



**PROJECT IDENTIFICATION FORM (PIF)**

**PROJECT TYPE: Full-sized Project**

**TYPE OF TRUST FUND: GEF Trust Fund**

**PART I: PROJECT IDENTIFICATION**

|   |  |                        |                  |
|---|--|------------------------|------------------|
| Project Title:  | Strengthening multi-sectoral management of critical landscapes   |                        |                  |
| Country(ies):   | Samoa  | GEF Project ID:        | 4550             |
| GEF Agency(ies):  | UNDP   | GEF Agency Project ID: | 4536             |
| Other Executing Partner(s):                                       | Ministry of Natural Resources and Environment (MNRE), Ministry of Agriculture and Fisheries (MAF), Ministry of Women, Community and Social Development (MWCSD) | Submission Date:       | 25 May 2011      |
|   |  | Resubmission date:     | July 2011        |
|   |  | Resubmission date:     | 31 August 2011   |
|   |  | Resubmission date:     | 2 September 2011 |
| GEF Focal Area (s):   | Land Degradation   | Project Duration:      | 60 months        |
| Name of parent program:<br>For SFM/REDD+ <input type="checkbox"/> | N/A  | Agency Fee:            | 473,636          |

**A. FOCAL AREA STRATEGY FRAMEWORK:**

| Focal Area Objectives   | FA Outcomes  | FA Outputs   | Trust Fund | Indicative financing from GEF TF, (\$) | Indicative co-financing, (\$) |
|---|--|--|------------|--|-------------------------------|
| LD 3: Reduce pressures on natural resources from competing land uses in the wider landscape | Outcome 3.1: Enhanced enabling environments between sectors in support of SLM.                                       | Government agencies collaborating on SLM initiatives across sectors and at multiple scales | GEF        | 500,000                                | 1,730,243                     |
|   | Outcome 3.2: Good management practices in the wider landscape Demonstrated and adopted by relevant economic sectors. | Information on SLM (wider landscape) technology and good practices disseminated            | GEF        | 4,000,000                              | 9,887,665                     |
| Project Management Costs  |  |  |            | 236,363                                | 1,500,000                     |
| Total Project costs   |  |  |            | 4,736,363                              | 13,117,908                    |

**B. PROJECT FRAMEWORK**

**Project Objective:** To build national and local capacities and incentives in Samoa for effective integrated landscape management to reduce land degradation, to promote conservation, and to reduce GHG emissions whilst increasing land productivity to strengthen sustainable livelihoods

| Project Component   | Grant type | Expected Outcomes   | Expected Outputs   | Trust Fund | Indicative Grant Amount (\$) | Indicative co-financing, (\$) |
|---|------------|---|--|------------|------------------------------|-------------------------------|
| 1. Effective national enabling environment to promote integrated landscape management | TA         | 1.1 National paradigm shift from unsustainable to sustainable land use by Government's agriculture, land management and environmental sectors through: <ul style="list-style-type: none"> <li>• Move towards coordinated and integrated (multi-sectoral) land management strategies and plans as opposed to purely sectoral approaches</li> <li>• Prioritization and working together at landscape level planning,</li> </ul> | 1.1.1 Strengthened legal and policy frameworks to enhance global benefits through (i) updated Agriculture Sector Plan; (ii) legally binding sustainable land management plans (SMPs) approved for each village under PUM Act (2004), which also include indicators for improved ecosystem services, GHG emission reduction and GHG sequestration<br><br>1.1.2 Strengthened institutional collaboration at national level, especially across sectors between MNRE, MAF, MWCSD, MCIL and SBS to manage multiuse landscapes through combined efforts, shared technical resources and to empower local government and communities. The focus here will be on aligning extension services between | GEF        | 500,000                      | 1,730,243                     |

|   |      |   |   |     |           |            |
|---|------|---|---|-----|-----------|------------|
|   |      | <p>implementation and monitoring as opposed to just farm or community level</p> <p>1.2 Effective management of a landscape demonstrated through new approach covering at least 60,000 ha that consists of a mosaic of agriculture, forestry, pasturelands and wetlands</p> <p>1.3 Institutional and staff capacities of MNRE, MAF, MWCSD, MCIL and SBS to coordinate, plan, implement, finance and effectively communicate enhanced integrated landscape management practices to achieve global benefits on SLM, biodiversity conservation and GHG emission reduction/sequestration (capacities to be tracked by UNDP Capacity Scorecard)</p> | <p>agriculture and environment sectors.</p> <p>1.1.3. Interactive web-based based decision support/ information system available in English and Samoan languages for national and local authorities and local communities to integrate multiple datasets from environment, population, agriculture, climate information, hazard maps to aid landscape modelling and planning. This will aid spatial landscape planning, setting benchmarks and monitoring of impacts on SLM, biodiversity conservation and GHG emission reduction and sequestration of GHG through community and government actions.</p> <p>1.1.4 Long term systematic capacity building on SLM through the institutionalization of curriculum for civil servants and communities on landscape level planning for SLM, enhanced global biodiversity conservation and GHG emission reduction/sequestration as well as financing. This will be done in partnership with the Samoa National University ( through their Professional Development Centre) and the University of South Pacific’s agriculture faculty based in Samoa (School of Agriculture and Food Technology)</p> |     |           |            |
| 2. Long term capacities and incentives in place for local communities and local authorities to undertake integrated landscape | IN V | <p>2.1 Active community and inter-community collaboration involving 45 villages leads to 60,000 ha of upland and native forests effectively protected against encroachment threats from agriculture expansion and degradation, 17,000 ha of agricultural land under improved tree covers and managed to minimize soil loss and 3000 ha of wetlands and adjacent basins better managed against degradation</p> <p>2.2 Increased productivity from baseline at farm level through adoption of sustainable land management over baseline</p>   | <p>2.1.1 Landscape management plans developed for two critical landscapes and implemented through community participation</p> <p>2.1.2 Improved SLM and SFM compatible land-use by farming households such as: a) soil and water conservation methods – such as organic fertilizer use, low tillage agriculture, (including biological nitrogen fixation), b) agro-forestry and alley cropping, c) tree plantations on sloping and contour mountain areas, and to promote mixed cropping, as well as terracing-improvement measures on sloping/hilly or marginal lands</p> <p>2.1.3 At least 40% of farming households in target sites adopt best-practice, integrated organic and traditional /local innovations for agriculture</p> <p>2.1.4 Improved SLM at landscape level by community based management beyond household farms that can plan, facilitate and raise funds to implement landscape level plans</p>  | GEF | 4,000,000 | 9,887,665  |
| Project management cost 1   |      |   |   | GEF | 236,363   | 1500000    |
| Total project costs   |      |   |   | GEF | 4,736,363 | 13,117,908 |

<sup>1</sup> Same as footnote #3.

