury; and
- Radioactive waste - containing radioactive substances (e.g. unused liquids from radiotherapy or laboratory research; contaminated glassware, packages or absorbent paper; urine and excreta from patients treated or tested with unsealed radionuclides).

WHO notes that health-care waste management options may themselves lead to risks to health and no perfect readily achievable solution to manage health-care waste exists. Health-care waste, whether generated at smaller rural clinics or larger facilities, can be managed where adequate well-operated infrastructures exist. However, the volumes of waste generated within large facilities and targeted public efforts (e.g., immunization campaigns) are more challenging, particularly in developing countries where resources may be limited. In these difficult situations for which waste disposal options are limited, small-scale incinerators have been used and are still used as an interim solution in less developed and transitional countries. However, small-scale incinerators often operate at temperatures below 800 degrees Celsius. This may lead to the production of dioxins, furans or other toxic pollutants as emissions and/or in bottom/fly ash. Transport to centralised disposal facilities may also produce hazards to health-care handlers, if not safely managed. In addition to risks to health from infectious agents, long-term low-level exposure of humans to dioxins and furans may lead to impairment of the immune system, and impaired development of the nervous system, the endocrine system and the reproductive functions. Short-term high-level exposure may result in skin lesions and altered liver function

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[8] WHO (2014) *Safe management of wastes from health-care activities*.

[9] WHO (2004). *Practical Guidelines for Infection Control in Health Care Facilities.*

Occupational Health and Safety Risks from HCWM

Handling, storage and treatment of hazardous HCWM is often sub-standard in the Samoan context posing a risk to clinical and non-clinical MoH employees from, for example, needle-stick injuries and contracting diseases such as hepatitis and tetanus. The HCWM chain of custody requires improvement to ensure that safety of all employees is adequately protected. Waste handling infrastructure, personal protective equipment and lack of prophylaxis for transmissible diseases poses an elevated risk to MoH employees, particularly waste management staff.

Occupational and Community Health and Safety Risks from HCW Treatment

The adopted HCW treatment method in Samoa is incineration. Two incinerator facilities have been established at Tafaigata landfill on Upolu and Vaiata landfill on Savai'i. The Uplou facility is functioning and satisfactorily maintained; however HCW is often combusted at less than the required temperature resulting in hazardous air emissions. The HCW incinerators at Vaiata landfill on Savai'i island are dysfunctional and HCW is being burned in situ at the landfill. This practice results in the generation of hazardous air emissions including persistent organic pollutants (POPs) that pose a risk to human health. Given the remote location of the incinerators on Upolu and Savai'i those at most risk from these emissions are the HCWM and landfill staff with the risk to the broader community considered very low. Notwithstanding, the accumulation of POPs in the environment (even in small quantities) should ne avoided.

2.6.7. Environmental, Health and Safety Risks from Construction and Operation

Result Area 3 may result in increased EHS risks due to the hazards associated with building construction and operation. The EHS hazards associated with the construction of new medical facilities as contemplated under the Program are well-understood and can be readily managed using processes and systems currently used in Samoa. Hence the overall risk associated with building construction is not increased and can be managed with site-specific mitigation measures. While not currently envisaged within in the Program, an exception to this would be if the Program evolves to include the upgrade or refurbishment of existing medical facilities. In this case, careful consideration of the construction risks to patients will be required, particularly in relation to patient safety and continuity of health care services.

3. Program Environmental and Social Management System

The following sections describe the environmental and social systems relevant to the Program risks. It links impacts and core principles identified as applicable in Section 1 and assesses the legislative and management systems applicable to the Program. The Program does not include activities that could cause significant harm to the environment or significant adverse social consequences. On the contrary, the Program is expected to result in significant positive environmental and social benefits.

3.1. Environmental Management System

3.1.1. Lands, Survey and Environment Act 1989

The *Lands, Survey and Environment Act 1989* (LSE Act) provides the basis for environmental protection and management in Samoa and is administered by the Minister for Natural Resources and Environment (MNRE). The LSE Act seeks, in part, to avoid adversely affecting the beneficial uses of the environment from pollution and the improper management of wastes (littering). The beneficial uses of the environment include the life, health, and wellbeing of humans; the life, health and wellbeing of other forms of life, including the protection of ecosystems and biodiversity; and local amenity and aesthetic enjoyment.

Section 116 of the LSE Act includes provision for the preparation of "management plans for the protection, conservation, management, and control of…waste and litter disposal" and "any other matter relating to the environment which in the opinion of the Board will benefit from a management plan". The Ministry of Health has prepared a series of Health Care Waste Management Plans under Section 116. The latter provision allows for issues such as waste classification, segregation, packaging, labelling, transport operations, and the application and performance of treatment technologies to be included in a management plan in addition to the disposal of wastes.

The Planning and Urban Development Agency (PUMA) is responsible for monitoring and enforcing the requirements of management plans and Section 118 of the LSE Act provides for monetary penalties for contravention of approved management plans.

3.1.2. Planning and Urban Management Act

The primary environmental legislation in Samoa is the *Planning and Urban Management Act 2004* (PUM Act). The objectives of PUM Act include:

- *To provide for the fair, orderly, economic and sustainable use, development and management of land including the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity;*
- *To enable land use and development planning and policy to be integrated with environmental, social, economic, conservation and resource management policies at national, regional, district, village and site-specific levels;*
- *To secure a pleasant, efficient and safe working, living and recreational environment for all Samoans and visitors to Samoa; and*
- *To balance the present and future interests of all Samoans.*

Part V of the PUM Act 2004, specifically Section 37, requires consent for development within Samoa (. The process for determining whether a Development Consent is required and the application process are detailed in the *Planning and Urban Management (Environmental Impact Assessment) Regulations 2007*.

All developments in Samoa require Development Consent and applications shall be submitted to PUMA for assessment to allow a determination is made. No works are to be undertaken until a Development Consent is secured.

3.1.3. National Building Code of Samoa

National Building Code of Samoa (NBC) is a performance-based set of standards that provides objectives and descriptions of how a building and site should be constructed to achieve a structurally-sound and sustainable built environment. The basic objective of the NBC is to ensure that acceptable standards of structural sufficiency, fire safety, health, amenity and response to the impacts of climate change are provided so that buildings, facilities and sites are constructed, maintained and demolished in a safe and environmentally responsible manner.

The provisions in the NBC are intended to extend no further than is necessary to safeguard the health and safety of people and the environment. They are intended to be cost effective, not needlessly onerous in their application, to promote design innovation, and be easily understood.

The NBC is brought into effect by The Ministry of Works Act 2002 (as amended), which empowers the Ministry of Works, Transportation and Infrastructure (MWTI) to regulate certain aspects of the building process including the creation and administration of the National Building Code, which has now been renamed as the National Building Code. The NBC includes mandatory provisions for climate change adaptation (Section H) and natural disaster resilience (Section J).

