Developing a framework and methodology to carbon sinks from the forestry sector in Samoa

Deliverable 4.5.-4.7- Final paper for REDD + policy framework for Samoa

NATIONAL INSTITUTE OF GREEN TECHNOLOGY

MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT

Establishing REDD+ Policy Framework Of Samoa

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CLIMATE TECHNOLOGY CENTRE & NETWORK

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1. Introduction

1.1. Background

It is estimated that anthropogenic deforestation and forest degradation and its GHG emissions accounted for just under a quarter of the total, of which the mitigation potential lies in land and livestock management for reducing emissions[1]. Mitigation opportunities include supply-side and demand-side measures which are to increase sequestration of carbon stocks and to reduce losses and wastes of wood products. The nature of the Agriculture, Forestry, and Other Land Use (AFOLU) sector faces many barriers to implementing an array of mitigation options since it is a mix of complicated pillars of financing, poverty, institutional, ecological, technological development, diffusion, and transfer barriers. If these are articulated through national REDD+ readiness or equivalent strategies, this could in turn, imply opportunities for countries to be prepared and to meet their target of NDCs by incorporating plans as part of their wider development landscape.

REDD+ is enshrined in Article 5 of the Paris Agreement, which expressly encourages countries to implement and support approaches to REDD+. This short script yet impactful Article is the only Article in the Paris Agreement that is specifically dedicated to the forestry sector. It highly recognizes the political significance of forests and other ecosystems in addressing climate change. It also emphasizes the importance of "adequate and predictable financial resources, including for results-based payments (…)" for the implementation of policy approaches and incentives that aims to facilitate reducing emissions from deforestation and forest degradation where most needed[2].

At the Glasgow COP26, the most significant announcements were made for forests centered throughout the summit. The pledges were announced through 'Glasgow Leader's Declaration on Forests and Land Use', where 137 countries collectively made commitments to bring an end to forest loss and land degradation by 2030 (Box 1). This pledge was followed by a series of announcements in relation to forests, including commitments to increase funding from countries and foundations, and at the same time from companies and investors pledged to support a transition to more sustainable land use in their financial portfolios and throughout their supply chains[3].

[1] IPCC, 2018. Agriculture, Forestry and Other Land use. https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter11.pdf

[2] UNFCCC(2021), Nationally determined contributions under the Paris Agreement: Synthesis report by the secretariat, https://unfccc.int/sites/default/files/resource/cma2021_08E.pdf

[3] Taylor et al., 2021.What COP26 means for forests and the climate https://www.wri.org/insights/what-cop26-means-forests-climate

Box 1. Glasgow COP26 Declaration of Forest and Land Use

- **Conserve** forests and other terrestrial ecosystems and **accelerate** their restoration;
- **Facilitate trade and development policies**, internationally and domestically, that promote sustainable development, and sustainable commodity production and consumption, that work to countries' mutual benefit, and that do not drive deforestation and land degradation;
- **Reduce vulnerability, build resilience and enhance rural livelihoods**, including through empowering communities, the development of profitable, sustainable agriculture, and recognition of the multiple values of forests, **while recognizing the rights of Indigenous Peoples, as well as local communities,** in accordance with relevant national legislation and international instruments, as appropriate;
- **Implement** and, if necessary, **redesign agricultural policies and programs** to **incentivize** sustainable agriculture, promote food security, and benefit the environment;
- **Reaffirm international financial commitments and significantly increase finance and investment** from a wide variety of public and private sources, while also improving its effectiveness and accessibility, to enable sustainable agriculture, sustainable forest management, forest conservation and restoration, and support for Indigenous Peoples and local communities;
- **Facilitate the alignment of financial flows** with international goals to reverse forest loss and degradation, while ensuring robust policies and systems are in place to accelerate the transition to an economy that is resilient and advances forest, sustainable land use, biodiversity and climate goals.

The promises on forests reached agreement at COP 26 include funding pledges, new ways of doing business, and raised commitment of financial institutions. The pledged amount dedicated to forests totaled USD 19.2 billion, of which USD 7.2 is expected to be channeled through private financing[4]. This will be entailed by active engagement of the private sector associated with agricultural commodities products and trade sourcing, mainly of soy, palm oil, cocoa, and cattle.

The change of business landscape throughout the value chain can only be done by private companies that constitute a large part of a major global market share. The core part of the Glasgow Declaration is not just to halt deforestation and forest degradation, but it is to bring an end to it by 'reversing' the business-as-usual practice. This transition is viable through wider participation of the private sector that comprises the global value chain and its business ecosystem. Discourse and agreement made on the Glasgow Climate Pact and with rules and guidelines adopted for the implementation of Articles 6.2 and 6.4 of the

[4] Taylor et al., 2021.What COP26 means for forests and the climate https://www.wri.org/insights/what-cop26-means-forests-climate

Paris Agreement, the LULUCF sector and REDD+ mechanism are expected to be scaled up to meet the elevated ambitions declared in the updated Nationally Determined Contributions (NDCs). And the lofty goals are only achievable by countries and companies being fully accountable to the action they committed to.

Although it is unclear where REDD+ is headed, there are hopes and discouragement for fulfilling its ambitious goals. At this juncture, REDD+ initiatives need to move beyond readiness to take actions to reduce forest carbon emissions by creating empirical reference points that exemplify the successes and failures of REDD+ delivered both by reduced emissions and co-benefits for local livelihoods and environmental services. It is an undebatable consensus that the value of forests is multifaceted. It has long been recognized that forests bring various benefits which are becoming more important than keeping the climate stable by storing carbon and with its cooling effect. The forests are not only key to mitigation, but they go beyond their role by increasing the resilience of livelihoods of the most vulnerable people and their communities, enhancing human well-being by improving food and water security, and also enhancing the resilience of the ecosystem and its services with relevant interventions.

Considering the Sustainable Development Goals (SDGs) together with the Paris Agreement, the development paradigm has shifted, which puts more emphasis on 'inclusiveness'; REDD+ is a way of tacking comprehensive approach in bringing changes and putting that into action which requires combining interventions at different levels and perspectives. Taking this into account, the REDD+ project, although it focuses on forests and activities related to forestry, should be approached in a broader concept where development needs and the need for forest conservation coexist.