**C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)**

| Sources of Co-financing | Name of Co-financier   | Type of Co-financing | Amount (\$) |
|-------------------------|--|----------------------|-------------|
| National Government     | Including MNRE, MAF, MWCSO, MCIL   | Grant                | 2,000,000   |
| National Government     | Including MNRE, MAF, MWCSO, MCIL   | In kind              | 600,000     |
| GEF Agency              | UNDP   | Grant                | 617,000     |
| Bi-lateral Partner      | AusAID   | Grant                | 9,000,000   |
| Bilateral Partner       | New Zealand Aid Programme  | Grant                | 400,000     |
| Others                  | Commonwealth Secretariat   | Grant                | 300,000     |
| Private Sector          | Chamber of Commerce & Industry Inc (CCIInc), SAME  | In-kind              | 100,400     |
| Non-Government          | Samoa Organic Farmers Association Inc, Samoa Farmers Association Inc, WIBDI, METI, ICRAF, PGEP, Universities | In-Kind              | 100508      |
| Total Co-financing      | 1.   |                      | 13,117,908  |

**D. GEF RESOURCES REQUESTED BY AGENCY, FOCAL AREAS AND COUNTRY**

| GEF AGENCY          | TYPE OF TRUST FUND | FOCAL AREA       | Country name/Global | Project amount (a) | Agency Fee (b) | Total c=a+b |
|---------------------|--------------------|------------------|---------------------|--------------------|----------------|-------------|
| UNDP                | GEF                | Land Degradation | Samoa               | 4,736,363          | 473,636        | 5,210,000   |
| Total GEF Resources |                    |                  |                     | 4,736,363          | 473,636        | 5,210,000   |

**PART II: PROJECT JUSTIFICATION**

**A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

**A.1.1 THE GEF FOCAL AREA STRATEGIES:**

1. This project is consistent with the GEF's Land Degradation Focal Area Strategy, particularly Objective 3: "Reduce pressures on natural resources from competing land uses in the wider landscape". In line with this objective's Outcome 3.1 on strengthening the enabling environment, the project will strengthen collaboration between at least three key government sectoral agencies working on agriculture, land management, community development and environmental sectors to incorporate SLM into their plans and programmes –. The project will work to strengthen capacities and long-term cooperation between agriculture and environment Ministries and also coordinate and cooperate with the Ministry of Women, Community and Social Development (MWCSO), which is primarily responsible for local development. Additionally, the project is supporting the development of joint extension services to allow joint work between these sectors to facilitate community actions for effective multi-use landscape management of agricultural land, forests, wetlands, grasslands and coastal zone, which is in line with GEF's LD Outcome 3.2. The project will support sustainable agricultural land management to reduce land degradation and to boost food, water and energy security, and also ensure that communities undertake effective management of other land use types within the production landscape to enhance ecosystem services and climate resilience. The project will also strengthen national capacities and mechanisms for the dissemination of good land management practices throughout the country and help meet national greenhouse gas reduction targets.

**A.2. NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS:**

2. This project is consistent with Samoa's Strategy for the Development of Samoa (SDS) (2008-2012), which has the Vision "Improved Quality of Life for All". This project will directly contribute to several issues highlighted in this Strategy, such as "to accelerate the reforestation process" and to "support improvements in land- and marine-based food security through the provision of planting materials, traditional crops and livestock focused extension services..." The project will also contribute to this Strategy's Goal 7: Environmental Sustainability and Disaster Risk Reduction, where it has been noted "Environmental management, compliance and monitoring will be improved". The project is consistent with Samoa's National Water Resources Management Strategy (2008) and the National Water Resource Policy (NWRP) under the National Water Resources Management Act (2007), which provide the framework for the conservation, sustainable use and management of Samoa's water resources.
3. The project is in full alignment with "Samoa's National Action Plan (SNAP) to Combat Land Degradation and Mitigate the Effects of Drought" (2006). This Plan has noted the need for better management of agricultural lands and to promote agro-forestry and alley cropping, tree plantations on sloping and contour mountain areas, and to promote mixed cropping, as well as terracing-improvement measures on sloping/hilly or marginal lands. It further notes the need to promote planting of trees and plants along riverbanks to promote conservation of agro-soil on degraded land areas, sustainable agro-land use practices in hilly areas, organic farming, and to strengthen food, nutrition, water and energy security, and to ensure sustainable livelihoods of communities.

4. Samoa has opted to allocate its entire STAR allocation from all focal areas to sustainable land management. This is primarily because as a small island developing nation, land is extremely limited and precious. Most people's livelihoods still depend on subsistence agriculture. Land ownership, primarily vested in communities, defines the Samoan culture. Sustainable land management is a cross cutting national priority for a number of Ministries –including the Ministry of Agriculture and Fisheries, and the Ministry of Natural Resources and Environment. Additionally, effective land management has not generates multiple local benefits – in terms of providing food, fuel and other cultural services, but it is also recognised as being critical in achieving cross-cutting global benefits of biodiversity conservation and GHG emission reduction.
5. The decision to allocate the entire STAR allocation to this project was taken following extensive consultation within the Government and with other concerned stakeholders; broad agreement was reached that the project constitutes the highest national priority at this juncture, and will optimise existing investments in land and natural resources management by both enhancing economic productivity and livelihood diversification potential and protecting vital ecosystem services.