Under the NBC "*hospitals and other health-care buildings having surgery or emergency treatment facilities*" – which includes district hospitals and health centres – are classified as Building Group 2: "*Buildings and facilities that are essential to post-disaster recovery or the primary function is storage or handling of hazardous substances*" and "*Buildings with activities that affect large groups of people in a village*". Hospitals are likely also considered to be "*buildings used as emergency shelters*" which also fall under the provisions of Building Group 2.

3.1.4. Health Care Waste Management

Samoa has no specific law on HCW, however the *Lands, Surveys and Environment Act 1989* does govern the management of solid waste. The Act provides mechanisms to develop an environmental management plan that can be used to set performance criteria for the treatment and disposal of hazardous HCW. Supplementary legislation associated with the 1989 act includes *Health Ordinance 1959*, covering the health and safety of health-care professionals and workers when handling hazardous HCW.

The Health-care Waste Management Plan (2011) could be considered a guideline. A national strategy on HCWM is included in the Health-care Waste Management Plan. Nevertheless, the national plan does not

include an action plan. A national steering committee has been set up with a national HCW officer as a focal point for all HCW issues.

International Conventions and Standards

Samoa is a signatory to three international conventions with relevance to health-care waste management and protection of the environment as follows:

- *Basel Convention on the Control of Trans-Boundary Movements of Hazardous Wastes and their Disposal* (the Basel Convention) - aims to protect human health and the environment against the adverse effects resulting from the generation, management, trans-boundary movements and disposal of hazardous and other wastes. The Basel Convention specifically refers to clinical wastes from health care in hospitals, health centres and clinics; as well as waste pharmaceuticals, drugs and medicines;
- *Stockholm Convention on Persistent Organic Pollutants* (the Stockholm Convention) is a global treaty to protect human health and the environment from persistent organic pollutants (POPs). POPs are chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of living organisms and are toxic to humans and wildlife. Governments that are party to the convention are required to reduce or eliminate releases from unintentional production of POPs (dioxins and furans). These chemicals are formed and released to the environment by medical waste incinerators and other combustion processes. Governments must require the use of best available techniques and promote best environmental practices for new incinerators within four years of the convention coming into force for the country;
- *Minamata Convention for Mercury* is a global treaty to protect human health and the environment from the adverse effects of mercury. This treaty includes the phasing out of certain medical equipment in health-care services, including mercury-containing medical items such as thermometers and blood pressure devices;

Embodied within these conventions are a number of objectives that Governments should seek to implement in health-care waste management practices:

- environmentally sound management (ESM) of hazardous waste or other waste - taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes (Basel Convention);
- best environmental practices (BEP) - the application of the most appropriate combination of environmental control measures and strategies (Stockholm Convention); and
- best available techniques (BAT) - most effective and advanced stage approaches to preventing and, where that is not practicable, generally reducing releases of POPs and their impact on the environment as a whole (Stockholm Convention).

Recognising the challenges in achieving these objectives in developing country contexts WHO (2017) notes that "…*changes and improvements to waste management practices must be made within the financial and technical capacity of any health-care system. This might include making small, incremental*

improvements, as well as planning for more significant, longer term improvements to obtain optimal options, which may only be possible once certain conditions have been reached."

Samoa has developed a National Implementation Plan for POPs (MNRE, 2004) in accordance with the Stockholm Convention; however the Plan does not specifically address POP generation from HCW treatment (i.e. incineration).

The Health Ordinance Act 1959

The Health Ordinance 1959 consolidates certain laws pertaining to public health defining functions and powers to enable officials to protect public health. In particular, health care waste is recognised as a risk to public health as well as the environment. There are certain requirements pertaining to health care waste that need to be adhered to and it is the Ministry of Health's statutory responsibility to ensure that there are suitable appliances for the disposal of health care waste in a manner that is safe and not dangerous to public health.

Waste Management Act 2011

The main legislative document concerning solid waste management in Samoa is the *Waste Management Act 2010*. The Act covers the collection, management, disposal, and recycling of solid waste. The Act provides for registration and licensing of waste operators, permits for dumping and incinerating wastes, sets environmental standards for the management of waste, and provides for community involvement in waste management.

Section 9 of the Act details provisions for the registration and licensing of waste operators including "*(1) All landfill sites and waste dumps in Samoa must be licensed by the Ministry* [of Natural Resources and Environment" and "*(2) The registration and licensing of other waste management facilities and operators may be required in accordance with Regulations made under this Act*".

Section 18 of the Act regulates incineration of wastes and stipulates a number of offences relating to intentionally burning wastes including where such burning is done:

> *(b) in a manner or place which causes any nuisance to any person; or*
>
> *(d) creates an unintentional Persistent Organic Pollutant as provided for in the Stockholm Convention;*

Section 18 (2) of the Act describes an offence if a person "…*lights a fire, or causes a fire to be lit, in an approved landfill or waste management facility other than in an approved incinerator or in accordance with lawful directions given by an approved waste management operator*…". Current practices at Vaiata Landfill (burning of HCW at the landfill) may be inconsistent with this requirement.

The Ministry of Health is an "*approved waste management operator*" under the Act and has a number of associated responsibilities including:

- *the provision of appropriate waste treatment, storage and disposal facilities;*
- *the promotion of recycling and the implementation of measures to minimise wastes having particular adverse implications for human health and the environment;*

- *monitoring and reporting on the effects of wastes on human health and the environment;*
- *the preparation, adoption and enforcement of rules, operating manuals, codes of practice and standards relating to the…facilities provided by or under the control of the operator; and*
- *the formulation and implementation of policies, programs and initiatives aimed to reduce the generation of wastes.*

Institutional Arrangements

The World Bank-sponsored Samoa Health Sector Management Project (SHSMP) established a Health Care Waste Management (HCWM) Unit within the Ministry of Health (MoH). The main aim of the HCWM component under SHSMP was to establish an effective, efficient and sustainable health care waste management system in Samoa. The HCWM Unit is headed by the Principal Health Care Waste Officer who has the following responsibilities:

i. To conduct surveillance at all sources that generate health care waste in Samoa and provide technical advice accordingly.
ii. To conduct training and awareness programmes for health care personnel on waste segregation, containment, collections and disposal of HCW to be in line with National HCWM Plan, National HCWM Policy and WHO international standards for the management of health care waste.
iii. Conduct consultations and National Symposiums with sector partners to clarify the linkages of their roles and responsibilities to the National Health Sector Plan, HCWM Plan and National HCW Policy
iv. Ongoing monitoring visits to collect data for future planning of HCWM in Samoa and also to provide information and data for WHO website
v. Monitoring of HCWM System processes and the status of resources and equipment of the HCWM infrastructure.
vi. Improve stakeholder partnerships through participation in the preparation and implementation of some health sector projects for the improvement of the standard of living of Samoan people which is one of the major goals stipulated in the SDS.

