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Fiji- COMDEKS Country Programme Landscape Strategy

*Community Development and Knowledge
Management for the Satoyama Initiative*



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Priority Area

The proposed landscape for COMDEKS to be carried out in Fiji is the Natewa-Tunuloa Peninsula. Located on Vanua Levu, the country's second largest island, the priority landscape lies in a north-east to south-west axis along the south-eastern section of the island and borders the southern coastline of Natewa Bay, the longest bay in the South Pacific. The priority landscape encompasses the two districts of Natewa and Tunuloa, whose boundaries roughly lie between latitudes 16°29' and 16°40' S and longitudes 179°44' and 179° 55' E and collectively cover an area of 25,243 ha or 252.43 km². Both districts are collectively part of the Cakaudrove Province, one of the fourteen provinces making up Fiji and falls under the country's northern division of administration.

Topography

The oldest island in the Fiji archipelago is Viti Levu, the largest island, containing some of the oldest rocks, island-arc volcanics of Late Eocene age (about 35Ma). The geological formation of the Fiji islands is complex, formed by westward subduction of the Pacific plate beneath the Indo-Australian plate along a seduction zone north and east of Fiji. Vanua Levu, on which the priority landscape is located, formed around 7Ma and is composed of late Cenozoic lavas, breccias and volcanic sediments of the Natewa Volcanic Group. This Natewa Volcanic Group (see Fig 1.0) which dominates the priority landscape is of Mio-Pliocene age, comprising of andesite and reworked volcanic rocks.

Flat land of narrow valleys, coastal plains and river deltas dominate the periphery of the Natewa-Tunuloa Peninsula, which then give rise to areas of rolling hills and finally the stretch of mountainous terrain running along the mid-section of the landscape. The mountain range of the Natewa-Tunuloa Peninsula lies closer to the western coast along the bay area, leaving less coastal flat land along this section. The highest elevation within the landscape is Mt Uluiqala, at 2730 ft or 832m above sea level.

The landscape soils have predominately developed from the Natewa Volcanic Group of basic and intermediate andesite and other volcanics, and falls under the Suva Series of the soil classification for Fiji. The soils are described as Cumulic Hapludolls, being fine, smectitic, and isohyperthermic, due to the continuous humid landscape climate. Under the FAO-UNESCO soil classification, the landscape soils are described as Haplic Phaeozems, dark black soils rich in organic matter. The soil properties of the landscape are also characterised by being well drained, never waterlogging and not prone to water deficits in normal rainfall years. The known limitation of the soil however, is that they tend to be low in nitrogen, phosphorus, and potassium. Susceptibility to erosion tends to be low, but will form of slopes greater than 7 degrees.

Under the land utilization categories for Fiji, about 8% of the landscape area falls under Class I, land areas deemed suitable for agriculture in its natural state. Much of the area under this class tends to be located along the coastal margins of the peninsula on the eastern coast and areas within the vicinity of freshwater systems, such as the Buca and



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Koroivonu Rivers, the former being the major freshwater system and delta in the landscape. Classes II and III refer to soils requiring minor and major improvements in terms of soil conservation measures, prior to any form of permanent agriculture being undertaken. The bulk of the landscape land area falls under these two categories, roughly 55%, 15% to the former and 40% to the latter categories respectively. The final, Class V, refers to land classed unsuitable for any form of agriculture due to steepness and high erosion potential. The total area falling under this class within the landscape is 37%, recommended for permanent forest protection or stringent or limited use for productive forestry.

Due to the geologic layout of the Natewa-Tunulua Peninsula the landscape does not contain very expansive watersheds. At least 14 freshwater systems are contained within the landscape, the majority being first order creeks and streams. Only two are second order river systems, the Buca and the Koroivonu, both located on the eastern coast of the peninsula.