It is, therefore, necessary to be reminded that REDD+ should be understood as one of the ingredients for promoting a paradigm shift that facilitates low-emissions and climate-resilient development at the scale that is required to tackle climate change. A paradigm shift is context-specific in nature, which implies that countries should redefine and reconsider their development pathway while incorporating human livelihood and social well-being. It is a way of rebalancing development needs while preserving and respecting fundamental rights of livelihoods and ecosystems.

1.2. Global framework for REDD+

Reducing Emission from Deforestation and Forest Degradation (REDD+) is an international initiative developed in response to the estimation that land-use changes, including deforestation, which currently produce approximately 3.3 billion tons of carbon emissions each year[5]. REDD+ is context-specific and complex in nature. Reversing and removing the driving factors for deforestation and forest degradation is often closely associated with the socio-economic environment and requires a comprehensive understanding of the context. The objective of REDD+ is to encourage a paradigm shift from forest loss and degradation by addressing the drivers of deforestation – notably in agriculture in many countries. Doing so requires implementing a cross-sectoral or landscape approach that enables one to look at the problem within a 'system' and to identify an entry point for intervention in a sequential method.

The landscape approach, interchangeable with 'Ecosystem-based approaches,' recognizes the full range of interactions between human and natural ecosystems. This method breaks down these interactions into manageable parts, articulating respective issues and specifying ecosystem services in isolation[6]. It helps understand how drivers of deforestation are interlinked with social, environmental, and economic dimensions, engaging diverse stakeholders (Figure 1). This approach is applied to examine issues more comprehensively, considering potential interventions across different sectors in project design to reduce activities associated with deforestation and forest degradation.

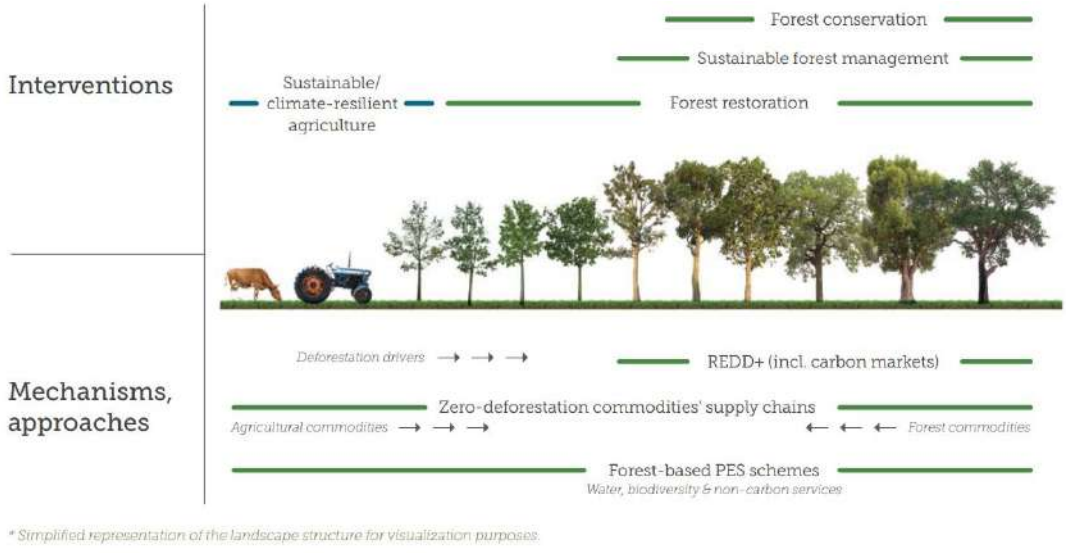

Figure 1. Key areas/components and land use sector following the landscape approach

5 Denier, Korwin, Leggett & MacFarquhar, 2014.

6 GCF, 2022 Ecosystems and Ecosystem Services, gcf-ecosystems-and-ecosystem-services-sectoral-guide-consultation-version-1_0.pdf

The framework for implementing REDD+ is guided by non-binding decisions of the COP to the UNFCCC, focusing on voluntary operational requirements for eligibility for results-based payments. The legal framework for REDD+ is primarily established under the United Nations Framework Convention on Climate Change (UNFCCC), and REDD+ was formalized in international climate agreements starting with the Bali Action Plan (2007), Copenhagen Accord (2009), Cancun Agreements (2010), and the Warsaw Framework (2013). These agreements set the stage for the development and implementation of REDD+ activities.

The REDD+ process comprises three key phases: the Readiness Phase, where national strategies, action plans, and capacity for implementation are developed; the Demonstration Phase, where these plans are tested through results-based activities, necessitating potential adjustments and further capacity building; and the Implementation Phase, where full execution of results-based actions occurs at the national level, with comprehensive measurement, reporting, and verification. Access to results-based payments is granted upon completion of necessary reporting and assessment processes under the UNFCCC, collectively guiding countries in mitigating climate change through sustainable forest management.

'REDD+ Readiness[7]' refers to the preparatory measures a country takes to build the necessary capacities for demonstrating and implementing REDD+ and meeting the requirements outlined by the UNFCCC. This phase is essential in establishing the foundational elements for effective REDD+ implementation. Support during REDD+ readiness is often provided to developing countries through both bilateral and multilateral initiatives, encompassing financial and technical assistance across various areas. These areas include governance, stakeholder engagement, the development of a REDD+ national strategy/action plan, the design of a safeguards information system, and the establishment of a forest emission reference level and a national forest monitoring system. REDD+ readiness serves as a crucial step in ensuring that countries are well-equipped and compliant with the necessary prerequisites before advancing to the demonstration and implementation phases of REDD+.

REDD+ has four pillars envisioned in the Cancun decisions and further elaborated by the Warsaw Framework. Decision 1/CP.16 highlights four main pillars of national REDD+ arrangements, all of which Samoa will need to address in order to proceed with REDD+. The following figure 2 illustrates these four pillars.