## **B. PROJECT OVERVIEW**

### **B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:**

4. The island nation of Samoa lies in the Mid South Pacific between 13° 25' and 14° 05' South of the Equator, and between 171° 23' and 172° 48' West longitudes. The UN has listed Samoa as one of the Least Developed Countries (LDC) of the world; it is also a Small Island Developing State (SIDS). The total population of Samoa is just over 180,741 (2006 Census) living in 25,123 households. Samoa's land consists of two main islands and 8 smaller islands. Its total land area is 2,935 square kilometres, with the two main islands of Upolu and Savaii consisting of 1,115 and 1,700 sq km, respectively. These islands also contain volcanic peaks- with the Upolu Island crestal ridge rising to 1,100m and Savaii Island has Mt. Silisili that rises to 1848m. The central uplands of the main two islands are covered with primary and secondary forests. Most settlements and agricultural activities on the two main islands occur between the coastline and 1000 meters above sea level. This band of coastal land is composed of a mosaic of land uses, comprised of farms, woodlands, grasslands and wetlands.
5. Most land is under customary land tenure. Of the total area, 81% (237,735 ha) is under customary land ownership, 15% (44,025 ha) is government/public land and 4% (11,740 ha) is freehold land. The customary land includes agricultural lands as well as natural forestland and other natural ecosystems (such as wetlands). Customary land is primarily managed by a matai (Chief), who is the head of an extended family and who distributes land to his or her extended family for their use. Such land cannot be sold to outsiders, but it can be leased. The practice of allowing cleared forest land to be claimed by the individual/family that cleared the land is a major contributor to land conversions in Samoa. An assessment of land-cover categories of Samoa (based on 1999 aerial photos) produced the following picture: Forests - 60% (176,000 ha); Agricultural land - 22.3% (65,451 ha); Wooded land - 7.8% (22,893 ha); Grassland, lakes, rivers and wetlands - 6.5% (19,078 ha); Built up areas and infrastructure - 2.7% (7,925 ha) and Barren land - 0.7% (206 ha)
6. The agricultural sector accounts for about 10% of Samoa's GDP. Over 70% of households produce agricultural goods both for subsistence and commercial purposes. Generally, farm sizes are between 2 to 10 ha per household. Agriculture has traditionally provided the bulk of Samoa's commodity exports, including coconut oil, coconut cream, bananas, taro, kava and fish. Samoa's current agricultural practices include subsistence farming, semi-commercial and commercial farming, with the majority of households practicing subsistence agriculture (with surplus sold for cash). A 2002 study showed that 66% of farmers in Samoa used mixed cropping, 49% used mixed farming (crops & animals), 13.6% use monocropping, 5.1% use shifting cultivation, while only 3.4% use agroforestry. Historically, households farmed the land until its productivity declined significantly, and then moved to new land, but this is no longer possible due to population growth.
7. The Vulnerability Index for Samoa<sup>2</sup> notes that clearance of lowlands and intensive farming are two of the five "issues of greatest environmental vulnerability". The intensive farming index "captures the risk of pollution, eutrophication, ecosystem loss or damage and the risk of diseases and plagues". Forest clearance to plant commodities such as coconut, cocoa and banana has been a major cause of land use changes in Samoa (Ward and Ashcroft, 1998) and is directly related to government efforts to increase exports. High demand for taro led to significant forest land encroachment from the mid 1970s until the arrival of taro blight in early 1990s. Fuelwood harvest from natural forests is another cause of forest degradation, as it is the major source for cooking energy in Samoan households (70%). Current rate of forest and woodland clearance for agricultural purposes, including firewood collection and infrastructure development, is estimated at 1,500 ha per year (Sam Sesega, 2005). Though Samoa instituted a logging ban in January 2009, forest quality has continued to be degraded. Remapping of the forest resource in 2003–2004 provisionally concluded that there were "very few areas of closed canopy forest remaining in Samoa." Once cleared, the agricultural land is intensively farmed, and this is one of the key drivers for land degradation in the country. In worst case scenarios, when the fertility is low, land is abandoned.

<sup>2</sup> <http://www.vulnerabilityindex.net/EVI%20Country%20Profiles/WS.pdf>

8. The improper agriculture and land use practices, and forest loss and degradation, are particularly harmful to Samoa's primarily volcanic ash-derived soils (called andosols or andisols). Generally, such soils are resistant to erosion. However, exposure of highly hydrated soil to drying, such as after deforestation, makes them extremely crumbly and susceptible to erosion<sup>3</sup>.
9. Land degradation in Samoa has negative impacts on the economy at national to household levels, on biodiversity, and on ability of the ecosystem to sequester GHG. Land degradation in the upper watersheds of Samoa's capital Apia has been shown to contribute to flooding in the city. Forest clearance of watershed areas has affected the supply and deteriorated the quality of water in the urban area of Apia through increased water turbidity. High rates of water reservoir siltation due to high sediment loads in rivers are also impacting the country's hydropower production. Declining production trends have been noted for some crops as well. Forest loss and fragmentation is reported to have negative impacts on globally important species such as flying foxes (*Pteropus samoensis* and *P. tonganus*) and the tooth-billed pigeon (*Didunculus strigirostris*). Poor agricultural and forestry practices (including land clearing) reportedly contribute to high siltation and eutrophication in some lagoons from run-offs. Zann & Mulipola (1995) have suggested that increased sediment washing into the sea and increased nutrient runoff were probably responsible for the widespread die-back of lagoon corals on the northern reefs between 1970 and 1985. Additionally, loss of forest cover and organic contents from soils also contribute to increased GHG emissions from the soil, although this has not been quantified for Samoa to date. Sustainable land management, therefore, is critical to maintain and enhance Samoa's economic development, household food security, to conserve biodiversity and to ensure that Samoa does not contribute to global GHG emissions.