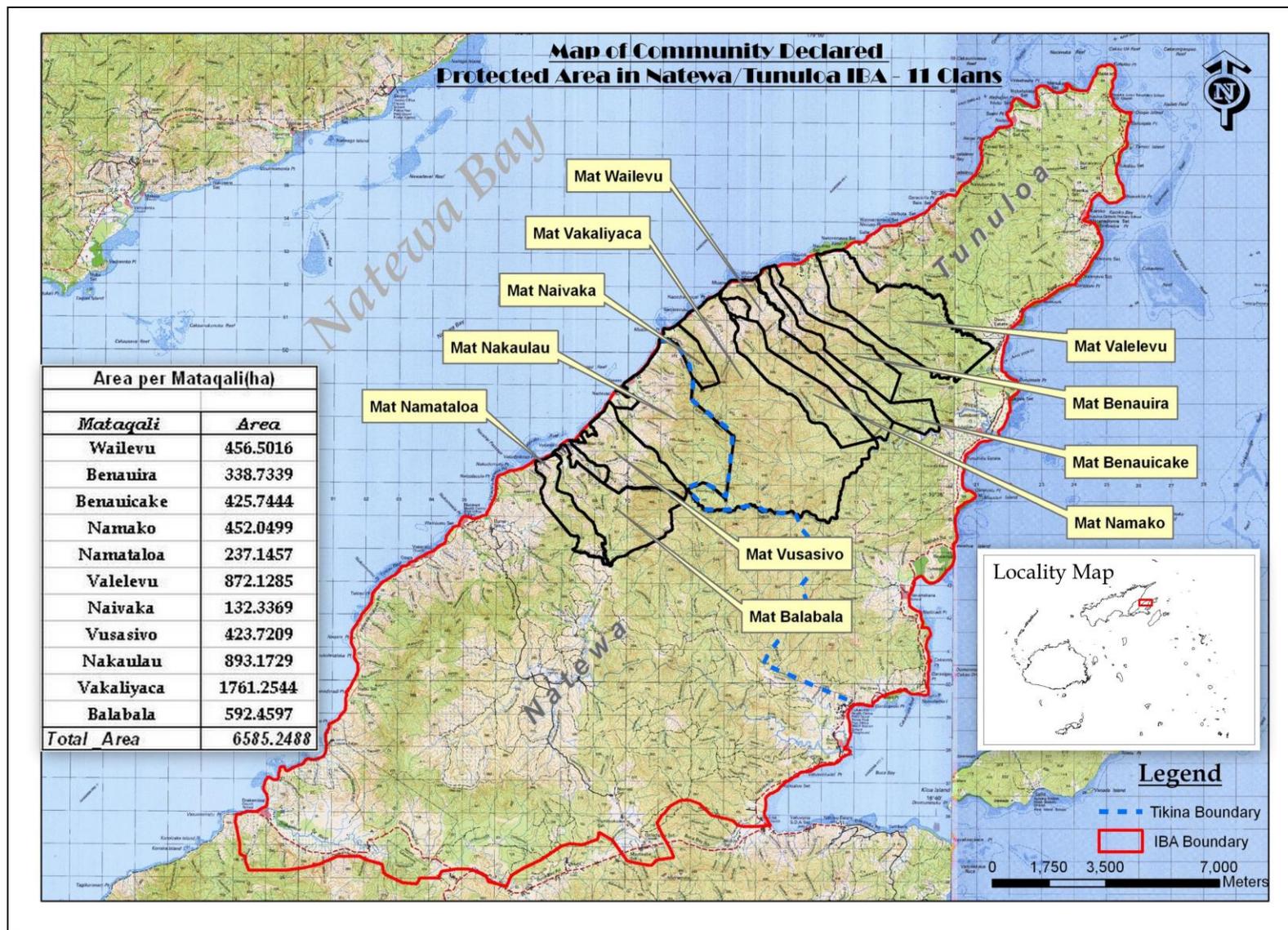


Figure 1 : Map of Natewa-Tunuloa Peninsula

Climatic Conditions

Fiji, under the Koppen-Geiger System of climate classification, has a wet equatorial climate, dominated by the presence of the Inter-tropical convergence zone (ITZ). The ITZ when close to the Fiji archipelago induces more rainfall, and is also responsible for the relatively uniform temperature throughout the year. The other influencing climatic variable over the archipelago is the predominant South East Trade Winds, which result in the orographic effect on larger high islands, such as Vanua Levu, creating a distinct windward wet eastern side and leeward dry western side for these islands.

The Natewa-Tunuloa Peninsula is located on the wetter windward side of Vanua Levu, and receives between 2000-3200 mm of rainfall annually and on average the annual temperature range in the area is between 19.6°C- 29.3°C. The drier, cooler months last from May to October and the warmer, wetter months last from November to April during which cyclonic occurrences and depressions usually feature. It should be noted that Fiji is also influenced by the ENSO (El Nino-Southern Oscillation) phenomenon, which occasionally induces below average rainfall throughout the country and droughts.

Biodiversity

Wet zone vegetation dominates the landscape due to it being located on the windward side of Vanua Levu. The combination of climate and topography provides for various natural terrestrial habitats and ecosystems, from littoral coastal shrub-land and mangroves, to low and montane forests as one ascends the terrain. The estimated forest cover area for the landscape is 70% (17,740 ha), of which roughly 35% is old growth lowland and montane forest and the remaining 35% comprising of remnant, scattered, multiple use forest and timber production plantation forest. The remaining non-forest 30% of the landscape includes coconut plantations, community agricultural areas, and grassland.

The forest within the landscape supports various unique assemblages of plant and animal species and is listed as a site of national significance under Fiji National Biodiversity Action Plan (NBSAP). The area has been prioritised for conservation not only as a national terrestrial biodiversity hotspot but also due to the area being one of the last few places in Fiji which retains forest with an intact range from lowland to montane habitats. The forest is noted to support endemic tree species such as the Masiratu (*Degeneria vitiensis*), Kaudamu (*Myristica spp*), Kouvula (*Endospermum macrophyllum*), Yasiyasi (*Syzygium spp*) and the Vure (*Weinmannia exigua*). Also included is the endemic understory palm species, *Balaka macrophyla*. The landscape forest is also noted to still support abundant standing populations of indigenous timber tree species such as Dakua (*Agathis macrophylla*), Kaunicina (*Canarium sp*) and the Sa (*Parinari insularum*).