3.2. Land Acquisition

3.2.1. Types of Land

There are three types of land ownership in Samoa, as defined by the *Land and Titles Act 1981*:

i. Freehold land: Freehold land is privately owned and constitutes approximately 12% of land area in Samoa and it can be transferred, leased, mortgaged or otherwise.

ii. Public land: Public land is owned by the Government of Samoa and constitutes approximately 7% of land in Samoa by area. Public land can be leased and, in certain circumstances, transferred.

iii. Customary land: Customary land is owned by the community in accordance with traditional custom and usage. Approximately 81% of land area in Samoa is customary land. Customary land may be leased but may not be otherwise sold or transferred. Both Upolu and Savaiʾi islands have predominantly customary land ownership, which extends to the high-water mark.

The main feature of land tenure in Samoa is the significant percentage of communally owned land by villages and aiga. These lands are awarded through historic claims and by family genealogy and connections. Village lands comprises of (i) village controlled customary land which is normally the undeveloped hinterland that is used by all members of the village for hunting, firewood collecting, etc and (ii) extended family land or land allocated to each extended family for their houses, crops etc. Village land is governed by the Village Fono. Extended family land is allocated by the Sa'o in consultation with members of his extended family.

3.2.2. Land Legislation

Key legislation in Samoa relevant to involuntary resettlement and land acquisition includes the *Taking of Land Act 1964*, *Alienation of* Customary *Land Act 1965* and the *Lands, Surveys and Environment Act 1989* (LSE Act), as well as the COEP 4 Land Acquisition and Compensation.

The LSE *Act* provides a process for the alienation[10] of Government land[11], land administration and other matters such as environmental protection, wildlife conservation and coastal zones. The Minister may approve purchase of any land for public purpose (s23) or lease of government land for up 20 years (s37). The Land Board administers government land.

The *Taking of Land Act 1964* establishes the taking of lands for "public purposes" (i.e. alienation of freehold or customary land) and the payment of appropriate compensation. Leases of public land and customary land are administered by MNRE and are based on standard terms[12]. The Minister of Lands is appointed by the *Alienation of Customary Land Act 1965* to act for and on behalf of all beneficial owners in signing a lease for registration. The Act establishes a procedure for the taking of land. For customary land, the Minister must inquire with the Samoan Land and Titles Court about any determinations about the matai who has the pule over that land; and also cause a survey and a plan to be prepared showing the land taken, publish a public notification and receive and deal with public submissions. Lands are to be taken by proclamation. Detailed provisions provide to whom, when and how compensation is to be granted for the taking of land. A number of ordinances exist allowing certain areas of land in Samoa to be taken for particular purposes such as land for quarantine, hydro electric and water supply, education etc, but there is no specific requirement for taking land for health or medical facilities[13].

Alienation of Customary Land Act 1965 allows for the leasing and licencing of customary land for certain purposes. The Act enables the Minister to grant a lease or licence of that customary land if the use is in accordance with Samoan custom, the desires and interests of the beneficial owners of the land or the public interest. Section 11 provides for the payment of rent or other consideration to the beneficial owners of the land or interest therein.

Land Titles Investigation Act 1966 establishes a Commission to investigate and determine titles and claims to certain lands. Its functions include the ability review and determine claims of ownership and to

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[10] Defined to include limited disposal by lease.
[11] Government land is a subclass of public land which is not set aside for any public purpose and includes land which has become the property of the Government as ownerless property.
[12] Ibid
[13] Review of Natural Resources and Environment related Legislation: Samoa, SPREP 2019

recommend to Cabinet any amendments of the law which may be necessary to give effect to the determination of the Commission on any such claim.

COEP 4: Land Acquisition and Compensation

Land acquisition shall be minimised. Where unavoidable, land acquisition shall be carried out in such a manner so as to minimise the adverse impacts on the affected people.

- Avoid, wherever possible, the need to relocate graves and/or burial sites. Where this cannot be avoided, such relocation shall be carried out in a manner that will minimise duress on the relatives of the deceased.
- Land acquisition and compensation issues should be clearly distinguished from labour and industrial related matters in following the procedures established in this COEP.
- Any acquisition of land shall be carried out in consultation with the people to be affected and in accordance with the project consultation strategy (as set out in COEP 3 – Consultation).

3.2.3. Customary Practices for Land Lease and Donation

Land donation for community purposes has a long history in Samoa. For generations, families have been leasing land to Government to construct public infrastructure such as health clinics, schools and churches. The need for such facilities is typically identified by the village council; once agreed, one of the village chiefs would also typically provide the land (they are generally the largest land holders or family with the most resources; those that cant afford to donate land are unlikely to be allowed by the chiefs to do so). Historically this did not involve a formal lease or any other form of documentation, but there is common acknowledgement of the original land owner which is informally passed down the generations; when a new matai takes over, they typically reconfirm their lease of the land to the village. There is a civic sense of pride within the family in relation to these donations; land is very rarely taken back as cultural beliefs mean that this would bring shame and bad luck on the family. Even if the land is no longer needed for its original use (eg clinic is moved to another location) the land would not be used by the owners and instead it would be left vacant until another community use is identified.

Annual fees are typically paid when land is donated but these are rarely significant. Lease arrangement are supposed to be documented (and is the responsibility of MNRE) but this process is sometimes overlooked.

3.2.4. Land Disputes

At the extended family level, common disputes are often about ownership of family land, disputes over boundaries between land lots allocated to various members of the same extended family, ownership of long term tree crops and their compensation especially where rights of use of such crops are passed on to different family members over time, and in some instances, other family members airing discontent over perceptions of unfair distribution of financial compensation from shared extended family lands. The matai of the extended family presides over the dispute resolution process - even if at times, he/she is a party to the dispute - in the presence of the complainant(s) and other members of the extended family. By traditional and customs, the matai also makes decisions in the best interest of members of

his/her family, in most cases reflecting a consensus of the family. This include decisions regarding distribution of financial compensation received for extended family land – land which is customarily owned by the extended family, but which by law is registered under the name of the matai. Because of this, the financial compensation is paid to the matai as a representative of his/her extended family, but with all or, depending on a number of factors, several serving members of the extended family entitled to a fair share of these monies.

3.3. Stakeholder Engagement

3.3.1. Samoa Codes of Environmental Practice (COEP)

Samoa's Code of Environmental Practice was formally issued by PUMA in April 2007 with the intent to "*define methods and or procedures to be followed by consultants, designers and contractors for the avoidance or mitigation of adverse environmental effects that may arise out of infrastructure development projects or maintenance works*". COEP 3: Consultation is of relevance to the Program which outlines the basic principles of consultation which should be applied to all development projects. These are as follows:

- At the earliest opportunity, a community should be advised of potential projects and how the community can receive information about, and become involved with, such projects.
- The intentions/objectives of the consultation should be clearly and openly stated.
- Stakeholders and affected communities should have timely and meaningful inputs to, and participation in, any phases or aspects of projects that directly affect them and all inputs should be treated equitably and with respect.
- Consultation should be a two-way process and there should be an exchange of information where both the proponent and the affected communities should put forward their points of view and to consider other perspectives.
- Consultation is best undertaken at early stages in and throughout the decision-making process or at least on going communication after a decision has been made.
- All parties do not have to agree to a proposal, however as a result of undertaking consultation at least points of difference will become clearer or more specific.