### **Baseline project**

10. Samoa's investment in land management is primarily channelled through its Ministry of Agriculture and Fisheries. This investment is primarily geared towards improving food security (by improving the sustainability of agricultural production), and supporting livelihoods by encouraging commercial development of the agriculture sector. The Ministry provides technical advice, training, and support to subsistence farmers, commercial farmers, agro-processors, and exporters. The Government of Samoa annually invests around 5.3 million US dollars (12 million Samoan Tala) through the Ministry's Livestock, Crops, Quarantine and Fisheries Divisions to undertake relevant activities. Amongst other things, the Ministry has supported pilot measures to improve the soil and water management practices employed under current farming systems, promoting mulching, cover cropping, terracing, strip cropping, repairing gullies and the use of organic matter. The government is also supporting efforts to manage climate change risks in the agriculture sector through the UNDP-LDCF project: "Integrating Climate Change risks into the Agriculture and Health Sectors in Samoa" (2.1 million US\$). The project has developed a Climate Early Warning System (CLEWS) and gross crop margin maps, and developed a Soil Resources Interpretive Reference Manual (SRIRM) to help farmers ascertain exactly what adaptation strategies will be needed for different crops under the various predicted climate change scenarios.
11. The Ministry of Natural Resources and Environment (MNRE) is responsible for the effective management of natural landscapes. Several of its divisions including Land Management, Environment and Conservation, Forest Services, Meteorological and Geo-science Services, Planning & Urban Management Services and Water Resources Services are all relevant in the context of advancing sustainable land management objectives. In particular, the Ministry is vested with responsibilities for forest management, and currently manages several sustainable forest management projects and developing others that are closely tied to this initiative. These include the planned Agroforestry and Tree Farming Project, funded by the Australian government (around 5million US\$) and a Japanese government funded 2.5 million US\$ Forest Conservation Project aimed at improving silvicultural practices and forest protection. An FAO-GEF funded forestry and protected area project will commence implementation soon, and will, amongst other things strengthen community based sustainable forestry management systems. The Government has identified climate change risk management in the forestry sector as a priority. It has recently commenced the implementation of a 2.4 million dollars UNDP-LDCF funded project entitled Integration of Climate Change Risks and Resilience into Forestry Management in Samoa (ICCRIFS). This will enhance Samoa's upland native forestry management capabilities and promote sound lowland agro-forestry practices and seek to enhance the resilience of natural ecosystems to climate change. Samoa has also been implementing a medium sized UNDP-GEF SLM project, which has sought to demonstrate the utility of effective watershed management under traditional dryland farming systems, particularly to build resilience to seasonal droughts, and to mainstream SLM into watershed protection. This proposed SLM project builds on the work of this project and lessons learned and good practices generated by other interventions. In particular, it will seek to apply proven SLM approaches tested at farm level at a larger landscape level.
12. The current baseline investment is inadequate in terms of meeting the long-term goal that "Samoa's productive landscapes are protected and sustainably managed to mitigate land degradation and to increase soil carbon sequestration so as to

<sup>3</sup> <http://www.fao.org/docrep/003/y1899e/y1899e06.htm>

contribute to poverty alleviation and mitigation and adaptation to climate change impacts” (SDS 2008-2012). Key barriers to achieving this long term goal include the following:

**13. *Fragmented, and primarily sectoral approach to land and ecosystems management***

14. Landuse decisions in Samoa are primarily made by communities. Most land is under customary tenure (and thus community control). Their decisions are, in turn, influenced directly by the policies and programmes supported by the two key Ministries – MNRE and MAF. Samoa’s production lands consist of a mosaic of agricultural land and natural ecosystems; the farming systems employed in the former can have a major impact on the latter—influencing the functionality of the agro-ecosystem. The promotion of agricultural practices that promote high fertilizer use, for example, can impact wetland water quality. Therefore, it is essential that institutions that work on agriculture and forestry and other landuses (i.e. protected areas) work collaboratively. Under the current baseline, there have been limited cooperation between different Ministries – particularly the Ministry of Agriculture and Fisheries (MAF) and the Ministry of Natural Resources and Environment (MNRE) but also, for example, the Ministry of Women, Community and Social Development, which has not been actively involved in advancing SLM actions, though it is vested with the primary responsibility for promoting local development. Sustainable land management is not explicitly integrated in the agriculture sector’s objectives and MAF’s extension services are more aligned accordingly to maximising commodity production (without necessarily considering the broader environmental implications). The “Strategy for the Development of Samoa (SDS) 2008-2012 has set as one of its key objectives the expansion of commercial agriculture, through the provision of incentives such as the removal of import tariffs on agricultural related imports. This could lead to further deforestation if not carefully managed. While MNRE, on the other hand, focuses on maintaining and enhancing ecosystems capacities for service provision, forestry, pasture, land use and agricultural policies are not interlinked, and do not stress the need to manage landscapes as an integrated unit. MNRE lacks the capacity to provide strong sustainable economic incentives to encourage sustainable land management. The two Ministries offer parallel extension services (e.g. for crops and ecosystem management). The provision of these services lacks coherence (e.g. sometimes offered to the same communities), and most staff do not have full understanding or capacity to promote pro-livelihood, pro-environment landscape management. Serious problems have emerged as a result of this situation. For instance, the different extension services have supplied different advice to land holders, e.g. on exactly what land incline is most suitable for farming and at what land slope farmers should stop planting crops. In short, the baseline does not promote a ‘landscape’ approach to land management, working across communities and land use sectors to optimise economic production while protecting the environment. The current baseline works do not explicitly attempt to maximize global environmental values – including global biodiversity conservation and greenhouse gas emission reduction. Past and ongoing capacity building of civil servants and government institutions working on sustainable land management has been *ad hoc* and not strategic or long term. Past and ongoing efforts at strengthening national capacities on SLM have been project based and ad-hoc, with training, workshops and other events organized. This has meant that capacity building at the national level for both the civil servants and for local communities has not been strategic or long term.