Due to the landscape's intact forest range the area also retains very high bird diversity of which 21 of the 28 species present are endemic to Fiji. This includes the landscape's flagship and endemic species, the threatened Vanua Levu subspecies of Silktail (*Lamprolia v.kleinschmidti*), whose habitat is confined to the Peninsula, and the globally threatened



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friendly ground dove and black throated shrikebill. The landscape also supports flying fox and fruit bat populations in the area as a foraging ground. The forest has also been recorded to support unique ground dwelling species such as endemic terrestrial molluscs and cicadas, and is recommended as a high conservation value area based on invertebrate abundance and representativeness. The endangered large flax snail species, *Placostylus hoyti*, for instance retains an isolated population within a habitat restricting area in the landscape.

The freshwater systems in the landscape are also noted for biodiversity. The major river system in the landscape, the Buca, is noted for its high diversity of freshwater ichthyofauna and retention of endemic gobies. The river system presently supports the largest recorded breeding population of the endemic orange-spotted scaleless goby (*Schismatogobius chrysonotus*). Despite the various indications of the area's biodiversity significance, to date the landscape remains poorly researched or surveyed highlighting a need to collate a more comprehensive record of its natural biological assets.

Socio-Economic Conditions

The 2007 national census records the total resident population for the collective two districts (Natewa and Tunuloa) as 3,428 (male population-1,753 and female population-1,675). The projected landscape population growth rate is low (0.1-from 1996 to 2007) and likewise population has a relatively low population density 13.6 persons per km². In terms of landscape demographics the population is primarily agrarian, predominately indigenous, and contained within traditional rural village settings. Of the landscapes total population, the indigenous Fijians (iTaukei) make up 97.8%, whilst Fijians of Indian descent (0.4%) and Fijians of other ethnicities (1.8%) make up the remainder.

The landscape remains largely undeveloped, the closest urban locality being the township of Savusavu, 60 km to the south west. All sixteen villages are spread out along the coastal periphery of the peninsula; inland areas are mostly devoid of settlement. The collective villages include the seven making up Natewa District (Buca, Tukavesi, Dawa, Vusaratu, Natewa, Vosasivo and Nadavaci) and the nine belonging to Tunuloa (Naqaravutu, Muana, Wailevu, Navetau, Salia, Nailou, Karoko, Koroivonu and Nakanakana). The chiefly and traditional seat of administration in Natewa District is the similarly named village, Natewa, and for Tunuloa District it is Koroivonu Village. The majority of the landscape population reside within the confines of their respective village boundaries, however, some also reside in isolated homesteads along the coast or within the vicinity government stations. Majority of the villages (11) are located along the bay section of the peninsula and the remainder along the ocean facing coast.

The villages within the landscape are connected by a road network that runs a portion of the length of the coastal bay area, traversing the bottom southern inland section of the peninsula re-joining and running the length of the seaward coast. This road network in the landscape is dirt and gravel and along sections are severely degraded. Three villages, located towards the northern tip of the peninsula are not connected to this road network, accessing these areas require boats or walking along coastal or mountain paths. In terms of essential



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services most are located within the Natewa district, including a post office, police post, and health center in Tukavesi catering for the seaward bound coastal communities. A post office and health center is similarly located in Natewa Village and a police post in Wailevu, belonging to Tunuloa District, these services service mainly the bay area communities. Both primary and secondary education institutions are also present within the landscape. Access to electricity is limited within the landscape, most villages previously had village generators installed in the 80's and 90's, however, most of these were poorly maintained and now lie abandoned. Some villages now access electricity through renewable energy such as Buca and Muana who have installed mini-hydro dams and Vusasivo which is powered with solar energy. Telecommunications are fairly accessible and effective throughout the landscape, with wireless service provision.

With regard to households within the landscape, families tend to be generally extended with on average three or four generations residing together. The majority of households within villages are well built, most opting for concrete or wooden homes. With regard to domestic water access, most villages have communal reservoirs in inland water source areas, which are then piped to the village. Over 80% of the landscape population access water through this means, the remainder access water from rainwater tanks, wells, and directly from rivers and creeks. Household toilets are in the majority waterseal (75%), followed by pit (20%) and flush (5%). Recently, water issues have been highlighted within the landscape due to water sources being compromised and general decline in health and hygiene practices. Typhoid outbreaks have frequently featured within villages in the Tunuloa district and Buca Village within Natewa, highlighting major efforts needed to improve conditions. In terms of household access to cooking fuels, >90% still depend on open fires, demonstrating the need for sustainable sources of fuel wood.

With regard to local governance institutions, each village within the landscape is still traditionally led by a village chief, who heads a collective number of clans (*mataqali*). These village chiefs are then consolidated under a traditional government unit called the *vanua* in which an overall district or high chief presides. In Natewa the traditional head is referred to as "*Sovanatabua na Turaga na Vunivalu*", whilst in Tunuloa the chiefly head is referred to as the "*Turaga na Tui Tunuloa*". This traditional system is still very active in decision making processes during village and district meetings regarding the welfare and development of communities in the landscape. Both districts officially fall under the administration of the Cakaudrove Provincial Office, the official implementing arm of government. The provincial office maintains and coordinates elected headmen (*turaga-ni-koro*) in each of the villages, who are responsible for implementing, monitoring and reporting defined community activities, such as the collection of provincial levies or community projects. These village headmen are collectively led within the districts by an elected representative to the Provincial Office and Council (*Mata-ni-Tikina*), who is mandated to raise relevant issues with the provincial office and ensure appropriate actions are taken on behalf of the communities. The Provincial Office, which falls under the Ministry of Indigenous or iTaukei Affairs, also works in synergy with the Commissioner Northern Office, which is responsible for divisional development, under which the two districts fall.