Project proponents must comply with the requirements of the Planning and Urban Management (Environment Impact Assessment) Regulations 2007 as they pertain to consultation during the environmental impact assessment process.

3.3.2. Grievance Processes

Village Process

The traditional mechanism for grievance redress requires the aggrieved party to take his/her grievance to his/her extended family *matai*, who will assume responsibility for a resolution on their behalf. The aggrieved party's *matai* may seek redress directly with the other party, and would do his/her utmost to

secure a satisfactory outcome. Failing this, the matai will then take the grievance to the Village Council of Chiefs, through the Pulenuu/Sui o le Malo. Usually this is discussed during the monthly meeting of the Council of Chiefs. The Council of Chiefs will decide on how best to address the grievance including conveying the concern to on behalf of the aggrieved party, or alternatively recommending that the aggrieved party seek a resolution directly with the responsible Government agency and failing that, seeking redress with the Court.

In the case of local disputes over customary land boundaries, and ownership and use of non-land assets, the Council's decisions are final with the disputing parties well aware of the risk of non-compliance. Such decisions of the Village Council are now recognized by the Courts by virtue of the *Village Fono Act 2000*.

Ministry of Health Complaints and Grievance Policy (2015)

The Ministry of Health has a Complaints and Grievance Policy in place, which provides a 'uniform mechanism for managing, facilitating and providing a fair and robust system for clients/patients complaints on health care and services provided by any health care provider'. The service is confidential. The Policy includes relevant objectives; describes the legislative framework and legal mandate for addressing grievances; outlines patient rights and roles and responsibilities for making, receiving and addressing grievances; describes the complaint handling process including classification as minor (easily resolved), moderate (requires investigation), major (significant issues or denial of rights) and acute (serious adverse event); resolution and feedback; and review/appeal mechanisms. The process is endorsed by cabinet.

3.3.3. Vulnerable groups

There is no definition of vulnerability in Samoa, though a range of studies have been conducted that identify particular groups. For example, the National Disaster Management Plan includes those with disabilities, households below the poverty line, some women headed households, children, the elderly and the unemployed[14]. The HNRI also includes add prisoners[15] to this list, while the UNDP Hardship and poverty Report (2014) also indicates that some geographic areas such as north west Upolo have higher rates of economic hardship that other areas, making these areas more vulnerable. The MOH also consider those with life long conditions that limit health outcomes as vulnerable, including those with HIV/AIDS, conditions such as autism or mental health issues.

Consideration of vulnerable groups within the Program will include ensuring access to activities for all; supporting the needs of vulnerable people in the case of land acquisition; ensuring consultation and disclosure activities take into account the needs of vulnerable groups; and adequate access to grievance mechanisms.

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[14] National Disaster Management Plan 2017-2019, MNRE https://www.mnre.gov.ws/wp-content/uploads/2017/08/Samoa-national-disaster-management-plan-2017-2020-final-web.pdf

[15] State of human Rights Report (2015) Office of the Ombudsman and National Human Rights http://www.palemene.ws/new/wp-content/uploads/05.Annual%20Reports/OOTO/OO-NHRI-State-of-Hman-Rights-Report-2015-Eng.pdf

4. Program Capacity and Performance Assessment

This section assesses the capacity of the Ministry of Health (and other Government of Samoa institutions) to effectively implement the environmental and social management system described in Chapter 2.

4.1. Health-Care Waste Management

Several reviews of the HCWM system in Samoa have been undertaken and the findings are summarised below.

The *National Health Care Waste Policy 2006* included a number of observations on the performance of the HCWM system and noted the following:

- Insufficient funds are allocated in the budget for the procurement and maintenance of healthcare waste resources like appropriate containers and bags to allow segregation of wastes at source, intermediate storage facilities, lack of safety equipment for waste handlers, lack of decontamination agents for bins and containers and lack of thermal treatment facilities for hazardous waste on the island of Savai'i;
- Poor management or HCW at all levels of the system for healthcare facilities. There is no strong co-ordination between the various departments as well as lack of management system that co-ordinates, monitors and proactively manages the process, and ensures that appropriate resources are obtained.

The Secretariat of the Pacific Regional Environment Programme (SPREP) commissioned a review of health care waste management in Samoa[16] under a broader Pacific Islands program to review management of healthcare waste and best-practice options for its disposal in Pacific Island Countries (PICs). The review assessed the waste management processes at TTM Hospital (Upolu) and MT II Hospital (Savai'i) from ward-level through to treatment and disposal and identified several key issues with the implementation of the HCWM system and made a number of recommendations for improvement.

The HCWM system was benchmarked against an international best practice minimum standards framework - *Industry code of practice for the management of biohazardous waste (including clinical and related) wastes* (Waste Management Association of Australia ,2014, Draft 7th edition) – and the overall conclusion was that the "…*basic elements of an effective healthcare waste management program were evident at both hospitals audited*". The review identified several issues to be addressed to allow the HCWM system to meet best practice summarised as follows:

- Segregation of wastes needs to be more effective so that only HCW is deposited into this stream and other wastes correctly into their respective management streams. Part of the reason for the poor segregation observed was the lack of uniform, colour coded bins along with supplementary education materials such as signage;

[16] ENVIRON Australia (2014) *Baseline Study for the Pacific Hazardous Waste Management Project - Healthcare Waste: Samoa*. July 2014

- At both major hospitals there were stockpiles of healthcare waste. At Upolu, this was pharmaceutical waste (i.e., materials that were out of use-by date), and on Savai'i this was a large quantity of sharps and other healthcare waste located in the clinical waste store;
- On Savai'i, only one of the two incinerators was operational. It was advised that the reason for one being non-operational was related to proactive maintenance.

The World Bank-financed Health Sector Management Program Support Project noted in the Implementation Completion Report (ICR) that: "...*there was insufficient attention to funding recurrent costs and maintenance to provide the needed inputs to improve HCWM. Funds were also not allocated for the replacement of incinerators due to depreciation. Second, segregation bins were found to be of insufficient quantity and quality while plastic bags were unavailable in sites visited. In general, staff continue to need further training surrounding the concept of proper waste segregation. While certain districts have implemented the recommendations surrounding HCWM, the ICR mission found that HCWM bins were accessible to the general population, unsecured, and mixed in terms of content, though the MOH has expressed commitment to resolving outstanding issues.*

4.2. Building Construction

The World Bank *Cyclone Evan Post-Disaster Needs Analysis* (PDNA) in 2014 made some observations on building compliance in Samoa:

> *In several key informant interviews practicing architects and engineers in Samoa mentioned that the building plans that are approved are not implemented. In other words, the actual building often varies considerably from what is contained in the original plan. Building inspections are not conducted diligently, and often standards are compromised. It is necessary to strengthen the oversight mechanism for the building industry and ensure that buildings constructed are properly engineered. There is a further need for overhaul of construction standards and practices in Samoa; the urgency of this need has been established by two successive disasters—the 2009 tsunami and Cyclone Evan.*

The Samoa National Building Code (NBC) [17] was introduced in 2017 and represents international best practice. This remedies the failures in construction standards, particularly in relation to disaster resilience, however the oversight regime for building compliance still requires improvement to ensure compliance with NBC requirements. Construction works under the Program will need to be certified by a competent building professional to ensure the NBC has been adhered to.