[7] UNFCCC Website. https://unfccc.int/topics/land-use/workstreams/redd/what-is-redd?gad_source=1&gclid=Cj0KCQjwwae1BhC_ARIsAK4JfrxNKldZr5SPJKvzg_HhWj3U9_DFs7aorxoNdW2NkUGr34D5Y-cjn5IaArOKEALw_wcB

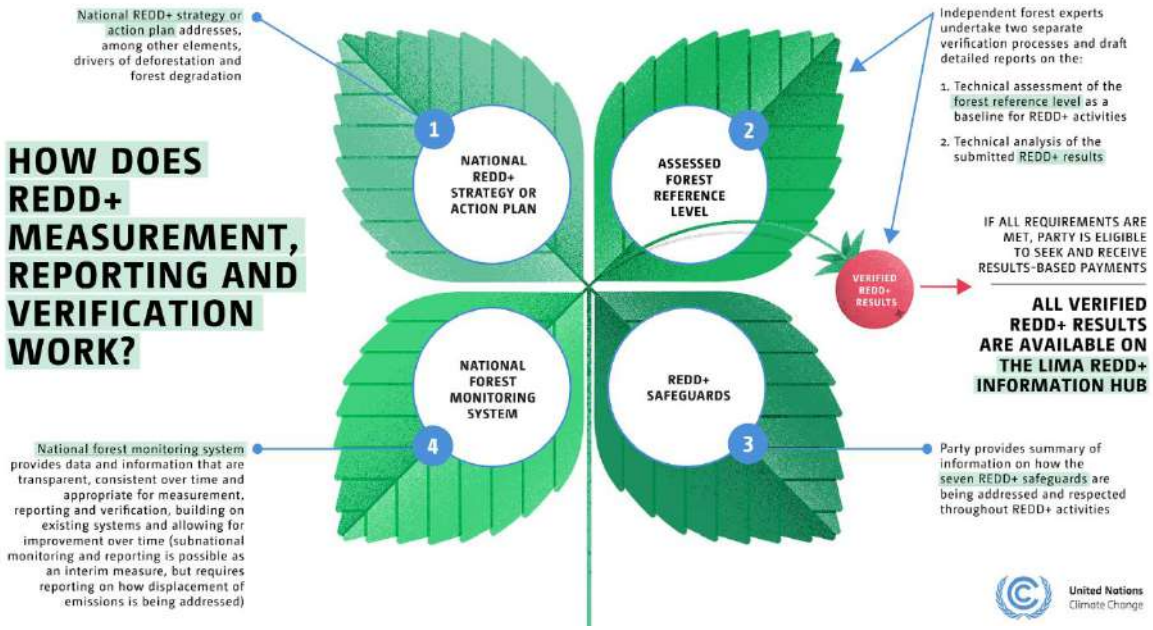

Figure 2. Four elements of REDD+ (Source: UNFCCC, 2013)

2. Understanding Policy frameworks for REDD+ related to Samoa

2.1. Background

Drafting of Samoa's policy framework for REDD+ is being complemented by the Center for Climate Technology and Network (CTCN) technical support in partnership with National Institute of Green Technology of Korea and Ministry of Natural Resources and Environment of Samoa.

The technical support aims to assist with a variety of governance and monitoring elements of REDD+ readiness and has the following four core elements: 1) an institutional and context analysis, which will provide the basis for multi-stakeholder engagement towards the design of a national REDD+ strategy, as well as policies and safeguard systems. The analysis in this policy framework is designed to function as a preliminary review of the international requirement for achieving REDD+ readiness and to provide the Government of Samoa, to the Ministry of Natural Resources and Environment with a understanding of: (1) the international legal requirement for achieving REDD+ readiness and qualifying for results-based payments, (2) the areas of domestic policy and law that will impact the ability of Samoa to effectively implement REDD+, (3) where there are gaps, overlaps, or even contradictions within existing policies and legislation that could negatively impact the success of REDD+; and (4) options for addressing the identified challenges and opportunities toward REDD+ implementation. To the extent possible, this assessment has incorporated the findings of these other studies.

2.2. Forest resources in Samoa

The forest serves as an economic and cultural resource, offering social benefits to local communities by providing food, wood, and medicine. It also delivers environmental advantages, such as habitats for wildlife, water resource regulation, soil protection, and climate moderation. Additionally, forests present commercial opportunities like eco-tourism, bio-prospecting, and carbon trading. In Samoa, forests hold spiritual significance and are a fundamental part of the *faaSamoa* (Samoan way of life).

Deforestation has led to a rise in environmental problems, including loss of biodiversity, cultural integrity, and carbon sinks, as well as increased soil erosion, watershed degradation, and coral reef siltation and degradation. Currently, the total forested land area is 161,670 hectares[8], making up 60 percent of the total land area[9].

The combined impact of uncontrolled exploitation and cyclone damage has depleted Samoa's forest resources, increasing social, economic, and ecological vulnerability to climate change (Figure 3). Despite this, Samoa receives significantly less international support and research than other forest-rich countries. Additionally, there is a limited level of land use information and forest carbon estimation systems necessary for effective national-level forest management and conservation.

Figure 3. Landslides caused by land degradation in Samoa (Source: MNRE)

[8] FAO. Global Forest Resource Assessment 2020, Samoa.
https://openknowledge.fao.org/server/api/core/bitstreams/8b3e41da-742e-42d5-8203-580069cc84b5/content

[9] Policy statement on Forestry. Ministry of Natural Resources & Environment.
https://pafpnet.spc.int/attachments/article/196/Policy%20Statement%20on%20Forestry%20Samoa.pdf

Sustainable forest management is imperative for Samoa due to its crucial role in addressing significant sources of carbon emissions. According to Samoa's Nationally Determined Contributions (NDC), it aims to reduce greenhouse gas (GHG) emissions in the Agriculture, Forestry, and Other Land Use (AFOLU) sector by 26 percent in 2030 compared to 2007 levels, or by 35.2 Gg CO_2 equivalent compared to the updated reference year. Beyond carbon sequestration, Samoa's forests provide essential ecosystem services, including water regulation, soil protection, and the sustenance of non-timber forest products such as food and fiber. The commitment to increasing total forest cover by 2 percent by 2030, as outlined in Samoa's NDC adaptation target, reflects the nation's dedication to balancing environmental, social, and economic considerations in its forest management strategies.

