

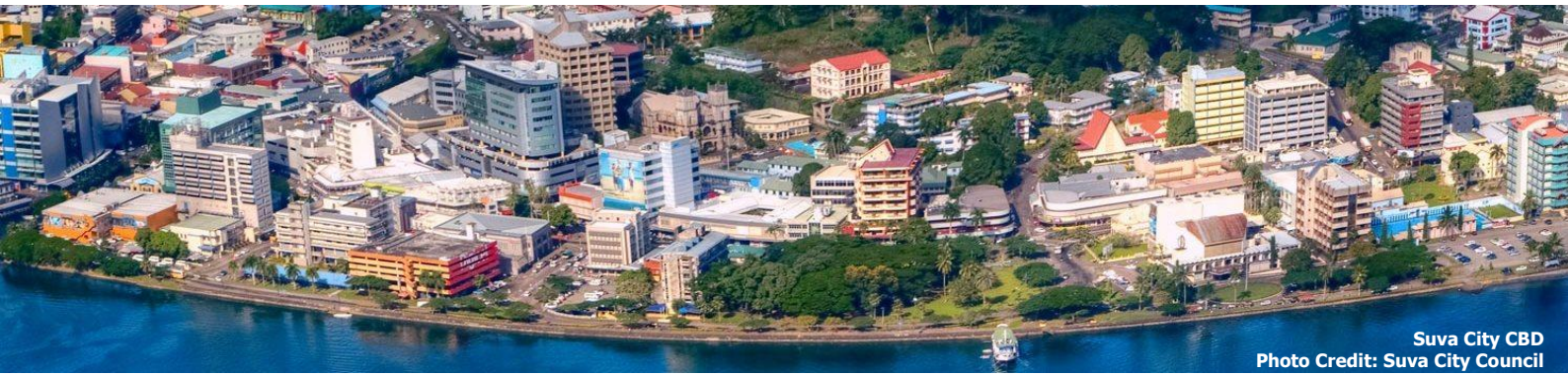
2018 - 2038

REGIONAL LAND RELEASE PLAN FOR THE GREATER SUVA AREA

(Pacific Harbour – Nausori – Korovou)

iTaukei Land Trust Board
Department of Strategic Planning, Research and Development





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Foreword

The Greater Suva Area is located within Fiji's Central Division and is one of the fastest growing region accommodating approximately one third of Fiji's total population. It is the political and administrative capital of Fiji, and has become an important regional centre within the South Pacific. In 2016, the iTaukei Land Trust Board (TLTB) decided to revise its Greater Suva Region Master Plan which covers the corridors from Pacific Harbour to Nausori, and up north to Korovou.

Maintaining a delicate balance of land uses within the Greater Suva Region over the next 20 years so it remains a great place to live, work and play is the motivation behind the Greater Suva Region Master Plan 2038 – a 20-year blueprint for the future. The Plan is the outcome of an intensive process of integration and collaboration, which include wide-ranging stakeholder consultations, workshops and face to face interviews, to ensure that it is as inclusive as possible and covering a wide range of issues affecting sustainability and economic growth in Fiji.

The Greater Suva Region Master Plan is not a stand-alone document, and like any good Plan, it is synched and aligned (directly and indirectly) with an array of existing national and international policies, frameworks and treaties such as the National Development Plan (2017), A Green Growth Framework for Fiji (2014), the Urban Policy Action Plan (2006), the Urban Growth Management Action Plan for the Greater Suva Region (2015), the Greater Suva Transportation Strategy (2015), the National Climate Change Policy for Fiji (2012), the Rural Land Use Policy (2006), the National Housing Policy for Fiji (2012), and the Fiji Tourism Development Plan (2007). Likewise the plan is aligned to the 2030 Agenda for Sustainable Development Goals (2015-2030) which comprises of a set of 17 goals that provides a shared blueprint for ending poverty, protecting the planet and ensuring prosperity for all. Specifically, the plan is aligned to SDG 11 on making cities and human settlements inclusive, safe, resilient and sustainable.

In aligning the Greater Suva Region Master Plan to the national and international frameworks/plans above, the Plan as a result contributes to ascribing to the common goal(s) and develops a pathway for the region for the next twenty years.

One of the key objectives of the Plan is to identify and demarcate adequate areas for potential development, for purposes such as infrastructure and services delivery, employment opportunities, housing, recreational facilities and commercial enterprises which are needed to meet the growing needs of the Greater Suva Region population in the future. A key consideration for this Plan is the protection of historic and cultural resources, open spaces and agricultural land.

Additionally, the Plan encourages economic growth within our rural and semi-rural areas by promoting investment (and mixed-use) opportunities within identified growth centres such as Namelimeli, Muaivuso, Upper Khalsa Road junction, Nakelo, Korovou; and the neighbourhood centre in Taunovo, Waibau, Naduru, Kiuva, Logani Sebi, and Wailau. The growth centres are strategically sited on identified hot spot areas and within key intersections or transportation corridors; a deliberate strategy implored to decentralize services, reduce urban primacy, promote socio-economic development and neighbourhood vitality within these areas. These centres will be the service hubs for the surrounding communities within the urban hinterlands of the Greater Suva-Nausori conurbation.

More land release for low and high density residential purposes are being proposed in the greater Vuci and Kuku Road area, along Qiolevu Road (off Princess Road), Lokia flats, greater Wainibuku–Makoi–Tovata areas, interior of Delainavesi, and pocket areas along Queens Road from Muaivuso to Pacific Harbour. The land release for residential purposes are intended to meet the high demand for housing land as well as to accommodate a variety of housing types that encourages the provision of housing for all citizens, irrespective of their economic background. The associated policies take into account both the low density and high density residential development in order to facilitate greater housing choice and to encourage more people to live near areas where some and/or all services are or will be readily available.

The Greater Suva Region Master Plan recognizes the need to release additional land for new industrial uses and it has earmarked sites in Naitalasese, Sauniwaqa, and upper Wainibuku area due to its

locational vantage. It is expected that these sites will generate a lot of economic activities and create more local jobs.

The Plan supports the strong agricultural sector and resource lands as an important source of livelihood, income, and employment; and it will ensure that the prime agricultural sites as indicated by the Ministry of Agriculture and demarcated within Greater Suva Region Master Plan are protected from other uses in order to promote food security and transition to green growth in the years to come.

The development of the proposed road networks as shown in the Plan are foreshadowed to make it easier for residents, business and visitors to connect with jobs, growth centres, and between one town/city to another. Cycling and walking paths should also be taken into account when developing new roads or upgrading the existing ones.

We have heard the stakeholder aspirations for the Region, and drawn on these feedbacks to create a Regional Plan that we are adamant would effectively manage growth and land use within the Greater Suva Region, thus improving the economy, make communities vibrant and centres prosperous. While the TLTB will be using the plan as a guide to issue new leases and/or amend existing ones, the private sector and other government agencies/ statutory bodies also help shape the GSR in their own unique and significant ways.

The Greater Suva Region Master Plan 2038 encompasses a vision for *transforming the Greater Suva into a prosperous and sustainable region through smart and resilient land futures*. The vision is built upon the TLTB's organisation vision of "Excellence in land management service to meet the expectation of all stakeholders", and the overall national government vision of "Building a Better Fiji for All".

Lastly, the Plan would provide a blueprint that envisions the best and most appropriate future land use proposal for development within the Greater Suva Region over the next ten to twenty years. I urge everyone to collaborate and support the iTaukei Land Trust Board Greater Suva Region Master Plan 2038.



Tevita Kuruvakadua
Chief Executive Officer
iTaukei Land Trust Board

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ACRONYMS AND ABBREVIATIONS

AFL – Airports Fiji Limited
CAAF – Civil Aviation Authority of Fiji
DTCP – Department/Director of Town & Country Planning
EMA – Environment Management Act
FEA – Fiji Electricity Authority
FRA – Fiji Roads Authority
GSA – Greater Suva Area
GSR – Greater Suva Region
HA – Housing Authority
LOU – Land Owning Unit
LUP – Land Use Plan
MRD – Mineral Resources Department
NFA – National Fire Authority
PRB – Public Rental Board
SPC – Secretariat of the Pacific Community
TFL – Telecom Fiji Limited
TLTA – iTaukei Land Trust Act Chapter 134
TLTB – iTaukei Land Trust Board
WAF – Water Authority of Fiji

Executive Summary

Introduction

The Greater Suva Area boundary is located within Fiji's central division and is one of the largest regions in terms of its population. The boundary basically covers the corridors from Pacific Harbour to Nausori, and up north to Korovou. The Nausori to Korovou corridor was also considered in view of the growing demand of land along this corridor, and also in view of the government initiative in declaring the areas from Nausori Airport towards the Ba River as Tax Free Zones.

The total land area within our GSR study area accounts for around 105,907 hectares. 72%, of which is iTaukei Land, that is, 76,406 hectares. The remaining 28% is either state or freehold land.

Consultations

The first stakeholder meeting was held in June 2016 where all stakeholders openly contribute their views and ideas, and agree on a future image for the GSR (vision development). Thereafter, a face to face interview with other relevant agencies was undertaken in July 2016 to early February 2017. This is an opportunity where stakeholders openly share detail information about their organisation future plans and ideas and how best it can be captured in the GSR LUP. A final consultation meeting was held in late February 2017 where the draft LUP and Planning Report was presented to all stakeholders. A group discussion was also carried out in order to discuss any areas of improvement prior to submitting the LUP to DTCP for formal approval.

In addition, the draft land use plan was also presented to all the Roko Tui Offices whose jurisdiction is covered within the GSR study area. This includes the Roko Tui Tailevu, Roko Tui Rewa, RokoTui Naitasiri, Roko Tui Serua, and the Roko Tui Namosi.

Moreover, the TLTB Central Eastern Staff were consulted twice during the early and the last phase of the project. This has generated a lot of positive discussions, terrific responses, and thought provoking ideas from the Team. In terms of implementation and enforcement, the Central Eastern staff plays a crucial role in these areas to ensure that the plan achieve its desired outcomes.

The GSR LUP was also submitted twice to the TLTB Board of Trustees for endorsement. The latter submission was made in February 2017 where it was well received and endorsed by the Board. Likewise, prior to our submission to the Department of Town and Country Planning, a final site inspection was carried out with an Estate Officer from the Central Eastern Regional Office in order to verify the proposed land use against the existing situation on the ground. This is to ensure that the GSR LUP can be actually implemented on the ground in the years to come.

Issues

Through stakeholder's workshops and face to face interviews, data inventory and analysis, a number of key land use issues related to the future development of the GSR have been identified. The formulation of this GSR LUP will help address some these key land use issues which are listed as follows:

- Climate change and sea level rise
- Balancing land use demands such as residential, commercial and industrial uses, etc.
- Even distribution of economic development within the GSR
- Congested transportation network
- Overcrowding
- Incompatibility of neighbouring land uses
- Increased informal settlements
- Shortages of housing supply and affordable housing
- Urban sprawl/urbanisation
- Unemployment
- Preservation of good agricultural land, natural resources and open space
- Limited land supply
- Provision of adequate infrastructure and utilities (e.g. water and sewerage services) to serve the residents of the GSR both now and in the future

Smart Growth Principles

Planning, managing, and governing cities and regions in a sustainable way, by maximizing economic opportunities and minimizing environmental damage, can be seen as a major challenge in this new century. Thus, transforming “traditional cities” into “Smart Cities” is an increasingly important demand. Thus, the development of this GSR LUP generally takes into consideration several smart growth principles. These include the following:

- Mix Land Uses
- Compact Building Design
- Range of Housing Opportunities and Choices
- Create Walkable Neighbourhoods
- Foster Distinctive, Attractive Communities with a Strong Sense of Place
- Preserve Open Space, Agricultural land, Natural Beauty and Critical Environmental Areas
- Strengthen and Direct Development Towards Existing Communities
- Provide a Variety of Transportation Choices
- Encourage Community and Stakeholder Collaboration in Development Decisions

Population

The demographics data taken from the 2007 population census reveals that the total population in Fiji stands at 837,271. Out of which, approximately 307,785 people are residing within the GSR, that is 37%.

Climate Change and Hazards

Climate change is expected to bring about an increase in the frequency and intensity of extreme events such as flooding, droughts and cyclones. Whilst Fiji is a very low emitter of greenhouse gases, which is an insignificant contributor to climate change, the country is highly vulnerable to its impacts.

In terms of natural hazards, the table below summarises the expectancy of potential hazards from happening within the GSR.

Natural Hazard	Expectancy
Cyclone	Almost certain
Tsunami	Possible
Earthquake & Liquefaction	Possible
Drought	Likely
Flooding	Likely (in low lying areas)
Storm Surge	Likely (along the coastal areas)

Informal settlements

The number of people living in squatter settlements in Fiji has already shown a sharp growth in recent years. It is variously estimated that close to 7 percent of Fiji’s total population and nearly 15 percent of the urban population live in over 200 squatter settlements around the country. The GSR has the highest number of squatters, with an estimation of 90 settlements.

Within iTaukei Land, it is estimated that 80% of iTaukei reserve lands (land set aside for the maintenance, sustenance and support of the communal land owning units), are now occupied by informal settlements (vaka-vanua settlers) alongside land owning units. This take-up of land, without the involvement of the TLTB, by informal vaka-vanua developments approved by landowners represents major unplanned commitments on large tracts of iTaukei land in the GSR.

There are at least four categories of people living as urban squatters in the GSR:

- The poorest people with absolute poverty, unemployed or survivors based on social welfare assistance or a pension;
- People with some skills, self-employed or largely engaged in informal activities;
- People with formal employment / salary earners and with a relatively higher standard of living;
- Displaced farming families due to land expiry of their lease lands.

Infrastructure

Infrastructures represent those types of capital goods that serve the activities of many industries. The quality of an infrastructure directly affects a country's economic growth potential and the ability of an enterprise to engage effectively. It has been proven that insufficient and poor infrastructures can impede a nation's economic growth and international competitiveness, which is a major cause of loss of quality of life, illness and death.

For drinking water, the reticulated water system from the Water Authority of Fiji covers approximately 85% of the GSR. It is obvious that those within town and city boundaries, and other growth centres like Korovou and Pacific Harbour, are all connected with the WAF metered water. However, some rural areas within the GSR are without water reticulation. For instance, areas outside of Nausori Town to Korovou and the Namosi Road junction, etc.

For waste water, the waste water reticulation covers approximately 30% of the study area population. The remaining population uses septic tanks. Issues with the sewer system is high infiltration, overloaded plants, frequent overflows, electrical and mechanical failures and lack of technical skills at the operational level to manage the system.

In terms of solid waste management, all municipal council's waste within the GSR are dumped in the Naboro Landfill (opened in 2005) which is located off the Queens Road approximately 24km from central Suva. The landfill receives 184 tons of waste per day, of which municipal councils account for about 70% and waste management companies for 30%. It can manage (and is contracted to receive) up to 100,000 tonnes per annum. However, this estimated amount has not been reached which thus requires an annual subsidy to be paid to the operator.

For the transport network, most of the area within the GSR is highly accessible and have a well-connected roads infrastructure. However, the issue is that it has suffered from a lack of investment over the past few decades and while the growth in vehicle numbers has continued, the road infrastructure to support those vehicles is aging and highly in need of repair and upgrade.

Land Use Policy Recommendations

The land use policy recommendations are thoroughly discussed in Chapter 3 of this Planning Report. It clearly highlights the vision of the GSR which is "To transform the Greater Suva into a prosperous and sustainable region through smart and resilient land futures". This vision is built upon the TLTB's organisation vision of "Excellence in land management service to meet the expectation of all stakeholders", and the overall national government vision of "A better Fiji for All". The following topic below are assigned with the necessary policy statement which relates to the future development of the GSR and policies relating to each individual land uses. Thus, the policies in this section must be well understood by all TLTB officers prior to the issuance of any lease.

- Residential
- Commercial
- Industrial
- Mixed use
- Neighbourhood Centre
- Agriculture
- Housing
- Environment
- Climate
- Local Area Planning (Neighbourhood/Comprehensive Development)
- Land Uses
- Civic and Community Development
- Telecommunication facilities
- Open Space and Recreation
- Heritage
- Growth Strategy
- Infrastructure Development
- Tourism
- Rezoning
- Compatibility of Different Land Uses
- Informal Settlement

- iTaukei Reserve Land
- Forestry
- Special Economic Zone
- Green Belt
- iTaukei Land Trust Board

The table below summarises the various land use allocations for the proposed GSR LUP.

Land Use Type	Area (HA)	Percentage
Mixed Use Node	3,535	6.20
Neighbourhood Centre	553	0.97
Residential (Low Density)	4,036	7.08
Residential (High Density)	3,184	5.58
Commercial	57	0.10
Industrial	332	0.58
Agricultural	28,877	50.62
Civic	1,316	2.31
Special Use (Hotel)	153	0.27
Special Use (Integrated Development)	473	0.83
Special Use (Forestry)	11,749	20.60
Special Use (Conservation)	2,064	3.62
Special Use (Reservoir)	715	1.25

Chapter 1 – Overview

The iTaukei Land Trust Board (TLTB) Land Use Plan (LUP) for the Greater Suva Area was approved by the Director of Town and Country Planning (DTCP) in 2007, and it serves to guide the overall character, physical form, growth, and development of iTaukei Land within the Greater Suva Region. In 2016, the TLTB has decided to revise its Greater Suva Region Land Use Plan due to the changing conditions on the ground and also in terms of meeting the increasing demand of the region's fastest growing population.

The Greater Suva Area is Fiji's fastest growing region which accommodates approximately one third of the total population. It is the political and administrative capital of Fiji, and has become an important regional centre within the South Pacific Region. It has undergone quite a number of studies in the past, two of which are highly related to land use planning and management, that is, the (1) Urban Policy Action Plan (UPAP) and the (2) Urban Growth Management Action Plan which builds from the results of the UPAP. These two planning documents set some of the national development targets and key thematic areas where the TLTB Land Use Plan is aligned to.

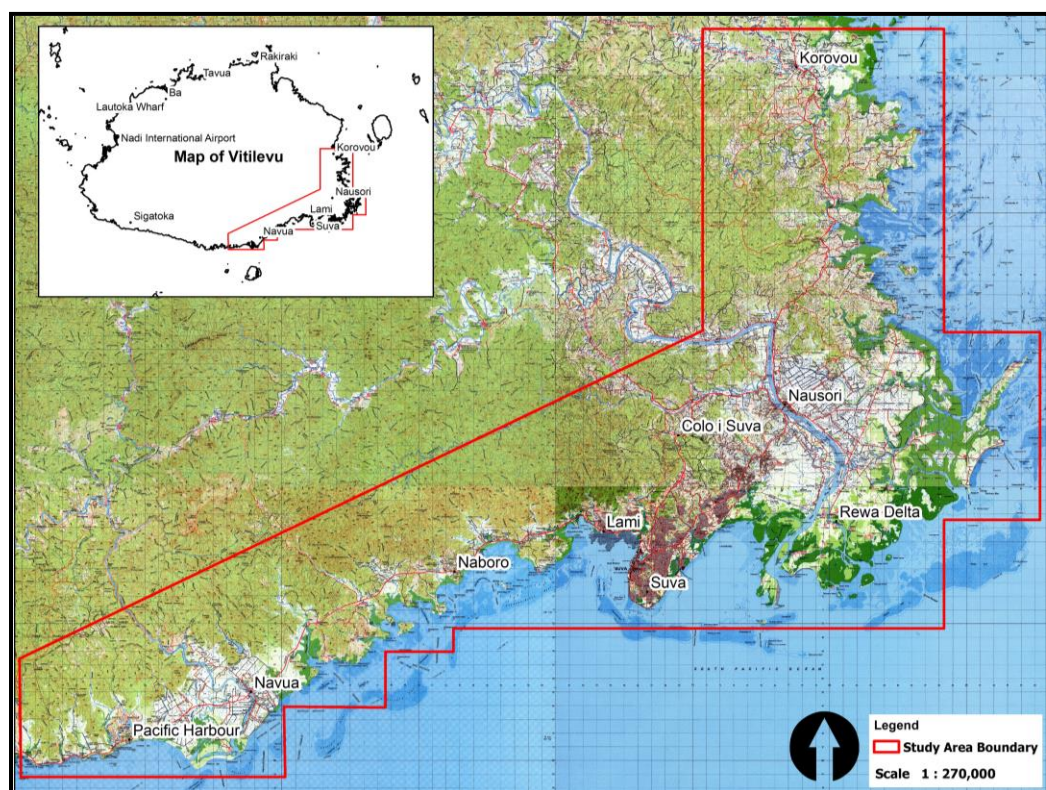
The unprecedented growth in population and housing over the past decade has also brought inevitable challenges associated with rapid growth, such as increased traffic congestion, overcrowding, increased demand on land for various uses, increased demand on utilities, services and infrastructure, etc. These challenges are also part of the reason why the TLTB decided to revise its existing plans by using land as a key resource for development that considers both the needs of the present and future generations.

1.1 Regional Context

The Greater Suva Area boundary is located within Fiji's central division and is one of the largest regions in terms of its population. In this project, the boundary for the GSR basically covers the corridors from Pacific Harbour to Nausori, and up north to Korovou. The Nausori to Korovou corridor was also considered in view of the growing demand of land along this corridor, and also in view of the government initiative in declaring the areas from Nausori Airport towards the Ba River as Tax Free Zones.

The total land area within our GSR study area accounts for around 105,907 hectares. 72%, of which is iTaukei Land, that is, 76,406 hectares. The remaining 28% is either state or freehold land. Figure 1 clearly shows the GSR study area.

Figure 1 GSR Study Area



1.2 Key Issues

Maintaining a delicate balance of land uses within the GSR is essential to ensure that adequate infrastructure and services, employment opportunities, housing, recreational facilities and commercial enterprises are available to meet the growing needs of the GSR population. As key components of the overall character of the Region, it is also important that its historic and cultural resources, as well as Agricultural lands and open space, be preserved and protected.

Through stakeholder's workshops and face to face interviews, data inventory and analysis, a number of key land use issues related to the future development of the GSR have been identified. These key land use issues are summarized in Table 1.

Table 1 Key Land Use Issues within the GSR

- Climate change and sea level rise
- Balancing land use demands such as residential, commercial and industrial uses, etc.
- Even distribution of economic development within the GSR
- Congested transportation network
- Overcrowding
- Incompatibility of neighbouring land uses
- Increased informal settlements
- Shortages of housing supply and affordable housing
- Urban sprawl/urbanisation
- Unemployment
- Preservation of good agricultural land, natural resources and open space
- Limited land supply
- Provision of adequate infrastructure and utilities (e.g. water and sewerage services) to serve the residents of the GSR both now and in the future

1.3 Purpose of the Land Use Plan

There are several basic characteristics of a land use master plan. First, it is a physical plan which should address physical growth. Second, it is long range in scope, covering a time period greater than one year, usually ten years or more. Third, it is comprehensive in intent which covers a large geographical area and encompasses all the functions that make a community work, such as transportation, housing, land use, utility systems, infrastructure, recreation, etc. Lastly, the land use master plan is a guide to decision-making which must address the current issues faced by the people within the study area.

The purpose of this land use master plan is to:

- Provide a suggested blueprint that envisions the best and most appropriate future land use proposal for development within the GSR over the next ten to twenty years.
- Guide and assist the Board and other relevant Agencies (e.g. Utilities and Infrastructure Agencies) in its decision making process in terms of developing future budgets, planning for land use and infrastructure development, and other important land use decisions.
- Provide the general public and investors with information on future land use needed to make investment decisions.
- Help contribute in achieving the principles of smart growth, sound planning, and wise resource management.
- Incorporate the goals and policies related to land management and development that are provided in the national documents such as National Development Plan for Fiji, the Green Growth Framework, the Urban Policy Action Plan, the "Urban Growth Management Action Plan, the National Housing Policy, etc.
- Support the overall national government vision of "Building A Better Fiji for All"

This LUP only considers iTaukei Land within the GSR boundary. It excludes freehold and state land, as well as areas within the municipal boundary.

1.4 Land Use Planning Process

The TLTB LUP for the GSR was prepared by the TLTB Land Use Planning Unit, under the Strategic Planning, Research and Development Department. Various government and non-government organisation were extensively involved along the way through stakeholders meeting and face to face interviews.

The first stakeholder meeting was held in June 2016 where all stakeholders openly contribute their views and ideas, and agree on a future image for the GSR (vision development). Thereafter, a face to face interview with other relevant agencies was undertaken in July 2016 to early February 2017. This is an opportunity where stakeholders openly share detail information about their organisation future plans and ideas and how best it can be captured in the GSR LUP. A final consultation meeting was held in late February 2017 where the draft LUP and Planning Report was presented to all stakeholders. A group discussion was also carried out in order to discuss any areas of improvement prior to submitting the LUP to DTCP for formal approval.

In addition, the draft land use plan was also presented to all the Roko Tui Offices whose jurisdiction is covered within our GSR study area. This includes the Roko Tui Tailevu, Roko Tui Rewa, RokoTui Naitasiri, Roko Tui Serua, and the Roko Tui Namosi.

Moreover, the TLTB Central Eastern Staff were consulted twice during the early the last phase of the project, and it has generated a lot of positive discussions, terrific responses, and thought provoking ideas from the Team. In terms of implementation and enforcement, the Central Eastern staff plays a crucial role in these areas to ensure that the plan achieve its desired outcomes.

Furthermore, the process involved in creating this LUP is outlined in six phases as summarised below. It can be seen that stakeholders are involved in all phases of planning since they have different roles and differing levels of involvement. This land use planning process supports an integrated and participatory approach rather than the one associated with top-down procedures, which ensures that all stakeholders do have a voice and a choice in the development decisions that would impact their lives. The flow chart diagram in Figure 2 clearly depicts the linkages of the various phases in a land use planning process.

1.4.1 Phase 1 – Why do we plan? (Project Initiation)

This is the first stage of the land use planning process which involves a quick analysis of the problems and challenges that needs to be addressed within the study area, and the setting of basic project objectives that it wants to achieve.

1.4.2 Phase 2 – Where are we now? (Assessment and Analysing)

This phase involves a lot of data collection from various stakeholders and agencies. Data collected are then analysed in order to map out the best future development direction.

1.4.3 Phase 3 – Where do we want to go? (Refining Objectives and Establishing Key Development Ideas)

This is the phase where the objectives set earlier will be reviewed in light of the findings from the assessment of the current conditions (Phase 2), and where the major development directions will be set for the future.

1.4.4 Phase 4 – How do we get there? (Developing Proposals)

This is the key phase in any land use master planning process. It is where the various land use alternatives are developed to meet the objectives set earlier and the challenges that were identified during the stakeholders' consultation process.

1.4.5 Phase 5 – How do we get it done? (Implementation Strategies)

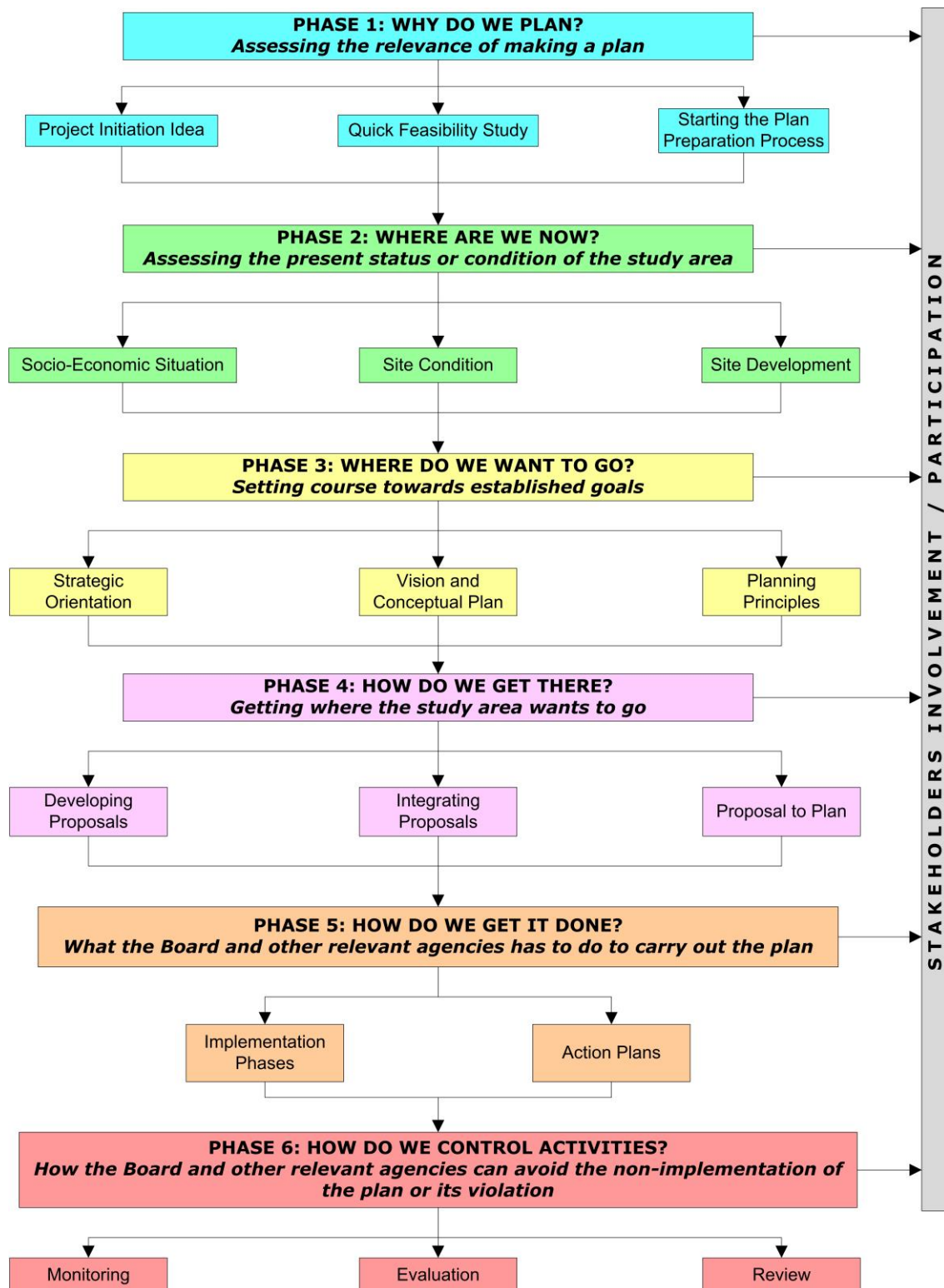
This is also a significant phase in any planning process. Without implementation, a plan would be nothing more than a document and the whole land use planning process will be considered as

incomplete. This phase ensures that there is a proper implementation mechanism with a strong institutional drive in place.