4.3. Institutional Organisation

4.3.1. Implementation Agency Experience with World Bank

The MOH has previously worked with the World Bank on the SWAP project (P086313) which was completed in 2016. The ICR report found a number of weaknesses in the project, including the division of the two implementing agencies (MOH and NHS) at the beginning of the project, 'which resulted in

[17] Ministry of Works, Transport and Infrastructure (MWTI) (2017) *National Building Code of Samoa*. 1 February 2017.

tensions, and ambiguity regarding roles and responsibilities at the beginning of the SWAp' (ICR report 2016). The overall safeguard rating for the project was deemed as moderately unsatisfactory due to poor waste management planning; poor waste segregation/separation, handling and implementation; and late assessment of environmental impacts (and no assessment of social risks). The separation of the two agencies is now being reversed and activities are underway to merge the MoH and NHS. Based on the experience of the SWAP project, and noting significant resources being applied to the merger, there is a risk that the administrative burden will be a barrier to managing environmental and social risks.

4.3.2. Existing Inter-agency Coordination

The MOH will need to work closely with a number of departments in the implementation of the Program; some existing relationships and institutional arrangements are already in place. For example, the implementation of the Program requires close working relationships between MOH and MNRE in relation to environmental and social assessments, health care waste, development permits and land lease registration. The two agencies have an existing working relationship based on the MOH portfolio; for the purposes of the Program, the focus on NCD issues is unlikely to cause significant changes in current working arrangements. Similarly, the MOH already works closely with Department of Women, Community and Social Development (DWCSD) in relation to coordination of activities with the VWC under the Pilot PEN Fa'a Samoa program. Consultation with stakeholders did not reveal any existing issues that would impede the expansion of the Program. [to be updated during appraisal consultation].

The MOH relationship with the Department of Education is in the early phase of development and don't yet benefit from strong institutional ties though initial consultation indicates that issues are not anticipated. In addition, the environmental and social issues associated with activities to be undertaken in schools is assessed to be very limited.

4.3.3. Institutional capacity

Ministry of Women, Community and Social Development: MWCSD's mission is to 'empower communities to lead their inclusive development for quality of life for all'. The Social Development division has a key role in coordinating, monitoring and supporting the Village Women's Committee (VWC). As such, they will work closely with the MOH in the early phase of the Program with a focus on the scale up of the PEN Fa'a Samoa component. The Department will be responsible for coordinating initial stakeholder engagement activities and providing support to the VWC throughout implementation. MOH will be responsible for choosing the villages who are to participate in the program, but MWCSD is responsible for formally inviting the VWC in these villages to participate.

[to be updated based on appraisal stage consultation]

Village Womens Committee: the VWC play will play a key role in the implementation of the PforR program, particularly in relation to the scale up of the PEN Fa'a Samoa program. The capacity of the individual VWC's to implement the program is unknown at this stage as the individual villages to be part of the expansion have yet to be identified. Their role is to inform all villagers of planned events and assist with the health screening (which is undertaken by the MOH). They will also play a role in targeting women and vulnerable households' participation in the program. As described in Section xxxx, the VWC have a long history of working on health and hygiene issues and were fundamental in delivering the

positive results from the PEN pilot. To build the capacity of the VWC to support the program, training and support will be provided by MOH. This will include information on the program, explanation of roles and responsibilities and guidance on how to encourage household participation. Additional support will be provided as necessary. Based on the results of the pilot program, the capacity of the VWC is considered appropriate for their role. [to be updated based on appraisal stage consultation]

Lessons learned from the PEN FA'a Samoa suggests that the program was a success: 79% of PEN vs. 69% of non-PEN hypertensives had a BP screen in the last 12 months and 6.4% of PEN vs. 6.7% of non-PEN hypertensives on treatment had evidence of reaching the BP target[18]. Overall the provision of training to the VWC has resulted in positive outcomes in relation to gender violence, disaster preparedness, school enrolment and vocational training opportunities, improved birth registration for children[19]. Despite some positive results however, there were also challenges. The programme currently relies on volunteers and may not be sustainable in the long term without provision of compensation, more formal training and supervision; the formal connection and communication channels between the Women's Committees and health facilities will need to be strengthened to ensure adequate referrals and follow-up[20]. Health care providers also support the program though highlighted the need for PEN to better align and coordinate with health facilities, and to provide additional investment in training, human resources equipment[21].

Ministry of Education: the MoE role in the Program will be focused on program activities designed to take place in schools. This includes awareness raising activities such as promotion of healthy eating, and BMI screening by the school nurse. Similar programs have been conducted in the past and consultation with senior education staff indicated that they did not anticipate any social or environmental issues associated with these activities. In term of capacity to deliver the program, the school nurse system is well established and with the provision of adequate guidelines, has the capacity to implement the measures identified. [to be updated based on appraisal stage consultation] Technical Capacity

Land Acquisition and Lease processes

The Program may evolve and include the need for additional building in future. The types of buildings or civil works would be limited to the construction of medical facilities involved in the diagnosis and treatment of NCD. Based on this potential, the ESSA has considered the gaps between the Bank's requirement on land acquisition and the issues addressed by the legislative regime in Samoa. The results are presented in Table xx.

Table xx: Assessment of gaps between World Bank and Samoa legislation on acquisition of land

World Bank Requirement	Samoa Legislation	Gap and proposed program response
Consultation and public notification: affected persons/communities are provided	COEP 3 Consultation includes the need for consultation but does not specify the consideration and	Land acquisition is limited to that required for construction of RDH and accommodation for housing.