Industry within the landscape is almost non-existent, the major activities still being agriculture based and there is limitation in employment opportunities. From the 1950's up until the last decade, the area was a major timber producing area, extraction being from native forest and pine plantation. Likewise copra played a major economic role for the area for many decades until the eventual decline of the industry. Presently the major source of revenue generation for communities is through dalo (*Colocasia esculenta*) and yaqona (*Piper methysticum*) cultivation. Copra is still harvested as an economic crop and honey appears a new lucrative source of income for the area. Generally much of what is cultivated in the area is for subsistence consumption. Record on poverty incidence for the landscape population is significantly high; surveys conducted in 2009 indicate 62% of the total population from the two districts falling within this category. The incidence of poverty, limitation in employment and income opportunities has translated into other social ills present within the landscape such as the cultivation and illegal trade of the drug, marijuana (*Cannabis sativa*). The general lack of economic opportunity coupled with poor social infrastructure is a contributing cause for the general underdevelopment of the landscape.

Selection of Landscape

The selection of the landscape is based on a number of key variables. Firstly, both the landscape's terrestrial and marine environments have been highlighted as national and global biodiversity hotspots and as priority national sites for conservation and protection. As previously mentioned, the overall landscape still remains poorly studied and researched and in order to ascertain its full biological and ecological value, there is an urgent need to document the existing natural assets contained within the landscape. This urgency is compounded due to increasing threats posed by localised anthropogenic and environmental sources such as climate change. The majority of human induced threats to the landscape stem from poor forest and land-use practices and is partially driven through the general lack of awareness on sustainable practices in combination with the socio-economic conditions of the communities in the area.

Secondly, efforts generated through COMDEKS will work toward effectively redressing the issue of poverty and need for viable income options for community livelihoods within the landscape. Efforts will focus on planning and improving the communities' management of existing natural resources, restoring landscape integrity to enhance ecological services and functions, and driving sustainable development through the revival of former, and sustainably exploiting new production areas. This particular aspect of poverty reduction and local economy enhancement within the landscape is also linked to Fiji's National Look North Policy and Vanua Levu Development Plan (VLDP) of which its main objective is to drive and enhance economic and social development on Vanua Levu and reduce poverty ratings for the northern division (54% of population living below the poverty line). It is ideally hoped that through the intervention of COMDEKS activities, the landscape profile will be raised to facilitate and garner more local government support toward improving the area's social infrastructure and sustainable enterprise development and investment.

Thirdly, this landscape also provides for an opportunity to document and revive traditional practices as part of the essence of reviving SEPL's, this includes the cultivation of irrigated taro field called "vuci" and masi production, as the area was once a regional center for the production of this traditional cloth. It will also target opportunities to meld local traditional knowledge and practices with modern innovations, concepts, and technology to invigorate the landscape and its communities. Finally, the landscape provides many opportunities to pilot activities and achieve the objectives of COMDEKS, demonstrating a model for SEPL best practice and replication. The area provides a unique opportunity to formulate, improve, and complement existing national policies and strategies as well as demonstrate on site action through inter-governmental agency, NGO, and community partnerships to protect and conserve some of the unique natural assets present. Additionally, the approach will revive and revitalise the landscape in terms of economic production, cultural integrity, social conditions, and development for the landscape communities. Approaches carried out in the area will provide institutional capacity building for communities and project partners to sustain existing efforts, ensure integration and synergy in effort, and upscale best practices and lessons learnt through the community projects implemented within the target landscape.

Landscape Relevance to SGP and OP5-CPS

Birdlife International, one of the very few NGO's active within the landscape, has through its active engagement and collaboration with the Fiji government's Agriculture and Forestry departments and stakeholder groups including the GEF SGP has managed to gain the support of local indigenous communities to conserve an area of 6,000 hectares of forests through a ten-year logging moratorium. The project also considers the active application of sustainable land management approaches and development of small scale community livelihood and income generating projects. The project supported through SGP is currently focused on six villages within the landscape. Through its long term efforts with these target communities the project has generated interest from other villages within the two districts and provides for the opportunity to upscale and build on some of the conservation and livelihood groundwork laid out by Birdlife International and its government partners since 2005. COMDEKS provides a conduit to expand and extend the community protected areas boundaries within the landscape and bring about the common vision of coexistence of the landscape's unique biodiversity in tandem with a more sensitive approach to realising the full potential of the landscape communities' socio-economic aspirations within the context of sustainability and resilience building.