1.4.6 Phase 6 – How do we control activities (Monitoring and Evaluation)

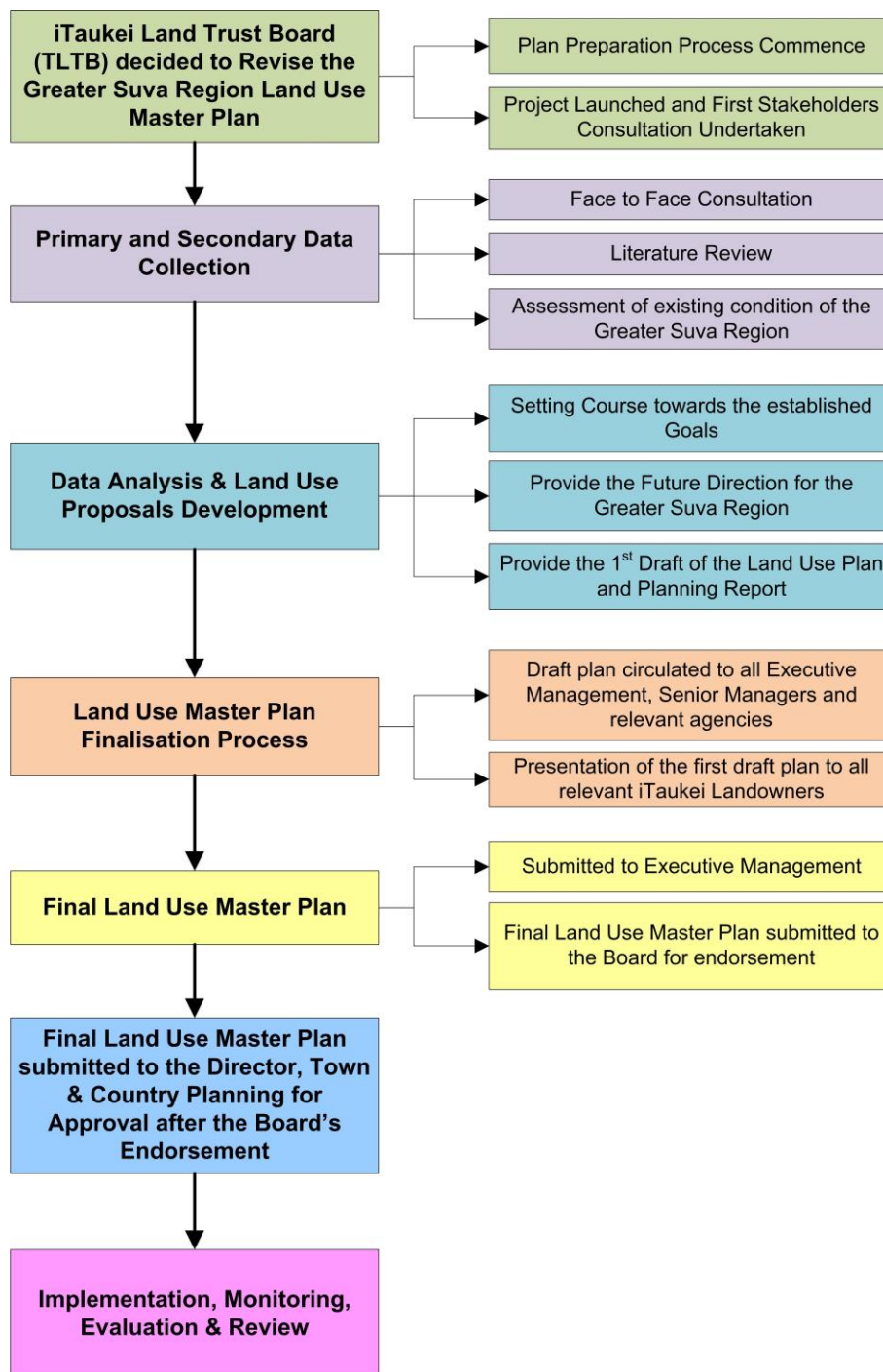
In this phase, any proposed development activities are properly monitored to ensure that it is carried out in accordance with the plan. Likewise, annual evaluation is necessary in order to know the progress of the entire plan.

Figure 2 Land Use Planning Process Flowchart



1.5 Methodology

The method used to compile this GSR Land Use Plan is clearly shown in the flow chart diagram below, which is well linked to the Land Use Planning Process in Figure 2. It was TLTB's initiative to revise its



existing land use plan for the GSR. After the first stakeholder's consultation, the project team travelled around various government and non-government organisation to collect data. The data were then analysed to ensure that it responds adequately to the most relevant and current land development issues and trends.

Geographic Information System software (ArcGIS) was used to map and analyse a wide variety of existing conditions and to map the way forward for the study area. The land use plan then goes through a finalisation process before it is submitted to the Department of Town & Country Planning for approval.

Figure 3 Methodology Flowchart

1.6 Planning Policy Hierarchy for Fiji



Figure 4 Hierarchy of Planning Policy in Fiji

1.6.1 Sustainable Development Goals

The “Transforming our world: 2030 Agenda for Sustainable Development (2015-2030)” is a plan of action for people, planet and prosperity where it seeks to strengthen universal peace in larger freedom and recognized that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development.

It is comprised of a set of 17 Sustainable Development Goals (SDG) and 169 targets that provide a shared blueprint for ending poverty, protecting the planet and ensuring prosperity for all. The SDGs integrated and

indivisible and it balance the three dimensions of sustainable development: the economic, social and environmental.

Specifically, one of the 17 goals is directly related to cities and urban planning/urban development which is SDG 11 on making cities and human settlements inclusive, safe, resilient and sustainable. The targets for Goal 11 are:

- Ensure access for all to adequate, safe, affordable housing and basic services and slum upgrading.
- Access to safe, affordable, accessible and sustainable transport systems, road safety, road expansion, special consideration to the needs of the vulnerable, women, children, persons living with disabilities and older persons.
- Enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management.
- Protect and safeguard the world’s cultural heritage.
- Reduce the number of death, economic losses caused by disasters including water-related disasters, protecting the poor and people in vulnerable situations.
- Paying special attention to air quality, municipal and other waste management to reduce adverse environmental impact of cities.
- Access to safe, inclusive and accessible green and public spaces particularly for women, children, older persons and people with disabilities.

TLTB is supporting positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening its regional development planning on iTaukei land which is well aligned to the goal and targets above.

1.6.2 National Development Policies and Plan, Green Growth Framework, etc.

These are the National Goals and Priorities for the next five to twenty years. It specifically set the national development targets and established key thematic areas that Fiji hopes to achieve in the near future. These targets are aligned to the three pillars of sustainable development to ensure that the future development is both sustainable and can be sustained on an on-going basis.

1.6.3 Regional Development Plans, Urban Policy Action Plan (UPAP), Urban Growth Management Action Plan (UGMAP) & TLTB Sustainable Land Use Plan

This is the highest level of spatial planning in Fiji at the moment. It contains strategic policies and proposal reflecting aspirations and objectives of the region. The TLTB Sustainable Land Use Plan is also considered as a regional plan since it is made for the whole region rather than a single local area only. The regional land use plan is an important tool in the decision making process for TLTB and its stakeholders.

1.6.4 Local Area Plans, Town Planning Schemes, Advisory Plans

The Local Area Plans, etc. contains more detailed policies and proposals for local area planning, which is guided by Regional Development Plans. It specifically indicates how an area can be used and built, for instance where buildings can be located, how big they can be and what they can be used for.

1.7 Relationship to Existing Regional and National Policies

The relevant policies and recommendations from the following national and TLTB policy documents are incorporated into the policy section on this report. This is to ensure that this LUP is well integrated and works in concert with other national and regional plans, thus promoting a future development that is based on participatory approach where it is both sustainable and can be sustained on an on-going basis

1.7.1 Urban Policy Action Plan (UPAP)

The UPAP (2004 – 2006) is a joint Government of Fiji/ADB initiative with the goal of achieving an efficient, effective and sustainable urban sector that can make an optimal contribution to the social, economic and environmental development of Fiji. Thus, its strategy for urban development will ensure that the urban sector maximises its contribution to:

- Economic growth;
- Poverty reduction and
- Spatial equity.

The UPAP managed to identify three key thematic development areas that underpin the performance of the urban sector, namely, the (1) urban land market, the (2) housing market and the (3) condition of urban infrastructure and service. Moreover, it also highlighted major cross cutting elements characterising the urban sector in Fiji such as the (4) urban environment, (5) economic development and poverty reduction, (6) urban planning and management, (7) financing of urban services, and the (8) institutional frameworks. Likewise, two other thematic areas that is highlighted in the report include the (9) Legal and Regulatory Framework and (10) Capacity-building and Human Resources Development. Implementation matrices are provided for each cutting element indicating policy objectives, actions, timeframe and key stakeholders.

1.7.2 UPAP Thematic Areas that is Relevant to TLTB

The thematic developmental areas that are directly relevant to TLTB (together with other agencies) are further elaborated below together with its policy recommendation.

Urban Land Market Development

Goal: To ensure that an adequate supply of land is available to facilitate urban development, a robust land market and affordable housing.

Recommendation for TLTB:

- i. Assisting in joint ventures including involvement of local government producing land with TLTB supported by central government;
- ii. Taking a lead role in applying revised policy such as repackaging up front capital for development and infrastructure costs, into pilot projects;
- iii. Packaging of premium payments, fast track lease processing, access to finance institutions and interested private developers, and
- iv. Generally, provide a situation for landowners to have greater choice in the development process where TLTB feels that landowners are quite capable of managing their own lands.

Housing Market Development

Goal: Affordable housing for all

Recommendation for TLTB:

- i. New housing development (expanding supply of affordable housing lots) – A formal partnership between Housing Authority and TLTB that delivers outcomes is of paramount importance.

Urban Planning and Management Framework

Goal: Sustainable and efficient urban planning and management framework

Recommendation for TLTB and Other Agencies:

- i. Implement a pilot land development project in Greater Suva Region (GS)
- ii. Effective Urban and Regional Development Policy Framework for GS
- iii. Operational appropriate and affordable standards for land provision; infrastructure and services to the urban poor.
- iv. Coordinated development of peri-urban and native Fijian village areas in GS Region
- v. Formulate GS Plan; effective implementation framework, instruments and incentives to encourage efficient urban spatial growth

Institutional Framework and Governance

Goal: Effective and efficient sector institutions timely meeting the needs of stakeholders

Recommendation for TLTB and Other Agencies:

- i. The National Planning Process
 - Strengthen the urban dimension of the national planning process
- ii. Urban Land Availability
 - TLTB to deliver effective, timely and affordable supply of native lands for urban development
 - To provide landowners with alternative development packages to formally develop their lands
 - Effective partnerships between TLTB and landowners, HA, private sector, LCs and national government
- iii. Improved urban governance
 - Urban governance principles mainstreamed into the day to day applications in institutions, systems, structures and processes

Capacity-building and Human Resources Development

Goal: Enhanced capacity to effectively manage urban development

Recommendation for TLTB and Other Agencies:

- i. Support to TLTB, Housing Authority, etc. in urban land development:
 - a. Strengthen agencies' capacity in urban land development
 - b. Development of pilot projects with joint responsibilities
 - c. Agree human resource sharing and pooling
 - d. Design and agree programme of staff enhancement and training

Based on the above development areas and cross cutting themes, the UPAP report further identified five overarching urban sector issues which are of paramount importance. Two of the five overarching issues where the TLTB (together with other agencies) has significant role to play include:

- i. Haphazard urban growth with increasing levels of informality resulting in sub-optimal contribution to national economic growth and continued urbanisation of poverty.
- ii. Inadequate provision of acceptable and affordable formal new housing lot sub-divisions push poor people into informality and squatting. Current Government efforts such as programs by the Housing Authority are not affordable for the urban population below the poverty line, while Government's options to subsidize are limited.

The resolution of the above overarching issues is fundamental to improving the efficiency and effectiveness of the urban and peri-urban sector in Fiji. The directions for resolution and the proposed way forward are clearly highlighted in the UPAP report.

1.7.3 Urban Growth Management Action Plan (UGMAP)

The Urban Growth Management Action Plan for the Greater Suva Region (a joint Government of Fiji and Asian Development Bank Technical Assistance) is a second policy document which builds on the results of the Urban Policy Action Plan (UPAP), with the intention of providing both a strategic

framework and a plan to strengthen orderly urban development planning and management within the Greater Suva Region.

The first UGMAP was completed in early 2005 and it underwent review in 2015. Three spatial development alternatives were highlighted in the review which includes the following:

- i. **Trend:** which assumes that population growth and thus development will continue in the same general areas as previously to at least 2033, taking into account what is currently known about pending and other committed projects;
- ii. **Growth Centres:** assumes major investments to develop new or currently small centres and encourage relocation through incentives and/or restrictions on development in existing areas;
- iii. **Densification:** which would encourage higher densities in selected urban areas and provide appropriate supporting levels of infrastructure and other services.

The UGMAP review report further mentioned that the preferred strategy would be the combination of the Growth Centre and Densification alternatives, which is improved by promoting the best assessed characteristics of each. This Preferred Strategy will then be broken down into its constituent parts in terms of policies, plans and projects which will be required to implement the strategy over time.

1.7.4 Greater Suva Transportation Strategy, 2015 – 2030

The Greater Suva Transportation Strategy is a transport blueprint for the GSA over the next 15 years. It addresses six key issues such as:

- i. Traffic Congestion
- ii. Enforcement and Regulation
- iii. Bus Infrastructure and Routes
- iv. Quality of Transport infrastructure
- v. Road Safety
- vi. Driver Education and Awareness

To tackle the above issues with the transport network, seven key programs (collection of projects) have been identified in the study which includes:

- i. Dedicated Bus Lanes
- ii. Improved Bus Terminals
- iii. Linked Traffic Signals
- iv. Improved Pedestrian Safety
- v. Enforcement
- vi. Intersection Upgrades
- vii. Planning

To ensure that the Greater Suva Transportation Strategy is successfully implemented, the following steps are crucial:

- i. Engage – with stakeholders and the community
- ii. Align – budgets with strategy
- iii. Monitor – and evaluate implementation
- iv. Adapt – to changes in the environment

1.7.5 A Green Growth Framework for Fiji – Restoring the Balance in Development that is Sustainable for Our Future, 2014

The Green Growth Framework for Fiji: Restoring the balance in Development that is Sustainable for our Future is a 'living document' which was developed in early 2014. Its intention is to support and complement the Peoples Charter for Change, Peace and Progress and the 2010-2014 Roadmap for Democracy and Sustainable Socio-Economic Development and its successor national development documents. The Roadmap and the Green Growth Framework therefore share the same vision: A Better Fiji for All.

To support the above vision and also taking into consideration the global and regional developments in green growth, eight guiding principles of the Framework haven been identified which are as follows:

- i. Reducing carbon 'footprints' at all levels;
- ii. Improving resource utilization and productivity (simply put, doing more with less);

- iii. Developing a new integrated approach, with all stakeholders collaborating and collectively working together for the common good. The cross-cutting nature of issues relating to sustainable development requires harmony and synergy in the formulation of strategies;
- iv. Strengthening socio-cultural education of responsible environmental stewardship and civic responsibility;
- v. Increasing the adoption of comprehensive risk management practices;
- vi. Supporting the adoption of sound environment auditing of past and planned developments, in order to provide support to initiatives which not only provide economic benefits but also improve the environmental situation;
- vii. Enhancing structural reforms in support of fair competition and efficiency; and
- viii. Incentivising investment in the rational and efficient use of natural resources.

Moreover, Ten Thematic Areas have also been identified to stimulate the development and/or strengthening of an integrated and cross-cutting national enabling environment for future development which is sustainable and can be sustained in Fiji.

Every attempt has been made to keep the Thematic Areas to a manageable number whilst at the same time taking special care to be fully inclusive. The individual Areas are grouped in alignment with one of the three pillars of sustainable development, in order to emphasise that the Green Growth Framework is a tool to support and complement actions which contribute to truly sustainable development.

Each of the ten Thematic Areas includes a section on key challenges and a way forward, including actions and time-bound indicators, intended to support and complement those in the 2010-2014 Roadmap and successor national development plans. The Thematic Areas identified under the three pillars are:

Environment Pillar:

- i. Building Resilience to Climate Change and Disasters;
- ii. Waste Management;
- iii. Sustainable Island and Ocean Resources;

Social Pillar:

- i. Inclusive Social Development;
- ii. Food Security;
- iii. Freshwater Resources and Sanitation Management;

Economic Pillar:

- i. Energy Security;
- ii. Sustainable Transportation;
- iii. Technology and Innovation; and
- iv. Greening Tourism and Manufacturing Industries.

1.7.6 Republic of Fiji National Climate Change Policy, 2012

Climate change is expected to bring about an increase in the frequency and intensity of extreme events such as flooding, droughts and cyclones. Threats to marine ecosystems (such as coral bleaching, beach erosion, ocean acidification) and terrestrial ecosystems (such as soil erosion, salt water intrusions in low lying coastal areas, reduced soil fertility, and increased pests and diseases) are also anticipated. Whilst Fiji, as a very low emitter of greenhouse gases, is an insignificant contributor to climate change, the country is very vulnerable to its impacts.

This National Climate Change Policy provides guidelines for sectors to ensure that current and expected impacts of climate change are considered in their planning and implementation programmes. In addition, relevant sectors are encouraged to take up climate change mitigation initiatives as part of Fiji's contribution to global efforts to reduce greenhouse gas emissions.

Some of the key sectors that are most likely to be affected by climate change in Fiji include:

- i. Agriculture
- ii. Human health/welfare
- iii. Marine and fisheries

- iv. Forestry
- v. Communications and communication infrastructure
- vi. Transport and transport infrastructure
- vii. Water resources and water infrastructure
- viii. Waste and waste infrastructure
- ix. Energy and energy infrastructure
- x. Tourism
- xi. Urban development and housing

Moreover, the National Climate Change Policy highlighted eight policy objectives and the strategies to achieve each of the objectives. The eight policy objectives are:

- i. Mainstreaming – Integrate climate change issues in all national and sector policy and planning processes.
- ii. Data collection, storage and sharing – Collect, manage and use accurate and scientifically sound climate change-related data and information.
- iii. Awareness raising – Increase awareness and understanding of climate change-related issues across all sectors and at all levels in Fiji.
- iv. Education and training – Integrate climate change in school curricula, tertiary courses, and vocational, non-formal education and training programmes.
- v. Adaptation – Reduce the vulnerability and enhance the resilience of Fiji’s communities to the impacts of climate change and disasters.
- vi. Mitigation – Reduce Fiji’s greenhouse gas emissions and implement initiatives to increase the sequestration and storage of greenhouse gases.
- vii. Financing – Ensure sustainable financing for climate change efforts.
- viii. International and Pacific region participation – Effectively participate in and contribute to international and Pacific region climate change negotiations, discussions, commitments and outcomes.

1.7.7 Rural Land Use Policy for Fiji, 2006

The Fiji National Rural Land Use Policy provides guidelines for the allocation and management of resources in the rural sector. It prioritises sustainable development in terms of the sustainable utilisation of resources and preserving a healthy environment with the following broad strategies in mind:

- i. Protecting the integrity of ecological systems and biodiversity,
- ii. Reducing the rates and areas of land degradation,
- iii. Protecting natural resources,
- iv. Reducing damage to fragile ecosystems,
- v. Maintaining and extending indigenous forest and plantation forest coverage,
- vi. Promoting sustainable farming systems,
- vii. Improving rural environmental conditions,
- viii. Encouraging the formation of Land Husbandry Groups,
- ix. Preventing and controlling pollution, and
- x. Implementing international environmental accords to which Fiji is a signatory.

There are several policies outlined in the report where the TLTB is considered as the “authority responsible, primary collaborator, or a co-operating party”. These policy statements are listed below:

- a) Increased public awareness that:
 - i. Land resources, including soil, water and flora are interdependent and must be sustainably managed in an integrated way, and
 - ii. The individual land user and the community have a responsibility for preventing and/or mitigating land degradation.
- b) Increased public awareness of the values of trees and forests
- c) A regulatory framework for the protection and sustainable development and management of rural land resources that recognises the following:
 - i. The indigenous forests will be protected and managed for their biodiversity, conservation and production values by adopting Sustainable Forest Management (SFM) principles;

- ii. Protection of the environment and management of water, land, forestry and other natural resources will be conducted in an ecologically sustainable manner;
 - iii. The planning processes need to outline strategies for prevention of land degradation as well as the symptoms;
 - iv. The plantation forests must be managed and administered in a manner that sustains site quality;
 - v. Sound land use practices to maintain and sustain soil qualities.
- d) Appropriate mechanisms to protect farmlands and forests from fire, pests and pathogens.
 - e) Research, training and education to improve land assessment and evaluation; land husbandry practices; farm and forest productivity and values; and land use planning.
 - f) Institutional reform to support and enhance capabilities in all rural sector activities.
 - g) Protection of water and soil values.
 - h) Good governance strategies to expand and diversify sustainable economic activity, increase employment, added value earnings and promotion of social development goals.
 - i) An effective Fiji involvement with and contribution to global issues and laws related to the environment, rural development, sustainable land management, etc.

The policy objectives for the above policy statements are thoroughly discussed in the National Rural Land Use Policy Report.

1.7.8 Fiji's National Housing Policy for Fiji

The Fiji National Housing Policy offers a series of recommendations for creating an enabling approach which takes a holistic view of the housing sector and proposed policy interventions to improve the performance and efficiency of its key sub-components, such as supply of serviced land for housing, increased availability and easy access to housing finance, provision of residential infrastructure and recovery of user charges, improving availability of building materials and increased local construction capacity and skills, consultative and participatory urban and land use planning, and review of planning and building standards. The policy also proposed a review of mandates of the public agencies from an enabling policy perspective to make the housing sector to perform better.

The policy clearly outlines the various role of TLTB in terms of:

- i. Informal Housing
- ii. Housing Land
- iii. Housing Finance

1.7.9 Fiji Tourism Development Plan, 2007 – 2016

The Fiji Tourism Development Plan 2007 – 2016 provides a framework for the sustainable growth of tourism in Fiji. It is intended to improve Fiji's asset base in concert with the marketing plan that focuses on increasing visitor numbers. The plan is more related to marketing rather than a development plan where it market tourism throughout Fiji, three of which are within (partially within) the GSR, namely Suva, Pacific Harbour, and Tailevu.

The Plan further highlights ways for facilitating tourism growth in Fiji in terms of financial incentives, streamlining of the approvals processes, and maintenance of currency control. If properly managed, these incentives will provide a good return on investment to the economy and good revenue to the government.

1.8 Relationship to Existing TLTB Policies

TLTB has a number of policies in place which are quite relevant and related to this revised Greater Suva Master Plan. These policies are listed as follows:

1.8.1 TLTB Forest Policy, 2010

The vision of this policy is "for all stakeholders to protect and manage the forest resources in order to sustain the environment into the future for the benefit of all". It has eight policy goals which are listed as follows:

- i. Develop strategies to ensure that the landowners benefited from the use of their resources.
- ii. To promote and protect the sustainable development of the Natural forests and its resources.

- iii. To assist resource owners in the commercial development of Forest resources through investment of timber proceeds and better management of their resources so as to maximize benefit out of its use.
- iv. Standardize all Forestry plantation leases, Fiji Pine and Mahogany leases, Conservation leases, concessions and licenses.
- v. Envision new concepts on forest management that optimize benefits and returns to the forest owners such as carbon trading.
- vi. Develop asset capitalization of forest landowners.
- vii. Develop forest/forestry data base in consultation with the Forestry Department on National Forest Inventory (NFI), forest harvested, royalty payments, protection forest, forest reserves and multiple forest and commercial forest.

The policy further elaborated on the requirements and types of license that is issued for harvesting any type of forest trees.

1.8.2 TLTB National Housing Policy, 2011

This policy is related to Fiji's National Housing Policy where some tangibles measures are recommended by the Board to support it. These tangible measures are listed as follows:

- i. To reduce TLTB processing costs by 25%
- ii. To provide options to land developers in premium payments on development leases.
- iii. Rent Free lots
- iv. Royalties from Earth materials
- v. Amendment of TLTB current policy on Land Development
- vi. This TLTB Housing Policy was endorsed by the Board in February 2011 and is subject to review.

1.8.3 TLTB Tourism Policy, 2010

The intention of the TLTB Tourism policy is to conform to the National Tourism Development Action Plan of Fiji (2010 – 2014) with the vision of "actively encouraging tourism-oriented commercial developments on iTaukei land; and in doing so ensure that the landowner's interests are upheld.

The Policy outlines a total of eight goals which are listed below:

- i. Increasing the 'iTaukei' socio-economic equity participation in all aspects of the tourism industry;
- ii. Explore the best way forward for how tourism on native land can be expanded to generate more commercial wealth for landowners;
- iii. Promoting a planned and coordinated approach to tourism development across the regions;
- iv. Assisting in the diversification of the Country's tourism product. Packaging and marketing of potential sites;
- v. Increasing general awareness and appreciation of the tourism industry;
- vi. Promoting environmental conservation, sustainability, heritage protection and enhancement;
- vii. To allow flexibility in terms of its dealings on new tourism developments such that new leases provided are in line with current global trends from conventional tourism activities to alternative forms of tourism;
- viii. To address the concept of alternative tourism in a sustainable manner by adopting effective environmental, social, economic & heritage protection policies and regulatory frameworks akin to the integrated coastal and in land zone planning models for adaptation as tools for land management with tourism as a backbone.

This TLTB Tourism Policy was previously endorsed by the Board and is subject to review.

1.9 Smart City Concept

Planning, managing, and governing cities and regions in a sustainable way, by maximizing economic opportunities and minimizing environmental damage, can be seen as a major challenge in this new century. Thus, transforming "traditional cities" into "Smart Cities" is an increasingly important demand.

Generally, a smart and sustainable city is an innovative city that uses Information and Communication Technologies (ICT) and other means to improve quality of life, efficiency of urban operation and

services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social, and environmental aspects. Therefore, to be considered as a smart city, it must place people at the centre of development, and must incorporate aspects related to improved governance, planning, infrastructure, which should then be reflected in the human and social capital. Only when these elements are taken together, cities become effectively smart and capable of promoting sustainable and integrated development.

Basically, a Smart City:

- i. Generates integration that provides governments with necessary, transparent information for better decision making and budget management;
- ii. Optimizes the allocation of resources and helps to reduce unnecessary spending;
- iii. Enables better customer service to users and improves the image of public agencies, thereby raising the level of satisfaction of the population;
- iv. Generates common procedures that improve government efficiency;
- v. Allows for greater involvement of citizens and civil society in the administration through the use of technological tools that help monitor public services by informing and interacting with relevant administration in order to address concrete problems;
- vi. Produces performance indicators that help measure, benchmark, and improve public policy.

1.10 Smart Growth Principles

The development of this Land Use Master Plan generally takes into consideration several smart growth principles. These include the following:

1.10.1 Mix Land Uses

Smart growth supports mixed land uses as a critical component of achieving better places to live. By putting residential, commercial and recreational uses in close proximity to one another, alternatives to driving, such as walking or biking, become viable.

1.10.2 Compact Building Design

Smart growth provides a means for communities to incorporate more-compact building design as an alternative to conventional, land-consumptive development. Compact building design suggests that communities be laid out in a way that preserves more open space, and that individual buildings make more efficient use of land and resources. For example, by encouraging buildings to grow vertically rather than horizontally, communities can reduce the footprint of new construction, and preserve more green space. This not only uses land efficiently, but it also protects more open land to absorb and filter rain water, reduce flooding and storm water drainage needs, and even lowered the amount of pollution washing into our creeks and rivers.

1.10.3 Range of Housing Opportunities and Choices

Providing quality housing for people of all income levels is an integral component in any smart growth strategy. Housing is a critical part of the way communities grow, because it constitutes a significant share of new construction and development. More importantly, however, housing availability is also a key factor in determining households' access to transportation, traveling patterns, access to services and education, and consumption of energy and other natural resources.

1.10.4 Create Walkable Neighbourhoods

Walkable communities that are desirable places to live, work, learn, worship and play are a key component of smart growth. Their desirability comes from two factors. First, goods (such as housing, offices, and retail) and services (such as transportation, schools, health centres, etc.) are located within an easy and safe walk. Second, walkable communities make pedestrian activity possible, thus expanding transportation options, and creating a streetscape for a range of users – pedestrians, bicyclists, and drivers. To foster walkability, communities must mix land uses and build compactly, as well as ensure safe and inviting pedestrian corridors.

1.10.5 Foster Distinctive, Attractive Communities with a Strong Sense of Place

Smart growth encourages communities to craft a vision and set standards for development that respect community values of architectural beauty and distinctiveness, as well as expand choices in housing and transportation. Smart growth seeks to create interesting, unique communities that reflect

the values and cultures of the people who reside there, and foster physical environments that support a more cohesive community fabric.

1.10.6 Preserve Open Space, Agricultural land, Natural Beauty and Critical Environmental Areas

In this context, “Open space” refers to natural areas that provide important community space, habitat for plants and animals, and recreational opportunities, as well as agricultural land (working lands), places of natural beauty, and critical environmental areas (e.g. wetlands). Open space preservation supports smart growth goals by bolstering local economies, preserving critical environmental areas, improving community quality of life, and guiding new growth into existing communities.

1.10.7 Strengthen and Direct Development Towards Existing Communities

Smart growth directs development towards existing communities already served by infrastructure, seeking to utilize the resources that existing neighbourhoods offer, and conserve open space and irreplaceable natural resources. Development in existing neighbourhoods also represents an approach to growth that can be more cost-effective, and improves quality of life.

1.10.8 Provide a Variety of Transportation Choices

Providing people with more choices in housing, shopping, communities, and transportation is a key aim of smart growth. Communities are seeking a wider range of transportation options in an effort to improve the current traffic congestion. New approaches to transportation planning should be considered and implemented.

1.10.9 Encourage Community and Stakeholder Collaboration in Development Decisions

Growth can create great places to live, work and play—if it responds to a community’s own sense of how and where it wants to grow.

1.11 Who We Are Planning For

This plan is made by the TLTB, a statutory body which was established in 1940 to control and administer iTaukei lands on behalf of the iTaukei landowners. The plan provides a suggested future development pattern within the GSR. It does not replace existing individual plans from various local and national government, but rather works in concert with them.

The Plan specifically considers all iTaukei lands outside of towns and city boundaries. It is for people and organisation that currently leased and invest in iTaukei Land within the GSR, and also for those who will lease and develop iTaukei Land for various purposes in the future.

Moreover, the Plan is also for all iTaukei Landowners who communally owned land within the GSR. Thus, it is vital for all iTaukei Land Owning Unit (LOU) within the GSR to understand the plan and must consider it as theirs. They should work in collaboration with the TLTB in order to successfully implement the policies and aspiration that this plan hopes to achieve.

1.12 Plan Organisation

This planning report is basically divided into two parts. The first part (Chapter 1 and 2) provides the background information of the existing planning policies, planning process, and the existing conditions of the GSR in terms of its socio-economic situation and the physical site conditions itself.