[18] Cascade report pg 7 (update ref)
[19] Ministry of Women Community and Social Development 2013-2014, as reported in PHD THESIS [update reference from PhD]
[20] Samoa: WHO, 2018; Engaging people for Health promotion: case study on primary health care
[21] Cascade report pg 9 (update)

timely and relevant information and are informed about their options and rights. Consultation with customary land owners and affected persons is essential and may require their participation in a social assessment.	planning for the needs of vulnerable groups.	Consultation will be undertaken with all villages where health facilities are proposed and will include specific measures to engage with vulnerable groups.
Involuntary resettlement should be avoided wherever feasible or minimised exploring all viable alternative project designs.	Part IIA of the Taking of Land Act (1964), Section 24F states that "in exercise of the powers conferred by this part of the Act the Minister…. Shall do as little damage as possible…"	Preference will be for voluntary land donation and will be undertaken in line with traditional requirements and consultation with stakeholders.
Displaced persons should be meaningfully consulted and should have the opportunity to participate in planning and implementing resettlement programs.	Taking of Land Act (1964) section 13 stipulates public notification of the intention to take land and allows for objections to be lodged.	Consultation will be undertaken for all land acquisition.
Affected land and non land property is required to be compensated at full replacement cost.	Taking of Land Act (1964) Section 25 refers to the right for 'full and just' compensation for all affected peoples as the basis for determining the offered value of the affected land.	Compensation will be agreed in consultation with affected stakeholders in accordance with Samoa requirements.
Persons eligible for compensation and assistance include those with and without formal legal rights.	Eligible persons include only those with formal rights. However, MOH reports that Samoa social structure and decision making by the matai means that in practice, where community land is provided for projects in the public interest, it is unlikely that those who own affected structures are not compensated, or offered replacement site.	Likely to apply only to assets and informal use of land in Samoa is rare. Compensation for any informal land use will be agreed in consultation with affected stakeholders in accordance with Samoa requirements and traditions.
Displaced persons should be assisted in their efforts to improve their livelihood and standards of living;	The legislation allows for compensation but not for transitional assistance.	No physical resettlement is anticipated.
Particular attention must be paid to vulnerable groups among those displaced, especially those below the poverty line, landless, the elderly, women and children, indigenous peoples etc	Taking of Land Act (1964) Section 28 stipulates that a claim for compensation may be made by anyone and that persons not capable of making a claim due to age or impairment, arrangements will be put in place in the form of trustees or guardians.	

The Ministry of Health has demonstrated experience in seeking agreement to construct health care facilities, as is required by legislative process and department responsibilities. MNRE is responsible for managing the land transfers documentation. Consultation with stakeholders indicates that this process

of perceived as slow and in some case, documentation is not supplied. While this has limited implications in the health sector, it has the potential to cause delays in the construction of medical facilities. Consultation with MNRE indicates that while the laws and processes are generally adequate, additional staff resources are needed to meet their current work load. [expand based on outcomes of consultation with MNRE during appraisal]

5. Assessment of Program System

This section provides an assessment of the Program's environmental and social system against the relevant core principles and planning elements under OP 9.00 *Program for Results Financing*. In addition this section summarises and complements the findings of a review of the Samoan HCWM system - undertaken as part of a broader review of HCWM in the Western Pacific region - by World Health Organisation (2015) and considers the Samoan Program system in the context of WHO guidance on HCWM systems (WHO,2014).

5.1. Program for Results Financing Core Principles and Key Planning Elements

5.1.1. Core Principle 1: General Principle of Environmental and Social Management

Environmental and social management procedures and processes are designed to (a) promote environmental and social sustainability in Program design; (b) avoid, minimize or mitigate against adverse impacts; and (c) promote informed decision-making relating to a program's environmental and social effects.

Key Planning Element – Legal and Regulatory Framework

Program procedures operate within an adequate legal and regulatory framework to guide environmental and social impact assessments at the program level.

The legal and regulatory framework for environmental and social impact assessments in Samoa is consistent with this requirement. The *Planning and Urban Management Act 2004* (PUM Act) (Section 37) requires all development in Samoa to obtain development consent "*unless a sustainable management plan or regulations provide otherwise*". For the purposes of the program "*development*" would include establishment of new HCWM treatment facilities and construction of new health-care facilities. Under Section 42 of the PUM Act the Planning and Urban Management Agency (PUMA) "*may require an environmental impact assessment* [EIA] *in relation to the proposed development*". "*Environment*" as defined under the PUM Act includes:

(a) Ecosystems and their constituent parts, including people and communities; and

(b) All natural and physical resources; and

(c) Amenity values; and

(d) The social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) of this definition or which are affected by those matters;

In determining whether an EIA is required PUMA must consider if the development and its associated activities could give rise to adverse impacts:

- on people, an existing activity, building or land;
- on a place, species or habitat of environmental (including social and cultural) importance;
- in conjunction with natural hazard risks;
- on or in the coastal zone;

- or in any waterway or aquifer;
- arising from the discharge of any contaminant or environmental pollutant;
- associated with land instability, coastal inundation, or flooding;
- adverse impacts on the landscape or amenity of an area;
- adverse impacts on public infrastructure;
- adverse impacts on traffic or transportation

In terms of social impacts an objective of the PUM Act is "*To enable land use and development planning and policy to be integrated with*...*social* [and] *economic*...*policies at national, regional, district, village and site specific levels*" and PUMA must consider "*potential social and economic effects*" in determining a development application.

Key Planning Element – Environmental and Social Assessment Good Practice

Incorporate recognized elements of environmental and social assessment good practice, including:

(a) early screening of potential effects;

The LSE Act provides the basis for environmental protection and management in Samoa. It adopts an approach designed to avoid adversely affecting the beneficial uses of the environment from pollution, and the improper management of wastes. The beneficial uses of the environment which are to be protected throughout Samoa include the life, health, and well-being of humans; the life, health and well-being of other forms of life, including the protection of ecosystems and biodiversity; and local amenity and aesthetic enjoyment.

(b) consideration of strategic, technical, and site alternatives (including the "no action" alternative);

Under the PUM Regulations a PEAR must contain "*an indication of possible alternatives to mitigate any identified adverse environmental impacts*" and a Comprehensive EIA "…*shall review the environmental impacts of the development proposal and any practical alternatives to the proposal*" and "*review and evaluate all reasonable alternatives, including locations and methods and the alternative of no action*".

(c) explicit assessment of potential induced, cumulative, and trans-boundary impacts;

The PUM Regulations require that an EIA consider the environmental consequences of a development proposal including a "*review of direct and indirect environmental effects, their significance, and risks*" and "*consideration of any potential cumulative environmental impacts that might arise in conjunction with other activities in the location*".

(d) identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized;

The PUM Regulations requires a PEAR to contain "*an indication of measures that the proponent intends to take to mitigate or avoid identified adverse environmental impacts*". A Comprehensive EIA requires identification of significant environmental impacts that cannot be avoided and "…*appropriate mitigation measures to minimise any significant environmental impacts arising from the preferred alternative*" and "*an assessment of social impacts on the local population and its uses of the land*" the latter being particularly important under the customary land regime in Samoa.

(f) responsiveness and accountability through stakeholder consultation, timely dissemination of program information, and responsive grievance redress measures.

Section 116 of the *Lands Surveys and Environment Act 1989* details the requirements for preparation of Management Plans and the *Health Care Waste Management Plan* (MoH, 2013) has been prepared accordingly. Under Section 116 there are several provisions related to consultation and information provision including requirements to:

- issue a public notice advising of the preparation of a draft management plan and the areas affected;
- specify where the draft management plan is available for inspection and how interested persons may make representations in connection with the plan;

The Land Board shall give due consideration to any representations made in connection with the plan and may alter or vary the proposed management plan accordingly.