With regard to the complimentary elements of the COMDEKS Strategy with the GEF-SGP OP5 Fiji Country Programme Strategy (CPS), the commonalities lie with the CPS focus on the following:

1. Alignment with Fiji's national Look North Policy to emphasize effort and resources toward the northern island of Vanua Levu and the three provinces it contains (Bua, Macuata and Cakaudrove). These areas are currently the SGP's geographic focus in

- Fiji for OP5. In alignment with this focus, the priority landscape in which COMDEKS will pilot its activities falls under the focal SGP province of Cakaudrove.
2. SGP focus and commitment to assist with national efforts to implement Fiji's CBD Programme of Work on Protected Areas (PoWPA). SGP as part of its country strategy highlights its focus on enabling its grants making process toward ongoing planning and baseline activities in PoWPA prioritised national sites (CPS-Objectives 1 and 2). The COMDEKS pilot landscape in Fiji is listed as a priority national site under PoWPA, listed as the Tunuloa Silktail Reserve.
 3. Focus on the promotion of integrated approaches for biodiversity conservation and sustainable resource use and management in target community initiatives and actions (CPS-Objective 2). This focus is also reflected in the objectives of COMDEKS and its intentions for community initiatives within the target SEPL.
 4. Enabling collaborative and strategic partnerships amongst government agencies, NGO's, academia, and communities within the priority geographic focus in Fiji, to bring about a more consolidated and holistic approach to achieving national conservation, development, and poverty reduction targets. This element of the CPS ties in with COMDEKS intention for the target landscape.
 5. SGP highlights priority efforts toward sustainable and renewable energy initiatives (CPS- Objective 3 and 4). Consideration for renewable energy initiative, to reduce community impacts on the priority landscape such as demand for wood fuel for cooking and also enhancing community livelihood through the use of renewable energy, is highlighted under COMDEKS.
 6. Particular emphasis of the CPS on community institution strengthening and support for long term self-support and proactive decentralised community driven approach to decision making regarding development and natural resource management within priority sites (CPS-Objective 10). This is also highlighted as a focus of COMDEKS to strengthen landscape communities' ability for planning, initiating livelihoods projects and using this as a platform to drive development and positive change within the landscape.
 7. Emphasis on community project designs to address the national problem of poor forest and land use management prevalent and pandemic across Fiji, and a major contributor toward biodiversity loss, poverty exacerbation, and reducing resilience in areas such as food and water security (CPS-Objective 5-7). This issue is also identified as a current if not a major threat to the integrity of the target COMDEKS landscape in Fiji and initiatives proposed under COMDEKS will work towards similarly addressing this issue.
 8. SGP focus and COMDEKS also complement each other in highlighting crosscutting issues and the need to ensure community projects account for gender sensitivity, poverty reduction, livelihood enhancement, and resilience building against climate impacts.
 9. The CPS and COMDEKS will also complement each other in terms of ensuring delivery of OP5 Country targets and outcomes. COMDEKS will operate at a localised scale ie specifically two districts within a focal CPS site, and ensure it is retroactively contributing to the SGP Fiji CPS as it implements and monitors COMDEKS initiatives and efforts. The SGP and COMDEKS will also work in a strategic fashion through



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collaboration to ensure value for money with regard to financing community initiatives within the target SEPL in Fiji. It is expected that COMDEKS grant funding will be matched as co-financing by an equal amount in regular funding from GEF core resources at the landscape level.

Situation Analysis-

Landscape Threats

The major direct threat identified for this priority landscape is deforestation and the loss of native old growth forest. The loss of forests in this particular landscape is of particular significance not only from perspective of the potential loss of some the world's most unique and rare forms of biodiversity but enhances the vulnerabilities of the landscape communities through the diminished capacity of landscape ecological services and functions to negative social (poverty, food security etc) and environmental impacts (climate change). One of the root causes identified for deforestation within the landscape has been commercial logging of the landscape's indigenous forest existent in the area since the 1950's, the replacement of these former lowland native forest with timber plantations of pine and mahogany and the continuance of logging activities in an unsustainable manner.

The second major direct threat has been through the continuance of unsustainable agricultural practices within the landscape such as shifting cultivation and swidden. The apparent lack of local awareness on land sustainable management approaches and innovations has resulted in the growing encroachment of agricultural areas into existing forest boundaries and abandonment of former production areas. This trend has resulted in the loss of soil fertility, compromised quality of water sources, and sedimentation of low lying and coastal areas. These variables put the landscape communities at risk especially in the context of food security, declining productivity of agricultural areas through soil loss; and indirectly through the decline in coastal fisheries through the disruption of marine ecosystem function through sediment overload.

The underlying cause for these direct threats occurring within the landscape is essentially the lack of concerted and coordinated effort by the both the communities themselves and the local government with regard to natural resource planning, general awareness on environmental issues and repercussions from poor community decision and actions, and the general lack of opportunities and effort towards to improving livelihoods and social infrastructure. Unless livelihoods and income opportunities for communities are improved in tandem with better social infrastructure, communities in the landscape will continue to perpetuate unsustainable practices within the landscape.