The second part of this planning report (Chapter 3 and 4) contains crucial information about the future development direction of the GSR, proposed policy recommendations, and implementation strategies that will ensure that the study area develops in the manner as depicted in the land use plan.

The policy recommendation in Chapter 3 presents a desired outcome (goal), followed by policies related to the goal, and may include a discussion about the desired outcome and policies.

The “Desired Outcome or Goals” represent the results that the GSR hopes to realize or achieve within the ten or twenty years timeframe of the Plan. Again, goals are just aspirations, and are not guarantees or mandates.

Under each desired outcome, “Policies” are made to help achieve the overall vision and goal of the GSR LUP.

Furthermore, discussion may be provided to help explain the context in which decisions on the desired outcome and policies have been made and how they are related.

Thus, the LUP together with this planning report will steer the development of iTaukei Land within the GSR for the next ten (10) to twenty years (20) years.

Chapter 2 – Existing Conditions

2.1 Population

The census in Fiji is undertaken in every 10 years, with the last census being undertaken in 2007 and the previous one in 1996.

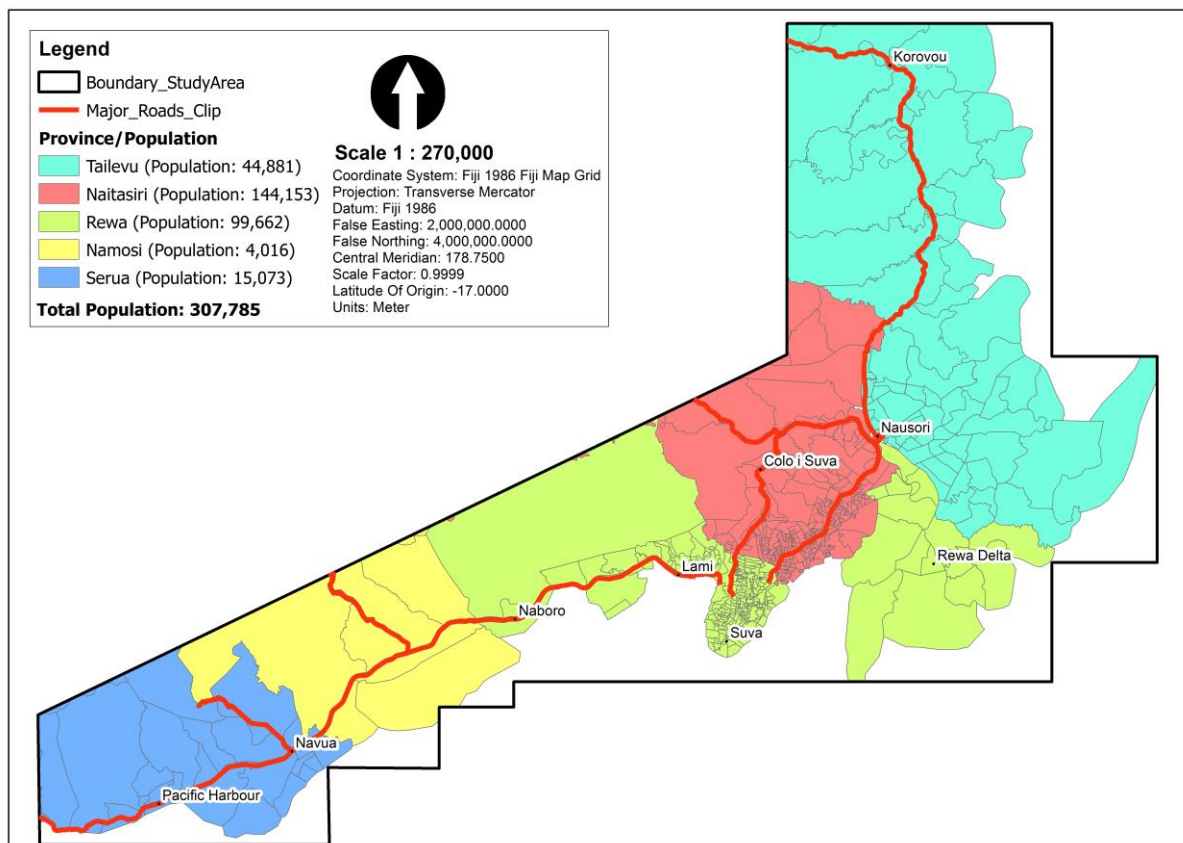
The demographics data below is taken from the 2007 population census. In this census, the total population in Fiji stands at 837,271. Out of which, 307,785 people are residing within the GSR, that is, 37%.

The GSR boundary accommodates a total of five provinces, namely Rewa, Tailevu, Naitasiri, Namosi, and Serua. Table 2 shows the various population size within each province and the map in Figure 5 depicts the extent of each province within the GSR. In terms of population, Naitasiri province has the highest number. However, in terms of land area, Tailevu province has a highest land mass within the SGR

Table 2 Population Size by Province

Province	Population	Percentage (%)
Naitasiri	144,153	47
Namosi	4,016	1
Rewa	99,662	32
Serua	15,073	5
Tailevu	44,881	15
Total Population	307,785	100

Figure 5 Population by Province



2.1.1 Population Size within Urban & Growth Centres

The population data in Table 3 reflects the population size within the urban and growth centres only as recorded in the Population Census. Thus it does not reflect the actual population within the GSR as shown in Table 2.

The table clearly reveals the trend of population growth within the GSR between the two census period (1996 and 2007), with an average growth rate of 1.3.

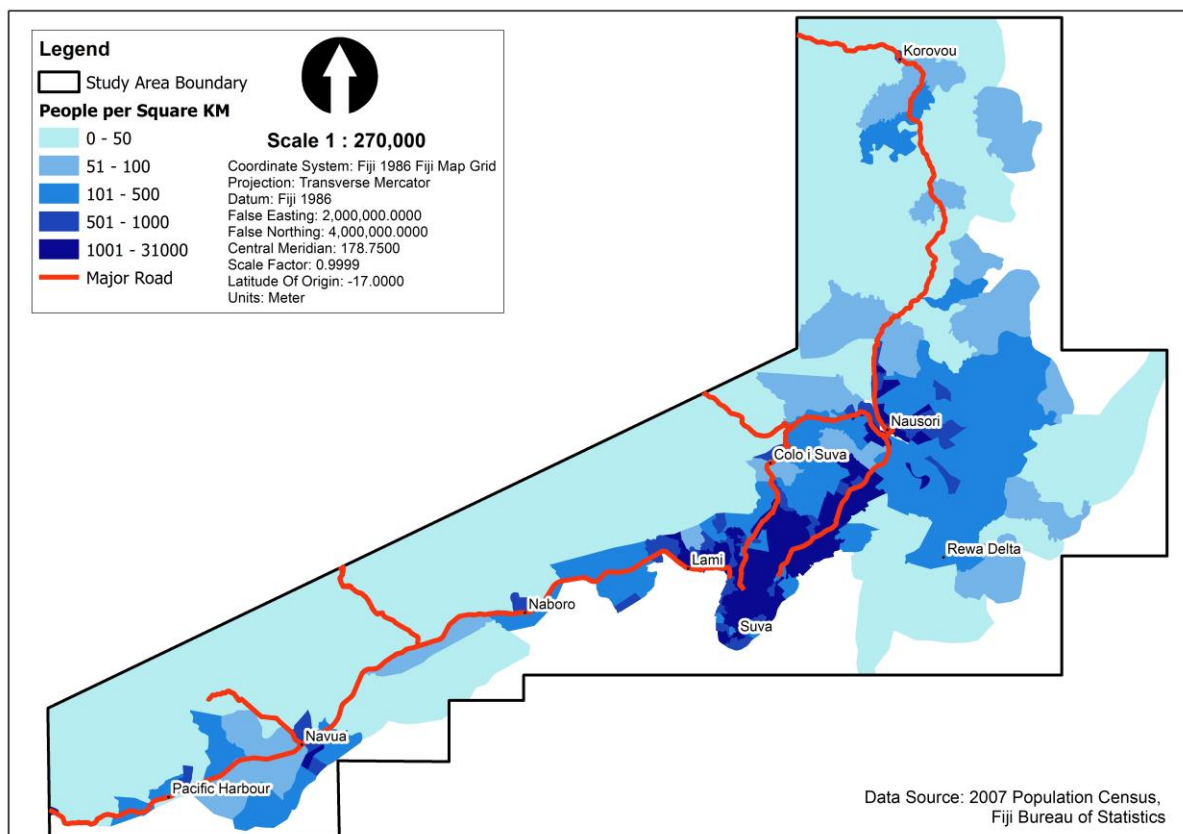
Table 3 Population growth for Individual Urban and Peri-urban Areas, and for Unincorporated Towns within the study area during the 1986 – 2007 inter-censal period.

Urban & Peri-Urban Area	Census Population		
	1996	2007	Annual Growth Rate
Pacific Harbour	1607	1819	1.1
Navua	4183	5048	1.7
Lami	18,928	20,529	0.7
Suva & Nasinu	167,975	173,137	0.3
Nausori	21,617	47,604	7.1
Korovou	318	349	0.8
Total	214,628	248,486	1.3

2.1.2 Population Density According to Enumeration Areas

Population density refers to the number of people per unit of area. In Figure 6, the population density is in per square kilometre as in accordance with the 2007 census enumeration areas. The figure reflects that there is a high population density in Navua, Naboro, Lami, Suva, Nasinu, Nausori, and Korovou. This is notably the urban and growth areas with the GSR. It is also obvious to note that majority of the population growth revolves around the major infrastructure corridors, such as along the Queens and Kings Highway, which is quite understandable in view of the ease of access and readily available services.

Figure 6 Population Density with the GSR



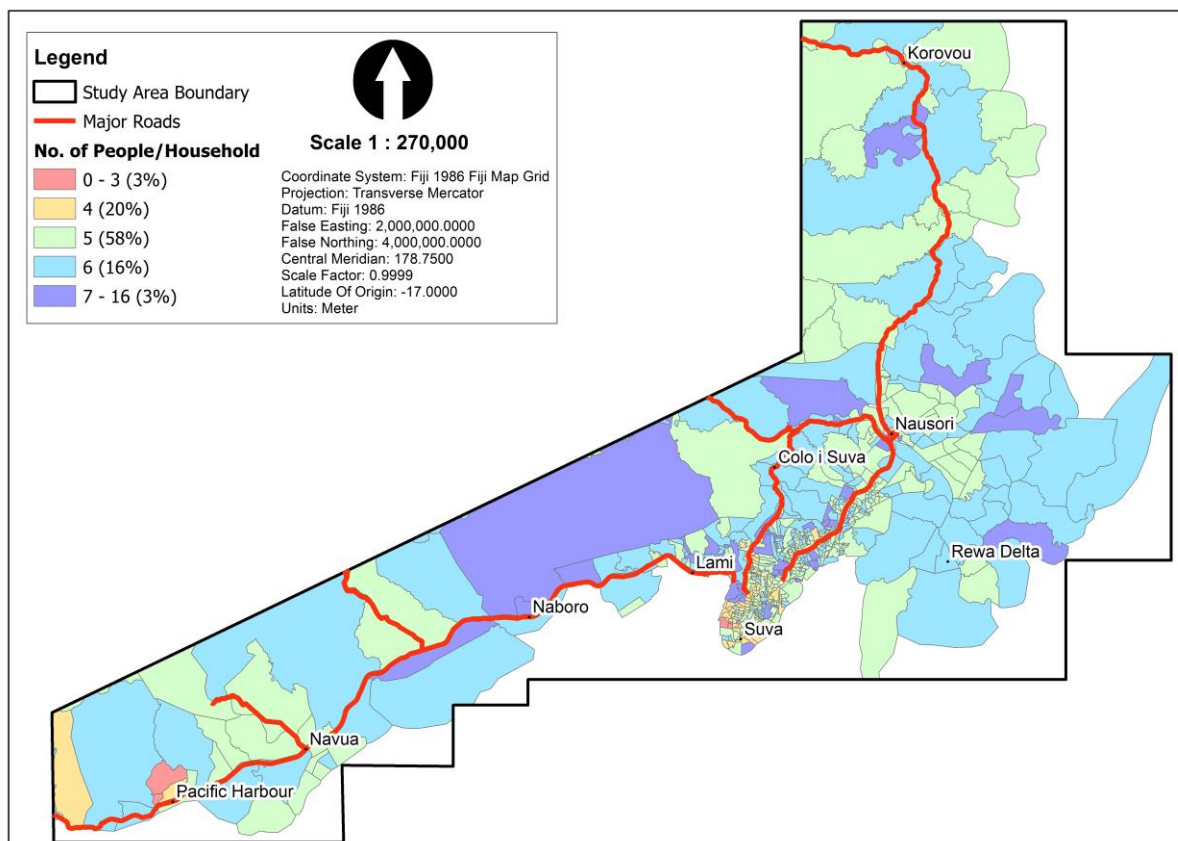
2.1.3 Average household and family Size

Household size of 4 and 5 is quite common within the GSR which accounts for 78% and they are mostly found in urban and peri-urban areas. Household size of 6 is also becoming popular, but they are mainly found in rural areas, together with household size of 7. This illustrates that most people in the rural areas are not really concerned about their population size since they may not worry about the cost of living as compared to those who reside with the urban areas. Likewise, majority of them relies heavily on agriculture for their daily survival.

Table 4 Average Size and Number of Household

Household Size	Number of Household	Percentage (%)
0 - 3	1,695	3
4	12,630	20
5	35,570	58
6	10,047	16
7	1,891	3
Total	61,833	100

Figure 7 Location of Average Household Size



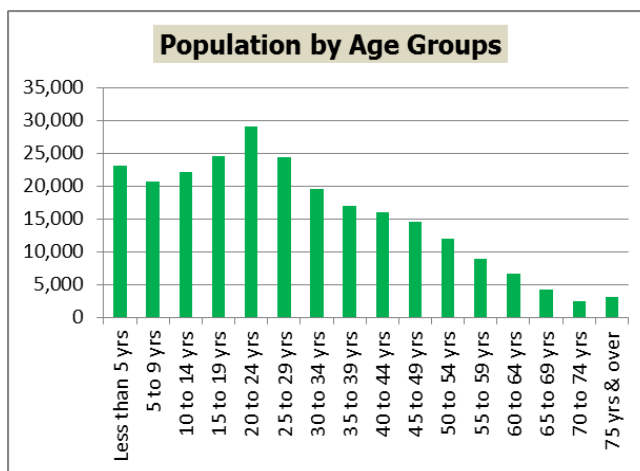
2.1.4 Age of household members

Table 5 shows that the GSR has a very high young population group as compared to the older age groups. In particular, those between Age 15 to 29 consisted of 32% alone. As the age group increases, the population drops. Thus, the future planning exercise will need to take into account the needs of the younger generations.

Table 5 Population by Age Groups

Age	Population	Percentage (%)
Less than 5 yrs	23,115	9
5 to 9 yrs	20,701	8
10 to 14 yrs	22,075	9
15 to 19 yrs	24,551	10
20 to 24 yrs	29,106	12
25 to 29 yrs	24,380	10
30 to 34 yrs	19,568	8
35 to 39 yrs	16,965	7
40 to 44 yrs	16,013	6
45 to 49 yrs	14,576	6
50 to 54 yrs	11,963	5
55 to 59 yrs	8,953	4
60 to 64 yrs	6,724	3
65 to 69 yrs	4,243	2
70 to 74 yrs	2,475	1
75 yrs & over	3,078	1
Total	248,486	100

Figure 8 Population by Age Groups



2.1.5 Population Projection

Projections are conditional statements about the future. They are based on the assumption that the past trends will continue to operate in the future. Thus, the reliability and usefulness of projections depend on the assumptions and their closeness to reality.

For the purpose of this project, the population was projected based on the compound rate of growth method. Using the annual growth rate of 1.3%, the projected 2017 and 2027 populations within the GSR are 282,746 and 321,729 respectively.

Table 6 Population Projection

Locality	1996	2007	2017	2027
Urban and Peri-Urban Areas of the GSR	214,628	248,486	282,746	321,729

2.2 Employment

Table 7 presents comparative figures on Paid Employment in Fiji by Industry Group for 2014 and 2011. There was a slight increase in paid employment numbers by industry in 2014 as compared to the 2011 figures. Noticeable increases were recorded for 17 industries while there was a decline in the four remaining industries. Wholesale and Retail, and the Manufacturing industry group have the highest number of paid employment, that is, 28.7%. In terms of percentage change, Construction, and Information and Communication industry top the list, which indicates a positive improvement to the nation's economy.

Table 7 Number of Paid Employment by major Industry

Industry Group	2011	%	2014	%	Percentage Change
Agriculture, Forestry and Fishing	2,306	1.7	2,748	1.9	19.2
Mining and Quarrying	1,493	1.1	2,136	1.5	43.1
Manufacturing	21,006	15.9	20,122	14.0	-4.2
Electricity, Gas, Steam and Air conditioning Supply	777	0.6	786	0.5	1.2
Water Supply; Sewerage, waste management and remediation activity	1,909	1.4	2,444	1.7	28.0
Construction	6,061	4.6	11,278	7.8	86.1
Wholesale and Retail; Repair of motor vehicles and motor cycle	21,378	16.1	21,209	14.7	-0.8
Transport and Storage	8,697	6.6	8,710	6.0	0.1
Accommodation and Food Services activities	13,640	10.3	13,366	9.3	-2.0
Information and Communication	2,687	2.0	4,632	3.2	72.4
Financial and Insurance activities	3,658	2.8	5,049	3.5	38.0
Real Estate Activities	1,089	0.8	508	0.4	-53.4
Professional Scientific and Technical Activities	3,780	2.9	2,528	1.8	-33.1
Administrative and support service activities	6,480	4.9	7,466	5.2	15.2
Public administration and Defence compulsory social security	13,865	10.5	15,822	11.0	14.1
Education	15,408	11.6	16,330	11.3	6.0
Human health and social work activities	5,192	3.9	5,753	4.0	10.8
Arts, entertainment and recreation	501	0.4	644	0.4	28.5
Other Service Activities	1,525	1.2	1,786	1.2	17.1
Activities of Households as employers; undifferentiated	131	0.1	14	0.0	-89.3
Activities of Extra-Territorial Organisations and Bodies	0	0	819	0.6	0.0
Total	132,402	100	144,150	100	8.9

Table 8 presents comparative figures on the distribution of Paid Employment by Geographical Areas for the years 2014 and 2011. Apart from the civil servant, those employed within the city of Suva and the Central Division in 2014 accounts for 45.6%, an increase of 52.4% in comparison to the 2011

figures. This indicates that there are a lot of economic activities taking place within the Central Division as compared to other regions in Fiji.

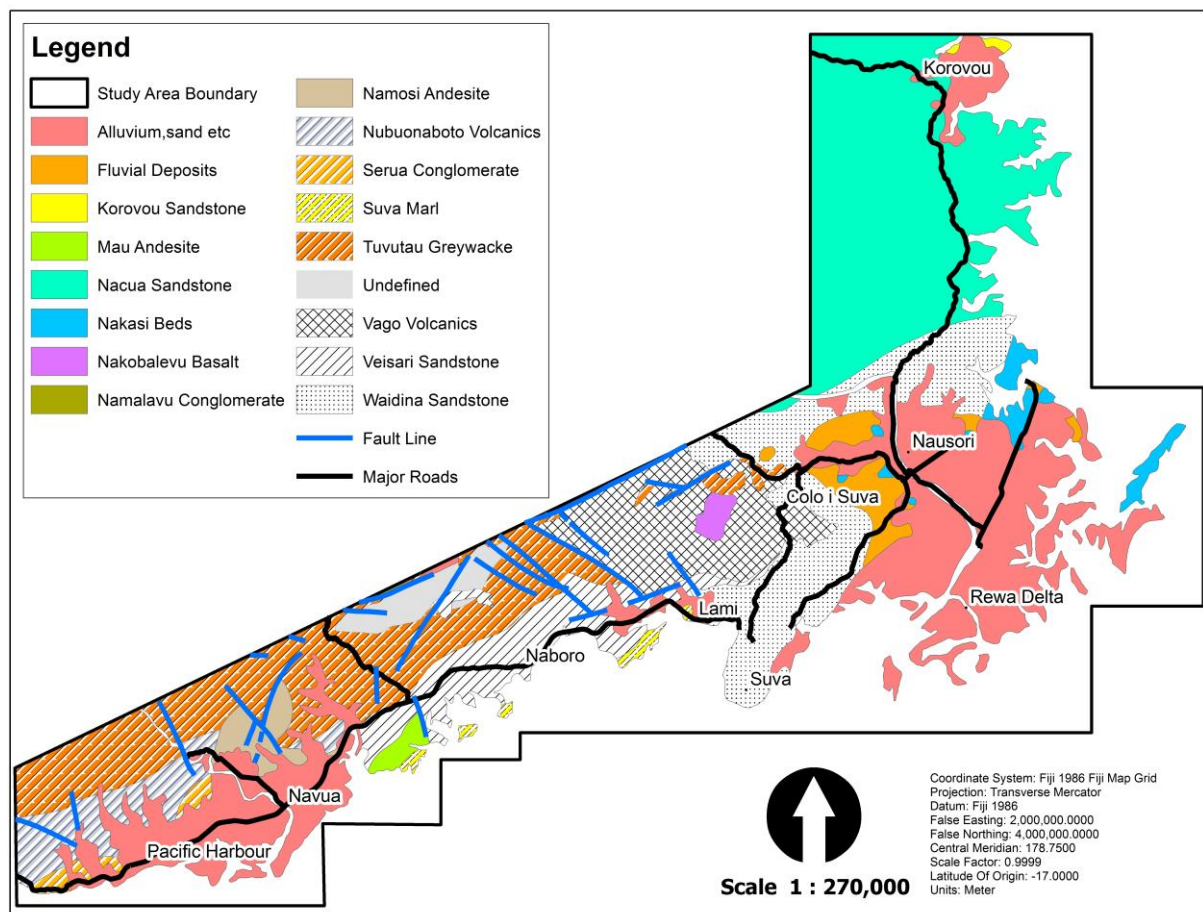
Table 8 Distribution of Paid Employment by Geographical Area

Location	2011	%	2014	%	% Change
National Government	30,096	22.9	31,018	21.5	3.1
Suva City	32,798	24.9	49,331	34.2	50.4
Central Division	16,165	12.3	16,489	11.4	2.0
Western Division	44,683	34.0	40,345	28.0	-9.7
Northern Division	6,824	5.2	5,714	4.0	-16.3
Eastern Division	1,017	0.8	1,253	0.9	23.2
Total	131,583	100	144,150	100	9.6

2.3 Geology

Figure 9 shows the generalised geology of the GSR with fault lines. A fault line is a break or fracture in the ground that occurs when the Earth's tectonic plates move or shift and are areas where earthquakes are likely to occur. A break where the Earth's tectonic plates shifted that is a likely site of an earthquake is an example of a fault line.

Figure 9 Geology Map



2.4 Topography

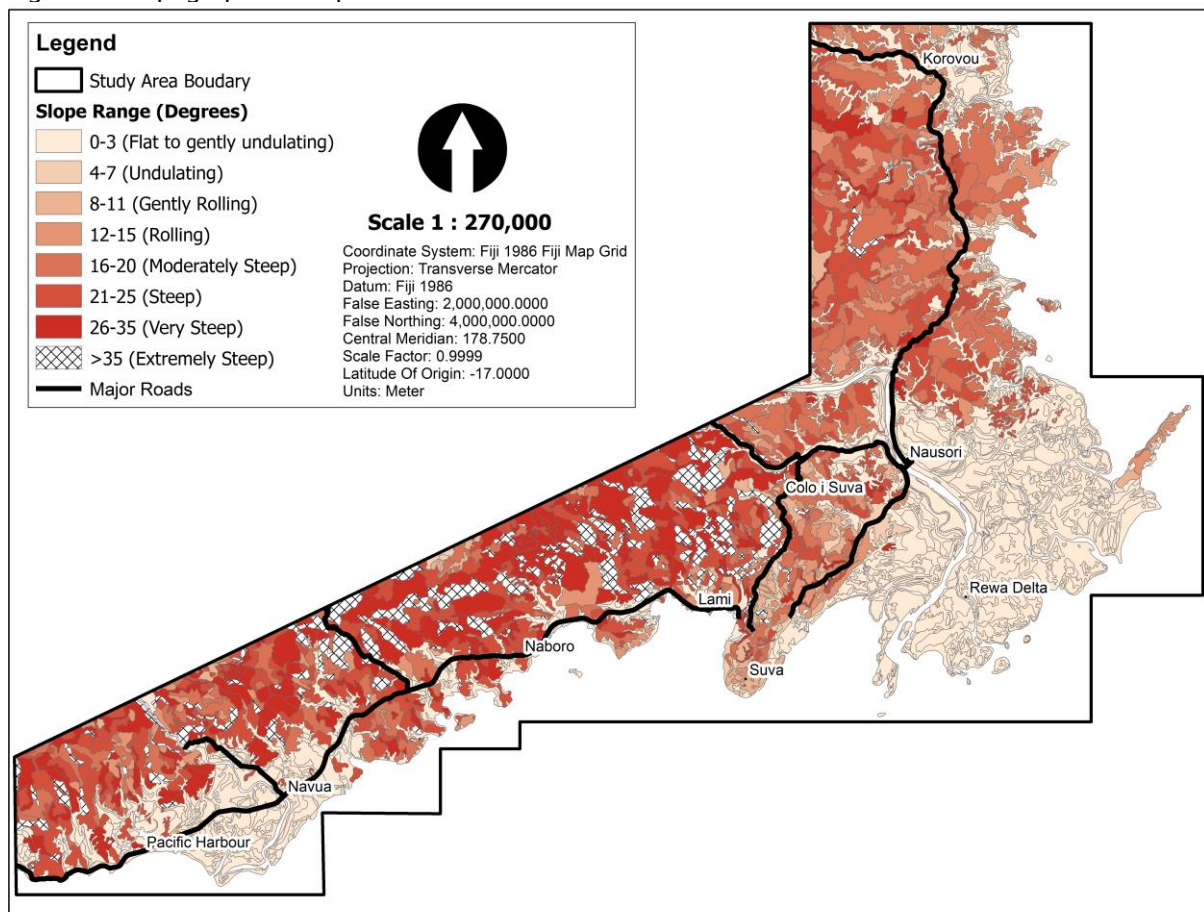
The GSR is located on the southeast, windward and higher rainfall side of Vitu Levu. It has a different topographic, geological and landscape characteristics. Figure 10 portrays the key characteristics of the topography in terms of slopes and its distribution is shown in Table 9.

There is a high percentage of flat to gently undulating land with the GSR, which caters for approximately 36.4%. These areas include Pacific Harbour and Navua, part of Suva, greater Nausori and towards the seaside of the Rewa Delta, and the surrounding Korovou region. On the other hand, a good portion of the GSR is considered as moderately steep to extremely steep combined, which accounts for around 53.6%. Mainly these areas are located inland, about 3 or more kilometres away from the main highway. Figure 10 clearly portrays the key characteristics of the topography in terms of slope, and its distribution as per the land area in shown in Table 9.

Table 9 Slope Distribution

Slope (%)	Area (HA)	Percentage (%)
0-3	41,825.82	36.4
4-7	1,120.34	1.0
8-11	2,773.89	2.4
12-15	7,665.48	6.7
16-20	19,752.07	17.2
21-25	19,337.82	16.8
26-35	15,427.92	13.4
>35	7,072.39	6.2
Total	114,975.73	100

Figure 10 Topographical Map



2.5 Climate

The climate in Fiji is generally categorized as an oceanic tropical climate in which the dry season is from May to October and rainy season from November to April. During the wet season, Fiji is often traversed by tropical cyclones as it lies directly in their normal path. Fiji's location has a strong influence on both seasonal and interannual variations in climate, particularly rainfall where the southeast trade winds carry moist air onto the islands.

Climate change is expected to bring about an increase in the frequency and intensity of extreme events such as flooding, droughts and cyclones. Threats to marine ecosystems (such as coral bleaching, beach erosion, ocean acidification) and terrestrial ecosystems (such as soil erosion, salt water intrusions in low lying coastal areas, reduced soil fertility, and increased pests and diseases) are also anticipated. Whilst Fiji, as a very low emitter of greenhouse gases, is an insignificant contributor to climate change, the country is highly vulnerable to its impacts.

Table 10 Climate Trends in Fiji from 1961 to 2010 and 1993 to 2010

Climate variable	Observed trends 1961–2010
Rainfall	Very weak positive linear trend in annual rainfall over Fiji. An annual increase of approximately 0.65 mm/year (approximately 0.03%/year) A weak decreasing linear trend in the wet season rainfall with a seasonal decrease of 1.30 mm/season (approximately 0.08%/year) A weak increasing linear trend in dry season rainfall with a seasonal increase of about 0.76 mm/season (approximately 0.11%/year)
Maximum air temperature	The average annual maximum air temperature increased by 1.1°C The average warm season maximum temperature increased by 1.2°C The average cool season maximum temperature increased by 1.0°C
Minimum air temperature	The annual minimum temperature increased by 0.6°C Increasing trend in average warm season minimum air temperature and increased by 0.7°C The cool season minimum air temperature increased by 0.6°C
Observed trends 1993–2010	
Sea surface temperature	The sea surface temperature from the Lautoka tide gauge indicates a warming trend of 0.05°C/year (the tide gauge data are insufficient to deduce any long term trend).
Mean sea level	The mean sea level at the Lautoka tide gauge is changing at a rate of 4.6 mm/year (the tide gauge data are insufficient to deduce any long term trend).

Source: Fiji Meteorological Services, 2011

2.6 Hazards

2.6.1 Vulnerability of the GSR to Cyclones

A cyclone is a tropical type of hurricane and is the main and most wide-spread natural disaster in the Pacific region. Severe tropical storms bring about massive rainfall and high winds, plus the low pressure may cause the sea to rise as much as 2 meters (6.5 feet). Destruction of houses, other infrastructure and gardens, loss of vegetation, flooding, land erosion, coastal inundation, destruction of coral reefs and sea grass beds, and pollution of water supplies are all effects of cyclones. Fiji's cyclone season is from November through April.

Table 11 highlights the 4 major cyclones that affected Fiji in last 5 years. The strongest one of them all is Winston, which brought widespread damage to numerous islands and caused approximately 80 percent of the nation's 900,000 people without power, including the whole of Vanua Levu.

Table 11 Major Cyclone

YEAR	NAME	CATEGORY	DETAILS
2016	Winston	5	Strongest tropical cyclone to make landfall in Fiji and the South Pacific Basin in recorded history.
2015	Pam	5	Most intense tropical cyclone of the South Pacific Ocean in terms of sustained winds. In Vanuatu, it is regarded as one of the worst natural disasters in history.
2014	Ian	5	Areas affected by the tropical cyclone Ian include Fiji and Tonga. In Tonga, it caused destruction in the Haápai islands and one fatality.
2012	Evan	4	Considered to be the worst tropical cyclone to affect the island nation of Samoa. It affected mainly the Western part of Fiji.