Section 43 of the PUM Act requires that all development applications are "*publicly notified in accordance with the regulations*" and that adjoining landowners and others who may be detrimentally affected by the development are also given written notice of the application. Section 44 of the PUM Act requires that the Planning and Urban Management Agency "…*consult with every public authority considered by the Agency to be a relevant authority for applications of that kind*." Where an environmental impact assessment is required to accompany a development application this must be made available to the public and other stakeholders for review and comment.

Formal avenues for grievance redress are available for development applications under the PUM Act including the right to lodge an objection (Section 45) and appeal provisions to the Planning Tribunal (Section 54).

Under Samoan law, engagement with stakeholder is required prior to the development of physical works. Existing legislative processes are generally in line with Bank's requirements in relation to timing and approach which enables people to comment on, and contribute to, decision making. MNRE have demonstrated experience in ensuring legal consultation requirements and met are that stakeholder views are considered during decision making.

The legislative process and requirements for consultation also reflect cultural norms, which includes involving villagers in local decision making. Both formal and informal consultation takes places through the village chiefs and information is routinely shared as part of the decision making process. This approach is not without limitations however: women cannot participate fully in village councils because they rarely hold matai titles or are not recognised by male leaders[22]. While this doesn't mean their views are not considered or represented, consultation activities within the Program need to go beyond the traditional approach.

In practice, the Program will involve a range of methods of sharing information with specific groups eg youth in school program, and women through involvement of VWC. The role of the VWC will also play a role in mitigating potential gender implications for engagement, as they are responsible for undertaking

[22] Pa'Usisi Finau, Silia (2017), Women's leadership in traditional villages in Samoa: the cultural, social and religious challenges.

consultation and providing information on PEN Fa'a program, including to vulnerable groups. They are a fundamental part of village life and are well respected within the community. Their formal role will be to support MOH but in practice, their presence and knowledge will be useful in terms of sharing information and encouraging participation in Program activities. While individual VWC may have no experience with the PEN program, there is considerable experience in MOH in rolling out the program, and in VWC committees working across their communities.

MOH have experience in undertaking stakeholder engagement activities and sharing information. They also have a strong history of coordinating with MWCSD and through them, the VWC. Adequate staff and resources are in place to support planned activities throughout the life of the Program. They have had limited contact with Ministry of Education to date, but initial consultation indicates that issues are unlikely.

5.1.2. Core Principle 2 – Natural Habitats and Physical Cultural Resources

As noted in Chapter 2 this Core Principle is not relevant to the Program activities.

5.1.3. Core Principle 3 – Public and Worker Safety

Environmental and social management procedures and processes are designed to protect public and worker safety against the potential risks associated with (a) construction and/or operations of facilities or other operational practices developed or promoted under the program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

Key Planning Elements

Promotes community, individual, and worker safety through the safe design, construction, operation, and maintenance of physical infrastructure, or in carrying out activities that may be dependent on such infrastructure with safety measures, inspections, or remedial works incorporated as needed.

The National Building Code 2017 (NBC) includes extensive building design provisions for maintaining community, individual and worker safety. These include the following:

- *Section B - Stability*: to ensure that design, construction and operation of buildings, facilities, sitework, site servicing and site activities "*safeguard people from injury and loss of amenity caused by structural failure, structural behaviour, and the consequences of disasters*";
- *Section C – Fire Protection*: the design, construction, alteration, operation, maintenance and demolition of BUILDINGS, FACILITIES, SITEWORK and SITE SERVICING must safeguard people from an unacceptable risk of injury or illness caused by fire and smoke, or when evacuating a BUILDING during a fire;
- *Section E – Hazardous Substances*: The design, construction, alteration, operation, maintenance and demolition of BUILDINGS, FACILITIES, and SITEWORK must: (a) safeguard people from injury related to storage, dispensing, use and handling of HAZARDOUS SUBSTANCES and processes (b) minimise the risk of unwanted releases, fires or explosions of HAZARDOUS SUBSTANCES during normal operations and in the event of a catastrophe. The use of HAZARDOUS SUBSTANCES and

processes must be regulated through approved documentation, plans, procedures, audits, engineering controls, and the like, to safeguard people and property from unforeseen injury, illness or other ill consequences.

The Samoan Government's *National Occupational Safety and Health Framework* (MCIL, 2017) is administered by the Ministry of Commerce Industry and Labour (MCIL) and aims to:

> "...*improve OSH at the national level within both the public and private sectors*...*enhance governance, ownership and capacity building in OSH so that businesses and public sector and civil society organisations can make optimal use of their human and financial resources*"

by apportioning responsibility for OSH improvement to employers, employees and Government:

> "*Employers are required to regularly engage with and educate employees on OSH requirements and to ensure compliance with all relevant legislation. Employees are required to adhere to safe and healthy work practices. Government's role is to revise and supplement legislation, as necessary, provide information and advice, oversee training requirement, and ensure compliance with OSH legislation by workplace inspections and, where necessary, by enforcement.*"

The Ministry of Health is nominated as a responsible organisation in the Framework which recognises that certain workers in the health sector (eg. cleaners, laboratory technicians) are engaged in high risk work with the potential for exposure to toxic waste, sharps, biochemicals and blood samples.

The relevant legislation supporting the OSH Framework is the *Occupational Safety and Health Act 2002* which makes "…*provision for the safety, health and welfare of people at work in Samoa*". The Act embodies general duties of care for employers to employees:

> *An employer must take all reasonably practicable steps to protect the safety, health and welfare at work of employees and to provide and maintain a safe and healthy working environment including substances, systems of work and any building or public or private area in which work takes place.*

Under Samoa's *National Disaster Management Plan 2017-2020* (NDMP) (Government of Samoa, 2017) the objective of the health sector is "*To provide comprehensive emergency management, enabling the health sector to mitigate, prepare for, respond to, and recover from emergencies and disasters*." MoH is the health sector lead under the NDMP and has designated responsibilities for avoiding, minimizing and mitigating natural hazard risks including:

- Promoting hazard resilient construction of new health facilities.
- Implementing disaster preparedness plans for health facilities.
- Strengthening the institutional capacity of the health sector in preparedness and risk reduction
- Identifying health facilities that are located in hazard-prone areas, analyse their internal and external vulnerability during emergencies, and increase the hazard resilience of such facilities.
- Preparing and implementing hospital disaster preparedness plan for such facilities to be able to deal with emergency situations.
- Developing health care personnel proficient in disaster response
- Establishing a system of readiness and list of personnel to be mobilized when warning is received or impact of disaster reported.

- Promoting and protecting the health and well-being of disaster-affected communities, paying particular attention to the specific needs of vulnerable groups

The Ministry of Health has developed an *Emergency Continuity Response Plan* to detail response mechanisms in the event of natural disasters, such as cyclones, tsunami and earthquakes.