**15. *Local communities do not have capacities or strong incentives for effective landscape level SLM management***

16. SLM practices need to be sustained over a long period of time to bear fruit. This may require constant follow up, support and encouragement from peer farmers and government agencies. Though several individual farmers in Samoa have been trained in improved land and watershed management techniques, there have been no successful attempts to disseminate such techniques within villages, or to encourage better management of the wider landscape to enhance ecosystem productivity and resilience to changes. There are limited mechanisms to provide continuing advisory services or follow up training (as occasionally provided by the Land Management Division [LMD]). Farmers do not understand the benefits of sustainably managing the wider landscape, and few government incentives exist to promote actions at inter-community levels.
17. Over the last few decades, farming systems have been transformed from traditional subsistence farming to mixed farming for subsistence and commercial purposes. The baseline programme will promote some market based incentives – encouraging the production of agricultural commodities. However, these initiatives do not promote SLM per se or seek to maximise multiple global environmental values related to biodiversity conservation and greenhouse gas emissions reduction. Local communities have not had access to information and support to develop more productive and environmentally friendly farming systems. Amongst other things, there is no support for them to plan and implement better land management practices across communities and across landscapes (including both farmed areas, non-farmed communal areas and other natural ecosystems). As a result, many farms are affected by bad land management practices upstream or on adjoining farms (suffering land slips or flooding as a consequence).

**B.2. INCREMENTAL COST REASONING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS TO BE DELIVERED BY THE PROJECT:**

18. GEF investment through this project will lead to strengthened policy on SLM of at least three key Ministries (MAF, MNRE, and MWCSO) and a coordinated institutional framework for investing in sustainable landscape management. The project will directly address the above-mentioned barriers to SLM. This is expected to lead to improved collaboration across institutions responsible for SLM, and work at landscape level to increase food and energy security, enhance ecosystem functionality (improving water quantity and quality regulation and leading to the avoidance of soil erosion; enhanced conservation security for biodiversity and protection of carbon pools). The proposal will take a multi-sectoral approach, seeking to adapt land use planning and management at the landscape level, across different ecosystems and land holdings.
19. Two components are proposed under the project to address the barriers to SLM:

### **Component 1: Enhanced National Policy, Institutional Frameworks and Capacities for Integrated Landscape Management**

20. Under this component, the project will ensure that SLM objectives are codified as an overarching objective of sectoral policies and plans. The focus will be to ensure that key agriculture, forestry, and natural resources management policies and plans pay adequate attention to SLM – especially the need to work across landscapes with multiple communities (and engendering inter-community cooperation), to maintain/ enhance ecosystem function and resilience. This will involve updating the Agriculture, Fisheries and Forestry Sector Plan (2011) to include REALU (Reduced Emissions from All Land Uses), and the development of legally-binding sustainable management plans (SMPs) approved for each village under the Planning and Urban Management (PUM) Act (2004), as well as appropriate agro-environmental policies. The project will ensure that all such policies and plans build on past national experiences and also international best practice to maximize global environmental benefits related to SLM – and to include global biodiversity benefits and GHG emission reductions as well, in line with the GEF's objectives. The project will also develop the institutional capacity of MNRE, MAF, and MWCSO to collectively advance sustainable land management objectives. This will include strengthening the capacities of the agriculture and environment extension services respectively to promote SLM, as well as to improve real-time statistical recording and analyses for this purpose. For this, moving away from the past ad hoc processes of capacity building, the project will help design and institutionalize SLM capacity building courses for the civil service in partnership with the National University of Samoa, which hosts a Professional Development Centre, and the University of South Pacific, whose Agriculture faculty is based in Samoa. A major part of the capacity building in Samoa will also be on examining the issues of land management and climate change and building national capacities to measure carbon storage and GHG emission reduction from land management. The project will also introduce interactive web-based decision support/information system available in English and Samoan languages for national and local authorities and local communities to integrate multiple datasets from environment, population, agriculture, climate information, hazard maps to aid landscape modelling and planning. This will aid spatial landscape planning, setting benchmarks and monitoring of impacts on SLM, biodiversity conservation and GHG emission reduction and sequestration of GHG through community and government actions. A national SLM information and communication strategy will be developed and implemented to promote sustainable farming approaches. These actions build on the baseline actions but also go beyond, in terms of promoting the use of such tools through the collective action of multiple Ministries.

### **Component 2: Strengthened Community Capacities and Incentives to Undertake Sustainable Landscapes Management**

21. The project will engineer a paradigm shift from unsustainable to sustainable land use in two landscapes. These will be selected to avoid duplication with ongoing field initiatives. The purpose of the actions will be to mitigate existing threats to ecosystem functionality, as well as to prevent future threats. The project will facilitate the formulation and implementation of community participatory landscape level SLM plans to enhance ecosystem resilience and to strengthen local livelihoods. This will build on past successful work done in Samoa on community-based terrestrial and marine protected area (MPA) management and community development planning. Such plans will identify areas under threat, the causes of land degradation, and cost-effective options to overcome them at the community and inter-community level across landscapes. Critical habitats within the landscapes will be identified for protection. Working through farmers' groups, the project will help establish community or household level seedling nurseries and develop capacities to increase tree cover on farm and over their landscape. This will build on current baseline work, but, additionally, will include native species to aid biodiversity conservation and to ensure connectivity within the landscape. Sustainable farming options will be identified for different agro-ecological zones to maximize production as well as protect soils – such as hedgerow development, use of nitrogen fixing plants, integrated pest management, minimum tillage, organic farming and efficient irrigation systems. An additional focus of the project will be to strengthen farmland soil management so that the soils are able to sequester and retain more carbon. These will include analysis of different options such as mulching, use of biochar and others to improve land productivity, as well as increasing carbon retention in soil by carefully selecting adapted crops (e.g. SPC's Centre for

Pacific Crops and Trees already has over 70 adapted food crops available to PICs). One of the key incentives that the project will help to foster for SLM is to identify suitable products, their efficient production, value adding and low carbon marketing options, and linking them to the tourism sector in Samoa (hotels and restaurants) and other local market opportunities – focusing on local landraces and varieties (in part also to aid their conservation). The project will also support import replacement opportunities for food and energy sources (such as biofuels) and identify niche markets overseas for products (such as organic kiln-dried cocoa). The expanded use of organic certification will also be explored to provide additional marketing opportunities. Communities’ awareness of possible climate change related impacts on their landscapes will be also enhanced, building on the existing baseline of work but to aid SLM, biodiversity conservation and GHG emission reduction as well. Eco-clubs will be promoted in local schools and the awareness of the clergy and traditional chiefs will also be targeted for them to champion SLM. Communities will also be strongly encouraged to set-aside forests of high conservation and watershed values voluntarily.