It seems that cyclones in Fiji are occurring every year, which positions this risk in the “almost certain” category for the GSR. Damaging cyclone winds and associated floods would in particular expose all constructions to a high level of risk. Hence installations and buildings need to meet building code requirements with construction engineers’ certificate to ensure that it is structurally safe for dwelling even in times of natural disaster. For the surrounding environment, other appropriate risk reduction measures for cyclone proofing need to be put in place e.g. burying of electric and telecom cables, trimming of overhanging branches and top-dressing maintenance on coconut trees, etc.

Additionally, management responsibility must be specified, particularly as the region is at high to extreme cyclone risk level and will threaten service flow into and out of the complex. These include developing a cyclone response plan for the GSR and the designation of safe areas and evacuation centres.

The storm surges will likely threaten the lower coastal areas of the study area. However, the impacts can be minimised through planting of mangroves. Sites further inland however will not necessarily be affected by storm surge.

2.6.2 Vulnerability to earthquakes and or tsunamis

Earthquakes are caused by the failure of rocks under stress. Sometimes rocks are able to adjust by folding, but if the stress is applied rapidly enough they will fracture and form a geological fault, which is usually too deep in the earth's crust to be seen. The fracturing along the fault causes vibrations or seismic waves which travel outwards in all directions from the fault, and if the earthquake is large enough, the waves are recorded on sensitive seismographs around the world and the ground can shake strongly close to the fault. Naturally, shallow earthquakes (depths less than 40 km) cause the most damage because the Earth's surface is close to the earthquake fault

Earthquakes occur throughout the world but certain areas are more prone to them than others. Unfortunately, Fiji is within the “Pacific Ring of Fire”, the zone of earthquakes and volcanoes which surrounds the Pacific Ocean.

Although there are no volcanoes in Fiji and the number of earthquakes is somewhat less than for the most active areas around the Pacific such as Japan, Alaska, Chile and nearby Tonga, Vanuatu and Papua New Guinea, the risk from earthquakes is similar to that in New Zealand, which is relatively high by world standards.

The first known historical earthquake report describes an earthquake at Kadavu in about 1850. It states: “a recent earthquake had been felt throughout the greater part of Fiji, but was so tremendous in Kadavu that the earth opened in several parts and destroyed a great number of people. In one part it shook down a large cave and buried thirty or forty women who had taken shelter for the night, having been on a fishing excursion”. Details of other severe earthquakes, such as those which were reported in 1869 (upper Rewa River), 1884 (Macuata), 1902 (Yasawas), 1919 (Rabi), 1932 (Rabi and Koro), 1953 (Suva), 1979 (Taveuni), 1998 (Kadavu), and 2001 (Kadavu).

Earthquakes occur in several zones in Fiji. The Northern East Zone (Rabi, Taveuni, and part of Vanua Levu) is the most active one which recorded the highest number of earthquakes in Fiji.

The GSR is within the South Eastern Viti Levu Zone. Apart from the single destructive event which occurred in 1953 (Suva earthquake), low or minor magnitude earthquake is common in this region

In terms of Tsunamis (sea waves), major ones were reported after two earthquakes in Fiji, namely one off the coast of Vanua Levu in about 1881 and the 1953 Suva' Earthquake. The Vanua Levu tsunami was reported to be about 1.8 m in height and did not cause concern. However, in Suva the tsunami waves were from 1.8 to 4.5 m above low tide level and caused great concern along water frontages.

2.6.3 Vulnerability to flooding

Flooding in Fiji can be the result of cyclones, though it can also occur during the country's rainy season between November and April. The GSR is within Fiji's wet zone which is more prone to experience heavy rain and flooding.

Sites which highly prone to flooding are considered as low lying areas with slope ranging from 0 to 3 degrees. Most of these areas are generally flat to gently undulating. Within the 0 to 3 slope range, there are some sites which are less than 2 meters below mean sea level. These areas are mainly located around the delta areas in Rewa and Navua. They are considered as highly prone to flooding and are restricted to accommodate any major development.

2.6.4 Vulnerability to climate changes & sea level rise

2.6.4.1 Return Periods for Extreme Climatic Variables at selected locations in Fiji

Extreme Rainfall

The maximum daily rainfall of 200 mm is likely to be less frequent in future at various locations in Fiji than currently observed (Table 12).

Table 12 Return periods of exceeding daily extreme rainfall of 200mm for selected sites

Locations	Extreme rainfall	Observed	Return periods in Years			
			2025	2050	2075	2100
Nadi Aiport	200 mm	5.4	6.1	6.9	8	8.9
Laucala Bay	200 mm	2.9	3.1	3.5	4	4.4
Nabouwalu	200 mm	7.2	8.3	9.7	11.7	13.4
Vunisea	200 mm	9.6	11.5	13.9	17.7	21
Lakeba	200 mm	6.1	6.9	8.1	9.7	11
Rotuma	200 mm	4.4	4.9	5.6	6.5	7.3

Source: Fiji Meteorological Services, 2011

Maximum Temperature

The recurrence of the maximum temperature exceeding 35°C is expected to be shorter in future than currently observed (Table 13).

Table 13 Return periods of exceeding daily extreme maximum temperatures of 35°C for selected sites

Locations	Extreme maximum temperature	Observed	Return periods in Years			
			2025	2050	2075	2100
Nadi Aiport	35°C	2.9	1.9	1.4	1.1	1
Laucala Bay	35°C	23.1	13.4	7.7	4.2	3
Nabouwalu	35°C	25.3	14.9	8.7	4.8	3.3
Vunisea	35°C	40.9	24.4	14.4	7.9	5.5
Lakeba	35°C	77.7	43.3	23.9	12.2	7.9
Rotuma	35°C	74.3	39.4	20.5	9.9	6.2

Source: Fiji Meteorological Services, 2011

Minimum Temperature

The return period of daily minimum temperatures of 16°C, 18°C and 21°C at selected locations in Fiji is likely become more frequent than currently observed (Table 14).

Table 14 Return periods of exceeding daily extreme minimum temperature of 16°C for selected sites

Locations	Extreme minimum temperature	Observed	Return periods in Years			
			2025	2050	2075	2100
Nadi Aiport	16°C	21.7	15.2	10.5	6.9	5.4
Laucala Bay	16°C	1.9	1.6	1.3	1.1	1
Nabouwalu	16°C	2.1	1.8	1.5	1.3	1.2
Vunisea	16°C	3.3	2.7	2.2	1.8	1.6
Lakeba	16°C	2.1	1.9	1.7	1.5	1.4
Rotuma	21°C	2.3	1.7	1.4	1.2	1.1

Source: Fiji Meteorological Services, 2011

Extreme Wind

The daily maximum winds exceeding 80 knots at selected locations in Fiji are expected to become more frequent in future than currently observed (Table 15).

Table 15 Return periods of exceeding daily extreme wind of 80 knots for selected sites

Locations	Extreme Wind	Observed	Return periods in Years			
			2025	2050	2075	2100
Nadi Aiport	80 knots	7.5	6.6	5.8	5.1	4.7
Laucala Bay	80 knots	21.3	18.3	15.8	13.5	12.3
Nabouwalu	80 knots	205	159	124.2	98.3	81.1
Vunisea	80 knots	10.8	9.6	8.6	7.6	7.1
Lakeba	80 knots	282.2	215.2	165.3	124.6	104.9
Rotuma	80 knots	83.6	68.4	56.4	45.9	40.4

Source: Fiji Meteorological Services, 2011

Extreme Sea Level

The maximum sea levels are expected to continue to increase throughout this century (Table 16).

Table 16 Return periods of exceeding extreme sea levels of 2.4 and 2.8m for Lautoka and Suva

Locations	Extreme Sea level	Observed	Return periods in Years			
			2025	2050	2075	2100
Lautoka gauge	2.8 meters	80.2	26.9	9.1	2.7	1
Suva gauge	2.4 meters	98.9	18.7	3.8	1.1	1

Source: Fiji Meteorological Services, 2011

2.6.4.2 Climate projections (global climate models)

By 2030:

The most likely projected change for Fiji is for warmer temperatures and little change in rainfall, with annual mean temperature increases of 0.7°C and negligible (–1%) change in mean annual rainfall, which is predicted by 69% of the models. Warmer and drier change in projected climate is predicted by 6% of the models, with annual mean air temperature increases of 0.6°C and annual mean rainfall decreases of 6%. Warmer and wetter conditions are represented by 13% of the models, with annual mean air temperature increases of 0.8°C and annual mean rainfall increases of 7%.

By 2055:

The majority of the models (69%) continue to project warmer temperatures and little change in rainfall, with annual mean air temperature increases of 1.0°C and annual mean rainfall decreases of 1%. Moreover, warmer and wetter conditions are predicted by 19% of the models, with annual mean air temperature increases of 1.2°C and annual mean rainfall increases of 10%.

By 2090:

The majority of the models (569.) project hotter temperatures and little change in rainfall, with annual mean air temperature increases of 1.9°C and annual mean rainfall decreases of 1%. The other likely high impact projected climate is for hotter and much drier conditions, which is predicted by 6% of the models, with annual mean air temperature increases of 1.8°C and annual mean rainfall decreases of 16%. Hotter and much wetter conditions are predicted by 13% of the models, with annual mean air temperature increases of 2.3°C and annual mean rainfall increases of 21%.

By 2100:

The sea level projections are based on the fourth IPCC assessment report that global sea level changes are expected to range from 0.21 to 0.48 metres by the end of the century (IPCC 2007a). However, there is significant uncertainty surrounding ice-sheet contributions to sea level rise and a larger rise than that projected cannot be excluded.

2.6.5 Vulnerability to Landslide

Landslides are one of the most common natural hazards which, together with earthquakes, volcanic eruptions and floods, have a major impact on life and property. Landslides occur when rock, soil or waste becomes unstable and moves downward under the influence of gravity. Many factors contribute to the instability of slopes include lithology, geological structure, hydrogeology, topography, climate, vegetation, seismicity and erosion. However, the main factors that pre-dispose a slope's stability are its geology, its geometry and its (pore) – water conditions.

Landslides travel at a variety of speeds from a few millimetres a year to over 100 metres per second and are frequently associated with other natural hazards. Natural events and human activity can also cause slope failures. Landslides in Fiji are usually triggered by intense rain storms commonly associated with tropical cyclones.

2.6.6 Natural Hazard Expectancy within the GSR

In terms of natural hazards, the Table 17 below summarises the expectancy of potential hazards from happening within the GSR.

Table 17 Natural Hazard Expectancy

Natural Hazard	Expectancy
Cyclone	Almost certain
Tsunami	Possible
Earthquake & Liquefaction	Possible
Drought	Likely
Flooding	Likely (in low lying areas)
Storm Surge	Likely (along the coastal areas)

2.7 Soils

Table 18 shows the type of soil distribution that exists within the GSR. There is a high percentage of the hill country soils, which caters for 62.6%. This soil type is described as “nigrescent soil” due to its dark colour and is sourced mainly from basic and intermediate sedimentary rocks. Moreover, it is considered as “well drained” as compared to other soil types within the GSR.

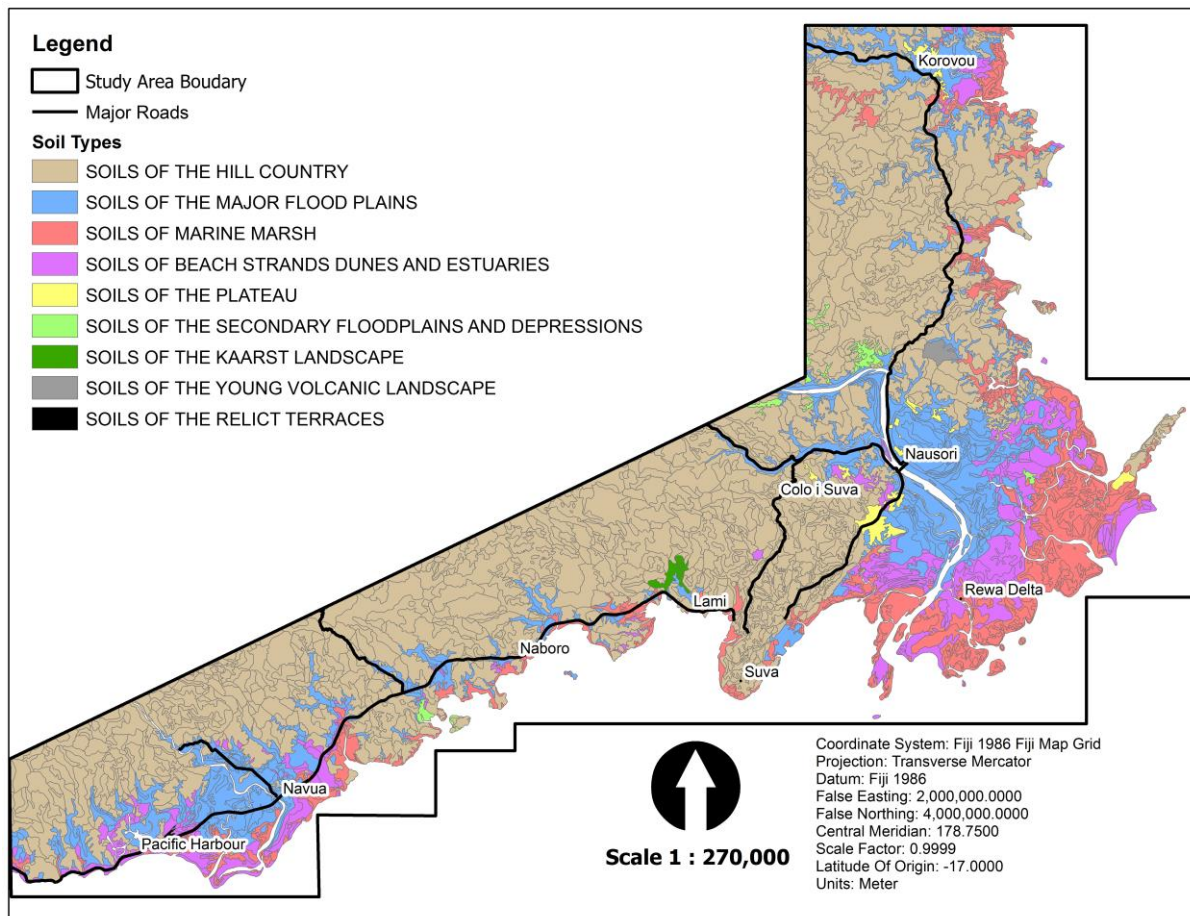
Soils of the major flood plain on the other hand are mainly from the river alluvium. It contains material such as clay, silt, sand and gravel, deposited in riverbeds. This soil type is very poorly drained and existed mainly on flat land near rivers and streams.

In addition, soils of the marine marsh and soils of the beach strand are soils within coastal zone which can be subject to diurnal tidal flooding. The source of these soils is mainly from the marine and estuarine alluvium, and is also considered as poorly drained. These soils type existed mainly on flat delta areas such as in Navua, Rewa, and Korovou. Figure 11 clearly demonstrate the various soil types and their location within the GSR.

Table 18 Soil Type Distribution

Soil Type	Area (HA)	Percentage (%)	Description
SOILS OF THE HILL COUNTRY	71,924.01	62.6	Nigrescent soils
SOILS OF THE MAJOR FLOOD PLAINS	18,840.75	16.4	Recent soils from river alluvium
SOILS OF MARINE MARSH	13,433.25	11.7	Saline soils
SOILS OF BEACH STRANDS DUNES AND ESTUARIES	8,872.23	7.7	Recent soils from coastal sands
SOILS OF THE PLATEAU	869.06	0.8	Humic or Ferruginous latosols; and Red yellow podzolic soils
SOILS OF THE SECONDARY FLOODPLAINS AND DEPRESSIONS	560.21	0.5	Recent soils from river alluvium; Grey related to latosols or nigrescent soils
SOILS OF THE KARST LANDSCAPE	223.24	0.2	Steep land related to latosolic or nigrescent soils
SOILS OF THE RELICT TERRACES	19.59	0.02	Red yellow podzolic soils and Humic latosols
SOILS OF THE YOUNG VOLCANIC LANDSCAPE	233.39	0.2	Upland latosolic soils
Total	114,975.73	100	

Figure 11 Soil Map



2.8 Disaster Management

The United Nations defines a disaster as a serious disruption of the functioning of a community or a society. It involves widespread human, material, economic or environmental impacts, which exceed the ability of the affected community or society to cope using its own resources.

Fiji is one of the most natural disasters prone areas in the world due to its geographical location. Some hazards occurred as a consequence of tropical depressions and cyclones or as part of tropical weather condition that normally affects the region. Hazards such as landslides, flash floods, storm surges are most common.

In terms of cyclone, Fiji is located between 11 degrees and 21 degrees south of the Equator, which is within the cyclone belt where cyclones usually develop. Cyclone usually develop around the warmer waters closer to the equator at around 5 degrees and then die down when it reaches the colder waters around 25 degrees south of the Equator.

In addition, Fiji is also within the Pacific Ring of Fire, which is renowned as the zone of earthquakes and volcanoes. The zone covers almost all Pacific Rim island countries such as Japan, Chile the United States and nearby Tonga, Vanuatu and Papua New Guinea. Earthquakes and volcanic actions occur mostly around areas where there are deep sea trenches and fault lines. Despite Fiji having only a few active volcanoes and fewer earthquakes compared to most of the areas mentioned, the risks it has from these two hazards are still high by world standards.

In terms of Disaster Management, the Fiji National Disaster Management Office (NDMO) was established to coordinate the national management of disaster activities through the Ministry of Provincial Development organisation structures at the National level, the Divisional level, the District or Provincial level and to the local and community levels. The NDMO manages disaster activities at these levels through Disaster Preparedness programs, Disaster Mitigation programs, Disaster

Response programs in times of natural disasters and Disaster Rehabilitation programs to restore normalcy after the adverse effect of a disaster hazard.

Table 19 Summary of Disasters 2006-2016

Year	Disaster	Affected Population	No. of Deaths	Estimated Damaged
Feb 2006	Tropical Cyclone Jim	168	4	FJ\$26,952.26
Feb 2007	Flood			FJD\$2,985,989.00
Mar 2007	Flood		3	FJ\$3,617,81
April 2007	Tropical Cyclone Cliff		1	FJ\$6,256,390
Dec 2007	Tropical Cyclone Daman	69		FJ\$5,000,000
Jan 2008	Tropical Cyclone Gene	6,000	8	FJ\$43,532,149.70
Jan 2009	Flash Flood		11	US\$112.99m
Dec 2009	Tropical Cyclone Mick	3,845	3	US\$31,025,851.61
Mar 2010	Tropical Cyclone Tomas	39,101	2	TBD
Dec 2012	Flood	458	0	US\$112,990,000
Dec 2013	Tropical Cyclone Evan	70,000	0	US\$64,300,000
Sep 2015	Drought	67,000	0	US\$67,000
Feb 2016	Tropical Cyclone Winston	350,000	44	US\$47,000,000

Source: National Disaster Management Office

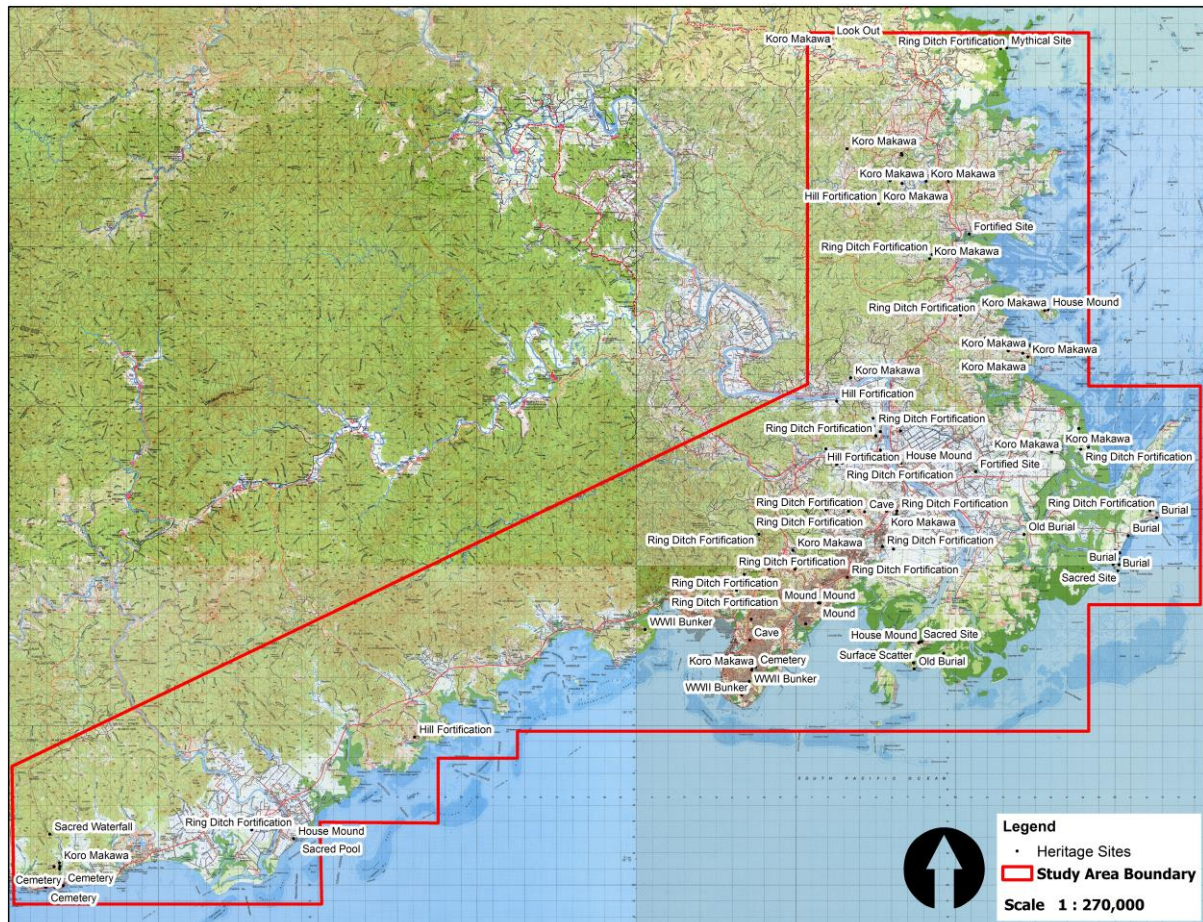
2.9 Heritage Sites

Heritage sites are those that have a value and have been registered by the government as being of national importance to the history of that nation. Fiji's heritage site is quite unique in the sense that it has a mixture of outstanding natural and cultural sites which characterize its diverse heritage. Some of the sites have been in existence prior to human settlement on the islands and its subsequent occupation, and its cultural structures have withstood the elements to remain an integral symbol of Fiji's rich history.

The inhabitants of modern Fiji are of indigenous Fijian background, as well as of Indian, Chinese and European ancestry. Indigenous culture has shaped the nation and has been an active and living part of everyday life for the majority.

The type of heritage sites within the GSR is quite diverse which includes burial sites, old villagers, ring ditch fortification, sacred pool, world war two bunker, etc. The Fiji Museum is tasked with the research and preservation of Fiji's history and culture, and is mostly in charge of all the heritage sites ground work in terms of inspection, registration, and conservation. Within the GSR alone, there are about 129 heritage sites, in which some are still intact and preserved while others have been affected by the development that has taken place over the years. The heritage map below shows the location and types of heritage sites within the GSR and the table highlights the types and numbers for each type of heritage sites.

Figure 12 Heritage Site Map



Source: Fiji Museum

Table 20 Summary of Heritage Sites

No	Heritage Type	Number
1	Burial Ground and Cemetery	18
2	Cave	2
3	Combination of sites	2
4	Defensive and Fortified Site	13
5	Koro Makawa (Old Villagers)	24
6	Look Out	1
7	Mound	9
8	Ring Ditch Fortification	44
9	Sacred Site	8
10	Stratified Site	1
11	Surface Scatter	3
12	WW2 Bunker and Buildings	4
Total		129

2.10 Land Tenure

Figure 13 shows the major land tenure patterns with the GSR. 72% of the land is under iTaukei land while 25% is either under Freehold or State land. iTaukei land forms the dominant land tenure pattern in the underdeveloped and undeveloped areas of the peri-urban and rural areas. On the other hand, most of the Freehold and State land are strategically located, mostly in urban and growth areas

where most of the infrastructure and services are readily available. Thus, the role of utilities and infrastructure agencies comes into place in this case in extending their services coverage to areas where they are needed the most. Table 10 shows the distribution of land tenure as per their land area.

Figure 13 Land Tenure Map

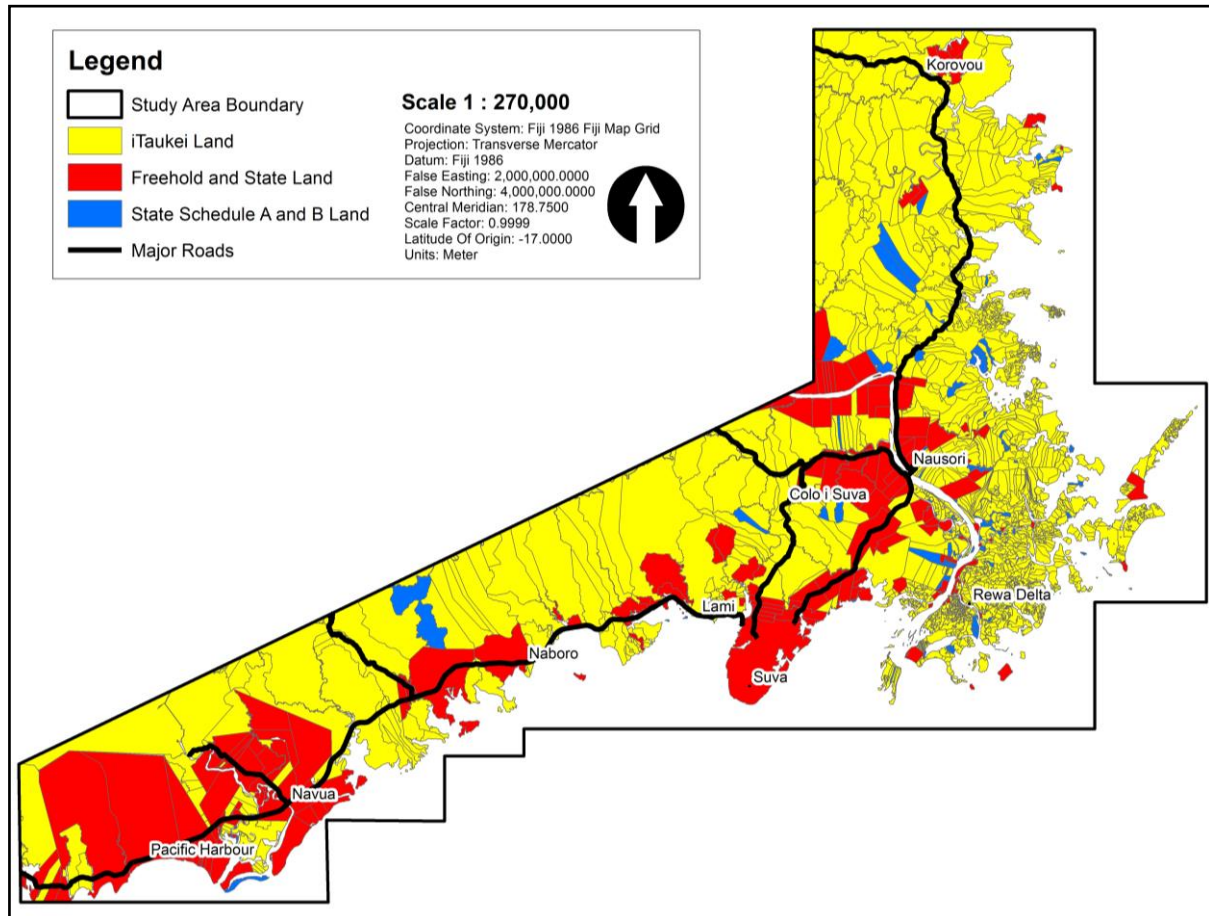


Table 21 Land Tenure Distribution

Tenure	Area (HA)	Percentage (%)
iTaukei Land	76,406	72
Freehold and State Land	26,925	25
State Schedule A and B Land	2,577	2
Total	105,907	100

2.11 Site Development – iTaukei Land Leases

Table 22 shows the various land uses that currently exist within the GSR which reflects the types of leases issued by the TLTB. The data was extracted from the TLTB Lease Master as of June 2016. Figure 14 clearly portrays the exact location of the land use distribution in Table 22.

Agriculture is still a dominant land use within the GSR which caters for around 10.2% of land. This is quite obvious considering the boundary extension from Nausori to Korovou where it is still predominantly Agricultural. Moreover, there is also quite a number of Forestry land as well near Korovou and in the interior of Pacific Harbour, which accounts for around 6%.

Land under reserve is still considerably high which caters for around 23.2%. These are the lands set aside solely for the usage of the iTaukei land owning units and proclaimed as such under the

provisions of the iTaukei Land Trust Act (Cap 134). These lands can be excluded from being a “native reserve” with the consent of the iTaukei land owners as stipulated under Section 17 of the iTaukei Land Trust Act.

Moreover, there is also quite a high percentage for unleased iTaukei land which accounts for around 23.9%. These lands are not under reserve and can be leased to any interested and willing investor. However, for the purpose of this exercise, the future land uses for these sites together with those that have existing leases will be determined in order to have a clear guide into the future.

Residential, commercial and industrial lease are still quite low (all below 2%). In urban areas, commercial and industrial activities are mostly common in state and freehold land. Since towns and city boundaries will continue to expand, the future of iTaukei land in peri-urban areas should anticipate this growth to ensure a smooth transition of land uses. Identification of suitable sites to accommodate future residential, commercial and industrial activities will be a key goal of this project.