5.1.4. Core Principle 4 - Land Acquisition

Samoa has legislation in place which addresses many of the issues associated with land acquisition. Regulatory processes require the minimisation of land acquisition, require consultation with affected individuals and communities, and require the payment of fair and compensation. Assistance is also provided for those who may be unable to negotiate adequate compensation outcomes. Cultural norms also provide for processes and social safety nets for those who without land titles or for those who are considered vulnerable. Strong community networks ensure that community benefits are shared and provide for whole community needs. Voluntary land donation processes exist and are commonly used for building of public infrastructure such as school and health clinics, but donations are not expected of those who have insufficient land to meet family needs.

In practice, the actual need for land acquisition is limited. MOH have identified the likely sites for the construction of RDH and both have previously been used for other health facilities and lease agreements are already in place (and have recently been confirmed by the current landowner). No new land access is required for planned activities though it remains possible under the Program. There are a number factors which would minimise any impacts associated with land acquisition, including the following:

- The construction of residential housing for doctors is likely to be relatively small scale and where possible, will also be built on the site of RDH. MOH claims that land is available on existing hospital sites and as such no additional land acquisition is required. Site visits undertaken in the preparation of the ESSA indicate that medical facilities are well signposted and demarcated, and no informal land use on health facilities was seen or noted by stakeholders;

- Cultural practices are such that households have provided land for health and education facilities for generations and despite the lack of formal lease in some situations, land provided for such purposes is always never 'taken back' by those who are the formal owners. To do so would incur great shame on the family.

- If additional land is required, MOH reports that communities are generally supportive of providing land for health facilities due to improved access and are therefore willing to provide land. Only community land will be used for hospital sites and lease arrangements will be voluntarily negotiated. Customary processes for determining sites is further discussed in Section x.

- The village social structure is designed to consider the needs and rights of the whole community and as such makes provisions for those who are considered vulnerable. In the context of land acquisition, this may include those without formal land rights.

Despite these mitigating factors and the low likelihood that land will be required, a number of gaps remain between Bank requirements and Samoa legislation. Program actions are therefore required to demonstrate these risks are adequately managed in the event that land acquisition or new land access is

necessary. These are listed in Section 5 below and include the need for: i) brief assessment of impacts for sites proposed to be leased and exclusion of sites where a primary residence are affected or land acquisition would result in significant impacts; ii) provision for enhanced consultation with landowners; and iii) establishment of a grievance process.

5.1.5. Core Principle 5 - Vulnerable Groups

While these is no universal definition of vulnerability in Samoa, the MOH has extensive experience planning and implementing programs that incorporate the needs of all groups within the community. Health care facilities are generally designed to accommodate the needs of all users, and the health care service provides support across the spectrum of health issues, socio economic status, age and gender.

Both the land acquisition and grievances processes accommodate the needs of vulnerable groups. There are specific provisions in the Taking of Land Act to ensure those who are not capable of making a claim are assisted in accessing compensation; and community structure and social norms means that all community members have access to traditional grievance mechanisms.

The PfroR Program is designed to improve access and treatment of NCDs for all groups; there are no exclusions for any groups and in fact, the Program will incorporate proactive measures to encourage participation by children, women and the elderly. Vulnerable groups will benefit from all Program activities but particularly in relation to health screening: under Component 2 the VWC will be tasked with encouraging vulnerable groups to participate in PEN fa'a Samoa and all health facilities will integrate routine screening for all patients. Screening will bring benefits and allow all individuals, including those who are considered vulnerable, to access information and advice on how to manage their condition. The overall Program is assessed as having positive health outcomes for vulnerable groups.

6. Inputs to the Program Action Plan

Action Description	DLI#	Responsible Party	Frequency	Due date	Completion Measurement
Procure and commission waste management/ treatment infrastructure as recommended by HCWM review.		MoH		By Dec 31, 2020	Waste management/treatment infrastructure commissioned and operational, as evidenced by satisfactory audit findings
Implementation Plan for HCWM Policy and HCWM Strategy is developed/ updated and progressive implemented		MoH	Recurrent		End of Year 1:Implementation Plan for HCWM Strategy prepared for both Upolu and Savai'i and submitted to the Bank for review Year 3-5: Measures to address any issues identified in the audit report are formulated and implemented as proven by the audit report in the following year
HCWM human resources: (a) Ensure that MoH's new Waste Management Officer (WMO) and other relevant staff upgrade their qualifications/experience in environmental health by receiving appropriate training as part of HPAC-approved Annual Capacity Building Plan; (b) Appropriate arrangements for WMO to receive initial field support are to be provided and budgeted for.		MoH	Recurrent	Field support to be complet ed by end of year 1	MoH has at least _ staff, including the WMO, with a certified level of qualifications in environmental health sufficient to perform their responsibilities and an initial field support arranged. Report in the semi-annual progress report the HCWM/environment health training received including number of MoH staff completing training (online, face to face).

Action Description	DLI#	Responsible Party	Frequency	Due date	Completion Measurement
Management of environmental and social impacts: (1)implementation of grievance process for PforR activites (2) consideration of vulnerable groups					Submission to the World Bank a) Evidence of implementation of grievance process for PforR activities, including an annual report on the number of grievances received, timeliness of resolution; b) Evidence that all capacity building and training for the PEN Fa'a Samoa program include consideration of vulnerable groups.
Land access- For any proposed site where land leases is required which has not previously been in the control of MOH: (a) screening for impacts must be undertaken including brief assessment of physical and livelihood impacts. If significant impacts are identified, or primary residence must be relocated, the site shall be excluded from the PforR program; (b) consultation with the land owner is required and must be documented; (c) Evidence of compensation arrangements including assessment of value, payment of compensation, consultation with affected land/asset owners.		MOH (with MNRC)	Recurrent	Report where there is any land acquisiti on	Land access information (if any) to be reported in the semi-annual program progress report, including lease agreement letters signed by land owners, compensation agreement and payment, records of impact screening. The World Bank will review the records and may conduct on-site review during the implementation support mission

Action Description	DLI#	Responsible Party	Frequency	Due date	Completion Measurement
Construction activities for any works at existing health facilities or hospitals, prepare a construction plan to consider enhanced mitigation measures given the sensitive nature of receptors. For example, screen for risks to patients, particularly those vulnerable to noise, air quality, disruption, reduced access etc. Ensure appropriate mitigation measures are in place prior to the start of construction and are monitored throughout building activities		MOH, construction contractor	As necessary		Approval of the Plan by MOH and records of supervision by MoH. The records will be reviewed by the Bank specialists during the implementation support mission

7. Environmental and Social Risk Ratings

Based on the ESSA findings and draft mitigation and improvement measures the combined environmental and social risk is **moderate**.

The environmental risks associated with the Program are considered **moderate** and relate to the HCWM regime and the potential hazards to worker and community health and safety. This is largely an administrative issue that can be remedied through capacity development, development of implementation plans and management intervention.

The social risks associated with the Program are low. Overall the Program is likely to result in substantial social benefits through improved access and treatment of NCDs. Despite some actions to address consultation, vulnerable groups and land access, the impacts of activities are limited and manageable with the implementation of standard mitigation measures.

8. Inputs to the Program Implementation Support Plan

(Inputs to be developed in conjunction with counterpart prior to appraisal)