2.3. Components of International and Domestic Framework for REDD+ and Samoa's Readiness

2.3.1. International framework for REDD+ and Context in Samoa

2.3.1.1. National REDD+ Action Plan

The National REDD+ Strategy or Action Plan serves as a roadmap for implementing REDD+ activities, tailored to the specific national context. By identifying and addressing the root causes of deforestation, the strategy aims to create a sustainable pathway for forest conservation and carbon stock enhancement. The involvement of multiple stakeholders ensures that the strategies are inclusive and consider the socio-economic dimensions of forest management. Although there are no specific descriptions for what constitutes a national strategy or an action plan, UNFCCC Decision 1/CP.16 requests parties to address the following: identification of drivers, its strategic options and policies that incorporates relevant stakeholders, particularly involving local communities and indigenous peoples.

Recent national initiatives, including the Samoa Climate Change Policy and the Agriculture and Fisheries Sector Plan, underscore Samoa's commitment to climate resilience and sustainability. Key goals are to boost mangrove and forest coverage, advance agroforestry, and achieve 100% renewable energy by 2025. The Strategy for the Development of Samoa and its Pathway align with global sustainability targets, reflecting a shift from economic growth to sustainable development. Carbon stock enhancement is integrated into REDD+ initiatives, which should evolve into a comprehensive national action plan.

2.3.1.2. Measurement, Reporting and Verification (MRV)

To qualify for result-based financing countries must measure, report, and verify anthropogenic forest-related emissions and removals, forest carbon stocks, and changes in these stocks and forest areas. They are required to use the latest guidelines from the International Panel on Climate Change (IPCC) for estimating these factors. The data must be transparent, consistent over time, and part of a national forest monitoring system (NFMS), with established forest reference emission levels or forest reference levels. This data should be submitted in the biennial update report. Additionally, to be eligible for payments, the data must be verified by a team of technical experts to ensure its accuracy, consistency, completeness, and transparency.

Forest reference emission level (FREL) and Forest Reference Level (FRL)

FREL and FRL are crucial for assessing the impact of REDD+ activities on emissions reductions. By providing a clear and transparent benchmark, these reference levels allow countries to demonstrate their progress and effectiveness in mitigating climate change through forest conservation efforts. The ability to adjust for national circumstances ensures that the reference levels are fair and achievable, fostering greater participation and commitment to REDD+ initiatives.

National Forest Monitoring System (NFMS)

The NFMS is essential for tracking the performance of REDD+ activities and ensuring that emission reductions and removals are accurately measured. By combining remote sensing technology with ground-based data collection, countries can develop a robust and reliable system for monitoring their forests. This system not only supports national reporting requirements but also builds transparency and credibility in the global REDD+ mechanism.

- In 2023, the Government of Samoa, through the Ministry of Natural Resources and Environment, worked on developing Samoa's National Forest Monitoring System (NFMS) and Forest Reference Level (FRL) with support from the Food and Agriculture Organization of the United Nations (FAO). [10]
- In February 2023, Samoa held its inaugural consultative meeting and inception workshop to introduce the development of the National Forest Monitoring System (NFMS) and Forest Reference Emission Level/Forest Reference Level (FREL/FRL) for REDD+ to key national stakeholders. The primary goal was to ensure that government representatives, NGOs, and private sector participants understood the technical and financial benefits of establishing an NFMS and FREL/FRL, such as accessing REDD+ finance, fostering sustainable community

[10] National REDD+ Forest Reference Emission Level / Forest Reference Level. Government of Samoa. 2023.12.

development, and protecting native forests. The meeting provided stakeholders with international guidance for designing REDD+ FREL/FRLs and outlined a roadmap for their development. Technical assistance and training from FAO experts bolstered national capacity for Land Use Change and Forestry Assessment (LULUCF), with two training sessions in February and March 2023, followed by three LULUCF assessments in April, May, and August 2023, each including QA/QC evaluations.

- In October 2023, additional consultative meetings and working sessions were held, involving technical teams from the government and other national stakeholders. These sessions aimed to present a summary of the LULUCF assessment, provide updates on the NFMS web portal and FREL/FRL, validate the LULUCF assessment with a focus on future improvements for FREL/FRL submission, and discuss ongoing progress towards the planned submission to the UNFCCC in 2023/2024. The working sessions specifically addressed the internal setup of Samoa's NFMS web portal.
- Samoa has previously carried out National Forest Inventories (NFI) in 2003 and 2013. As the country gears up for its next 10-year NFI phase, the forthcoming Forest Reference Emission Level/Forest Reference Level (FREL/FRL) report represents a significant milestone. This report is particularly crucial in the context of the Land-Use and Land Use Change and Forestry (LULUCF) assessment. The 2013 NFI, supported by the Japanese International Cooperation System (JICS) through the Forest Preservation Programme (FPP), calculated biomass carbon for different forest land use categories. However, due to discrepancies between Samoa's NFI values and regional data, emission factor tables will rely on global data (IPCC default values adjusted for Samoa).
- Reaffirming its commitment to the Paris Agreement, Samoa submitted its Second Nationally Determined Contribution (NDC) to the UNFCCC on July 30, 2021. The NDC focuses on mitigation in energy, waste, and AFOLU sectors, with a goal to cut greenhouse gas emissions by 26% by 2030 compared to 2007 levels. The development of Samoa's Forest Reference Emission Level/Forest Reference Level (FREL/FRL) aligns with its first Biennial Update Report (BUR) for 2023 and will be essential for fulfilling NDC reporting requirements.
- In response to global climate change mitigation, the Government of Japan (GOJ) has partnered with the Government of Samoa (GOS) to enhance forest monitoring and promote technology transfer to reduce deforestation and forest degradation. Key outputs, like the 2013 National Forest Inventory, established a reliable baseline for monitoring and prepared Samoa for participation in the REDD+ scheme.

2.3.1.3. Safeguards

The SIS is designed to ensure that REDD+ activities contribute positively to environmental and social outcomes. By systematically reporting on safeguards, countries demonstrate their commitment to sustainable and equitable forest management practices. This system helps to build trust among stakeholders, including local communities and international donors, by showing that REDD+ activities are implemented responsibly. The Cancun Safeguards outlines REDD+ safeguards[11]:

a. REDD+ initiatives support and align with the goals of national forest programs and relevant international conventions and agreements.
b. Establish transparent and effective national forest governance structures, respecting national legislation and sovereignty.
c. Recognize and uphold the knowledge and rights of indigenous peoples and local communities.
d. Ensure the full and effective participation of relevant stakeholders, particularly indigenous peoples and local communities.
e. Ensure actions are consistent with the conservation of natural forests and biodiversity, preventing the conversion of natural forests. Instead, use REDD+ initiatives to promote the protection and conservation of natural forests and their ecosystem services, while enhancing other social and environmental benefits.
f. Implement actions to address the risk of reversals to ensure permanence.
g. Implement actions to reduce the displacement of emissions, known as 'leakage'.