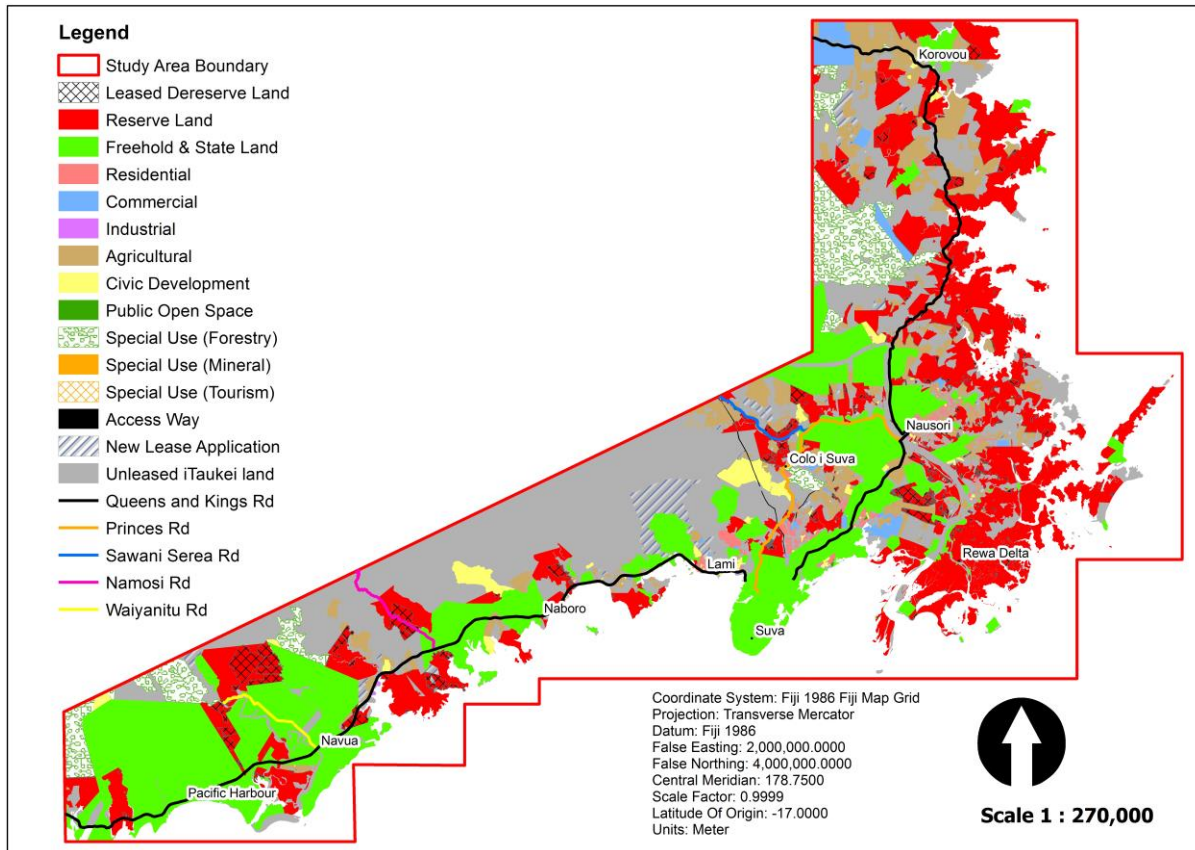
Tourism activity within the GSR is not really a popular type. In Fiji, we have a general idea of linking tourism with the sun, sand, and sea. Probably this is the reason why tourism thrives in the Western division and other outer islands. However, there are many categories of tourism that can suit a particular region. For instance, the central division can explore the possibility of accommodating other kinds of tourism activity such as the Eco-Tourism, Cultural tourism, Adventure tourism, etc. This project will also identify various suitable sites to accommodate new tourism development within the GSR.

Furthermore, civic uses and public open spaces also play an important role in any towns and cities. Under the Subdivision of Lands Act (Cap 140), five percent of land within major subdivisions is to be kept aside for public open spaces. Thus, retaining of public open spaces and civic uses and allocating news site to accommodate them will also be taken on board in this project.

Table 22 Land Use Distribution

Land Use	Area (HA)	Percentage (%)
Residential	947.41	0.89
Commercial	1,654.51	1.56
Industrial	90.21	0.09
Agricultural	10,827.26	10.22
Civic Development	2,020.73	1.91
Public Open Space	12.32	0.01
Special Use (Forestry)	6,414.78	6.06
Special Use (Mineral)	24.08	0.02
Special Use (Tourism)	13.08	0.01
Access Way	92.22	0.09
New Lease Application	3,351.51	3.16
Reserved Land	24,570.82	23.20
Leased Dereserved Land	3,658.02	3.45
Freehold and State Land	26,924.46	25.42
Unleased iTaukei Land within the Study Area	25,305.40	23.89
Total Land Area	105,906.82	100

Figure 14 Land Use Map

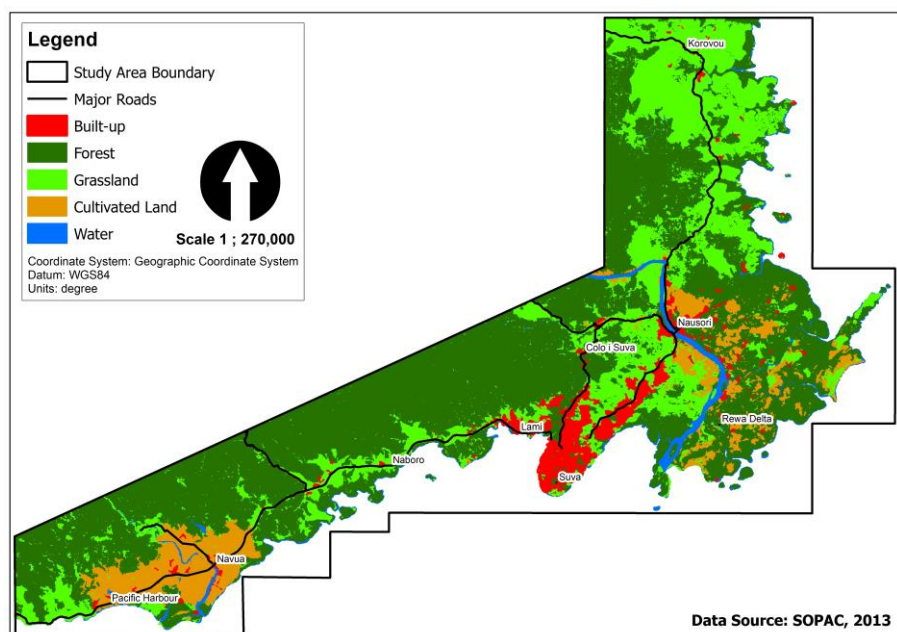


2.12 Land Cover

Land cover refers to the physical and biological cover over the surface of land, including water, vegetation, bare soil, and/or artificial structures. The data for this land cover map is from the Geo-Science Division at the Secretariat of the Pacific Community. It was developed using remotely sensed data (i.e., satellite imagery) of different resolution and vintage and validated with the aid of some ground truthing, virtual truthing (using high-resolution imagery of more recent vintage and other internet resources), agriculture census, and other ancillary data.

Built-up land can be characterized by any buildings, asphalt, and concrete material which may include residential, commercial, and industrial activities, roads, etc. Figure 13 clearly shows the areas within

the GSR that are highly composed of building materials. The pattern shown in this map is highly related to the population density map in Figure 6. It is quite obvious that most of the built up areas occurs within urban and peri-urban areas, growth areas, and even along major roads, as these are the areas where all or most of the services and infrastructures are readily available. Figure 15 Land Cover Map



2.13 Informal Settlements

In Fiji, a squatter is defined as 'a person who is in illegal occupation of state, freehold or native land or without any form of security of tenure or without any consent from the landowner'. Common characteristics of squatter settlements are lack of basic urban infrastructure, poor living conditions, poverty, and low energy consumption per capita. They usually provide unhealthy living environments and can give rise to crime and other social problems.

The number of people living in squatter settlements in Fiji has already shown a sharp growth in recent years. It is variously estimated that close to 7 percent of Fiji's total population and nearly 15 percent of the urban population live in over 200 squatter settlements around the country. The Greater Suva area has the highest number of squatters, with an estimation of 90 settlements. The locality map in Figure 16 shows the general location of various informal settlements within the GSR.

Within iTaukei Land, it is estimated that 80% of iTaukei reserve lands (land set aside for the maintenance, sustenance and support of the communal land owning units), are now occupied by informal settlements (vaka-vanua settlers) alongside land owning units. This take-up of land, without the involvement of the TLTB, by informal vaka-vanua developments approved by landowners represents major unplanned commitments on large tracts of iTaukei land in the GSR. On state lands, squatters take advantage of the state being an absentee landowner, knowing that eviction is unlikely, while formalization of land tenure, and/or development of housing sites and services are currently proceeding on a piecemeal basis. On freehold land, squatters occupy vacant sites, knowing that the legal process to evict them is costly, the local council/authority and national government take no responsibility for residents squatting, and political pressure is often brought to bear on landowners to let squatters remain on site.

The MLGHE estimates that approximately 6,420 households currently living in existing informal settlements in the GSR will need to be relocated to new urbanized sites in order to: reduce densities to permit satisfactory in-situ upgrading; resolve problems of land tenure or use (locations on freehold/native lands or public space); and respond to unacceptable levels of environmental risk and/or costs.

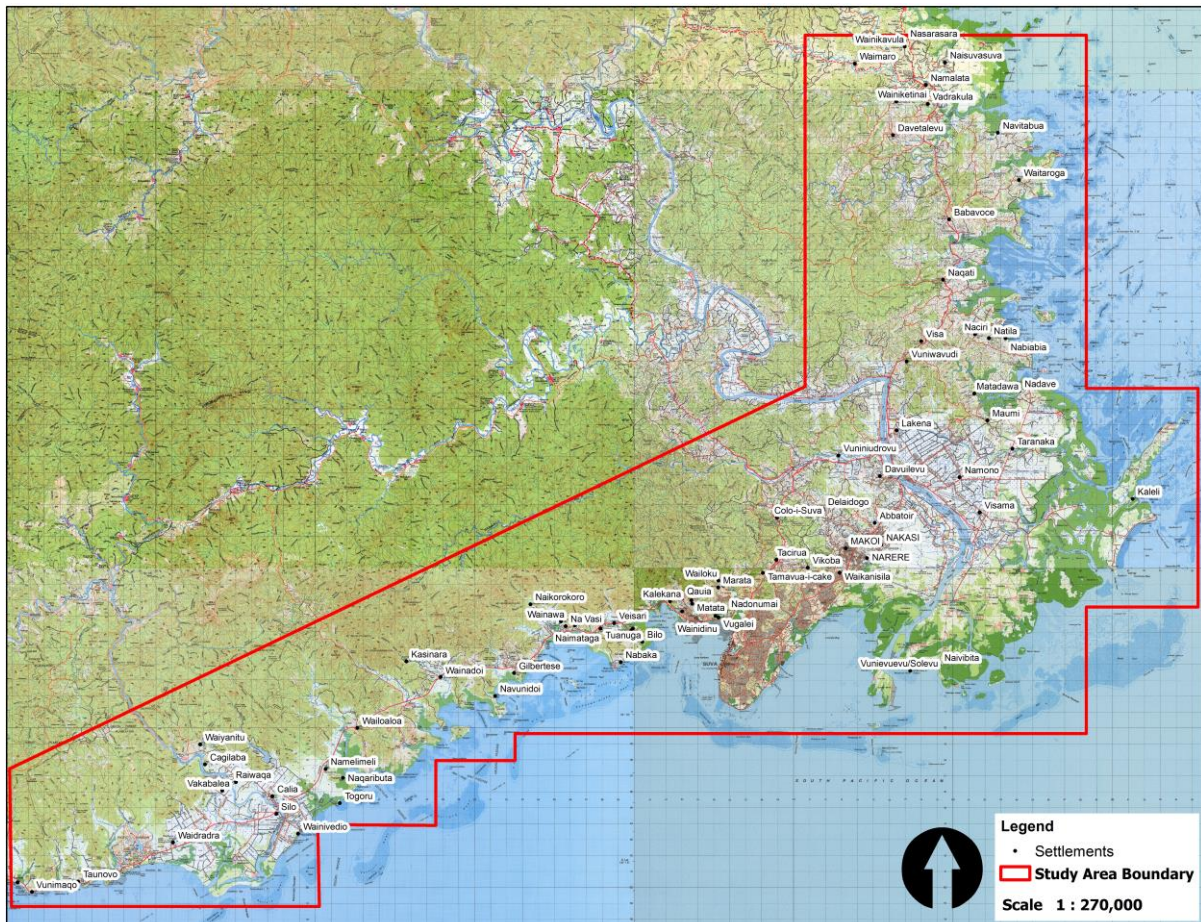
The major contributing factors for the growth of squatters in urban Fiji are rural-urban migration, poverty, unemployment, breakdown of family relationships / disputes, land insecurity, shortage of affordable housing and high housing rent. The non-renewal of farm leases has led to a large number of displaced people, who move to urban areas in search of a livelihood and alternative options, thus contributing to the number of squatters. However, the renewal of sugar cane farm leases by TLTB has been high in the past 5 years under the Committee for Better Utilization of Land (CBUL) in order to revive the industry. And, if the land lease is not renewed, a residential lease is issued to the tenant for the house site for 99 years.

There are at least four categories of people living as urban squatters in the GSR:

- The poorest people with absolute poverty, unemployed or survivors based on social welfare assistance or a pension;
- People with some skills, self-employed or largely engaged in informal activities;
- People with formal employment / salary earners and with a relatively higher standard of living;
- Displaced farming families due to land expiry of their lease lands.

A study by Mohanty (2006) reveals that the reasons for migrating to squatter areas in Suva city (mostly from within the Central Region) were: better job opportunities (31%), owning a piece of land / house (20%), high house rent elsewhere (12%), family disputes (11%), easy access to children's education (8%), locational benefits (6%) and expiring land leases (2%). While many in squatter settlements are poor, the study also found that 7% of squatter households in Suva City had monthly incomes of more than FJ\$1,000. So, people with formal employment and with higher standard of living also live in squatters to escape from the house rent in the City or to acquire a piece of land. Some squatters may take advantage of free land and services to avoid payment of rent.

Figure 16 Information Settlement Sites



2.14 Infrastructure

Infrastructures represent those types of capital goods that serve the activities of many industries. The quality of an infrastructure directly affects a country's economic growth potential and the ability of an enterprise to engage effectively. It has been proven that insufficient and poor infrastructures can impede a nation's economic growth and international competitiveness, which is a major cause of loss of quality of life, illness and death.

Social economic development can be facilitated and accelerated by the presence of social and economic infrastructures. Thus, in order to stimulate growth and reduce poverty, it is essential to improve the supply, quality and affordability of infrastructure services.

2.14.1 Water

The reticulated water system from the Water Authority of Fiji covers approximately 85% of the GSR. Figure 17 clearly shows the general location of areas that is covered under the WAF piped water. It is obvious that those within town and city boundaries, and other growth centres like Korovou and Pacific Harbour, is all connected with the WAF metered water. However, some rural areas within the GSR are without water reticulation. For instance, areas outside of Nausori Town to Korovou and the Namosi Road junction.

The issues affecting successful delivery of water to WAF customers are insufficient raw water during dry spells, a high Non-Revenue Water (NRW) level of 51%, undersized mains, frequent burst mains, high electricity cost and electrical and mechanical failures. NRW includes leakages, metering errors, illegal connections and operational issues. These issues are being addressed as part of this TA's feasibility study of the current and future water supply system in conjunction with WAF.

Existing and Future Demand

The average day water production for the year 2013 was 151 MLD whereas average metered consumption was 73.5 MLD. Thus, the NRW levels sits is approximately 51%. There are approximately 80,000 active water meters in the study area. The per capita demand across various supply zones varied but overall average per capita consumption is 202 Litres per capita per day (Lpcd). This usage will be gradually increased up to 230 Lpcd by the year 2018 to determine future consumption.

Four demand scenarios were created with reduction of NRW level to 20% in different years. The scenarios showed that the faster the NRW levels were reduced the later that investment in new sources and treatment could be deferred. Scenario 1 and 2 which have reduction of NRW to 20% by the year 2016 and 2018 respectively, indicate that the investments can be deferred until 2022. Scenarios 3 and 4 which include reductions of NRW to 20% by the year 2023 and 2028 respectively show that WAF's current production will be insufficient to meet expected peak day demands and will require immediate investment in source and treatment.

For the analysis of treatment capacity, scenario 2 was selected. Current treated water production of Waila and Tamavua WTP is approximately 150 MLD. An additional 45ML of treatment capacity is required to meet the peak day demands of 2033. It is recommended that an additional 30ML capacity should be commissioned in the year 2016 and a further 15ML treatment capacity should be added by 2030.

The Identified potential sources areas are as follows and as discussed in more detail in this TA's Draft Feasibility study (April 2015):

- A run-of-river scheme on the Rewa River;
- A multi-purpose hydro/water supply dam on the Sovi River;
- A multi-purpose hydro/water supply dam on the upper Waimanu River; and
- A multi-purpose hydro/water supply dam on the Upper Navua River;

Strategic Spatial Planning Implications

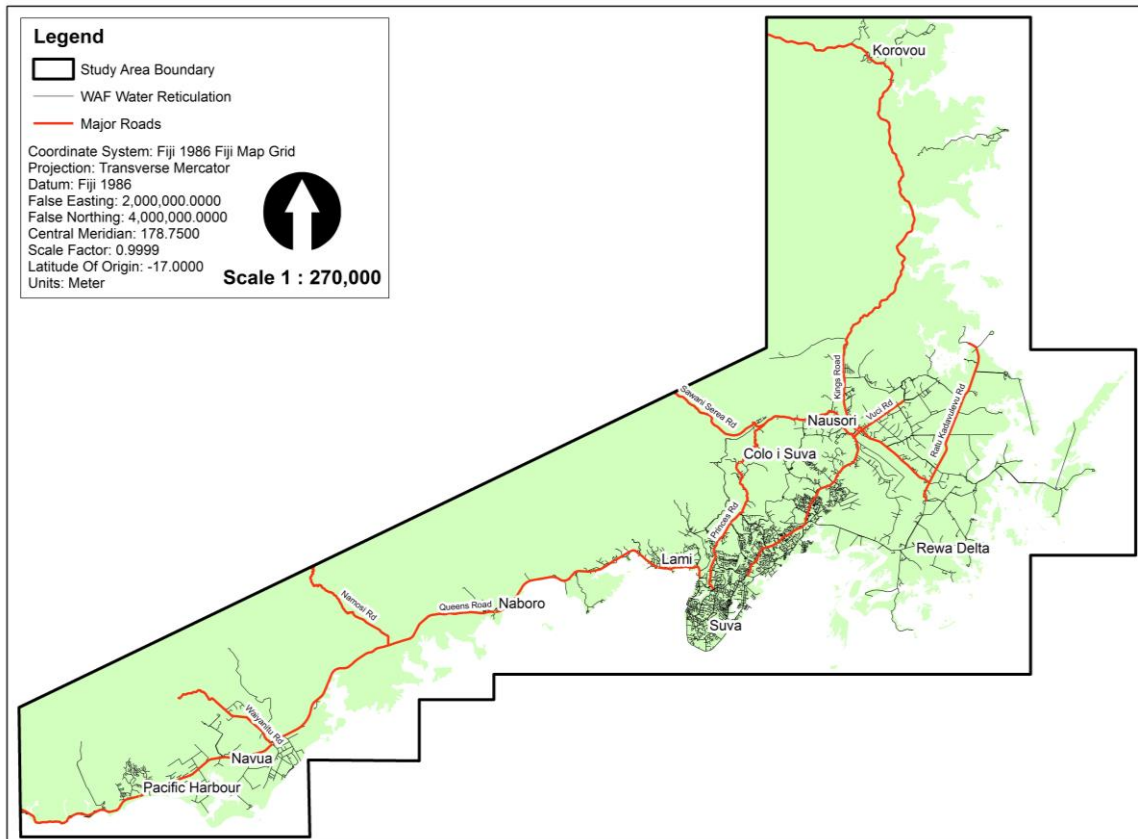
Following an evaluation of the sites it was determined that a location on the Rewa would be cheaper than any dam option. In addition, there is currently little additional capacity on the Waimanu River to supplement the two existing sites so the Rewa is the only remaining viable source at this time. Furthermore, the threat of climate change with higher sea levels and increased saline intrusion means that a site further upstream than the Waimanu was required, not only to safeguard the proposed additional 30 ML, but also to enable it to be expanded, to 70 ML or more, if the Waimanu sites are affected by saline intrusion.

In addition, the strong possibility of a copper/gold mine being developed in the Namosi area in the near future has resulted in a need to locate the new site upstream of any possible water pollution as a result of the mine's activities. Any drainage/overflow from the mine would flow into the Waidina river which then feeds into the Rewa. Hence the proposed location for the new intake and WTP at Viria slightly upstream of the Rewa's confluence with the Waidina.

The proposed WTP is located on the west bank of the Rewa. Ideally, it would have been located on the east side which would then allow for a direct supply to Nausori without having to cross the river. That was the initial proposal until the potential implications of Namosi became clear. Nausori currently obtains water via one pipe currently across the river under the Rewa bridge. The continuation of this arrangement, although adding to the flexibility in overall network operations, does not increase the security of water supplies to Nausori (and its airport), which would be without water if the bridge and pipe were to become non-functional.

The WTP and associated pipelines will also support further development along and either side of Princes Road and for the villages in the vicinity of the Viria/Lami WTP. This may enable more development to take place in this area although there is a danger of this new supply source creating more ribbon development along Princes Road.

Figure 17 Piped Water Coverage



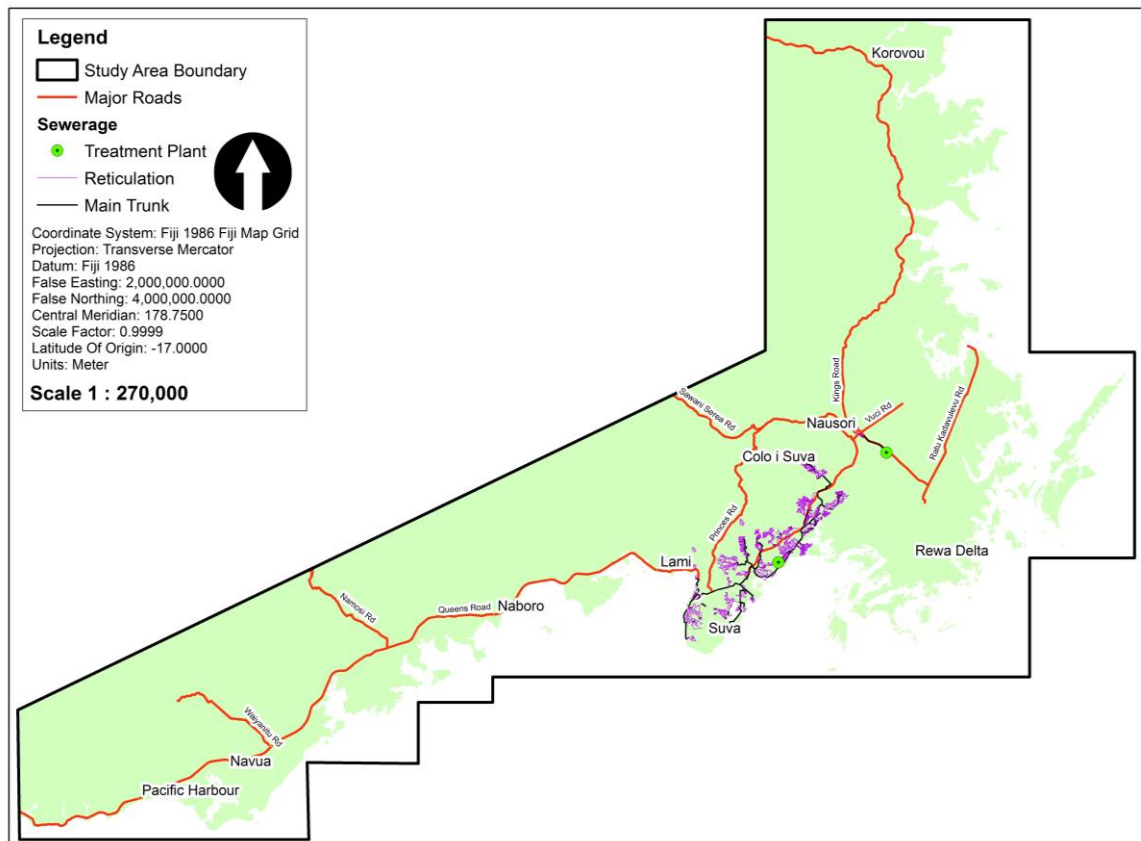
2.14.2 Sewerage

The waste water reticulation covers approximately 30% of the study area population. The remaining population use septic tanks. Issues with the sewer system is high infiltration, overloaded plants, frequent overflows, electrical and mechanical failures and lack of technical skills at the operational level to manage the system. These issues are being addressed as part of this TA's feasibility study of the current and future waste water system in conjunction with WAF.

The sewerage network for the GSR as shown in Figure 18 includes part of Lami, Suva, Nasinu, and Nausori. Other partly sewered areas are not reflected in the map such as Pacific Harbour, Naboro, and Adi Cakobau School. Due to the geographical location and the population density of the Greater Suva Area, not all the areas between the catchments are sewered and thus there are a number of potential infill areas. The sewerage system includes six Waste Water Treatment Plants (WWTP) and more than 80 Sewer Pump Stations. Kinoya WWTP serves about 98% of the sewered area since it has the highest sewerage capacity. The Pacific Harbour WWTP serves the Pacific Harbour Area, Nausori WWTP serves Nausori town and Wailada WWTP only serves the Wailada industrial area in Lami. Moreover, the Naboro WWTP only treats waste water produced by the properties within the prison compound and the ACS WWTP is designed to only treat waste water produced by the properties within the ACS School compound.

The current sewer reticulation covers approximately 36% of the domestic population in the vicinity which are currently served by the regional water supply. Based on the hydraulic calculation there are 160,114 Equivalent Population (EP) connected to the five WWTP in the GSR. Out of these, Kinoya WWTP serves 151,868 EP, Nadali WWTP serves about 2,800 EP, Wailada WWTP serves around 3,000 EP, and Naboro WWTP serves about 2,000 while the rest is served by the ACS WWTP. The equivalent population sewered corresponds to a total of 29,627 sewer connections in the GSA.

Figure 18 Sewerage Coverage



2.14.3 Solid Waste Management

The Naboro Landfill (opened in 2005) is located off the Queens Road approximately 24km from central Suva, within the Navua town boundary. The land fill is screened from residential and commercial properties by a dense barrier of vegetation. The only major complex in the neighbourhood is the Naboro Prison.

The total site area is some 45 ha. The landfill has a life of at least 70 years. It covers an area of 7 hectares in the current first stage and will cover 38.2 hectares in another four stages.

The landfill receives 184 tons of waste per day, of which municipal councils account for about 70% and waste management companies for 30%. It can manage (and is contracted to receive) up to 100,000 tonnes per annum. However, this estimated amount has not been reached which thus requires an annual subsidy to be paid to the operator.

The site is used by all 4 GSA local councils as well as Navua and Korovou. All residential and industrial wastes can be deposited at the landfill if it meets the acceptance criteria established by Department of Environment. Given the absence of local expertise, H.G Leach (Fiji) Ltd. Were appointed as operators with a contract covering the overall management and operation of the landfill and gate office.

2.14.4 Road Network

The major road network and two major port (Suva seaport and Nausori airport) is shown in Figure 19. The road network is restricted by the topography and presence of waterways that are located across the peninsula. The existing road network suffers from a lack of redundancy should the operation of a key link (such as Queens Road) be impacted upon. In many instances there are no alternate routes to key roads. For example, the Lami Bridge (and several smaller bridges) are part of the only access between Lami and Suva: if one of these bridges fails (perhaps during a storm surge) there would be major disruption to all road transport to and from Nadi. Road access to the Suva CBD is provided via three major road corridors:

Kings Road – linking Suva to Nausori and the north coast of Viti Levu

Queens Road – linking Suva to Lautoka via Lami, Pacific Harbour and Nadi
Princes Road – via the Tamavua Ridge to the Waimanu River and Nausori

The transport network within the GSR has suffered from a lack of investment over the past few decades and while the growth in vehicle numbers has continued, the road infrastructure to support those vehicles is aging and in need of repair and upgrade.

Future Plans

It is expected that the future road strategy for the GSA will be guided by the Greater Suva Transportation Strategy (GSTS) 2015 – 2030, published in August 2014. The GSTS is a transport blueprint for the area over the next 15 years which will replace the 2001 Strategy.

Anticipated future population growth in the GSR is likely to have a significant impact on the transport network. The key impacts include:

- Additional traffic needing to use existing roads (increased congestion and road deterioration)
- Increased housing developments further from the Suva CBD employment areas (increased journey time)
- A need for additional transport services and infrastructure to support new developments
- An increase in vehicle ownership per capita (lower vehicle occupancy)

For the future, the GSTS also looked at several potential large projects which may be able to address the larger future transport issues. Some of the major projects which are proposed for implementation in the next 15 years are shown in Table 23 below. These proposed projects are also reflected Figure 19.

Table 23 Proposed Major Roads Project

Area	Projects	Timing	Cost (F\$M)
Lami	By-Pass	2019	31.08
	Queen's Road widening	2029	57.20
	Rokobili Terminal link	2019	21.20
Suva	Regional Road (from Suva, Nasinu to Nausori)	2025	249.60
	Princes Road widening to 4 lanes	2024	56.16
	Fletcher Road widening to 4 lanes	2025	29.12
	Edinburgh Road widening to 4 lanes	N/A	12.00
Nausori	Adi Lady Davila Rd upgrade/extension	2022	83.20
	Wainibuku Rd Extension	2027	47.00

2.14.5 Ports

Airports

Nausori Airport (elevation 5 metres) is the second International Airport in Fiji and is located 23 km north-east of the Suva CBD. It is government owned and operated by Airports Fiji Limited (AFL). In 2014, it handled 61,949 international passengers (3.3% of Fiji's international passengers) and 191,223 domestic passengers. There is minimal airfreight handled at Nausori as there are no cargo storage facilities at the terminal and aircraft weight is limited by the length of the runway (1868 * 30 metres). Fiji Airways commenced a direct Sydney – Nausori flight in May 2014 using a Boeing 737-700, this is the first stage in attracting more direct international flights to the airport. Future plans include a new terminal and extension of the runway (to 2,300 metres) to enable larger aircraft (e.g. Boeing 767 and Airbus A330) to take off and land at full capacity. These development plans are expected to be finalized this year following approval from the AFL board and government.