Landscape Opportunities

The political will of the local government to firstly implement key actions within priority national biodiversity sites and secondly to address the issue of under-development and poverty on Vanua Levu, places the target SEPL in a strategic position to gauge government support towards COMDEKS initiatives carried out in the priority landscape. Initial consultations with various government stakeholders have indicated support for the objectives of the COMDEKS Project as it aligns with their existing programme of work (internal policies, strategies, and operational plans).



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The two focal government departments, Forestry and Agriculture-Land Use and Planning, both have an active interest in the landscape and well developed programmes (awareness, training, and innovations) to enhance the objectives to improve community forest and land management approaches and practices in the area.

Aside from Birdlife International, the landscape presently lacks the diverse presence of organisations and community projects types prevalent in other rural areas in Fiji. The communities within the landscape are, for a word, left to their own means. It is timely that the COMDEKS Project has surfaced in the area and should be used to form new and effective partnerships with the communities in the area, draw from a wide array of local skill sets and expertise, assist site communities in implementing projects, and achieve the objectives of the COMDEKS Project. The lack of a diverse array of organisations in the area can also be viewed as an opportunity in the sense there is less need to synergise and consolidate agendas had there been varied organisations present. Instead COMDEKS will be able to identify strategic partners and bring them into the picture.

The already established local community conservation group (Sisi Initiative) initiated by Birdlife International is currently active within the landscape. The group is a voluntary network of community members made of representatives of land holding clans from six villages, who have made the commitment to conserve portions of forest as part of the landscape's community forest reserve. The current focus of the group is to continue strengthening the management of their forest reserves, improve institutional strengthening of the group within the community network and external partners, and enhance community development through planning and implementation of livelihood projects. The COMDEKS Project provides the opportunity to strengthen this group's institutional capacity, as they are a local landscape group, and expand their network throughout the landscape.

Landscape Baseline Assessment Findings

In Fiji, the baseline assessment and community consultation workshop aimed at piloting the Resilience Indicators and developing the Country Programme Landscape Strategy for the Natewa-Tunuloa Peninsula took place at the end of January, 2013. The baseline assessment provided key landscape stakeholders with a process to rapidly gather information about the current state of the priority landscape based on expert and in situ experience which can then be used as a basis to develop and set goals and desired outcomes within the strategy. The baseline assessment utilises a standard set of 20 perception based questions designed to cover key features of SEPL's that confer an indication of resilience. The main purpose of the indicators is to assist communities in developing resilience strengthening strategies that encourage local innovation, ecosystem protection, and beneficial interactions between different landscape elements. These 20 SEPL indicators for resilience questions are grouped into four main themes: i) ecosystem protection and the maintenance of biodiversity; ii) agricultural biodiversity; iii) local knowledge, learning, and innovation; and iv) social equity and infrastructure.

For the theme of ecosystem protection and the maintenance of biodiversity, the perception from stakeholders regarding the landscape specific to district level and the entire SEPL was fairly high (mean value >3.00), but indicated a static trend in the status of the landscape in reflection to its past condition. The high value registered for the standard deviation (>0.60) under this particular theme also suggests that consensus perception regarding this theme is still significantly varied and more effort needs to be invested into this theme to bring about change in consensus perception.

Some of the potential actions identified that should improve indicator score values for this theme included-

1. Improving the community management of existing forest protected areas and increasing the areas within the landscape for indigenous forest protection and low impact use.
2. Assess abandoned and degraded areas within the landscape and apply suitable land use management systems or restoration initiatives to revive ecosystem function and productivity.
3. Establishment of village forest nurseries and undertaking a community landscape restoration programme with primary focus on indigenous trees and timber trees with economic potential such as sandalwood.
4. Re-establish now abandoned commercial timber plantations within the landscape and ensure plantations operate under sustainable management systems.
5. Promotion of sustainable land use management systems and approaches within the landscape.
6. Improvement in community climate change awareness, understanding, and adaptation planning for resilience building.
7. Revival and strengthening of traditional land management, cropping, and production systems in tandem with modern and locally applicable technologies and innovations.

For the second theme, agricultural biodiversity, the perception values from stakeholders registered a mean value above 3.00. On reflection upon the standard deviation, the extreme high value (>0.90) indicates a greatly varied perception regarding this particular theme across responding landscape stakeholders. The extreme variation in perceptions is due to the varying environment and socio-economic conditions the various communities within the landscape are exposed to.

The potential actions identified by the landscape stakeholders which could improve upon this theme included-

1. The establishment of community seed banks, through model farms and revival of traditional farming methods such as the vuci. The seed banks would retain all varieties of traditional crop varieties and distribute to all farmers within the landscape.
2. The development and establishment of a small scale community resource centre to retain information and be used as a training centre for community members.

3. Community farming systems promoted within the landscape to be encouraged and geared towards three outcomes for production, food security, maintaining generic diversity, and income generation.
4. Map out and document the landscape agricultural resources and diversity. Devise suitable farm and production plans and/or explore opportunities for local food processing and to improve local self-sufficiency.