2.3.1.4. Drivers of deforestation and forest degradation

In the context of the REDD+ framework, identifying and addressing the drivers of deforestation and forest degradation is crucial for the successful implementation of strategies aimed at reducing emissions from these activities. The drivers can be broadly categorized into direct (proximate) and indirect (underlying) causes.

Globally, deforestation is driven primarily by agricultural conversion, forest product and natural resource extraction, and infrastructure development. Forest degradation results largely from the overuse of forest resources. Both deforestation and degradation are exacerbated by perverse incentives in land and natural resource regulations. Governments should review existing laws and policies to identify internal drivers of deforestation before enacting legal reforms aimed at forest conservation. New policies should address both direct and indirect drivers by removing perverse incentives and introducing "positive drivers" that promote conservation and sustainable use of ecosystem services[12].

[11] REDD+ Web Platform. https://redd.unfccc.int/fact-sheets/safeguards.html

[12] Costenbader, John (Ed.) 2009. Legal Frameworks for REDD. Design and Implementation at the National Level.

In recent years, Samoa, like many other regions worldwide, has been grappling with the escalating challenges and problems associated with deforestation and forest degradation. The remaining natural forests of Samoa, vital pockets of biodiversity and ecological significance, face a formidable threat as the specter of deforestation and forest degradation looms large over the archipelago. Covering a mere 37.2 percent of the country's total land area, these indigenous forests, primarily nestled in steep, remote, and inaccessible regions, serve as crucial conservation and protected areas. However, the alarming statistics reveal a troubling trend; during the 1990s, Samoa witnessed a deforestation rate of approximately 3,000 hectares annually, translating to a staggering 2.1 percent per year – a figure that resonates prominently on the global scale.

Direct drivers of deforestation in Samoa encompass immediate human activities impacting forest cover, such as agriculture expansion, infrastructure extension, and wood extraction. These actions are interlinked with economic growth derived from exporting primary commodities and meeting the increasing global demand for timber and agricultural products, constituting fundamental reasons for deforestation. Agricultural production, driven by both domestic urban growth and exports, also emerges as a primary driver, exacerbated by population growth, density, and the rising demand for agricultural land. Government-led large-scale developments targeting forested areas, previously reserved for their rich biodiversity, often involve the bulldozing of roads, providing convenient access for loggers to exploit these ecosystems.

The factors contribute to deforestation and forest degradation in Samoa can be categorized into[13]:

a. **Poverty and Weak Legislation:** Poverty, outdated laws, and weak monitoring systems are significant contributors. The privatization of public goods, such as native rainforests, and shifting values favoring immediate financial gains from logging over long-term forest benefits exacerbate the issue.

In Samoa, traditional land tenure systems govern over 80% of the country's land resources, regulating access, use, and ownership rights. These systems are complex, with intricate rules for communal land and resource management that have been extensively studied. However, the communal ownership structure can lead to poorly regulated exploitation, such as overfishing in village marine resources, due to the open access regimes often associated with these systems.

IUCN, Gland, Switzerland. xiv + 200 pp.

[13] World Rainforest Movement Bulletin 67. Samoa: Workshop on the Underlying Causes of Deforestation and Forest Degradation. Samoa: Workshop on the Underlying Causes of Deforestation and Forest Degradation | World Rainforest Movement (wrm.org.uy)

b. **Large-Scale Government Developments:** Government projects, like the development of the new town of Salelologa in Savaii, which involves clearing large areas of virgin forest for infrastructure without environmental impact assessments, further contribute to forest loss. Roads built for such developments facilitate logging and forest exploitation.

In Salelologa, a new town on Savaii Island, the government claimed nearly 3,000 acres of virgin forest for development without an environmental impact assessment. The "National Workshop on the Underlying Causes of Deforestation and Forest Degradation in Samoa" in 2002 highlighted various indirect drivers of forest degradation, including poverty, outdated legislation, poor monitoring, privatization of public goods like native rainforests, and unsustainable consumption patterns. A key concern was the focus on immediate financial gains from forest harvesting over long-term resource value.

c. **Financial Institutions and Development Organizations:** Banks and international organizations often exacerbate deforestation by not applying the same environmental standards abroad as they do in their home countries. Inadequate consultation with local communities and resource owners, coupled with a focus on profit over environmental stewardship, undermines conservation efforts.

d. **Trade and Globalization Pressures:** Pressure to boost national income and foreign exchange drives deforestation. Globalization has led to the outsourcing of development responsibilities to corporations focused on profit rather than genuine partnerships in sustainable development. Industrialized nations also exploit climate change mechanisms, such as the Clean Development Mechanism, to offset emissions through large-scale reforestation projects that may not always align with local ecological or social needs.

Future drivers of deforestation and forest degradation in Samoa are likely to diverge from historical patterns due to ongoing global changes. Factors such as urbanization, shifts toward meat-based diets, long-term population trends, increasing prosperity in developing countries, expanding regional markets for key commodities, and climate change adaptation will reshape the pressures on forests. Population growth and economic development will create trade-offs between land uses, while international trade, changing regional dynamics, and rising demand for natural resources will drive deforestation. Additionally, the construction of access roads for land clearing is linked to the spread of invasive species into native forests.

2.3.2. Domestic Frameworks for REDD+ and Context in Samoa

Domestic governance frameworks include the policies, laws, regulations, and process required for REDD+ implementation and enforcement. These frameworks establish the guidelines for REDD+ by setting goals, creating mandates, and providing the necessary institutional support for execution and enforcement. Well-designed REDD+ legal frameworks can offer additional benefits across various sectors by promoting effective, accountable, and equitable natural resource management and encouraging sustainable ecosystem-based strategies. While REDD+ is still in its early stages in many countries, there is increasing experience in identifying governance challenges and opportunities associated with its implementation.