22. The local communities will also be supported to utilize a whole host of tools under development in Samoa for effective land management and conservation. This Project will focus its field interventions in selected watersheds and catchment areas on both main islands. The total area of intervention will be at least 60,000 ha, involving at least 45 villages. The project will be delivering several global environmental benefits through the alternative practices that it will promote. The alternatives are outlined below.

| Current Practice  | Alternative to be put in place by the project   | Physical changes in landuse practices following project support   |
|---|---|---|
| <p>2. Little or no on-farm soil and water management, including:</p> <ul style="list-style-type: none"> <li>• cultivation on highly unsuitable / vulnerable soils</li> <li>• missing or insufficient soil conservation / runoff and erosion control measures</li> <li>• poor and improper tillage practice</li> <li>• reduction of plant cover and organic content of soils</li> <li>• inappropriate application of manure, fertilizer, herbicides, pesticides and other agrochemicals or waste</li> </ul> <p>3. Ad-hoc approach to farmers’ capacity building – and focus more on individual households</p> <p>4. Poor involvement of households in wider landscape management – such as of communal forests, grazing lands, coasts and wetlands; occurrence and spread of weeds and invasive plants; and excessive gathering of fuel wood and (local) timber,</p> <p>5. Institutionally fragmented advisory service delivery by the government development and extension services</p> <p>6. Low economic incentives to farmers for SLM adoption</p> | <p>The alternatives proposed by the project will include:</p> <ol style="list-style-type: none"> <li>1. Wider dissemination of SLM practices in two critical landscapes</li> <li>2. Systematic capacity building of farmers through Farmers’ Groups to adopt improved soil and water management measures, including utilization of land based on soil and slope characteristics, proper tillage practices, improved silvo-agro-pasture management and appropriate use of fertilizers and pest management techniques</li> <li>3. Innovation on delivery of technical advice through joint government institutional approach. Additionally, working as farmers’ groups, and peer-to-peer support on SLM will be encouraged, as well as formal and better links with government extension services</li> <li>4. Strong market links to products from sustainably managed lands to provide incentives to farmers to adopt and promote SLM</li> </ol> | <ol style="list-style-type: none"> <li>1. Appropriate zoning applied for food/timber crops, based on slope and soil type/vulnerability</li> <li>2. Revegetation and reforestation with crops with potential bioenergy sources (to match the bioenergy technologies being proposed in Samoa – e.g. algae, bamboo, fast growing legume trees, even power-millet as a grain crop with immense bioenergy usage).</li> <li>3. Improved organic content of the soils by adopting appropriate pasture management techniques and injecting biochar as a soil improver.</li> <li>4. Additional targeted agroforestry extension advices that match the outputs of the 25 or more CCA tools.</li> <li>5. Reduced fuel-wood gathering due to improved bio-energy mitigation technologies being deployed in Samoa.</li> <li>6. Improved socio-economic returns from communal woodlots and bioenergy croppings, associated with improved value-adding of agroforestry products due to cheap availability of heat sources for kiln-drying, etc. New short-term and long-term crops planted offering farmers greater incentives and improved incomes from cash-crops such bioenergy feedstocks.</li> <li>7. Production of biochar is another income-generating opportunity being proposed, as is co-generation of power into the grid. Local power market is exactly what Samoan farmers need as they are unlikely to be able to compete on the world markets.</li> <li>8. Riparian zones planted out with trees, albeit energy trees, that are coppiced frequently.</li> <li>9. IFES allowing for improved energy and food security benefits from the same parcel of land as Samoan farmers adopt climate-smart agriculture.</li> <li>10. All of these practices will be spelt-out in Samoa’s Climate Smart Agriculture Roadmap A more sophisticated and holistic landscape approach is being proposed in this project, taking also a multi-sectoral approach with key stakeholders in key sectors (e.g. agriculture, forestry, energy, tourism, water, environment, etc.).</li> </ol> |



23. Key direct global benefits of this project will be derived from the maintenance and enhancement of landscapes for at least 50,000 hectares in Samoa under SLM, as shown by improved land coverage under vegetation. Measurable global environmental benefits in the project target area will include increased land cover with native species within the landscapes, including an increase in vegetative cover (increased % , type and area) and tree density and canopy cover (number/hectare and % canopy). There will also be increased carbon sequestration in above ground biomass and soil carbon, as well as enhanced biodiversity conservation of global value and the project will help build national capacities to assess these effectively across different landuses.
24. It is expected that SLM of landscapes will also strengthen biodiversity conservation of global significance, both directly such as through creation of corridors between areas of high biodiversity, maintenance of water sources and creation of village set-asides of land; and indirectly as communities will be encouraged to use existing farming areas and refrain from encroaching upon natural ecosystems through community-agreed participatory land use plans and SMPs. Samoa has several endemic species of plants and animals. The project will also contribute to reduced GHG emission through better sequestration of carbon in soil through better land/ biomass management. Samoa is exploring a variety of carbon crediting methodologies (e.g. CDM, REDD+, REALU, etc.) and revenue streams (e.g. Payment for Ecological Services [PES]) for communities. These will be quantified during full project preparation.