The results of the perception survey on the third theme knowledge, learning and innovation, registered a value of 3.19 by stakeholders when consolidated for the SEPL. The stakeholder perception regarding this theme showed a better consensus for Natewa District (SD-0.48), whereas there was a higher registered standard deviation value for Tunuloa District and the overall SEPL, suggesting further effort required to be invested in this particular theme especially with documentation and long term retention of traditional knowledge and practices. The mean values are indicative of the willingness in the communities to adapt to change, improve, develop, and adopt new agricultural biodiversity management practices to cope with changing conditions, but the rate or innovation is low.

The potential actions identified through the stakeholder discussions included-

1. Community activities targeted at showcasing and competing through local agricultural and traditional events, to encourage the production of traditional crops and using events for awareness raising, exchanging information and crop varieties, marketing local produce, and opportunities to document and record.
2. Women focused activities with resource production, craft development, and skill enhancement, both on traditional and modern commodities and to document traditional knowledge specific to their gender.
3. Specific traditional knowledge documentation activities focused on the elders within the landscape, which may be used for communication projects to enhance the revival of the landscape through community actions.

The final theme, social equity and infrastructure, registered an above average mean value (>3.40) for SEPL stakeholders perceptions within the landscape. The overall perception of stakeholders as indicated from the standard deviation (SD-0.65) suggests a very varied view and need for greater effort under this theme to eventually bring about consensus. Stakeholders confirmed that although community institutions are in place, their capacities for natural resource management or bringing in new innovative ideas and concepts to enhance development are limited.

The main actions identified by the stakeholders for inclusion in improving this particular theme were-

1. Community activities that would lead to the community institution self-sufficiency, such as capacity building, leadership, financing, management, communications, monitoring and evaluation, networking, etc.
2. Specific gender related projects focusing on building the capacities of women within the community and ensuring active participation in local community governance and leadership systems.

Social infrastructure projects focused on water improvement, sustainable energy access, collective community infrastructure- health centres and schools, and as a priority, roads, within the SEPL. As COMDEKS will not be able to fund these initiatives as stand-alone activities, co-financing by partners will need to be found in order to address these issues.

For the detailed analysis please refer to the Fiji SEPL Baseline Assessment Report-2013

Landscape Strategy (Outcomes and Impact Indicators)

The vision of the COMDEKS Programme in Fiji is to “protect, restore and sustainably manage the Natewa-Tunuloa SEPL natural assets to sustain and guarantee the perpetuation of heritage, livelihoods, resilience, and opportunities for current and future communities within the landscape.

The overall long-term objective of the COMDEKS Programme Landscape Strategy is to “enhance socio-ecological production landscape resilience through community based activities”.

The COMDEKS Country Programme will work toward achieving the following outcomes and impact indicators-

Outcome 1: Critical ecosystems and habitats within the landscape are protected, restored, or effectively placed under an acceptable and recognised sustainable natural resource management regime.

- i. Area of critical ecosystems within the landscape brought under community protection or form of sustainable management.
- ii. Area of priority degraded ecosystems identified within the landscape restored or rehabilitated.
- iii. Number of studies documenting natural assets present within the landscape
- iv. Area of existing and former plantation forest brought under replanting programme and sustainable forest management regime.

Outcome 2: Agricultural biodiversity and productivity within the landscape is maintained and enhanced through sustainable land use practices and approaches.

- i. Area of agricultural land brought under sustainable land use management regimes.
- ii. Number of community farmers actively taking up and practicing sustainable land use management and demonstrating productivity.
- iii. Number of communities establishing viable seed banks for enhancing crop diversification.
- iv. Number of community farmers actively reviving sustainable traditional farming methods and retention of traditional breeds of local crop.

Outcome 3: Local livelihoods sensitive to maintaining landscape natural assets within a sustainable exploitation context is enhanced, improved, and replicated through community driven income generation and development initiatives.

- i. Number of landscape appropriate livelihood projects implemented and demonstrating viable income generation and diversification.
- ii. Number of community households' income level improving through participation with livelihoods initiatives.
- iii. Number of markets established and actively accessed by landscape community households as part of livelihood initiatives.

Outcome 4:

Institutional and local community capacity strengthened to enhance participatory planning on conservation, sustainable production issues affecting landscape resilience.

- i. Number of local community based institutions established or strengthened to actively apply integrated landscape management.
- ii. Number of strategic partnerships formed or networks established to upscale community based efforts and initiatives.
- iii. Number of best practice approaches and lessons learnt captured at the local, national and international level.
- iv. Number and type of policies influenced at the local, landscape, and national levels.

Typology of Potential Community Based Projects and Criteria for Selection

Both the findings generated by the landscape baseline assessment and consultations carried out with key landscape stakeholders have identified the following projects with strong potential to achieve the COMDEKS Project objectives and anticipated outcomes for Fiji and contribute to realising the Satoyama Initiative's vision of "societies in harmony with nature". As a sample, this includes projects that-

1. Demonstrate effective protection of existing natural biodiversity within the landscape and rehabilitating degraded areas to restore ecosystem connectivity, services, and function (e.g. restoration of buffer strips, natural vegetation near community water sources).
2. Demonstrate an improvement in and the promotion of sustainable agricultural practices within the landscape (organic farming, model farming, agroforestry, etc.).
3. Integrate local knowledge and modern tested approaches and innovations that will protect local crop diversity, promote cultural practices, and contribute to livelihoods improvement (e.g. traditional taro irrigation system, traditional mulberry cloth production, etc.).
4. Enhance a multi-faceted approach in achieving COMDEKS outcomes, for example designing agricultural activities that promote agricultural crop diversity, local food security and improve income potential for communities.
5. Utilise research and planning in project design that directly lead to building knowledge regarding the landscape and achieving a conservation target in tandem