Establishing a domestic framework for REDD+ is essential for aligning with international standards, creating a clear legal environment, ensuring effective monitoring, addressing governance challenges, safeguarding social and environmental integrity, attracting funding, promoting sustainable development, enhancing policy coherence, building institutional capacity, and generating co-benefits. This comprehensive approach is critical for the successful and sustainable implementation of REDD+ activities.

2.3.2.1. Forest sector policy and institution

Forestry Management Act 2011[14]

The Forestry Management Act 2011, comprising 89 sections across 13 Parts, aims to ensure the efficient and long-term stewardship of Samoa's forestry assets and associated objectives. Administered by the Ministry of Natural Resources and Environment, this legislation assigns primary responsibility to the Ministry for overseeing Samoa's forestry resources. It grants exclusive authority to issue permits for forestry resource utilization, and directs the formulation of policies and execution of initiatives to foster the growth of forest plantations and agro-forestry across Samoa.

Section 29 of this Act also mandates the establishment of National Forestry Planning and Sustainable Development. It requires the Ministry to develop a National Forest Plan aimed at ensuring the sustainable management of Samoa's forestry resources. This plan must align with the national forest policy and other relevant governmental policies. It is to be based on an officially certified National Forest Inventory, which includes detailed information on various aspects such as remaining native forestry resources, planted tree species in plantations and farm forests, designated protected and production forest areas, national parks and reserves, forestry resources in water catchment zones, and any other specifics as stipulated by the Minister or outlined in regulations under this Act.

[14] Forestry management Act 2011. http://www.paclii.org/ws/legis/consol_act/fma2011222/

Other forestry related Acts, policies and strategies[15]

The Government of Samoa is dedicated to achieving sustainable forest resource management, as outlined in the Strategy for the Development of Samoa (SDS) 2012 – 2016. This strategy strongly supports forest conservation, restoration, and the development of forest resources through woodlots and agroforestry, particularly within its environmental priority focus. The State of Environment Report (SOE) 2013 emphasizes the importance of conserving and safeguarding habitats, including upland cloud forests, lowland forests, and coastal forests. This objective is further underscored in the National Environment and Development Sector Plan (NESP) 2013 – 2016, particularly under Key Environment Sector Objective (KESO), which prioritizes the implementation of strategies aimed at protecting critical environmental resources such as forests, land, water, and fisheries. There are also other forestry related Acts, policies, strategies and regulations (Table 1).

Ministry of Natural Resources and Environment (MNRE)

The Forestry Board of the Ministry of Natural Resources and Environment includes representatives from government ministries, agencies, and communities. This board is established to fulfill Samoa's commitments under international conventions related to forestry resource management. It is empowered to undertake any necessary functions and exercise authority as mandated by these conventions and Samoan law, ensuring the sustainable management of forest resources in Samoa[16]. This involves the Forestry Division (FD) collaborating closely with the Ministry of Agriculture & Fisheries (MAF) and other relevant agencies to enforce forestry legislation and policy, particularly regarding tree planting within agricultural systems. MNRE oversee approval of utilization agreements and ensure adherence to logging regulations. Additionally, MNRE, in conjunction with MAF, gather forest resource data, conduct research, and support the growth of agroforestry on farms and commercial plantations. They also offer guidance on forest conservation, protected areas, and national parks.

[15] Voluntary National Report to the 11th Session of the United Nations Forum on Forests. https://www.un.org/esa/forests/wp-content/uploads/bsk-pdf-manager/207_SAMOA.PDF

[16] Voluntary National Report to the 11th Session of the United Nations Forum on Forests. https://www.un.org/esa/forests/wp-content/uploads/bsk-pdf-manager/207_SAMOA.PDF

Table 1. Key Environmental Legislation of Samoa[17]

Category	Relevant Law and Regulations
Environmental Law, Planning and Assessment	Alienation of Customary Land Act 1965 Alienation of Freehold Land Act 1972 Customary Land Advisory Commission Act 2013 Land and Titles Act 1981 Land for Foreign Purposes Act 1993 Land Surveys and Environment Act 1989 Land Titles Investigation Act 1966 Land Titles Registration Act 2008 National Parks and Reserves Act 1974 Planning and Urban Management Act 2004 Property Law Act 1952 Taking of Land Act 1964
Biodiversity Conservation and Natural Resources	Agriculture and Fisheries Ordinance 1959 Animals Ordinance 1960 Canine Control Act 2013 Cocoa Disease Ordinance 1961 Fisheries Management Act 2016 Forestry Management Act 2011 Land Surveys and Environment Act 1989 Marine Pollution Prevention Act 2008 Marine Pollution Prevention Act 2008 Maritime Zones Act 1999 Petroleum Act 1984 Quarantine (Biosecurity) Act 2005 Samoa Water Authority Act 2003 Water Resources Management Act 2008
Waste Management and Pollution	Land, Surveys and Environment Act 1989 Waste Management Act 2010
Others	Chemical Weapons Act 2010 Disaster and Emergency Management Act 2007 Fire and Emergency Services Act 2007

[17] Review of Natural Resource and Environment related Legislation. https://samoa-data.sprep.org/system/files/sprep-legislative-review-samoa.pdf

Other ministries and institutions relevant to forestry in Samoa

MNRE cooperate with other national government agencies such as Ministry of Agriculture and Fisheries (MAF), Ministry of Finance (MOF), Ministry of Commerce, Industry & Labour (MCIL), Ministry of Women, Community & Social Development, Ministry of Foreign Affairs & Trade (MFAT), Ministry of Education, Sport & Culture, Samoa Tourism Authority, Office of the Attorney General, Samoa Water Authority, Electric Power Authority, Ministry of Works, Transport & Infrastructure, National University of Samoa (NUS), and Research & Development Institute of Samoa to implement the various conservation, production and industry development strategies contained in the policy. The forest industries will be supported by the MOF, MCIL and MFAT to strengthen the enabling environment for the sustainable development of forests and, in the case of research agencies, to explore value added forest products and services.