**B.3. DESCRIBE THE SOCIO-ECONOMIC BENEFITS TO BE DELIVERED BY THE PROJECT AT THE NATIONAL AND LOCAL LEVELS, INCLUDING CONSIDERATION OF GENDER DIMENSIONS, AND HOW THESE WILL SUPPORT THE ACHIEVEMENT OF GLOBAL ENVIRONMENT BENEFITS:**

25. The socioeconomic benefits of this project at local level will be improved productivity of agricultural lands through better land and water management practices that are expected to halt or reduce soil degradation. In addition, the project’s work to support value chain development is expected to increase local employment and increase household level revenues. The project’s support is expected to lead to an increased productivity of crops, increased annual incomes per household and improved household food and energy security. These will be tracked during project implementation. The project’s main beneficiaries will also include women and the project will ensure thorough gender analysis to better promote equitable participation and benefit sharing in the project related actions, including strong gender dimensions as outlined in the national Agriculture, Fisheries and Forestry Sector Plan (2011).

**B.4. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS AND MEASURES THAT ADDRESS THESE RISKS:**

| Risk  | Level          | Mitigation  |
|---|----------------|---|
| Continued strong sectoral focus of government agencies will hinder coordinated approach for SLM   | High           | This project concept has been developed through good participation by MWCSO, MCIL, SBS, MNRE and MAF, and all agencies have shown strong interest to work together on issues of SLM. The roles and responsibilities of key agencies will be further clarified during the PPG phase.   |
| Low levels of participation by local people in wider landscape management, as it may not be seen as something that will benefit communities in the short term | High           | At the outset of the project, it will undertake some clear strategies to identify key ecosystem services at the landscape level that the local communities value and will help build community cooperation and action to enhance those services. Secondly, capacities and awareness will be enhanced amongst community members on the linkages between better landscape management and farm productivity. Thirdly, by working together with communities, the project will demonstrate how landscape management is better for enhanced livelihoods and resilience. |
| Sudden global rise in prices of exported agricultural commodities will lead to encroachment of forest lands   | Medium to high | Past experiences have shown that forest encroachment increased when global prices/ demands of commodities such as taro increased. Though the spread of taro blight diseases caused a slump in taro production, similar increases in demands for certain commodities may cause further encroachment of forest lands.   |
| Impacts of climate change on Samoa are severe and causes low viability of farming and loss of livelihoods   | High           | The project will have strong partnership with other UNDP, GEF, JICA and AusAID projects that are examining the links between climate change and agriculture, and promoting adaptation measures for the agriculture and forestry sectors. This project will also strengthen local community understanding on CC issues, and strengthen climate resilience amongst highly vulnerable communities.   |

**B.5. IDENTIFY KEY STAKEHOLDERS INVOLVED IN THE PROJECT INCLUDING THE PRIVATE SECTOR, CIVIL SOCIETY ORGANIZATIONS, LOCAL AND INDIGENOUS COMMUNITIES, AND THEIR RESPECTIVE ROLES, AS APPLICABLE:**

| STAKEHOLDER                                   | RELEVANT ROLES  |
|---|---|
| Ministry of Natural Resources and Environment | The Ministry will be primarily responsible for mobilizing its different units working on land degradation, land use planning, watershed management, forestry, renewable energy and biodiversity conservation to provide effective sustainable land management advice to |

|  |   |
|--|---|
|  | local communities and also to the MAF, MWCSO, SBS and MCIL  |
| Ministry of Agriculture and Fisheries  | MAF will be co-executing agency of this project and will work to integrate environmental management and land management issues into the MAF policies and plans and in their extension services  |
| Ministry of Women, Community and Social Development  | MWCSO has been leading work on participatory development planning at community level and will be integrating SLM into the plans and programmes and ensuring strong gender perspectives in project activities  |
| Ministry of Education, Sports and Culture  | MESC is responsible for improving awareness (e.g. ALM, ESD, etc.) and building capacity (e.g. at the Oloamanu Professional Development Centre) in all matters pertaining to community development and cultural protection.  |
| Chamber of Commerce and Industry Inc., SAME, Samoa Organic Farmers Association, SFAInc, WIBDI, METI, ICRAF, Pacific Growers Export P programme | These non-governmental organizations will be instrumental in providing links to markets for sustainably produced agricultural products, as well as acting as conduits for promoting effective land management approaches beyond the project demonstration sites through their national and international linkages and through their broad membership, academic networks, and demonstration projects in a wide array of differing landscapes |
| Local government   | The local government will provide necessary technical and financial support and ensure that their development plans integrate strong environmental concerns and that they continue the good work started by the project   |
| Local communities (men and women)  | As the ultimate beneficiaries of this project, the local communities will be strongly involved in local planning and implementation and they will also provide feedback on draft policies of national relevance, as necessary   |
| Community Based Organizations  | Key CSOs in Samoa include village based organizations such as the Matai Fono (or Council of Chiefs), The Women's Committees (Komiti Tumama), the other men and women (Aumaga), and church groups. They will be involved in activities under Component 2 as appropriate.   |

## B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

1. The Samoan government will ensure that this project benefits from strong donor coordination in Samoa, led by the **the Aid Coordination and Loan Management Division (ACLMD) of the Ministry of Finance**. In order to promote joint work planning, proper activity sequencing between different related initiatives, and adaptive management of interventions, a working group will be established under the joint aegis of MNRE and MAF comprising the project teams of different projects.
2. The key initiatives that this project will coordinate activities with include the UNDP-LDCF funded projects that work on the agriculture, health and forestry sectors, the current GEF-UNDP Small Grants projects building capacity of local communities in Samoa, the Samoan-based FAO-GEF Forestry and Protected Area Management Project on Savaii Island, the UNDP- GEF MSP on Sustainable Land Management Project (2007-2011), the JICA funded Forest Monitoring Project in four National Parks and Reserves on Upolu Island and Savaii Island, the AusAid funded NAPA 4 Climate Change Adaptation Project, especially its forest fire management component, and the GEF-UNDP regional PACC Project where Samoa is implementing coastal adaptation measures, as well as the MAF Fruit and Vegetable Strategy (2009) that has been designed to increase food security in Samoa. The project also has strong links with the UNEP-GEF regional project on invasive species management and the GEF-FAO multi-country project on Forestry and Protected Area Management in the Pacific. Since the Ministry of Natural Resources and Environment is involved in most of these activities, a special effort will be made to ensure strong coordination and cooperation between all these projects through the development of an institutional support and M&E mechanism within the Ministry. Further, periodic meetings will be organized to share best practices and knowledge between these related initiatives, as being proposed in the World Bank-ADB regional Pilot Programme for building Climate Resilience (PPCR) in the Pacific (a special emphasis has been placed on sharing the lessons learnt using the Adaptation Learning Mechanism [ALM]). The deployment of Adaptation Learning Mechanism (ALM) through the offices of UNDP and SPREP in Samoa is expected to greatly abet lesson distillation and sharing.