Ports

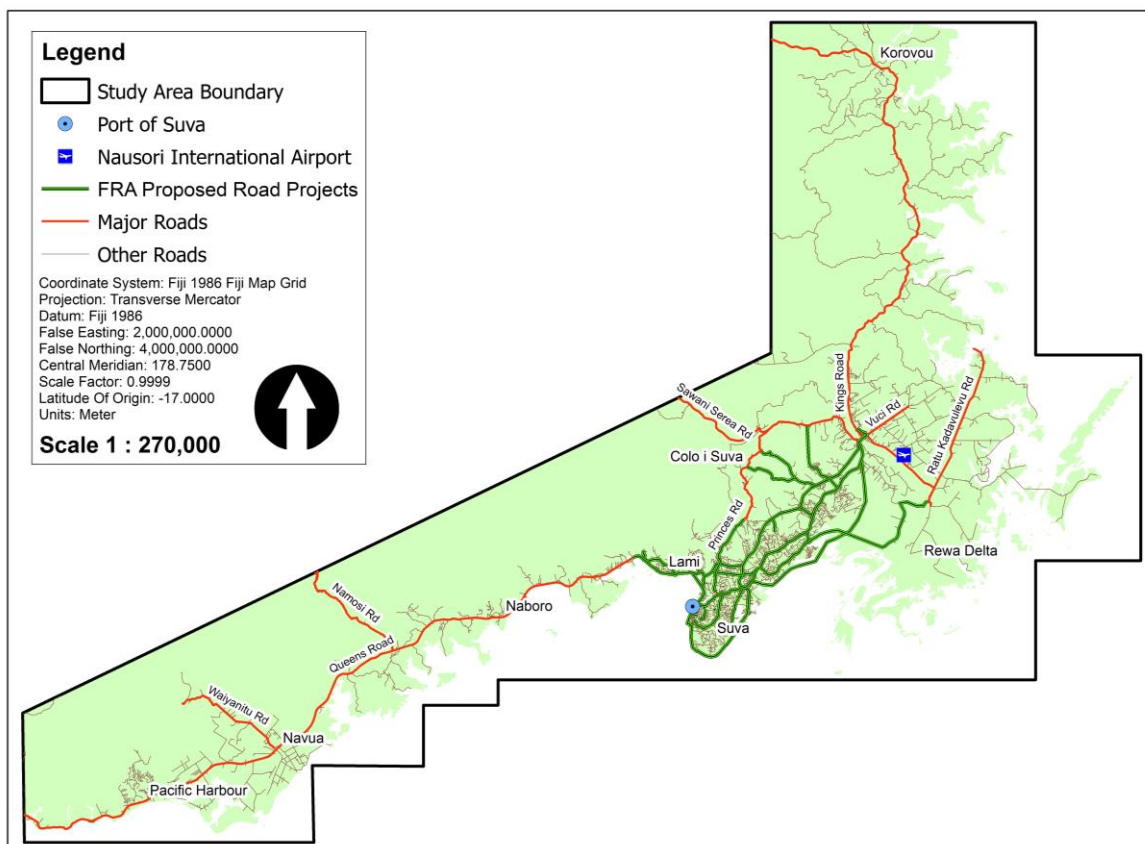
Port of Suva is Fiji's largest, busiest and biggest container and general Port providing the maritime gateway to the country's capital city of Suva. It currently handles 54 % of all Fiji's export and import cargo which is comprised of 72 % containerized, 25% liquid/dry bulk and the rest non containerized. The Fiji Ports website reveals that a total of 57 cruise liners called into the Suva port in 2016.

There have been major upgrades and extensions to the port recently. An ADB sponsored Fiji Ports Development Project was completed in 2006. In the absence of the port relocation project (a geotechnical analysis in 1998 had concluded, that the soil sediments at the proposed Rokobili site were soft), there was a need to repair and rehabilitate Suva Port to extend its life to 2020. The rehabilitation also was needed to improve the port's competitiveness and ability to cope with the anticipated throughput. The project involved strengthening of Suva port and reorganization of the container storage area, which boosted storage capacity from 70,000 to 100,000 containers per annum. As a result, stevedored exports increased from 365,500 tons in 2002 to 473,700 tons in 2010, or 3.29% annual growth for the period. Stevedored import tons rose from 851,300 in 2002 to 961,800 in 2010, or by 1.54% annually. There has also been a recent extension of Queens Wharf and reclamation of 5.7 ha. to the north of the dock.

Major dredging works have also been completed recently so that Kings Wharf can now easily accommodate drafts up to 12 metres, while Walu Bay, Princess and Princes Wharf can accommodate 8.5 metres and 5 metres respectively. The entire harbour area now has sufficient water depth for safe navigational purposes.

However, the existing capacity is still limited to 495 metres of berth space and 3 ha. of yard space. It is expected by 2030 that there will be a need to handle 200,000 containers per year. Hence, the Rokobili site, on 50.5 ha. of reclaimed land just to the north of the existing port has been proposed. It would be able to handle 600,000 containers with 800 metres of berths at a total cost of F\$598m.

Figure 19 Road Network and Port Locations



2.14.6 Electricity

The Fiji Electricity Authority (FEA) is organized by Division and the GSR falls within the Central Division. The situation with regards to transmission and distribution within the Central Division is shown in Table 24.

Table 24 Power Transmission and Distribution

Transmission (km)		
132 kV Overhead (OH) line	33 kV OH line	33 kV Underground (UG) line
62	66	54
Distribution (km and kVA)		
OH High & Low	UG High & Low	Installed kVA
2,291	488	324,690

Source: FEA Annual Report, 2013

Power is produced via a combination of diesel (70%) and hydro (30%) with the former costing some F\$122.6 million in 2013 which is equivalent to 41% of all revenues for the year.

In early 2015, the Kinoya power station's capacity was boosted by the installation of 4 additional 8.2 megawatt diesel generators. There are currently plans for more hydro schemes with the aim of boosting Fiji's production from renewable energy to 80%.

2.15 Public Facilities

2.15.1 Education

Schools are classified by District/Province and by type: Primary, Secondary, Secondary/Vocational, Vocational, and Special, as follows in Table 25 for the areas relevant to the GSA.

Table 25 School Provision in the GSA

District/Province	Primary	Secondary	Secondary and Vocational	Special Schools	Technical/Vocational
Nausori	117	23	29	1	0
Suva	85	30	39	6	4
Ra	41	4	7	1	0
Total	243	57	75	8	4

Source: Ministry of Education Annual Report, 2015

There are several tertiary education facilities in the GSR, particularly the University of the South Pacific (USP), the Fiji National University (FNU) and the Fiji Polytechnic. Specialist and religious based facilities include the Fiji National University College of Medicine, the Pacific Regional Seminary and the World Harvest Centre. Established in 1968, USP is one of only two universities of its type in the world. It is jointly owned by the governments of 12 member countries: Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Samoa. It has campuses in all member countries, with the main one, Laucala, in the GSR. Total student numbers are some 27,000 (2013). The FNU is the largest university in the South Pacific: it has campuses and centres at 33 locations throughout the country, with a staff complement of more than 1,800 and more than 30,000 students in 2015.

2.15.2 Health

Health provision within the Central Division is organized on a Sub-Division (Province) hierarchical basis with hospitals at the top (at least one in each sub-division) and health centres (21) and nursing

stations (21) below. The Central Division also has 2 specialized hospitals (P J Towmey (91 beds) and St. Giles (136 beds)) and one private hospital (Suva). Details for hospitals for each of the sub-divisions are shown in Table 26. With respect to coverage (and assuming a standard of 1,000 persons/bed) it is clear that Suva is well served with hospitals whereas Rewa, including Nausori, are worst catered for in the Central Division.

The Ministry is currently looking to upgrade/relocate the Nausori Health Centre to a Hospital at Vunivivi Hill (at a cost of F\$4 million as announced in the 2015 budget) due to its current location being in a flood prone area.

Table 26 Hospital Provision Central Division 2013

Sub-Division	Population 2015	No. of Beds	Population/Bed	Outpatients
Suva (Colonial War Memorial Hospital)	223,816	481	465	117,899
Serua/Namosi (Navua Hospital)	30,587	22	1,390	1,914
Rewa (Wainibokasi Hospital)	88,361	12	7,363	3,497
Nausori		17	-	2,355
Tailevu (Korovou)	21,578	16	1,349	4,858
Naitasiri (Vunidawa)	19,472	24	811	8,218

Source: Ministry of Health Annual Report, 2015

Chapter 3 – Land Use Plan Policy Recommendations

3.1 Vision



The vision for this GSR Land Use Plan is “To transform the Greater Suva into a prosperous and sustainable region through smart and resilient land futures”. The vision is built upon the TLTB’s organisation vision of “Excellence in land management service to meet the expectation of all stakeholders”, and the overall national government vision of “A better Fiji for All”. The plan is also aligned to TLTB’s mission statement in terms of:

- Promoting economical, environmental, socially, culturally sustainable land use practices and uphold sustainable development goals and other internal conventions, and
- Enhancing partnerships and respond positively to international, regional and governmental programmes and initiatives.

The policy recommendation in this chapter presents a desired outcome (goal), followed by policies related to the goal. The “Desired Outcome or Goals” represent the results that the GSR hopes to realize or achieve within the ten or twenty years timeframe of the Plan. Again, goals are just aspirations, and are not guarantees or mandates.

The Plan serves only as a guide for future growth and development patterns. Thus, the national government action and the collaboration from other statutory organisation are still required in directing infrastructure development and other necessary investment on iTaukei land.

Table 27 below summarises the various land use allocations within the GSR LUP. Interestingly to note that agriculture (50.62%) retains the highest percentage of land use type within the GSR. This is crucial in terms of food security for the current and future population.

Table 27 Land Use Type Summary

Land Use Type	Area (HA)	Percentage
Mixed Use Node	3,535	6.20
Neighbourhood Centre	553	0.97
Residential (Low Density)	4,036	7.08
Residential (High Density)	3,184	5.58
Commercial	57	0.10
Industrial	332	0.58
Agricultural	28,877	50.62
Civic	1,316	2.31
Special Use (Hotel)	153	0.27
Special Use (Integrated Development)	473	0.83
Special Use (Forestry)	11,749	20.60
Special Use (Conservation)	2,064	3.62
Special Use (Reservoir)	715	1.25

3.2 RESIDENTIAL

Residential development can essentially be defined as self-contained, habitable accommodation. Areas designated for residential development within this Land Use Plan should adhere to the minimum site areas defined within the Town Planning General Provisions for residential development.

3.2.1 Discussion

Residential zones land provides areas for residential development at various specified building and population densities. The residential zones are intended to accommodate a variety of housing types and to encourage the provision of housing for all citizens, irrespective of their economic background.

Taking into account the population growth rate within the GSR, there is indeed a high demand for fully/partially serviced residential lots. More residential development is highly encouraged to cater for the current and future residential demand.

Thus, the policies in this section takes into account both the low density and high density residential development in order to facilitate greater housing choice for our residents and to encourage more people to live near areas where some/all services are/will be readily available.

3.2.2 Low Density Residential (Small family Residential Areas)

The planning objective of Low Density Residential is to protect the locality's single dwelling character and landscape setting. It mainly applies to unserviced residential settlements and existing low density residential areas and those areas where further development to higher densities is not appropriate due to existing character, environmental, landscape or infrastructure constraints.

Thus, the main purposes of the zone are:

- To provide for residential use or development on larger lots in residential areas where there are infrastructure or environmental constraints that limit development, and
- To provide for existing low density residential areas that usually do not have reticulated services and have limited further subdivision potential

Low density residential zone within the GSR LUP cover an area of 4,036 hectares, which is 7% of the total land use type allocation.

3.2.2.1 Desired Outcome

Provide sufficient low density residential lots in order to cater for a broad range of households and incomes and to maintain an intensity of development that is appropriate for areas with limited access, infrastructure constraints, or fragile environmental conditions that are not conducive to more intensive development.

3.2.2.2 Policies

- LD1: Low density residential areas to be provided in areas that are predominantly developed with single family houses in order to maintain a consistent residential character.
- LD2: Non-residential uses must not be permitted within the low density residential areas unless the non-residential use is considered as a conditional development under the Town Planning Act (Cap 139) General Provisions. The conditional development must be recommended by TLTB and approved by the Director of Town & Country Planning.
- LD3: Any non-residential uses recommended by TLTB must not have a detrimental/negative effect on the normal enjoyment of peace and amenities of the surrounding inhabitants.
- LD4: Minimum lot sizes, boundary length and width, which is consistent with the Town Planning Act (Cap 139) General Provisions must apply when considering subdivisions of low density residential areas in order to maintain its character.
- LD5: Development standards and requirements which are consistent with the Town Planning Act (Cap 139) General Provisions must apply when considering all development within the low density residential areas.

3.2.3 High Density Residential (Multifamily)

High Density Residential zone create a more dense urban form than the other residential zones. The zone is generally applied to land surrounding centres where residents can readily access services and public transport.

High Density Residential areas are primarily for residential flat buildings. It allows a variety of housing types such as multifamily flats and apartments. These areas should offer a number of choices that can accommodate different living styles and incomes.

Sites reserved for high density residential are clearly shown in the GSR LUP. It covers an area of 3184 hectares, which is 5.6% of the total land use type allocation.

3.2.3.1 Desired Outcome

Provide sufficient high density residential lots in various feasible locations within the GSR. All development within the high density residential areas must increase the availability of housing which is suitable for a wide range of household types and income levels. Floor spaces can be rented out or sub-leased to various respective tenants in order to increase home ownership.

3.2.3.2 Policies

- HD1: Places where there is a high concentration of residential development shall be designated as a High Density Residential (multifamily) area, in particular in peri-urban locations, near commercial business districts, growth areas, etc.
- HD2: High Density Residential development must be well suited to a variety of specific conditions and locations and must meet all the development requirements of the Town Planning Act (Cap 139) General Provisions.
- HD3: Development in high density residential locations must be consistent with the vision of increasing the housing stock within the GSR to meet all income levels, and simultaneously, development must be compatible with the desired neighbourhood character and contributes to high quality, liveable neighbourhoods.
- HD4: Non-residential uses must not be permitted within the high density residential areas unless the non-residential use is considered as a conditional development under the Town Planning Act (Cap 139) General Provisions, recommended by TLTB and approved by the Director of Town & Country Planning.
- HD5: Any non-residential uses recommended by TLTB must not have a detrimental/negative effect on the normal enjoyment of peace and amenities of the surrounding inhabitants.
- HD6: A variety of high density housing types is allowed in order to accommodate a wide range of housing needs as long as it is consistent with the standards and requirements of the Town Planning Act (Cap 139) General Provisions.

3.3 COMMERCIAL

3.3.1 Discussion

Commercial zones are places for locating businesses that may provide jobs and services for residents. Most of the commercial uses within the GSR are found in town and city centres and in growth areas. Likewise, some commercial activity are scattered all over the study area.

Identifying land for commercial development must be carried out in a well-planned manner in order to protect an area from the negative impacts of incompatible uses.

Sites reserved for commercial uses within the GSR also include the sites earmarked for mixed use zones and neighbourhood centres.

3.3.2 Desired Outcome

Create and maintain strong, successful commercial land uses that provide a focus for the surrounding neighbourhood and that encourage new businesses, provide stability and opportunities for expanding existing businesses and services, and promote economic development and neighbourhood vitality.

3.3.3 Policies

- C1: Prioritize the preservation, improvement, and expansion of existing commercial use areas over the creation of new business districts in order to strengthen those existing areas.
- C2: Encourage the development of compact, concentrated commercial use areas, particularly in growth areas, where pedestrians can easily access many businesses.
- C3: Provide a range of commercial zone classifications as in accordance with the Town Planning Act (Cap 139) General Provisions to allow different mixes and intensities of activity and varying scales of development.
- C4: Support a wide range of uses in commercial areas, taking into account the intended pedestrian or residential location of the area, and the impacts that the uses could have on surrounding areas.
- C5: Commercial uses that will generate heavy traffic must undertake a Traffic Impact Assessment in order to control the associated traffic impacts and ensure that the uses are compatible with the character of the commercial area and its surroundings.
- C6: The intensity of commercial development must be in compliance with Town Planning Act (Cap 139) General Provisions and other related regulations.

3.4 INDUSTRIAL

3.4.1 Discussion

Industrial zones accommodate a range of industrial and manufacturing activities in designated areas to promote a balanced land use and economy and to encourage employment growth. Many of the uses found in these zones make them generally incompatible with residential and even some commercial uses. Thus, it is important to regulate these industrial uses in order to avoid conflicts with non-industrial activities.

The GSR LUP recognizes the need to reserve additional land for new industrial uses. Sites identified as industrial areas are either already developed as industrial or are suited for additional industrial development in the future due to its location. It is expected that these industrial areas will generate more jobs for the local community.

Sites reserved for industrial uses are clearly shown in the GSR LUP. It covers an area of 332 hectares, which is 0.58% of the total land use type allocation. General industrial activities can also be accommodated within the Mixed Use Node provided that they blend in well with other land uses and do not impose any detrimental/negative effect on the normal enjoyment of peace and amenities of the surrounding inhabitants.

3.4.2 Desired Outcome

Sufficient land to be provided at suitable locations within the GSR to accommodate more industrial activities that can generate a lot of economic activities in the region.

3.4.3 Policies

- I1: Sites set aside for industrial activities must be in line with the following conditions:
 - a) The primary function shall be an industrial activity and industrial-related commercial functions.

- b) The basic infrastructure needed to support the industrial uses already exists or will be developed.
 - c) Areas are large enough to allow a full range of industrial activities to function successfully.
 - d) Sufficient separation or special conditions exist to reduce the possibility of conflicts with development in adjacent, less-intensive areas. E.g. Buffer strip, etc.
 - e) Reasonable access to the highway, airport and/or wharf for transportation of goods.
 - f) Relatively flat terrain allowing for efficient industrial processes.
- I2: Industrial land with the GSR LUP must be preserved to cater for industrial uses and its related activities.
- I3: Accommodate the expansion of current industrial businesses and promote opportunities for new industrial businesses within the GSR to strengthen the regions existing industrial areas.
- I4: Restrict industrial activities that by the nature of materials involved or processes employed are potentially dangerous or very noxious to appropriate locations within industrial areas.
- I5: Prohibit new residential development in industrial zones, except for certain types of dwellings, such as caretaker units, that are related to the industrial area and that would not restrict or disrupt industrial activity.
- I6: Use the industrial zones to promote a full range of industrial activities and related support uses, as long as they are in compliance with the Town Planning Act (Cap 140) General Provisions.
- I7: Distinguish the different industrial zones as per the definition, permitted uses, and requirements in the Town Planning Act (Cap 140) General Provisions.
- I8: Apply the general industrial uses mostly within specific locations (e.g. within Mixed Use Node), where industrial activity impacts are less likely to affect residential or commercial uses.
- I9: Avoid placing industrial zones in densely populated residential areas.
- I10: Commercial uses in industrial areas can be permitted if they are considered as “Conditional Uses” under the Town Planning Act (Cap 140) General Provisions and approved by the Director of Town & Country Planning. However, the uses must reinforce the industrial character. Any other uses which are not associated with industrial uses must be discouraged in order to preserve these areas for industrial development.
- I11: The type of “permitted or conditional” uses within an industrial zone must be in compliance with the Town Planning Act (Cap 140) General Provisions. This is to ensure that these uses are compatible with the zone’s primary industrial function in order to protect public safety and welfare on nearby non-industrial sites.
- I12: Prohibit certain uses, such as those that attract large numbers of people to the industrial area for non-industrial purposes, in order to keep the focus on industrial activity and to minimize potential conflicts from the noise, night-time activity, and truck movement that accompanies industrial activity.
- I13: Establish a land use mechanism which can provide an appropriate transition between industrial areas and adjacent residential or commercial zones.
- I14: Encourage collaboration among the industrial businesses in the areas of marketing, research, innovations, etc.

3.5 AGRICULTURE

3.5.1 Discussion

The agriculture sector provides an important source of livelihood, income, and employment. Population increase coupled with the rising food demand and the decline in availability of arable land is placing increasing pressure on the capacity of this sector to ensure food security into the future.

The concept of “food security” in the Fijian context is defined as the ‘ability to produce safe, healthy, affordable food for all Fijians at all times’. Section 36 of the 2013 Constitution binds the State to take reasonable measures to ensure every Fijian is free from hunger and has access to food and water of acceptable quality and quantity. It is evident therefore, that in order to strengthen Fiji’s food security, a major change (transformation) in the agricultural sector value chain with strong focus on farm efficiency and improved market linkages through timely information generation and dissemination, is necessary.

3.5.2 Desired Outcome

Ensure that the prime agricultural sites as indicated by the Ministry of Agriculture and zoned within the GSR LUP are protected from other uses.

3.5.3 Policies

- A1: With the assistance of the Ministry of Agriculture, an updated agricultural site inventory to be undertaken within the GSR for food security purposes.
- A2: Assign agricultural zoning classification to identify agricultural sites and protect them from encroachment of incompatible uses in surrounding areas.
- A3: Meet annually with the Ministry of Agriculture to promote identified prime agricultural sites within the GSR which should be retained for agricultural purposes. Agricultural sites with good quality soils are to be mapped and protected from major development as they are strategically important for food security purposes.
- A4: On an on-going basis, monitor the amount of agricultural-zoned land that has been subdivided and rezoned to other uses.
- A5: Utilize the GSR LUP as a planning tool to protect and preserve agricultural land from being rezoned.
- A6: Subdivision of Agricultural land for other purposes beyond/outside the Green Belt is strictly prohibited except for Agricultural purposes only.
- A7: Provide incentives and support to farmers and iTaukei landowners of agricultural land to continue their agricultural operation through:
 - a) Development of a committee composed of the Ministry of Agriculture and TLTB, and other relevant organisation to discuss the needs and concerns of farmers in the area of Agricultural land preservation.
 - b) Working closely with the Ministry of Agriculture to update and adjust policies, incentives and regulations for agricultural land as conditions and circumstances change over time.
 - c) Development and implementation of policies, incentives and regulations that will support preservation of agricultural land.
- A8: In consultation with the Ministry of Agriculture, an incentive schemes are to be provided for organic farming and investment in green house and hydroponic technology.
- A9: A residential farm dwelling is permitted on agricultural land outside of the green belt but it is not permitted to be subdivided off as a separate lot as it will result in fragmentation of good Agricultural land.
- A10: Discourage the rezoning of prime agricultural land to other uses. Likewise, areas designated for agricultural purposes within the GSR LUP should not be fragmented via subdivision for

other purposes or contemplate development of a higher or more intensive use unless approved by the TLTB Land Use Plan Committee.

- A11: In consultation with the Ministry of Agriculture, regular training to be carried out to increase the skills, knowledge and understanding for a sound and sustainable agricultural land use practices amongst farmers, landowners and other stakeholders.
- A12: Considering the “Highest and Best Use Concept”, the national government shall determine ways in which good quality agricultural land are protected from other types of development in terms of achieving food security.

3.6 CIVIC & COMMUNITY DEVELOPMENT

3.6.1 Discussion

Civic and community include a number of public and private facilities such as schools, fire and police stations, market, bus station, swimming pool, libraries, religious buildings, etc [refer to the Town Planning Act (Cap 139) General Provisions].

Major civic and community development such as hospitals and higher educational facilities play an important role in delivering vital health and educational services to residents within the Greater Suva Region. They also provide job opportunities and contribute to the overall diversification of the GSR's economy. However, when located in or adjacent to residential or commercial areas, the proposed activities can have an impact on their surroundings, such as increased traffic, housing and business displacement, and incompatible structures or uses. These policies will help guide the Board in balancing the growth of these institutions with the need to be compatible with, and maintain the liveability of, surrounding neighbourhoods.

3.6.2 Desired Outcome

- a) Allow various civic and community uses in places where they are generally compatible with the existing function and character of an area.
- b) Encourage the benefits that major civic and community development offer to the GSR, including health and educational services, and significant employment opportunities.

3.6.3 Policies

- CC1: Location of civic and community facilities must promote compatibility with other developments in an area.
- CC2: Avoid clusters of civic and community facilities in residential areas if such concentrations would create or further aggravate parking shortages, traffic congestion, and noise in the area.
- CC3: Allow sites no longer used for civic and community development to be repurposed for other uses which is highly suitable in the surrounding neighbourhood.
- CC4: Require the existing land use plan be revised when a proposed major development is part of a major civic and community development, does not conform to the underlying zoning, and is not included in an existing master plan.
- CC5: Locate new major civic and community uses in areas where their activities are compatible with the surrounding land uses and where the impacts associated with existing and future development can be appropriately mitigated.
- CC6: Determine appropriate measures to address the need for adequate transition between the major civic and community facilities and the surrounding uses.
- CC7: Require a master plan whenever a major civic and community uses proposes development that could affect the liveability of adjacent neighbourhoods or has the potential for significant adverse impacts on the surrounding areas.

CC8: Achieve a better relationship between residential, commercial or industrial uses and the civic and community uses when considering rezones, while also trying to reduce or eliminate major land use conflicts.

3.7 MIXED USE NODE

3.7.1 Discussion

Mixed use zone are identified in the GSR LUP as a large geographic areas located in hot spot areas and in around key intersections or transportation corridors. It generally covers an area of 1.5 kilometres around the central point, and occurs in areas with high growth potential, where the current or future infrastructure development can support denser development.

The very nature of these zones is to allow them to evolve over time into an area made up of a mixture of residential and commercial land uses, and even light or general industrial uses, which affords people the opportunity to live, work, shop and, in some cases, have immediate access to recreation facilities in one general area. It is also the goal of these zones is to reduce vehicle trips by making them single destination points for multiple consumer needs.

3.7.2 Desired Outcome

Create and maintain a strong, successful mixed-use area that provide a focus for the surrounding neighbourhood and that encourage new businesses, provide stability and opportunities for expanding existing businesses and services, and promote economic development and neighbourhood vitality, while also accommodating residential development in liveable environments that are compatible with the desired commercial function.

3.7.3 Policies

- MU1: Encourage and concentrate more intense development (high densities) around selected nodes and key intersections where appropriate.
- MU2: Encourage businesses with high density housing in mixed use developments sites in order to provide additional opportunities for residents to live in neighbourhoods where they can walk to services and employment.
- MU3: Cycling and pedestrian connections to adjoining mixed use development sites should be strongly encouraged with each new development proposal, in order to achieve the intent of the mixed use zones.
- MU4: Encourage more investment within mixed use node that will generate a lot of economic activities.
- MU5: The national government and other relevant statutory organisations must support the mixed use node initiative by investing key infrastructure development and services onto the site and relocating some of its offices/functions within the node.
- MU6: The node must be supported by a large population and associated employment.
- MU7: All mixed use node must accommodate an agricultural/agro processing area.
- MU8: The government must assist by providing tax and other financial incentives to private companies who wanted to operate within the node (e.g. tax breaks, duty free status, etc).
- MU9: All mixed use zone shall be subject to Local Area Planning.
- MU10: Enhance the mixed use zones within the GSR as the economic centre and strengthen its appeal as home to many of GSR vital professional services, retail, as well as cultural and entertainment.

3.8 NEIGHBOURHOOD CENTRE

3.8.1 Discussion

Neighbourhood Centres are smaller than mixed use districts and typically located at key intersections of minor transportation corridors. They are predominately residential in character and generally cover an area of 0.5 kilometres around the central point. They may accommodate commercial uses which are smaller in scale. The purpose of neighbourhood centres is to discourage strip centres and efficiently utilize infrastructure.

3.8.2 Desired Outcome

Ensure that essential services are provided within the Neighbourhood Centre where it is highly accessible by the neighbouring communities and villagers.

3.8.3 Policies

- NC1: Land uses within the neighbourhood centre shall be predominantly residential.
- NC2: Only permit commercial activities within the neighbourhood centre that will provide the required services which will be beneficial to the whole community.
- NC3: A mixture of commercial activities is highly encouraged within the neighbourhood centre which will achieve maximum benefits to the surrounding neighbourhoods.
- NC4: All neighbourhood centres shall be subject to Local Area Planning.

3.9 LOCAL AREA PLANNING (NEIGHBOURHOOD/ COMPREHENSIVE DEVELOPMENT)

3.9.1 Discussion

Local area planning is a way to make the GSR LUP relevant at a local level. The purpose of these plans is to provide more local area specific guidance than the region wide policies do for areas where growth and change are occurring or desired. In some cases, local area plans address topics not covered elsewhere in the Plan, while in other cases they give local examples for how a region wide policy would be best implemented in that neighbourhood.

3.9.2 Desired Outcome

Promote local area plans in growth areas within the GSR and in other appropriate areas to ensure that growth is well planned as in accordance with the vision of the Greater Suva Land Use Plan.

3.9.3 Policies

- LA1: Maintain and encourage strong neighbourhoods through the creation of local area plans.
- LA2: Local area planning to be prioritised in all areas within the GSR. It is compulsory to develop Local Areas Plan within the mixed use node and neighbourhood centres.
- LA3: Conduct a public/stakeholder participation exercise, including consultation with the iTaukei landowners when undertaking a local area planning process.
- LA4: Develop a local area plan that is consistent with GSR LUP's vision and allow local area plans to focus on issues that are unique to their areas.
- LA5: Consider local area plan recommendations when prioritizing capital investments and service allocations within the GSR
- LA6: Support the local area plan implementation to enhance the quality of rural and urban environments.

- LA7: Encourage neighbourhood and community connections by integrating pedestrian networks throughout the local area plan site for better neighbourhood street connections.
- LA8: The road network within a local area plan site must be based on the needs and patterns of future development.
- LA9: Create and implement local area plans that locate civic uses within each neighbourhood such as schools, religious sites, etc.
- LA10: Facilitate the development of local area plans as a means to preserve and enhance the GSR neighbourhoods.
- LA11: All local area plans must comply with Town Planning Act (Cap 139) General Provisions, Subdivision of Lands Act (Cap 140), and other relevant subdivision bylaws.
- LA12: All local areas plans shall be submitted to the Director of Town & Country Planning for approval.

3.10 TOURISM

3.10.1 Discussion

The Tourism industry has become Fiji's largest source of foreign exchange in comparison to other industries such as sugar, fisheries, garments, forestry and even remittance receipts. The sector is mainly private sector driven and has grown substantially over the past few decades. The industry provides employment directly and indirectly to an estimated 45,000 people and is the fastest growing industry in terms of employment. In 2015, Fiji welcomed 754,835 visitors to our shores.

The source markets for Fiji's tourists are Australia- which contributes around 50.0 percent of the total market- followed by New Zealand contributing around 16.0 percent, United States contributing 8.5 percent, and the remainder from markets such as Canada, United Kingdom, Continental Europe, Japan, South Korea, China, India, Hong Kong, Pacific Island Countries and others.

3.10.2 Desired Outcome

Increase the GSR's attractiveness to tourists through the establishment of a land use pattern aimed at accommodating increased tourism.

3.10.3 Policies

- TO1: Encourage tourism by promoting the GSR unique identity.
- TO2: Recognise the importance of tourism on the local economy; the Board shall continue to foster a land use pattern that protects the area's tourism attractions, such as the rainforest site in Colo-i-Suva, hiking trail, heritage sites, etc.
- TO3: Liaise with the Fiji Roads Authority in regards to the provision of public transportation, pedestrian and bicycling opportunities that enhance tourism.
- TO4: Any tourism development must provide public benefits including road upgrading, maintenance and access to beach.
- TO5: Promote sustainable use of water resources within the tourism sector.
- TO6: Strengthen conservation of biodiversity for sustainable tourism practices.
- TO7: Promote energy efficiency in all tourism development.
- TO8: Enhance waste management in all tourism industries.

- TO9: Processing of all tourism related cases must be prioritised and streamlined considering its enormous benefits to the local community and the economy.
- TO10: Promote the greater Pacific Harbour areas as a tourist destination which focuses on sports and culture.
- TO11: In consultation with the Department of Tourism, promote the coastal areas in Tailevu as a 'future opportunities' for tourism activities.
- TO12: Explore the potential of Vitilevu highlands for village based ecotourism activities which should involve forests protected areas, mountains, archaeological sites and culture.
- TO13: All tourism investors/developers must be well informed on the overall approval process that any tourism application will undergo and the expected duration of any single processes.
- TO14: All tourism proposals must create community benefits and promote community well-being in terms of ensuring appropriate engagement and empowerment of local communities; improving conditions for local decision making; and addressing the specific position of indigenous and traditional communities with respect to local control.