- Ministry of Natural Resources and Environment Water Board
- Ministry of Natural Resources and Environment Land Board
- Minister of Natural Environment and Resources Advisory Committee
- Environment Task Team for the National Environment Sector Plan
- Project Steering Committees as well as Technical and Advisory Committees for
- Forestry Projects including ICCRIFS, SATFP, FPP and FPAM.
- District Committees with Forestry Projects e.g. ICCRIFS Project and the Taiala
- Programme with Matuaileoo Environment Trust Incorporated (METI) which is a Non Governmental Organisation - NGO

2.3.2.2. Land, forest and carbon ownership

The allocation of communally owned resources plays a significant role in the loss and fragmentation of forest habitats and environmental degradation. In Samoa, where over 80% of land resources are governed by traditional land tenure systems, access to environmental resources is closely tied to these rules. The regulations determining access, use, and ownership rights for communal lands and resources can be complex and have been the focus of various research studies and scholarly investigations[18].

In many cases, communal ownership of resources leads to open access regimes where exploitation is poorly regulated. This is evident in village inshore marine resources, where unregulated fishing results in overfishing and resource depletion. A similar lack of control is seen in the allocation of use rights to village customary lands, where traditional rules allow for acquiring rights through land usage. This system, combined with modern land-clearing technologies, promotes land profiteering and indiscriminate deforestation. The environmental impact of these traditional practices is severe, leading to habitat loss,

[18] Samoa's National Biodiversity Strategy and Action Plan (NBSAP), 2015-2020.

fragmentation due to deforestation, and diminished vegetation cover in sensitive areas like catchments and erosion-prone regions. Recent studies also link access roads, often built for land clearing, to the spread of invasive weeds into native forests.

For Samoa, 80% of lands are owned by Samoan people or Indigenous communities; hence, most forest land is owned by Samoan People. However, the government has taken the initiative under the Taking of the Lands Act 1964 to purchase land for public interest in regard to water catchment areas to ensure a safe and quality supply of water and also to ensure the protection and conservation of ecological services, including forest resources.

The main issue is the land ownership problem faced by any introduced project in Samoa. The report mentions the land tenure system, whereby the Matais (high chiefs) completely own the land. Every negotiation must go through the right channel; otherwise, the project will not be accepted.

The majority of the land is owned by families or is under customary ownership; thus, most land use decisions lie in the hands of the customary landowners. The land tenure title system also unfortunately encourages the further clearance of forest to give claim and superior title to the person who clears the land. Consequently, national land use planning is difficult under the land tenure system.

2.3.2.3. Engagement of Stakeholders

REDD+ has the potential to deliver benefits to indigenous peoples and forest relevant communities, and it is important to identify stakeholders that have a stake, interest and right in the forest and those that are expected to be affected either positively or negatively by REDD+ activities[19].

In Samoa, The Forestry Division has created a Communication and Outreach strategy to enhance stakeholder engagement in Sustainable Forestry Management. In 2014, the Division participated in the National Science Fair with the theme "Living with Climate Change," focusing on Sustainable Forestry Management. Additionally, the Division supports ongoing student research and projects related to forestry management in Samoa[20].

[19] UNDP, 2015. Draft Guidelines on Stakeholder Engagement in REDD+ Readiness. https://www.undp.org/publications/draft-guidelines-stakeholder-engagement-redd-readiness

[20] Voluntary National Report to the 11th Session of the United Nations Forum on Forests. https://www.un.org/esa/forests/wp-content/uploads/bsk-pdf-manager/207_SAMOA.PDF

2.3.2.4. Benefit Sharing Mechanism and Financing

The benefit-sharing mechanism in REDD+ aims to ensure equitable distribution of both financial and non-financial benefits to all stakeholders, particularly local communities and indigenous peoples. Effective implementation requires a robust legal and institutional framework, inclusive stakeholder engagement, transparency, accountability, equitable distribution, capacity building, and support for sustainable livelihoods. These elements are essential for ensuring that REDD+ initiatives are not only environmentally effective but also socially just and beneficial for all involved.

The remaining issue concerns financial resources. To ensure the success of previous initiatives and their implementation, Samoa requires sufficient funding and support from donor agencies. Securing these resources is crucial for implementing and sustaining initiatives effectively.

Domestic public funding is allocated through the national budget to the Ministry of Natural Resources and Environment, specifically for the Forestry Division. This funding supports the sustainable management of Samoa's forest resources.

The government of Samoa has established systems and mechanisms for payments for ecosystem services (PES) related to forest conservation. It has a track record of providing USD 3,700,000 for watershed protection and water supply.

1) Malololelei Catholic Church Land: USD 3.5 million was compensated under the Taking of the Lands Act 1964 for water catchment protection and conservation, ensuring a safe water supply and forest preservation.
2) Tapatapao Community Land: USD 200,000 was compensated under the same act for water catchment protection and conservation, ensuring a reliable water supply and forest preservation.

3. Summary of Findings and Recommendations

The central focus of this assessment is to evaluate whether Samoa's existing policy, legal, and institutional frameworks meet the REDD+ readiness standards established by the Warsaw Framework of the UNFCCC. It also aims to assess whether these frameworks are capable of effectively supporting and facilitating REDD+ implementation in an efficient and equitable manner.

This document identifies several gaps in the current frameworks that must be addressed at all levels to achieve the necessary level of readiness. One potential solution for addressing these gaps comprehensively is to develop a dedicated REDD+ policy or legislation. However, there are concerns about whether there is sufficient political will to invest the time and resources required for this process. Acknowledging REDD+ as a priority for climate mitigation could be contentious even with the existing Forestry Management Act, which represents the highest level of forestry regulation in Samoa. To ensure the successful implementation of REDD+ policies or regulations, it is critical that the Ministry of Natural Resources and Environment demonstrate a strong commitment.

Consequently, the recommendations in this preliminary review focus on providing descriptions for core components that constitute REDD+ framework and context of Samoa under each category to draw on its previous and ongoing progress and initiatives toward sustainable forest management. The next step should involve a rigorous assessment and amendment of the existing legislation or drafting new regulations, but these changes would all support multiple forest and land management policy objectives, including but not exclusive to REDD+.

In the following, it presents an overview of the options for addressing the priority issues raised throughout the overall review of existing policy and initiatives. Broadly speaking, the options for action across these issues can be broken into four categories: (1) legal or regulatory reforms; (2) institutional strengthening; (3) capacity development; and (4) further assessment.