## C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

32. UNDP has been working globally to strengthen governance and markets for SLM—taking a multi sectoral approach at the landscape level. UNDP has been particularly active in several small island nations to strengthen land and resource management. This project is in line with UNDP's comparative advantage, as noted in the GEF Council Paper C.31.5 "Comparative Advantages of GEF Agencies", in the area of capacity building, and strengthening technical and policy

development. UNDP has implemented several initiatives related to SLM – in policy development, capacity development and in field implementation. It has supported the development and implementation of the UNDP-GEF MSP Capacity Development and Mainstreaming of SLM, which has supported the development of a National Action Plan (NAP) for SLM, as well as some activities on capacity building and demonstration work. Several community based projects related to SLM have been supported under the UNDP/GEF-Small Grants Programme (SGP) and the Strategic Priority on Adaptation (SPA)-funded CBA Programme. They include work in at least 10 communities on riverbanks and coastal protection, wetland management, upland management, Integrated Watershed Management and Marine Protected Areas, including coastal planting and watershed planting.

33. UNDP was particularly instrumental in the formulation of the Tsunami Early Recovery Framework to assist Samoa to rebuild its communities after a devastating tsunami severely affected livelihoods in September 2009. This Project is designed to address key recovery needs identified under this Framework in the areas of improving livelihoods, reducing disaster risks, and improving development coordination, as well as restoring and expanding people's livelihoods in the mainstay fishing, tourism and agricultural sectors. Investing in green development and green jobs is an overarching theme of the UNDP early recovery effort. The Project also enables people to reduce their exposure to disasters by offering training, and by promoting activities that are environmentally sustainable and ultimately build peoples' resilience to climate change. At the same time, to support a coordinated implementation of early recovery efforts at the national and community levels, UNDP co-chairs the Early Recovery Cluster with the Ministry of Finance.

**C.1. INDICATE THE CO-FINANCING AMOUNT THE GEF AGENCY IS BRINGING TO THE PROJECT:**

34. UNDP's co-financing for this project will be 617,500 US dollars.

**C.2. HOW DOES THE PROJECT FIT INTO THE GEF AGENCY'S PROGRAM (REFLECTED IN DOCUMENTS SUCH AS UNDAF, CAS, ETC.) AND STAFF CAPACITY IN THE COUNTRY TO FOLLOW UP PROJECT IMPLEMENTATION:**

35. This project is fully in line with the Country Programme Action Plan (CPAP) 2008-2012 signed between the Government of Samoa and the United Nations Development Programme Samoa Multi-Country Office. The CPAP has highlighted the UNDAF Outcome 4.1 Environmental sustainability and sustainable energy are mainstreamed into regional and national policies, planning frameworks and programmes and 4.2 Pacific communities effectively manage and sustainably use their environment, as well as natural and cultural resources. This project contributes directly to both these Outcomes, thus assisting the Government of Samoa to implement its NAPA. In addition, UNDP staff are assisting with the design and implementation of a growing array of climate change adaptation (CCA) 'tools' being used to help formulate climate change adaptation strategies across all NAPA sectors (e.g. a CLEWS, CRSs to each sector, etc.). UNDP staff will then endeavour to replicate these CCA 'tools' across other projects in other Pacific Island Countries.

36. UNDP has been a strong partnership of the Government of Samoa in its development assistance. It has supported the development and implementation of several relevant initiatives, such as the UNDP-GEF Small Grants Programme, preparation of CCD NAP, implementation of several climate change adaptation to climate change projects (e.g. in the agriculture, tourism, coastal and forestry sectors). UNDP in Samoa has also supported several community-based development planning initiatives, such as preparation of comprehensive sustainable development plans with local communities (i.e. CCSDP). Globally, UNDP has implemented several SLM projects and this project will benefit from experiences and lessons learnt from those projects. UNDP has strong and effective working relationships with all concerned government agencies, as well as with many other stakeholders. The Environment, Climate Change and Crisis Prevention and Recovery Unit of the UNDP Multi-Country Office in Samoa is comprised of 4 Program Officers with Master's or Doctorate's degree: one with master's of environmental engineering with professional experience in environmental monitoring and watershed management; one with masters in social work with professional experience in disaster risk reduction, sustainable livelihood and community-level initiatives; one with PhD in water management, drought and climate change and agricultural and natural resources economics with professional experience in climate change adaptation/policies; and one with masters in economic development and a PhD candidate in climate change adaptation with over 15 years of professional experience in the environment sector.


**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template).

| <b>NAME</b>                            | <b>POSITION</b>                           | <b>MINISTRY</b>                               | <b>DATE (MM/DD/YYYY)</b> |
|--|---|---|--------------------------|
| Mr. Taule'ale'ausumai Laavasa<br>MALUA | Chief Executive<br>Officer and<br>GEF OFP | Ministry of Natural Resources and Environment | May 5, 2011              |

**B. GEF AGENCY(IES) CERTIFICATION**

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation.

| <b>Agency Coordinator, name</b>                      | <b>Signature</b>  | <b>Date</b>            | <b>Project Contact Person</b> | <b>Telephone</b> | <b>Email Address</b>  |
|--|---|------------------------|-------------------------------|------------------|-----------------------|
| Yannick Glemarec, UNDP-<br>GEF Executive Coordinator |  | 2<br>September<br>2011 | Sameer Karki (ENR)            | 66-2-288-2729    | Sameer.karki@undp.org |