3.11 HOUSING

3.11.1 Discussion

Section 25 of the Universal Declaration on Human Rights recognizes that: "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, which include the right to housing".

Since the Fijian government is a signatory to a number of international treaties, the "right to accessible and adequate housing and sanitation" for all Fijians is clearly enshrined into the 2013 Constitution. Thus, providing "affordable and decent housing for all" is indeed a national development priority for Fiji.

3.11.2 Housing for All

All Fijians should have a safe, healthy, and affordable housing options in various locations and neighbourhoods throughout GSR.

3.11.2.1 Desired Outcome

To help meet the current and future regional housing needs of all Fijians irrespective of their economic backgrounds by increasing the GSR housing supply.

3.11.2.2 Policies

- H1: Allow and promote innovative housing and construction types to accommodate residential growth and provide a wider variety of affordable housing options on iTaukei land.
- H2: Encourage using vacant or under developed land for housing and mixed-use development if endorsed by the TLTB Land Use Plan Committee.
- H3: Through consultation with the Ministry of Housing and the Housing Authority, explore ways to reduce the cost of housing development, and promote innovative strategies that increase the supply of housing that low and middle income households can afford.
- H4: Limit non-residential uses in housing zones to those necessary or highly compatible with the function of residential neighbourhoods.
- H5: Provide a variety of residential subdivision (low and high density) to accommodate the demand for housing.

- H6: Assist in joint ventures with local and central government, and other statutory organisation (E.g. Housing Authority) in developing land for housing.
- H7: Implement effective action in the provision of adequate affordable serviced land housing through partnership with relevant agencies.
- H8: The Ministry of Local Government, Housing, and Environment shall create an opportunity for key agencies such as the TLTB, FRA, PRB, HA to use their institutional resources in terms of developing:
- a) New partnerships
 - b) Innovative approaches to urban and rural housing development
 - c) Team work
 - d) Shared experiences of what work and what doesn't work
 - e) Leaderships and local champions.

3.11.3 Diversity of Housing

The GSR needs a broader variety of housing types and a range of affordability. The high housing costs in some locations within the GSR are making it increasingly difficult for lower income households to afford, in particular in urban and peri-urban areas. Even some middle income families are struggling, given the high prices of homes in almost all urban areas within the GSR.

An increased diversity of housing types will respond to the needs and contribute to expanded affordable housing choices. The policies below seek to accommodate a broader array of housing choices in the GSR.

3.11.3.1 Desired Outcome

Allow for a variety of housing types to accommodate housing choices for households of all types and income levels

3.11.3.2 Policies

- DH1: Identify strategies for accommodating a variety of housing sizes and designs in ways that reflects the unique character of each neighbourhood within the GSR.
- DH2: Encourage the development of housing with affordable family-sized units in urban, peri-urban, and growth areas with access to nearby services.

3.11.4 Affordable Housing

Providing affordable housing to lower income households is critical in ensuring that those populations have equal access to opportunities in the GSR and to reducing existing disparities.

3.11.4.1 Desired Outcome

Provide the opportunity for households of all income levels to live affordably in the GSR and reduce over time the unmet housing needs of low income households.

3.11.4.2 Policies

- AH1: Recognize that the provision of affordable housing to lower income households can help increase access to education, employment, and other services and opportunities, which will indeed support the creation of a more inclusive GSR.
- AH2: Pursue new public and private funding sources for housing lots production and/or construction in order to meet the housing needs of low income earners.
- AH3: Prioritize efforts to address the housing needs of the GSR low income households where possible and consistent with national program requirements.
- AH4: Relevant government ministries and statutory bodies must increase housing choice and opportunity by funding low income rental housing throughout the GSR.

- AH5: Consider implementing various programs that preserve or enhance housing affordability.
- AH6: Seek to reduce the number of the GSR households who are burdened by housing costs by supporting the production and preservation of affordable housing for low income households.
- AH7: Encourage new national laws, regulations, programs, and incentives that would increase the production and preservation of low income housing.
- AH8: Encourage a shared responsibility between the private and public sectors for addressing affordable housing needs.
- AH9: Consider providing incentives package to help ensure that a portion of newly subdivided housing lots is affordable to a range of lower to middle income households.
- AH10: Encourage major investors/employers to develop housing assistance programs for their very low to middle income employees.
- AH11: Support programs that enable the GSR extremely low income homeowners to remain safely and affordably housed.
- AH12: Promote formal partnerships between HA, TLTB and private developers to manage large housing developments.
- AH13: Introduce affordable planning standards for low income land and housing developments.
- AH14: More land for low cost housing to be provided close to economic activities.
- AH15: Ensure that all subdivisions undertaken by TLTB are fully completed to avoid refinancing by government.
- AH16: Ensure that TLTB delivers an effective and timely supply of cost effective affordable iTaukei land for housing development.
- AH17: The Ministry of Housing and the Public and social housing providers must have a Memorandum of Understanding with TLTB on premium and leases to ensure that land prices are affordable to the poor.
- AH18: Undertake projects on Public – Private Partnerships (PPP) arrangement or Joint Venture with contribution of other key stakeholders e.g. Housing Authority, Relevant Government Ministries and infrastructures providers for the purpose of promoting and adopting cost cutting measures in land development and construction.

3.12 HERITAGE

3.12.1 Discussion

Heritage can incorporate both the tangible and the intangible. It is present in many forms such as landmarks, places, buildings and contents, spaces, views and the stories associated with them. The retention and management of heritage places has an important role to play in protecting the environment, creating vibrant communities and sustaining local economies. Likewise, heritage places also contribute to the quality of life and cultural identity of our communities. Utilising and revitalising our heritage places can also assist local economies through employment opportunities and by generating additional revenue, particularly through tourism.

3.12.2 Desired Outcome

Maintain the GSR cultural identity and heritage by rehabilitating, restoring, and reusing structures in designated historic districts and landmarked sites, objects and structures.

3.12.3 Policies

- HE1: Support the designation of areas as historic or heritage sites in order to protect, enhance, and perpetuate their historical or architectural identities.
- HE2: Establish land uses that are compatible with designated heritage sites.
- HE3: Recognise the value of existing heritage sites by providing proper buffering or preservation of immediately surrounding land.
- HE4: Heritage buildings and areas should be protected from redevelopment or demolition.
- HE5: Seek the comments from relevant agencies such as the Fiji Museum and the Department of Heritage when proposing to develop sites that have some evidence of historical significance.

3.13 OPEN SPACE AND RECREATION

3.13.1 Discussion

Open spaces and recreation includes passive open spaces such as parks and gardens, and also active open spaces such as the sports ground, golf courses, etc.

3.13.2 Desired Outcome

Accommodate a variety of outdoor and indoor spaces throughout the Greater Suva Region for all people to play and build the community together.

3.13.3 Policies

- OS1: All open spaces within the GSR should be carefully preserved unless it is no longer suitable for its purpose.
- OS2: Encourage or require private developers to incorporate on-site publicly accessible open space or to provide appropriate recreation opportunities for its tenants within new developments.
- OS3: Promote healthy places for children and adults to play, as well as areas for more passive strolling, viewing, and picnicking.
- OS4: Design open spaces that protect the natural environment and provide light, air, and visual relief within the built environment.
- OS5: Promote and establish greenways that can be used for bicycle and pedestrian corridors.
- OS6: Encourage the development of open spaces and parks in new subdivisions in order to create a liveable community.
- OS7: Reserve lands that have an environmental quality that lends themselves to preservation and nature-based activities.
- OS8: Reserve lands along the river corridors as open spaces.
- OS9: Support the efforts of conservation groups as they lease parcels of land for environmental conservation.

3.14 INFORMAL SETTLEMENT

3.14.1 Discussion

Informal settlements are residential areas where 1) inhabitants have no security of tenure over the land or dwellings they inhabit; 2) the neighbourhoods usually lack, or are cut off from, basic services and infrastructure and 3) the housing may not comply with current planning and building regulations, and is often situated in geographically and environmentally hazardous areas.

Informal settlements and slums are caused by a range of interrelated factors, including population growth and rural-urban migration, lack of affordable housing for the urban poor, weak governance (particularly in the areas of policy, planning, land and urban management resulting in land speculation and grabbing), economic vulnerability and underpaid work, discrimination and marginalization, and displacement caused by conflict, natural disasters and climate change.

3.14.2 Desired Outcome

Promote security of tenure and provision of services and infrastructure in informal developments, and discourage the formulation and growth of new/existing informal settlement sites.

3.14.3 Policies

- IS1: The TLTB and the Ministry of iTaukei Affairs must take a pro-active role in discouraging the establishment of new informal settlement and alleviating the culture of “Vakavanua Settlement” on iTaukei land.
- IS2: All land owning unit must discourage and control illegal squatting on their land through partnership with the TLTB, Ministry of iTaukei Affairs, and other relevant agencies.
- IS3: Together with other key agencies, a national squatter upgrading and low income plot supply program to be developed to ensure needs are met and limited resources coordinated and mobilised.
- IS4: The TLTB must cooperate with other key agencies, such as the Ministry of Housing, in regularising informal settlements that can be regularised to ensure security of tenure of informal settlers. Potential regularisation sites shall be determined by the TLTB on a yearly basis.
- IS5: Relevant iTaukei Land laws to be amended in order to discourage squatting on iTaukei Land and to address the issue of “Vakavanua Settlement”.

3.15 ITAUKEI RESERVE LAND

3.15.1 Discussion

iTaukei Reserve are land set aside for use, maintenance or support for the iTaukei landowners as clearly stipulated under the iTaukei Land Trust Act (TLTA, Cap 134).

Section 15 of the TLTA states that “It shall be lawful for the Board, by notice in the Gazette, to set aside any portion of iTaukei land as a iTaukei reserve”. “No land in any iTaukei reserve shall be leased or otherwise disposed of unless the iTaukei owners (LOU) have granted their majority consent for their land to be leased out” (Section 16).

3.15.2 Desired Outcome

Ensure that sufficient land belonging to any mataqali (LOU) is kept aside as iTaukei reserve for the use, maintenance or support of its members.

3.15.3 Policies

- TR1: iTaukei reserve land to be protected from development unless its land owning unit have agreed for it to be de-reserved.

- TR2: Some of the proposals within the GSR LUP fall within the Reserve Land. Thus, the normal de-reservation process must be adhered to and complied with prior to any issuance of leases or licenses on any iTaukei Reserve.
- TR3: In any de-reservation process, the TLTB must ensure that there is sufficient land kept aside for use, maintenance or support of the mataqali members. Thus, the total balance of unleased reserve land for any mataqali must be known in advance and whether any proposal to lease part of their reserve land will drastically affect their daily survival today in the years to come. The ratio of 1 mataqali member is to 2 acres of land should be considered wherever possible.
- TR4: In any de-reservation process, the recommended land use outside of the green belt that does not have any designated land use in this GSR land use plan shall be Agricultural.
- TR5: In any de-reservation process, the Land Use Plan Committee or the Land Development Vetting Committee must endorse any propose land uses other than agricultural within an iTaukei reserve that does not have any designated land use in this GSR land use plan.
- TR6: Squatting on iTaukei Reserve shall be strongly discouraged. A policy paper on “informal settlement on iTaukei Reserve” to be formulated which shall address this issue in more detail.

3.16 SPECIAL ECONOMIC ZONE

3.16.1 Discussion

Special Economic Zone (SEZ) refers to a special area for the development of the economic sectors which brings together all industrial and other related activities with an aim of increasing trade, increasing investment, job creation and effective administration. The benefits a company gains by being in a special economic zone may mean it can produce and trade goods at a lower price, aimed at being globally competitive.

The term special economic zone can include:

- Free trade zones (FTZ)
- Export processing zones (EPZ)
- Free zones/ Free economic zones (FZ/ FEZ)
- Industrial parks/ industrial estates (IE)
- Free ports
- Bonded logistics parks (BLP)
- Urban enterprise zones (UEZ)

3.16.2 Desired Outcome

Encourage and promote the concept of SEZ within the GSR

3.16.3 Policies

- S1: In consultation with the Ministry of Industry and Trade, identify and confirmed potential SEZ sites with the GSR.
- S2: All SEZ development must comply with the Department of Town & Country Planning’s standard and requirements.
- S3: The Ministry of Industry and Trade must coordinate, promote, and facilitate SEZ investments.
- S4: All relevant infrastructure and services agencies (E.g. WAF, FRA, TFL, FEA, etc.) must ensure that basic infrastructure and utilities are in place or will be readily available to any earmarked SEZ site.
- S5: Establish an incentive package which is coordinated with the Ministry of Industry and Trade, and Investment Fiji, to encourage desired commercial and industrial development within SEZ.

3.17 GREEN BELT

3.17.1 Discussion

A green belt is a land use designation used in land use planning to retain areas of largely undeveloped agricultural land. In essence, a green belt is an invisible line designating a border around a certain area, preventing development of the area and allowing wildlife to return and be established.

The main purpose of the green belt policy is to protect the land around larger urban centres from urban sprawl, and maintain the designated area for forestry and agriculture as well as to provide habitat to wildlife.

Green belt offers a number of benefits for both urban and rural population. By preventing the urban sprawl, it helps protect agricultural activities and the unique character of rural communities. Urban population, on the other hand, is provided an access to an open space which offers opportunities for outdoor activities and an access to clean air.

3.17.2 Desired Outcome

Ensure that all the agricultural land outside of the green belt is protected from urban sprawl.

3.17.3 Policies

- GB1: The width of areas that are designated as green belt is 500 meters away from the green belt line.
- GB2: No structures of any kind are permitted within the green belt zone.
- GB3: The green belt zone can only be used as a passive recreational use or for agricultural activities.
- GB4: The green belt zone must promote the conservation of the natural environment and must safeguard it from encroachment by urban-type developments.
- GB5: Agricultural lands outside of the Green Belt are strictly discouraged to be subdivided to other uses except for Agricultural purposes only.

3.18 FORESTRY

3.18.1 Discussion

Forest in Fiji is governed by the Forest Bill 2016 which repeals and replaces the Fiji Forest Decree 1992. The objective of Forest Bill 2016 is to ensure the protection, sustainable management and use of Fiji's forests and to provide social, economic and environmental benefits to Fijians for the current and future generations.

Section 13 of the Bill clearly classifies forests based on its functions, ecological characteristics and management regimes as in accordance with the following categories:

- a) multiple use forests;
- b) forest plantations; and
- c) protection forests which may also include—
 - i. mangrove forests;
 - ii. National Heritage Sites; and
 - iii. nature reserves.

Forest under "nature reserve" are areas designated by the Minister responsible for forests, which possess outstanding or representative ecosystems that must be managed for the exclusive purpose of permanent conservation of their environment, including, flora, fauna, soil and water. Moreover, forest under "forest reserve" is areas declared by the Minister in accordance with section 14 of the Forest Bill 2016 as for the protection of forest biodiversity and the national interests.

3.18.2 Desired Outcome

Ensure the protection of “forest reserve” and “nature reserve” and secure its long term benefits for the future generations.

3.18.3 Policies

- F1: The Ministry of Forests shall identify sites within the GSR which should be preserved and enhanced as forestry reserves, and be protected from any development.
- F2: Involve and encourage all landowners to participate in the planning and management of forestry activities on their land.
- F3: Encourage land owners, timber licensees, tenants and other forest users to replant and protect remnant trees on farms and logged areas.
- F4: The TLTB must cooperate with other key agencies, such as the Ministry of Forests in the formulation of a National Forest Master Plan in consultation with relevant stakeholders.
- F5: All “forest reserves” must be managed sustainably for the purposes of ensuring their protection and securing long term benefits for the future generations.
- F6: All “nature reserves” must be managed for the exclusive purpose of permanent preservation of their environment, including flora, fauna, soil and water.

3.19 ENVIRONMENT

3.19.1 Discussion

Environment in Fiji is governed by the Environment Management Act (2005), an Act for the protection of the natural resources and for the control and management of developments, waste management and pollution control.

Environment is clearly defined in the EMA (2005) as:

- a) Air, land or water;
- b) All layers of the atmosphere;
- c) All organic or inorganic matter or living organisms; or
- d) The interacting natural or human system that include components referred to in paragraphs (a) to (c)

This section clearly set the policies for environmental critical areas as well as the natural and built environment.

3.19.2 Environment Critical Areas

While the GSR is essentially a developed region, there are still natural areas within the region that deserve special attention, both in terms of natural conservation and also to prevent possible harm to other parts of the urban environment.

3.19.2.1 Desired Outcome

Protect the ecological functions and value of environmentally critical areas, including wildlife conservation areas; prevent erosion caused by development on steep slopes; and protect public health, safety and welfare in hazard-prone areas, including areas subject to landslides, flooding, while allowing development that is reasonable in light of these constraints.

3.19.2.2 Policies

- E1: Strictly control development in critical areas to protect public health, safety, and welfare on development sites and neighbouring properties, and rigorously comply with development requirement and standards highlighted within the Town Planning Act (Cap 139), Town

Planning General Provisions, Environment Management Act (2005), and other related legislation in order to:

- a) Prevent the degradation of water quality
- b) Prevent erosion and siltation
- c) Protect wildlife habitat
- d) Prevent private property damage

- E2: Limit impacts to environmentally critical areas and their surrounding buffers by directing activities away from these areas.
- E3: Apply strict standards to any proposed land disturbing activity within or near environmentally critical areas in order to help protect these places while enabling reasonable development.
- E4: Thoroughly review rezoning in areas located in or adjacent to a critical area or a hazard prone area by considering the effect of the rezoning and recognize that lower-intensity zones are generally more appropriate than higher-intensity zones in these areas.
- E5: Identify landslide-prone areas by examining the geologic, hydrologic and topographic factors that contribute to landslides and strictly monitor development within these areas in order to protect it against future damage due to instability that might be created or exacerbated by development. Consider the relative risk to life or property when issuing development lease or reviewing development proposals within landslide prone areas.
- E6: Require engineering solutions for development on very steep slopes or landslide prone sites in order to prevent slides during high stress periods.
- E7: Identify areas that are highly prone to earthquakes, and require new development in these areas to be designed and built to limit property damage and to prevent injury and loss of life during earthquakes.
- E8: Control development in and around the banks of rivers and creeks to protect the natural functions and values of these areas from the potential negative effects of development.
- E9: Establish a buffer area on every development site bordering adjacent bodies of water and strictly limit development within buffer areas and leave vegetation in its natural condition unless new plantings will enhance the functions of the buffer.

3.19.3 Natural and Built Environment

The natural environment encompasses all living and non-living things occurring naturally. The term is most often applied to the Earth or some part of Earth which encompasses the interaction of all living species, climate, weather, and natural resources that affect human survival and economic activity.

In contrast, the term built environment refers to the man-made surroundings that provide the setting for human activity, ranging in scale from buildings to parks. It has been defined as "the humanitarian-made space in which people live, work, and recreate on a day-to-day basis.

This section highlights some of the natural and built environment policies which are related to the desired outcome.

3.19.3.1 Desired Outcome

Maintain and enhance the GSR unique character and sense of place, including its natural setting, history, built environment, and community identity as the GSR grows and changes.

3.19.3.2 Policies – Natural Environment

- NE1: Encourage the preservation, protection, and restoration of the GSR distinctive natural features and land forms such as the hillsides, beaches, and remaining evergreen forests.
- NE2: Encourage development and design that is in compliance with the Town Planning Act (Cap 139) General Provisions, Subdivision of Lands Act (Cap 140), Environment Management Act

(2005), and other related legislation which recognizes the natural systems and integrates ecological functions such as storm water filtration or retention with other infrastructure and development projects.

- NE3: Consider the topography, water and natural systems when issuing development leases. Any proposed development within the region must be in harmony with the topography.
- NE4: The use of native plants shall be promoted for landscaping purposes. This shall be made in consultation with the Department of Forestry.
- NE5: Promote the care and retention of trees and groups of trees that enhance the GSR historical, cultural, recreational, environmental, and aesthetic character.
- NE6: Support the efforts of conservation groups as they acquire parcels of land for environmental conservation.
- NE7: Encourage the protection of the natural resource base within the study area and surrounding areas.
- NE8: New developments should integrate with the natural environment and avoid significant disturbance to existing eco-systems

3.19.3.3 Policies – Built Environment

- BE1: Apply the zoning tools and other natural features to ease the transitions between various land uses.
- BE2: The design of roads and lots must be in compliance with the Town Planning Act (Cap 139) General Provisions and Subdivision of Lands Act (Cap 140).
- BE3: The plan and design of a subdivision (in-house or from an investor) must ensure that whole area is highly walkable.
- BE4: Various land uses within the GSR must be carefully planned in order to promote a high quality neighbourhood.
- BE5: Encourage the use of balance land in various lots for subsistence agriculture purposes to supplement the food production in urban and peri-urban areas.
- BE6: Apply natural features such as the use of trees, vegetation, sustainable drainage methods, green roofs, and other low-impact development features to meet drainage needs and reduce the impacts of development.
- BE7: Increase the amount of permeable surface by reducing hardscape surfaces where possible and maximizing the use of permeable paving elsewhere.
- BE8: Encourage future development that fosters an attractive visual character and sense of place.
- BE9: Ensure that any major developments must provide the necessary environmental safeguards and mitigation measures (and submit acceptable Environment Impact Assessments).

3.20 CLIMATE

3.20.1 Discussion

Climate change is a challenge of sobering magnitude and urgency, requiring us to draw on GSR extraordinary capacity for resilience and innovation. How we use our land, how we design our buildings, and how we get around significantly impact the amount of energy we use and greenhouse gas (GHG) emissions we produce. Since cars and trucks are GSR largest source of greenhouse gas emissions, concentrating new housing and jobs near one another and near frequent public transportation service will reduce motorized vehicle use in the region.

3.20.2 Desired Outcome

Contribute to the reduction of greenhouse gas emissions and at the same time, prepare for the likely impacts of climate change including changing rain patterns, increased temperatures, more intense cyclone, and rising sea level.

3.20.3 Policies

- CL1: Promote walking and cycling as an effective option for reaching nearby destination.
- CL2: Encourage pedestrian friendly neighbourhood where residents can walk to shops, recreation and nearby services.
- CL3: Encourage the use of renewal energy in both existing and new buildings.
- CL4: Consider the projected climate change impacts when developing plans or carrying out infrastructure development, in order to maximize the function and longevity of infrastructure investments, while also safeguarding the community in the long term.
- CL5: Prioritize actions that reduce risk and enhance resilience in populations nearest the likely impacts of climate change.
- CL6: All buildings constructed on iTaukei Land whether in urban or rural areas are to be cyclone resistant.
- CL7: Hazard maps and models for all potential hazards (sea level rise, storm surge, flood and tsunami) are to be developed in consultation with all relevant agencies to ascertain its proposed impacts on iTaukei land.
- CL8: Consider climate change implications in all TLTB planning matters, including land use planning, development assessment, infrastructure and settlement planning, etc.
- CL9: Incorporate climate change issues into TLTB lease conditions for various sites which are considered vulnerable to sea level rise, storm surge, floods and tsunami.
- CL10: Collaborate with other relevant agencies in the collection and sharing of data that will assist in climate change research, etc.
- CL11: Encourage and promote robust research within TLTB SPRD Department to provide sound climate change-related data.
- CL12: Conduct awareness-raising workshops and sessions to TLTB employees and the iTaukei Landowners on climate change issues.
- CL13: Support CBOs and faith-based organisations to raise climate change awareness in local communities.
- CL14: Develop joint programmes and cooperation agreements between relevant sectors to reduce and avoid greenhouse gas (GHG) emissions.

- CL15: Promote the use of appropriate renewable energy sources, such as wave, tidal, solar, wind, hydro, geothermal, biofuel and biomass.
- CL16: Support the implementation of the Fiji REDD-Plus Policy, the Fiji Biodiversity Strategy and Action Plan, the National Air Pollution Control Strategy, the Ozone Depleting Substances Decree, the National Energy Policy, the Clean Development Mechanism Policy Guideline and other relevant national policies and strategies on the reduction of GHG emissions, deforestation, forest degradation and the enhancement of forest carbon stocks.
- CL17: Support the enforcement of legislation on open burning in residential and commercial locations, as stated by the Environment Management Act (2005).

3.21 INFRASTRUCTURE DEVELOPMENT

3.21.1 Discussion

Infrastructure Development involves fundamental structures that are required for the functioning of a community. This is usually referred to structures like roads, water supply, sewers, electricity, telecommunications, renewable energy, etc. Investment in infrastructure development can boost economic growth and improve the quality of life of the people. However, poor infrastructure can be a key obstacle to development which is a biggest threat to growth. The following policies are applicable to all infrastructure development within the GSA.

3.21.2 Desired Outcome

Provide adequate infrastructure to serve the residents of the GSR.

3.21.3 Policies

- ID1: Ensure the provision of adequate infrastructure to serve new development.
- ID2: Seek cost-sharing solutions for the provision of infrastructure improvements to accommodate future growth within the GSR.
- ID3: Ensure that adequate water resources and wastewater treatment capacity are provided to serve the needs of the residents within the GSR both now and in the future through:
- a) Supporting the Water Authority of Fiji Master Plan to expand water facilities and to upgrade and expand wastewater treatment facilities.
 - b) Prioritize expansion of water and wastewater service in urbanized and peri-urban areas before expanding into rural areas.
 - c) Protect water resources from encroachment and contamination. This can be accomplished by working closely with WAF and other agencies involved in water quality issues to develop policies and guidelines for development near water resources.
- ID4: Ensure a transportation system that efficiently and safely serves the current and future needs of residents within the GSR through:
- a) Supporting the implementation of the Roads infrastructure in various land use master plan
 - b) Supporting Fiji Roads Authority Long Range Transportation Plan
- ID5: Assure drainage and storm water management through:
- a) Ensuring that the drainage reserve is incorporated in all scheme plan proposals that is submitted to the LDVC.
 - b) The promotion of sustainable drainage system in suitable locations within the GSR in order to reduce storm water and pollutant discharge.
- ID6: The land where a new regional road is proposed (running from Suva to Nausori between Kings and Princess Roads) is to be preserved and protected from other types of development.
- ID7: The land where the Lami Bypass Road is proposed (running from Suva to Lami to Pacific Harbour) is to be preserved and protected from other types of development.

- ID8: The land where the Lami Queens Road widening is proposed (running from Suva to Lami to Pacific Harbour) is to be preserved and protected from other types of development.
- ID9: The land where the Wainibuku Road widening and extension (Nausori) is proposed is to be preserved and protected from other types of development.
- ID10: The land where the Adi Davila Road widening and extension (Nausori) is proposed is to be preserved and protected from other types of development.
- ID11: The land where the Princess Road widening (Suva to Nausori via Princess Road) is proposed is to be preserved and protected from other types of development.
- ID12: The land where the Nausori Airport expansion is proposed (in order to enlarge the runway and accommodate more international flights) is to be preserved and protected from other types of development.
- ID13: Water and sewerage infrastructure area to be extended to mixed use node sites and other growth areas within the GSA.

3.21.4 Roads Policies

- R1: The creation of allotments which have vehicular access directly onto the Queens Road, Kings Road, and Princess Road should be discouraged.
- R2: All vehicles entering or exiting a driveway must be visible to approaching motorists and pedestrians.
- R3: Access points must have a good line-of-site so that motorists entering or exiting a property can see approaching vehicles or pedestrians.
- R4: Developments which generate high traffic volumes should not have direct access onto Queens Road/Kings Road/Princess Road.
- R5: Allotments with direct access onto Road/Kings Road/Princess Road must provide access that allows vehicles to enter and exit the property in a forward motion.
- R6: Roads must be well maintained in order to provide safe and convenient access for private vehicles, public transport and emergency vehicles.

3.22 TELECOMMUNICATION FACILITIES

3.22.1 Discussion

Broadcast radio and television stations, as well as cell phone service providers, require facilities that can transmit their signals. These facilities are usually situated in elevated locations.

3.22.2 Desired Outcome

Ensure that the location of radio and television broadcast utilities will improve the service to the public and at the same time address any potential impacts to public health.

3.22.3 Policies

- T1: Adopt standards to limit exposure to radio frequency radiation.
- T2: Prohibit new major communication utilities, such as radio and television transmission towers, in a heavy populous neighbourhood or near residential and commercial zones.
- T3: Require major communication utilities to be developed in ways that limit impacts on nearby areas, including application of development standards and other design treatments to minimize visual impacts on neighbouring properties and to provide an overall appearance that

is as compatible as possible with the uses permitted in the zone and the desired character of the area.

- T4: Allow minor communication utilities and accessory communication devices that provide telephone and other communication functions in certain areas within the GSR where it is generally consistent with the respective zoning such as in Industrial, Commercial, Agricultural, Special Use zones, etc.
- T5: Allow minor communication utilities and accessory communications devices if they are developed in a manner that limits impacts on nearby areas. The following factors shall be considered when evaluating the impacts of these facilities: visual impacts, including antenna type, size and colour; proximity to schools; and neighbourhood and land use compatibility.

3.23 LAND USES

3.23.1 Discussion

Decisions about land use will help shape the growth and appearance of an area within a certain period of time. The policies in this section provide the basis for determining what is permitted in the various zones and where the zones are located so that most new development will likely occur.

The GSR Future Land Use Map shows the distribution of the various land uses throughout the GSR by displaying the general location of where different activities and types of development are planned to occur.

To respond and adapt to changing circumstances that arise as the GSR evolves, the Future Land Use Map may be amended. Amending the zoning of a particular area or a particular site will require a rezoning process.

3.23.2 Desired Outcome

Achieve a development pattern which evenly distributes development across the GSR, in particular, concentrating more housing and employment opportunities in key locations or in growth areas.

3.23.3 Policies

- LU1: Use the Future Land Use Map to identify where different types of development are planned to achieve a development pattern that supports the growth areas.
- LU2: Use the Future Land Use Map, the land-use policies in this land use element, and criteria in the Town Planning Act (Cap 139) General Provisions to determine the appropriate development requirements that are applicable for various land uses within the GSR.
- LU3: Provide a harmonious transition for various land uses.
- LU4: Consider the Future Land Use Map amendments only when needed to achieve a significant change to the intended function of a large area.
- LU5: To amend the zone of the Future Land Use Map, a rezoning will need to be carried out first which shall require the endorsement of the Land Use Plan Committee and the final approval of the Director of Town & Country Planning.

3.24 GROWTH STRATEGY

3.24.1 Discussion

Growth Centres are spatially defined areas for which the government will specify and implement a range of policies which are intended to attract investment and population to the area.