1 Establish a Legal Framework for facilitating the National REDD+ Action Plan

Given Samoa's recent national initiatives, such as the Samoa Climate Change Policy and the Agriculture and Fisheries Sector Plan, which emphasize climate resilience, sustainability, and the ambitious goals of increasing mangrove and forest coverage, advancing agroforestry, and achieving 100% renewable energy by 2025, it is crucial to enhance REDD+ implementation through stronger governance.

Establishing a legal framework for stakeholder engagement is essential to bridge the current gap. This framework should mandate the active involvement of all relevant stakeholders, including indigenous peoples, local communities, and other key actors, in the REDD+ process. By integrating these efforts into a comprehensive national action plan, Samoa can ensure that its REDD+ initiatives align with the broader goals of carbon stock enhancement and sustainable development, as outlined in the Strategy for the Development of Samoa and its Pathway.

2 Strengthen Samoa's Forest Monitoring and MRV Capabilities for REDD+ and Climate Commitments

The Government of Samoa, in collaboration with the Food and Agriculture Organization of the United Nations (FAO), made significant strides in developing the National Forest Monitoring System (NFMS) and Forest Reference Level (FRL) to strengthen its REDD+ initiatives. The year saw the inception of key activities, including a consultative meeting in February to introduce the NFMS and FREL/FRL to national stakeholders, with an emphasis on accessing REDD+ finance, promoting sustainable development, and protecting native forests. The FAO provided technical assistance and training, helping Samoa to enhance its Land Use Change and Forestry Assessment (LULUCF) capabilities. This was followed by a series of assessments and quality assurance evaluations throughout the year. In October, additional consultations and working sessions were held to validate these assessments and to advance the development of the NFMS web portal, crucial steps towards Samoa's planned submission to the UNFCCC in 2023/2024.

As Samoa prepares for its next 10-year National Forest Inventory (NFI) phase, the upcoming FREL/FRL report is a critical milestone, particularly in light of the discrepancies found in the 2013 NFI. Samoa's commitment to the Paris Agreement, reflected in its Second Nationally Determined Contribution (NDC) submitted in 2021, aims to cut greenhouse gas emissions by 26% by 2030. The development of the FREL/FRL aligns with these goals and supports the nation's first Biennial Update Report (BUR) for 2023. In response to global climate change, Samoa has partnered with Japan to improve forest monitoring and reduce deforestation, setting a strong foundation for participation in the REDD+ scheme.

To address the lack of capacity and clear mandates for Measurement, Reporting, and Verification (MRV), it is recommended that Pacific Island countries and territories, including Samoa, implement a comprehensive roadmap for a national forest monitoring system. This system should align with LULUCF guidance and IPCC guidelines, expanding existing monitoring systems to meet MRV standards. Countries should develop their MRV systems based on currently available data, committing to incremental improvements over time, and aim for Tier 2 level reporting. Where resources are limited, a combination of tiers may be employed. Additionally, efforts should be made to enhance MRV capabilities through demonstration activities at pilot sites.

3 Develop Integrated Safeguards Policies for REDD+ and Biodiversity Conservation in Samoa

The UNFCCC has emphasized the importance of safeguarding biological diversity and ecosystem services, aligning with the Convention on Biological Diversity's goals for conservation and restoration. However, in Samoa, there is a gap in understanding the specific social and environmental risks associated with REDD+ activities. This is coupled with the absence of an integrated safeguards policy, poses challenges to the effective implementation of REDD+ initiatives.

To address these challenges, it is recommended that Samoa develop a national safeguards policy that identifies and mitigates potential risks. Existing policies and measures should be strengthened, and efforts should be made to harmonize safeguards across various sectors to ensure comprehensive protection of biodiversity and ecosystem services. The Forestry Department of MNRE could lead a national effort to identify the environmental and social risks of proposed REDD+ activities, potentially utilizing tools like the Benefits and Risks Tool. Existing safeguards, such as Environmental Impact Assessments (EIA) and Strategic Environmental Assessments (SEA), should be reviewed and enhanced to incorporate social risks.

4 Improve Forest and Land Tenure Clarity in Samoa

In Samoa, traditional land tenure systems, which govern over 80% of the country's land, play a crucial role in regulating land access, use, and ownership. These systems, deeply rooted in communal management, can sometimes lead to issues such as overexploitation of resources, including overfishing in marine areas due to open access. While most forest land is owned by Samoan people or Indigenous communities, the government has utilized the Taking of the Lands Act 1964 to purchase land for public interest, particularly for protecting water catchment areas and conserving ecological services. However, land ownership complexities and customary ownership issues present challenges for implementing new projects, as all negotiations must align with the traditional authority of the Matais (high chiefs).

To address these challenges, it is recommended that the Forestry Act and related Land Bills be amended to clarify forest tenure and its relationship with land tenure reforms. This includes specifying who holds the rights to benefit from different types of forest tenure, defining access and management rights for community forest areas, and establishing clear regulations for co-management and participatory management arrangements. The amendments should also outline how these rights can be verified, enforced, and protected, including the necessary evidence and dispute resolution mechanisms. Furthermore, the role of traditional authorities in allocating and overseeing forest tenure on customary estates and in the formation and oversight of village resource management committees should be clearly defined. Additionally, the legal definition of carbon rights should be clarified to determine their separation from land and forest tenure and to address implications for benefit-sharing under REDD+.

5 Enhance Stakeholder Engagement and Benefit Distribution

In Samoa, the Forestry Division has developed a Communication and Outreach strategy to boost stakeholder engagement in Sustainable Forestry Management. This includes participating in national events like the 2014 National Science Fair and supporting student research in forestry. Public funding from the national budget helps sustain these efforts, and the government has also established payment systems for ecosystem services, including significant investments in watershed protection and water supply.

To enhance REDD+ implementation, Samoa should integrate all relevant expertise into REDD+ program design, operation, and governance. This involves engaging key stakeholders such as government agencies, local communities, and civil society organizations, with a particular emphasis on involving women and addressing the socio-economic needs of various groups. Regulations should mandate stakeholder participation in policy-making and decision-making processes, establish clear guidelines for community consultation, and ensure transparency in benefit distribution. Moreover, effective land and carbon tenure arrangements must be clarified, and existing laws can be adapted to guide carbon asset management. Benefit-sharing systems should be equitable and inclusive, with a focus on gender equality and sharing best practices across regions.

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