- with improving local socio-economies (e.g. supporting District Planning and addressing development needs with reference to natural resource management, Land Use Planning and improving utilisation of land as part of landscape production approach).
6. Strengthen local capacities for self-management and long term sustainability (e.g. trainings, meetings to strengthen local networks and improving stakeholder planning, and partner collaboration etc.).
 7. Complimentary in design and with the potential to secure external funding outside COMDEKS especially development components which may go beyond its objectives and financing capacity (e.g. drainage project to improve community health, ice plant, or processing plant as part of livelihoods enhancement)

The funding for programme activities will be channelled to local landscape communities through non-governmental organisations and community based groups. Funding submissions and the process for selection will follow existing GEF-SGP operational guidelines and practices. As part of the selection process for projects to be implemented within the landscape the following criteria will be considered.

1. Addresses one of the four outcomes detailed in the strategy.
2. Contributes to and addresses elements such as resource planning and use within the landscape parameters of carrying capacity and resilience, cyclic use of natural resources, recognition of the value and importance of local tradition and culture, multi-disciplinary and partnerships collaboratively applying natural resource management and enhancement and contribution toward local socio-economies.
3. Utilises technologies and innovations that are renewable, proven, and easily transferable and replicated.
4. Enhances and protects landscape diversity and encourages resilience building.
5. Demonstrates maximum use of natural and human resources that are locally available.
6. Enhances connectivity of ecosystems within the landscape.
7. Strengthening of local community groups through capacity and institutional building.
8. Recognises the role of women and youth in project implementation.
9. Demonstrating strong partnerships with government and NGOs.
10. Demonstrate an indication of in kind support to project activities.
11. Considers climate change and poverty reduction as a crosscutting issue to be addressed.
12. Includes a knowledge management and communications component as part of its activities.

Monitoring and Evaluation Plan

The monitoring and evaluation system of this strategy will be carried out under existing GEF-SGP operating procedures. The COMDEKS project will be governed through the NSC Committee formed under the GEF OP 05 SGP programme and will be informed through the

National Coordinator. The COMDEKS will be kept as a separate agenda during NSC meetings, where the National Coordinator will be responsible for providing project status updates and progress.

Monitoring and Evaluation will be carried out in two levels, the country programme landscape level and at the level of individual projects.

Country Programme Landscape Level M&E: The SEPL scorecard will be utilised at a defined timeframe annually to measure and document change against the baseline assessment values generated in February 2013. A final assessment of SEPL indicators will take place at a workshop financed by a grant. This will serve as a final evaluation of the Country Programme Landscape Strategy.

Landscape Specific Project Level M&E: Prior to project approval, each project will have to identify the specific landscape strategy outcome to which it is contributing and will monitor the corresponding indicators. Progress towards the outcome will be updated using the grantees' progress reports. Additionally, the individual project will have an indicator system aligned with GEF/SGP OP5 indicators.

Minimal allowances for an on-site **COMDEKS** Coordinator will be co-financed through the grants and will assist the SGP Country Team in providing on-going monitoring services and also troubleshooting activities where necessary.

Knowledge Management Plan

As part of the knowledge management plan, COMDEKS landscape grantees will be required to include a communications and documentation component in the project designs and prior submissions for funding. Each grantee will be expected to generate and document project best practices and lessons learnt. Community grantees will be encouraged to document their project experiences, activities, and outcomes in the vernacular (in local language). The National Coordinator with the support of a local communications expert will either independently collate and develop knowledge and communications products or alternatively work with community grantee representatives to develop them.

Some of the knowledge and communication products expected to be developed as part of the COMDEKS Project by its grantees will include-

1. Technical Reports highlighting each of the four SEPL themes
2. Case Studies adding to the knowledge regarding the landscape and initiatives bringing about positive change to the landscape and communities within it
3. Policy Papers guided by field based results generated through landscape activities
4. Communications Print material- posters, brochures, etc.
5. Photo and video stories and landscape specific and community experience documentaries

Site Specific

- For landscape information sharing, demonstration, and dissemination, grantees will be encouraged to showcase efforts at annual district events such as the Natewa and Tunuloa Day.
- Materials developed in the vernacular will be distributed widely within the landscape and both village and district representatives will be encouraged to champion the SEPL approach during provincial meetings, to share with other districts best practices and lessons learnt.
- Journalist and media access to community grantees will be encouraged to showcase and generate awareness locally.

National

- Landscape related policy briefs will be generated and circulated to relevant national forums for discussion and highlighting contributions of COMDEKS to Fiji's International commitments such as the CBD, UNCCD and UNFCCC.
- Through collaboration with government partners, knowledge products will be developed to highlight multi-sector and partner collaboration in contributing and implementing national strategies.