The greater Suva aims to create a better region by providing:

- a) A variety of housing options and employment growth
- b) Walkable communities with good access
- c) Services and the infrastructure needed to support growth
- d) Respect for the natural environment and enhancements to the regions cultural resources

Locating more residents, jobs, stores, and services near each other can reduce people's reliance on cars. Increasing residential and employment densities in locations makes travel and other public services convenient for more people.

3.24.2 Desired Outcome

Have strategies that prepare the GSR for the challenges and opportunities of growth and accommodate most of the region's housing and employment growth in designated centres and growth areas in ways that will lead to equitable outcomes for all of the residents.

3.24.3 Growth Areas Policies

- GA1: Designate growth areas as mixed use nodes or neighbourhood centres based on the functions they can perform and the densities they can support.
- GA2: Encourage investments and activities in growth areas that will enable those areas to flourish as compact mixed-use neighbourhoods designed to accommodate the majority of the GSR new jobs and housing, provide services and employment close to housing, and promote efficient use of public services.
- GA3: Establish boundaries growth areas that reflect existing development patterns and intended community characteristics.
- GA4: Coordinate planning for transportation, utilities, land use and other public services to meet the anticipated growth and increased density.
- GA5: Promote levels of density, mixes of uses, and transportation improvements that will support the use of walking, biking, and public transportation within growth areas.
- GA6: Direct the majority of future development to growth areas, and limit the possibility of scattered growth along highways and other major roads, and other areas not conducive to walking, transportation use, and cohesive community development.

3.24.4 Areas outside Growth Areas and Business Districts Policies

- OG1: Support healthy neighbourhoods throughout the region so that all residents have access to a range of housing choices, as well as access to open spaces and services that make it easy for them to walk, bike or take any public transport to meet many of their daily needs.
- OG2: Allow limited high density commercial outside of growth centres to support the surrounding area or to maintain the existing character.

3.24.5 Partnership Policies

- P1: Take a leading role in discussions with the national governments, municipal councils, and statutory organisation in order to develop a coordinated approach to growth management that will advance the GSR vision.
- P2: Maintain an updating process for this LUP that is predictable and transparent to the public.

3.24.6 Distribution of Growth Policies

- D1: Encourage residential growth in places around the peri-urban and growth areas that are conducive to compact, well-served urban living.
- D2: Increase employment opportunities in areas that are convenient to the GSR residential population as a way to promote walking and cycling, and to reduce work travels.
- D3: Plan for a variety of uses and high densities development within GSR peri-urban and growth areas.
- D4: Encourage a distribution of growth in under developed neighbourhoods that provides access to opportunities and services.

3.25 REZONING

3.25.1 Discussion

Rezoning is basically the process of amending the official zoning or land use map. Any proposed changes to the Approved GSR Land Use Map will need to go through the rezoning process.

3.25.2 Desired Outcome

Eliminate or discourage uses inconsistent with the GSR character and future land uses

3.25.3 Policies

- RE1: Expansion or replacement of land uses which are incompatible with the Land Use Plan shall be discouraged.
- RE2: Compatibility with adjacent uses must be taken into consideration when assessing a rezoning application.
- RE3: All rezoning proposals must be thoroughly vetted by the Land Development Vetting Committee. If an approval is recommended by the LDV Committee, rezoning proposal shall than be submitted to the Director of Town & Country Planning for further endorsement. Only the Director of Town and Country Planning has the power to amend any zoning or land use type within the GSR LUP as in accordance with the Town Planning Act (Cap 139).

3.26 COMPATIBILITY OF DIFFERENT LAND USES

3.26.1 Discussion

Land Use Compatibility is a recognized factor and principle of good land use planning, whereby land uses which are known or expected to cause environmental problems for one another, when in proximity, are deemed incompatible and are protected from one another by separation and/or other means.

Land use compatibility should be viewed as a means of attaining the highest and best use of land. On the other hand, land use incompatibility can create barriers to new investment and can even discourage existing land owners/lessees from investing in their properties, thereby creating a drain on the vitality of the community as a whole. The policies in this section promote compatibility in land uses within the GSR.

3.26.2 Desired Outcome

Ensure and promote compatibility of neighbouring land uses.

3.26.3 Policies

- CO1: The Board staff shall utilize the GSR LUP as a tool for ensuring appropriate locations for development when considering new lease application and supporting or recommending denial of requests for rezoning or other development petitions.

- CO2: The Land Development Vetting Committee (LDVC) shall review all applications made for subdivision or rezoning in accordance with the adopted goals and policies of the GSR LUP to ensure that new developments are compatible with surrounding land uses and development related impacts are mitigated.
- CO3: Ensure compatibility between residential and non-residential uses by considering the following:
- a) The LDVC shall continue to maintain buffering provisions which are necessary to protect residential areas from adjacent commercial and industrial developments.
 - b) Appropriate transitions must be developed between different land uses.
 - c) Non-residential uses adjacent to residential areas shall be planned with setbacks and buffer landscaping and away from residential uses.
- CO4: Encourage new industrial development within appropriate areas. The following must be considered when considering industrial development:
- a) Develop appearance and landscaping standards for new industrial developments.
 - b) Allow and promote the development of industrial parks in prime locations within the GSR.
 - c) Incorporate appropriate buffers and screening between intense uses such as industrial adjacent to commercial and residential uses.
 - d) Recruit more “clean and green” industries.

3.27 iTAUKEI LAND TRUST BOARD

3.27.1 Discussion

The iTaukei Land Trust Board (TLTB) is a statutory authority established in 1940 and is mandated under the iTaukei Land Trust Act (Cap 134) to control and administer iTaukei lands on behalf of the iTaukei landowners according to the customary land owning unit structure that is the *Yavusas*, *Mataqalis* and *Tokatokas*.

The TLTB Board of Trustee’s under statute has the fiduciary role to act in the best interest of all iTaukei landowners, and it also determines the organisation’s strategy and policies. TLTB is the largest land provider and land corporate entity in Fiji as it administers approximately 91% of the total land mass in the country through dereservation and reservation of land processes.

The Board facilitates access to lands and land-based resources for socio- economic development and growth. Its purpose is to secure, protect and manage land ownership rights assigned to the iTaukei landowners and to facilitate the commercial transactions that revolve around its use.

3.27.2 Desired Outcome

Ensure that the TLTB can deliver an effective and timely supply of iTaukei lands for urban and rural development purposes that meets the expectations of all stakeholders.

3.27.3 Policies

- TL1: Promote and strengthen partnership with relevant agencies (E.g. local and central government, statutory organisation such as the Housing Authority, Investment Fiji, Fiji Roads Authority, etc.), the private sector, and the iTaukei landowners for investment purposes.
- TL2: Partner with Housing Authority, local and central government in undertaking housing development projects for low income earners.
- TL3: Expand the supply of affordable new housing lots for low-income families.
- TL4: Undertake Government and private sector joint venture land development on iTaukei lands.
- TL5: Provide a situation for landowners to have greater choice in the development process where TLTB feels that landowners are quite capable of managing their own lands.
- TL6: Create development incentives where necessary for landowners for developing their own land.

- TL7: Formulate community education and awareness program with the landowners.
- TL8: Strengthen the Land Available for leasing initiative in order to increase the land supply to the general public.
- TL9: Consider poverty reduction as a core mandate of TLTB.
- TL10: Strengthen the capacity of regional staff to better plan and manage land development.
- TL11: Introduce a “fast track” approval system for major investment of regional and national significance such as a major tourism proposals, etc.
- TL12: Ensure the orderly supply of iTaukei land onto the market in a timely and serviced manner to maintain a robust and healthy economy.
- TL13: Continually update of the GSR LUP from time to time.
- TL14: Work with other government departments to ensure that the GSR LUP is examined in concert with their planning efforts.
- TL15: Consider the GSR LUP when evaluating any proposed building development, subdivision, rezoning, and other land development proposals.
- TL16: Improve coordination of information and services between TLTB and other statutory agencies, local and national government, to develop and implement economic development policies and programs.

Chapter 4 –Conclusion

4.1 Application of the Plan

This plan specifically applies to all iTaukei land within the GSR boundary. However, it excludes areas that are inside urban boundaries such as, Lami Town, Suva City, Nasinu Town, and Nausori Town, as well as freehold and state lands.

The principal purpose of this LUP is to guide the development of iTaukei Land within the GSR in the context of regional growth management. The policies in this report can be looked to by citizens and by all levels of government in planning for growth. The Plan will be used by the iTaukei Land Trust Board to help make better decisions about any proposed development within the GSR and in terms of the issuance of leases which highly assist the Board in managing future growth.

To the extent a conflict may arise between another TLTB policy and this GSR LUP, the LUP Committee will thoroughly assess the nature of the conflict and make recommendation on the best way forward that will effectively address the conflict at hand.

4.2 Implementing the Plan

The TLTB carries the plan forward more specifically through land development, subdivision and issuance of leases.

In terms development, this plan will need to comply with the Town Planning Act (Cap 139), Subdivision of Lands Act (Cap 140), and Town Planning General Provisions.

While the TLTB will be using the plan as a guide to issue new leases and/or amend existing ones, the private sector and other government agencies/ statutory bodies also help shape the GSR in significant ways. For example, the private sector will carry major residential, commercial or industrial subdivision within the GSR, and the National Government will build and maintain public roads, build other public facilities, etc. The TLTB will maintain partnership with the private and public agencies to ensure a successful implementation of this plan that maximise benefits to all Fijian.

4.3 Defining and Measuring Success

This Plan specifically covers the next ten to twenty years of growth in the Greater Suva Region, but the region is expected to continue growing beyond that time period. There will always be ways the TLTB can improve in meeting changing needs and to address on-going concerns. Because of the changing nature of our region and our urban areas, the success of this Plan is not measured by an ideal end state. Instead, success is measured by whether we are moving in the directions the Plan lays out.

4.4 Developing and Updating this Plan

This plan was developed and finalized through numerous consultations with all relevant stakeholders which helped the whole planning process. Their inputs were then incorporated into the plan.

The Plan needs to be constantly updated in order to be relevant. Thus, revision of the land use plan needs to be carried out after every five years.

A Land Use Plan Committee needs to be set up within TLTB to guide and oversee the implementation of the Land Use Plan and Policies, and also to review the Plan from time to time.

4.5 Conclusion

This GSR LUP comes into effect as soon as it receives the Approval from the Director of Town and Country Planning. That is, the policies contained in this Planning Report and the GSR physical plan will supersede all other plans which have been previously prepared by TLTB for the GSR.

The Plan provides guidance for the long-term development of the GSR (i.e. for the next 10-20 years). It should not be a static document and may require regular review and amendment.

Land-use planning requires a holistic and dedicated approach from all parts of government and the community to be successful. This collective approach will enable plans such as the TLTB GSR LUP to play a beneficial role in Fiji's future development.

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Appendices

A. Stakeholder Consultation Minutes

Thursday 2nd June 2016 at the 3rd Floor, TLTB Head Office Building

Present:

1. Kamlesh Prasad	Ministry of Industry, Trade, & Tourism
2. Kartik Pratap	Ministry of Industry, Trade, & Tourism
3. Fatafehi Taufu	Ministry of Industry, Trade, & Tourism
4. Jone Tukana	Department of Town & Country Planning
5. Sireli Korovulavula	Airports Fiji Limited
6. Etuate Mataitini	Fiji Electricity Authority
7. Samu Ratu	Fiji Electricity Authority
8. Sebestian A	Fiji Electricity Authority
9. Keleni Raisia	Secretariat of the Pacific Community
10. Litia Gaunavou	Secretariat of the Pacific Community
11. Kalesi Qiolevu	Rewa Provincial Council
12. Menuka Anandani	Mineral Resources Department
13. Mosese Yavala	Nasinu Town Council
14. William Naisara	Ministry of Youth and Sports
15. Iliesa Delasau	Tailevu Provincial Council
16. Venina Moce	Ministry of iTaukei Affairs
17. Solomon Nagaunavou	Ministry of Agriculture
18. Nemani M	Telecom Fiji Ltd
19. Laisiasa Ginigini	Telecom Fiji Ltd
20. Mereseini T	Ministry of Women, Children, and Poverty Alleviation
21. Laisa Namela	Ministry of Women, Children, and Poverty Alleviation
22. Deo Narayan	Nausori Town Council
23. Lavenia Raisuqe	Nausori Town Council
24. Inia Saula	Department of Energy
25. Paula Vadiga	Housing Authority
26. Kanito Lovobalavu	Ministry of Health
27. Lesi Vuatalevu	Ministry of Infrastructure and Transport
28. Poasa N	Fiji Bureau of Statistics
29. Mere Naulumatua	Urban & Regional Planning Consultants
30. Titilia Boila	TLTB
31. Kameli Ritova	TLTB
32. Soloveni Masi	TLTB
33. Ravi Singh	TLTB
34. Poiongo Lisati	TLTB
35. Nelly Snow	TLTB
36. Kelera Gadolo	TLTB

Ideas/Comments Raised During the Group Discussion & Presentation Session

1.0 Housing Development

- Housing Authority (Developer's Role) – looks for land that already has infrastructure in place.
- Have more Housing in Lami to Navua corridor
- Revitalise Housing Projects such as Waila City
- Have some high rise building apartments for Executives/international community
- Sports facilities to be provided near major housing estates
- Identify housing development sites for women. E.g. HART

2.0 Infrastructure Development

- Railways to be proposed. E.g. Nausori to Korovou.
- Expansion of Sea Port

- c) Separation of fisheries port from the passengers seaport terminal
- d) Expansion of Nausori Airport
- e) Future Road Expansion from Suva to Pacific Harbour to be considered
- f) Alternative transportation route between Suva and Nausori to be considered
- g) Consider having a Coastal Road somewhere in between Suva to Navua
- h) Prioritise public transport links, review and improve existing road access system

3.0 Renewable Energy

- a) Promote Renewable Energy

4.0 Tourism Development

- a) Development of foreshore area for Tourism Development
- b) Promote Tourism Activities within the study area
- c) Tourism Expansion/Mixed Use Development in Pacific Harbour Area
- d) Have a version of Denarau somewhere near Pacific Harbour
- e) Identify sites for Eco-Tourism, e.g. Navua and Pacific Harbour, Colo-i-Suva
- f) Identify all the tourist attraction sites with the study area. E.g. Joskes thumb, Old village sites, Ring Ditch Sites, Nasilai Beach
- g) The historical, natural and cultural significance of the study area to be identified
- h) Beautification of Suva Harbour, recreational activity to be used by the local and visitors

5.0 Economic Development

- a) Development to be decentralised in growth areas. E.g. Korovou, Vunidawa, Navua, etc.
- b) Have some industrial Areas outside Lami
- c) Take factories to where resources are. E.g. Mahogany industry to Tailevu North
- d) Revive the Korean City in Nakasi
- e) Support services to be near the airport, E.g. Accommodation, light industries
- f) Nasinu/Nausori to be declared a city in the future
- g) Development to consider the needs of the women, children, elderly, and disabled.
- h) Consider income generating projects for women

6.0 Legislation Review

- a) TLTB Act to be revised, especially on reserve land.
- b) Review policies on iTaukei Reserved Land

7.0 Agriculture

- a) Commercial farming/Commercial agriculture in untapped areas. E.g. in Korovou, Navua, Rewa Delta, etc.

8.0 Geo Tech Studies/ Flood Modelling

- b) Geo technical survey/Geo Hazard survey to be undertaken prior to any development. E.g. High land slide risk areas, coastal erosion assessment
- c) Flood risk modelling to be carried out within the study area

9.0 General

- a) Identification of prospects in certain areas
- b) Implementation and monitoring plan to be undertaken as part of the land use plan.
- c) Zones to be aligned with municipal zoning. Sometimes, the leases issued by TLTB is not consistent with the Town Planning Schemes
- d) TLTB to have more vibrant consultation to grassroots and stakeholders
- e) TLTB to sell the land use plan concept to the land owners for them to own the plan.

10.0 Other Suggestions

- a) TLTB to take the lead role in the National Land Use Stakeholders Forum
- b) MRD to provide geological data/geotech surveys/earthquake risk zones, etc with the study area

B. TLTB Central Eastern Consultation

1. What should be the goals and objectives of our land use plan/What do you think our land use plan should focus on? E.g. identify where future land use should be encouraged throughout the study area, etc.

- a) Promote proper planning by allocating different zoning within the study area, and discourage ad hoc development
- b) Encourage development of light industrial activities outside of Lami, Suva, Nausori town and city area
- c) Identify new sites to accommodate various income brackets
- d) Transform vacant land into opportunities for economic development
- e) De-centralize services and development (e.g. commercial and industrial) to ensure a favourable distribution of population and the creation of opportunities
- f) Discourage informal settlements and reduce poverty
- g) Provide better infrastructures such as the drainage systems
- h) Improve the standard of development and living conditions for iTaukei landowners
- i) Provide an efficient and safe connecting transportation system to improve accessibility, coordinated with existing needs and plans for future growth
- j) Retain good agricultural land for food security purposes
- k) Promote tourism development along the coastal areas
- l) Promote environment sustainability
- m) identify and preserve historical sites for tourism purposes
- n) Identify sites for the establishment of satellite towns
- o) Create more recreational areas that will promote a stress free environment for all walks of life
- p) Integrate Land use & Transportation
- q) Provide more affordable housing sites in order to reduce informal settlement

2. What are some of the issues that our land use plan should address?

- a) Ad hoc development
- b) Informal settlements
- c) Issues related to transportation infrastructures e.g. unformed roads on new sites
- d) Lack of sustainable development
- e) Lack of eco-friendly development, such as eco-tourism sites
- f) Land Owning Units interest are often neglected
- g) Rural to urban migration
- h) Unemployment and Crime
- i) Overcrowding and congestion
- j) Health related issues
- k) Unclear demarcation of various zonings (Tourism, Commercial, Industrial, etc)
- l) Land Owning Units interference in dictating land uses
- m) Environmental Issues
- n) Unaffordable Housing
- o) Expired agricultural leases
- p) Increase in poverty
- q) Poverty – Low income earners
- r) Climate change

3. Do you feel that up-zoning within the greater Suva Region is OK (e.g. Low density residential zone to high density residential allowing for greater development)

Advantage

- a) Yes, it is OK because it will maximize returns to the land owners; highest and best use of land is realized; business will thrive due to the high population; housing can also become affordable; and service delivery will improve.
- b) It will attract more investors, resulting in more development.
- c) It will uplift the surrounding neighbourhood.
- d) It will create more opportunities for the people.

Disadvantage

- a) No, it is not OK because it will contribute to traffic congestion. Thus it is better to decentralize developments in order to create more jobs to other areas as well.
- b) It will create more social problems such as crime, outbreak of contagious diseases, congestion, and overcrowding.
- c) More negative impacts to the environment and high risk during time of disaster
- d) Low income earners might not be able to afford the housing units.

4. What part of the Greater Suva Region do you think is in most need of improvement?

- a) All informal settlements sites within the greater suva region needs improvement.
- b) Navua surroundings
- c) Korovou surroundings
- d) Nausori – drainage and road improvements

Developing Proposals**5. What kind of development would you like to see more of within the greater Suva region? In what areas would you like to see these kinds of developments? OR Which parts of the greater Suva region are best suited for....**

- Residential (A, B, C, D)
 - Commercial (A, B, C, D)
 - Industrial (General, Heavy, Noxious)
 - Agricultural
 - Mixed Uses (Residential & Commercial)
 - Special Use (Tourism/Hotels)
 - Other Special Uses
 - Civic (Development/Community Development)
 - Public Open Spaces (Passive and Active)
- a) Special Use – Between Pacific Harbour and Navua, between Naboro and Lami, Up tamavua Road Nausori, Korovou
 - b) Residential – Near Navua, Lami, and Korovou, Colo-i-Suva area, Lami to Naboro
 - c) Industrial – Suva and Nausori, Near Naboro (Heritage sites), Korovou
 - d) Special Use (Tourism) – Navua Coast and Uphill, Pacific Harbour, Naboro, Navunisoco, Nakauseqa
 - e) Agriculture – Naboro and Korovou interior, between Nausori and Korovou, Navua
 - f) Commercial – Korovou, outside Naboro
 - g) Mixed uses – Lami area, Pacific Harnour, Colo-i-Suva

C. Informal Settlements within the GSR

1. Naivibita, Settlement
2. Nadonumai, Settlement
3. Waikanisila, Settlement
4. Wainidinu, Settlement
5. Qauia, Settlement
6. Naivikinikini, Settlement
7. Vugalei, Settlement
8. Wailoku, Settlement
9. Marata, Settlement
10. Matata, Settlement
11. Namauka-i-Lau, Settlement
12. Balebuka, Settlement
13. Bilo, Settlement
14. Tamavua-i-wai, Settlement
15. Kalekana, Settlement
16. Matanisivaro, Settlement
17. Tamavua-i-cake, Settlement
18. Vunievuevu/Solevu, Settlement
19. Naqati, Settlement
20. Babavoce, Settlement
21. Davetalevu, Settlement
22. Vadrakula, Settlement
23. Tacirua, Settlement
24. Delaidogo, Settlement
25. Savutalele, Settlement
26. MAKOI, Settlement
27. TOVATA, Settlement
28. NARERE, Settlement
29. NAKASI, Settlement
30. Davuilevu, Settlement
31. Lakena, Settlement
32. Buiduna, Settlement
33. Vuniwavudi, Settlement
34. Visa, Settlement
35. Naciri, Settlement
36. Nabiabia, Settlement
37. Matadawa, Settlement
38. Maumi, Settlement
39. Taranaka, Settlement
40. Namono, Settlement
41. Visama, Settlement
42. Navitabua, Settlement
43. Colo-i-Suva, Settlement
44. Natila, Settlement
45. Vuniniudrovu, Settlement
46. Kaleli, Settlement
47. Nadave, Settlement
48. Vikoba, Settlement
49. Wainiketinai, Settlement
50. Abbatoir, Settlement
51. Waitaroga, Settlement
52. Waimaro, Settlement
53. Nasarasara, Settlement
54. Wainikavula, Settlement
55. Namalata, Settlement
56. Naisuvasuva, Settlement
57. Calia, Settlement
58. Raiwaqa, Settlement
59. Cagilaba, Settlement
60. Waiyanitu, Settlement
61. Veisari, Settlement
62. Vuniviivilevu, Settlement
63. Muanicake, Settlement
64. Namakala, Settlement
65. Nabaka, Settlement
66. Tuanuga, Settlement
67. Wainigasau, Settlement
68. Naimataga, Settlement
69. Wainawa, Settlement
70. Na Vasi, Settlement
71. Naikorokoro, Settlement
72. Wainisaqasaqa, Settlement
73. Gilbertese, Settlement
74. Navunidoi, Settlement
75. Wainadoi, Settlement
76. Kasinara, Settlement
77. Wailoaloa, Settlement
78. Togoru, Settlement
79. Naqaributa, Settlement
80. Namelimeli, Settlement
81. Taunovo, Settlement
82. Lapanoni, Settlement
83. Silo, Settlement
84. Waidradra, Settlement
85. Naivakacau, Settlement
86. Wainivedio, Settlement
87. Vakabalea, Settlement
88. Sausaunilaca, Settlement
89. Vunimaqo, Settlement
90. Veisari, Settlement

D. Environmental Management Act (2005) – Schedule 2

List of Developments Requiring an Environmental Impact Assessment

Schedule 2 (Section 27) Environmental Management Act 2005

Development Proposals

Part 1 – Approved by EIA Administrator

1. The following development proposals are to be approved by the EIA Administrator –
 - a) a proposal that could result in erosion of any coast, coastline, beach or foreshore;
 - b) a proposal that could result in the pollution of any marine waters, ground water, freshwater body or other water resource;
 - c) a proposal that could result in the contamination or degradation of any agricultural area or land important for agriculture;
 - d) a proposal for construction of an airport;
 - e) a proposal for construction of a hotel or tourist resort;
 - f) a proposal for mining, reclaiming of minerals or reprocessing of tailings;
 - g) a proposal for construction of a dam, artificial lake, hydro-electric scheme or irrigation project;
 - h) a proposal for heavy industrial development or noxious industrial development;
 - i) a proposal for commercial logging or for a saw milling operation;
 - j) a proposal that could alter tidal action, wave action, currents or other natural processes of the sea, including but not limited to reclamation of the sea, mangrove areas, foreshore, rivers or creeks, or construction of a jetty, dock, wharf, pier or bridge;
 - k) a proposal that would introduce pollutants or properties to the air that are disagreeable or potentially harmful to people and wildlife;
 - l) a proposal that could jeopardize the continued existence of any protected, rare, threatened or endangered species or its critical habitat or nesting grounds;
 - m) a proposal that could deplete populations of migratory species including, but not limited to, birds, seas turtle, fish , marine mammals;
 - n) a proposal that could harm or destroy designated or proposed protected areas including, but not limited to, conservation areas, national parks, wildlife refuges, wildlife preserves, wildlife sanctuaries, mangrove conservation areas, forest reserves, fishing grounds (including reef fisheries), fish aggregation and spawning sites, fishing or gleaning areas, fish nursery areas, urban parks, recreational areas and any other category or area designated by a written law;
 - o) a proposal that could destroy or damage an ecosystem of national importance, including, but not limited to, a beach, coral reef, rock and gravel deposit, sand deposit, island, native forest, agricultural area, lagoon, sea-grass bed, mangrove swamp natural pass or channel, natural lake or pond, a pelagic (open ocean) ecosystem or an estuary;
 - p) a proposal that would result in the introduction of genetically modified organisms or of non-native species that could compete with or destroy and native species;
 - q) a proposal for the construction of a landfill facility, composting plant, marine outfall or waster water treatment plan;
 - r) a proposal that involves dredging or excavating a river bed;
 - s) a proposal that is controversial from an environmental standpoint, or is not supported for environmental or resource management reasons by a significant

- number of representatives from the local community, local government, churches, villages and other groups;
- t) a proposal that could lead to the depletion of non-renewable resources;
 - u) a proposal that could challenge or contravene established customary controls over the use of natural resources;
 - v) a proposal that could result in any trans-boundary movement of wastes that could have an impact on human health, the environment or natural resources in any neighbouring country;
 - w) a proposal financed by an international or local development finance institution and which requires an EIA as a condition of the finance;
 - x) a proposal for farming or agricultural method or system that could result in the contamination or degradation of any agricultural area or land important for agriculture;
 - y) a proposal for a residential subdivision for more than 10 lots.

Part 2 – Approved by Approving Authority

1. The following development proposal are to be approved by an approving authority –
 - a) a proposal that requires processing only because it could endanger or degrade public health or sanitation;
 - b) a proposal that requires processing only because it could harm or destroy important cultural resources including, but not limited to, archaeological sites, cemeteries, historical sites and landmarks;
 - c) a proposal for a residential subdivision of not more than 10 lots;
 - d) a proposal for civic or community development;
 - e) a proposal for general commercial development;
 - f) a proposal for general industrial development.

E. Fiji Tourism Development Plan 2007-2016

Proposed Guidelines for Sustainable Development

The following guidelines are recommended as an assessment tool for proposed tourist developments within the Fiji Tourism Plan 2007-2016 (Sustainable Tourism Development Consortium et al 2007, p.116-118):

Water

- Tourism properties should have a sustainable supply of potable water.
- Tourism properties should not adversely affect the natural hydrological regime.
- Tourism development should not cause erosion, sedimentation or adversely effect water quality.
- Tourism development should not cause erosion, sedimentation or adversely effect water quality.
- Tourism properties sewage disposal should be sustainable.
- Tourism developments should have mechanisms to ensure recycling is maximized and that waste is only disposed of to a sustainably managed landfill.

Coastal Development

- Tourism development should not adversely affect coastal processes.
- The assessment of impact on coastal processes should address the totality of the development and its potential to cause change in coastal systems rather than just a set back for buildings.
- Tourism development should avoid disturbance of mangrove and other intact littoral habitats as far as possible.
- Tourism development should not adversely affect the local marine ecology.

Forest Protection

- Tourism development should not adversely affect natural forests and where forests have previously been disturbed should involve revegetation.

Wildlife protection

- Tourism development should preserve wildlife habitat, not adversely effect species of conservation concern and should contribute to wildlife conservation.

Landscape Protection

- Tourism development should present natural landscapes and complement built landscapes

Scenic Amenity

- Building should not be sited or of such height, mass or size that they become dominant scenic alterations from areas of public (community or tourist) view such as roads, trails and the sea.

Eco-efficiency: Energy, Water and Waste

- Tourism development should meet best practice performance techniques and benchmarks for energy and water efficiency and minimal waster production.
- Exiting tourism development should benchmark and move towards best practice eco-efficiency.
- Eco-efficiency benchmarking, such as the Green Globe/Earthcheck benchmarking process should be implemented.
- Information on best practice eco-efficiency measures and equipment suitable for Fiji should be implemented.

F. Referrals

Below are some of the referrals agencies that TLTB can consult when dealing with any major development proposals within the GSR.

Referral Agency	Proposals to be Referred	Reason
FEA	Any major developments such as tourist resorts or large residential subdivisions.	To ensure that dramatic increases in electricity demand can be met. Also, to allow FEA to keep track of future electricity demands to allow sufficient time for the network to be upgraded if required.
WAF	Any major developments such as tourist resorts or large residential subdivisions.	To ensure that dramatic increases in water demand can be met
AFL & CAFFI	Any tall structures but particularly mobile phone towers.	To ensure there is no interference with aeronautical communication systems and/or so that appropriate lighting and painting of structures can be advised (to alert pilots of potential obstacles in the flight path).
Department of Environment (<i>for EIA assessment</i>)	Any development that may directly or indirectly impact the environment.	To ensure that any implications of development onto the environment are minimised.
MRD	Development proposals within 200 metres of the boundary of a quarry site.	To prevent inappropriate development (such as residential development) occurring where impacts from quarrying, such as blasting and drilling will be experienced.
	Development located on or at the base of a slope.	To ensure proposed developments are not in a high risk landslide area.
Fiji Roads Authority	For major residential and commercial subdivisions, etc.	To ascertain the impacts on any major development on traffic
National Disaster Management	Development proposed in low-lying areas of the GSA	To ensure inappropriate development does not occur in areas subject to natural disasters such as flooding and to obtain advice on appropriate disaster mitigation measures.
NFA	Subdivisions exceeding three allotments (excluding those where the subdivision is to create separate titles for existing development).	To ensure the provision of adequate access for fire trucks and water supply and to advise on fire hydrant placement.
Fiji Museum & Department of Heritage	Development proximate to the archaeological sites	To ensure the heritage value of the site is not compromised.
Department of Lands	Allotments which are adjacent to state land and which are subject to a subdivision or a rezoning proposal	To ensure that the proposal will not negatively impact upon State Land.
Ministry of Agriculture	Changes in land use from agricultural to other land use type	To ensure that prime agricultural land are retained for food security purposes.
Department of Forestry	Any development within or adjacent to Forest Reserves	To ensure that the Forest Reserve are well protected and conserved
Municipal Councils	Any development that is adjacent or within the urban boundaries	To ensure that all development are in compliance with the Town Planning Scheme



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