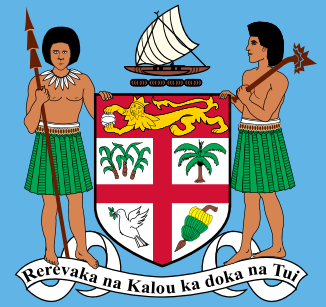


Fiji National Infrastructure Investment Plan 2023–2034



This National Infrastructure Investment Plan (NIIP) has been prepared under the auspices of the Government of Fiji, with the support of the Pacific Region Infrastructure Facility (PRIF).

The NIIP is a guide to screening infrastructure investment over the next 5–10 years. The NIIP has been prepared with the support of PRIF consultants Glenn Fawcett, James Lamont, Viliame Kasanawaqa, and Robert Sovatabua, working under the guidance of the PRIF Coordination Office.

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- Alipate Kete
- Miriama Ketedromo
- Pranita Raj

For more information, contact:



Government of Fiji
Ministry of Finance, Strategic
Planning, National
Development and Statistics
Suva, Fiji
www.economy.gov.fj



PRIF Coordination Office
c/- Asian Development Bank
Level 20, 45 Clarence Street,
Sydney NSW 2000, Australia
enquiries@theprif.org
www.theprif.org

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National Infrastructure Investment Plan

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	About the Fiji Infrastructure Investment Plan	1
1.2	Sectors for Inclusion in the NIIP	2
1.3	Participating Agencies	3
2	STRATEGIC ENVIRONMENT	5
2.1	Regulatory and Strategic Guidance	5
2.2	National Development Plan	6
2.3	Climate Change Mitigation, Adaptation and Resilience	6
2.4	Key Entities and their Role in PIM	8
3	PLANNING FRAMEWORK	13
3.1	Assessment of Fiji's Current PIM Processes	13
3.2	How NIIP is Strengthening the Planning Process	19
4	FUNDING ASSESSMENT	26
4.1	Economic Conditions and Funding Policies	26
4.2	'On Budget' Infrastructure Expenditure	31
4.3	'Off-Budget' Infrastructure Expenditure	37
4.4	Medium-term Expenditure and Funding Strategies	41
5	SECTOR LEVEL SUMMARY	49
5.1	ENERGY Sector	49
5.2	WATERWAYS Sector	52
5.3	AVIATION Sector	53
5.4	WATER and SANITATION Sector	55
5.5	MARITIME PORTS Sector	56
5.6	ROAD Sector	58
5.7	TELECOMMUNICATION Sector	59
5.8	BUILDINGS Sector (incl. Health and Education)	60
5.9	URBAN DEVELOPMENT Sector	62
6	PROJECT PIPELINE	64
6.1	Establishing the Project Database	64
6.2	Summary of Current Project Commitments	68
6.3	Capital Construction Forecast	69
6.4	Planned Spend against Historic Projection Forecasts	74
7	MULTI-CRITERIA ANALYSIS FRAMEWORK	80
7.1	Prioritisation Criteria	80
7.2	Rating Against the Criteria	82
7.3	Conducting the Assessments	87
7.4	Shortlisted Projects for Further Development	91
7.5	Funding Sources for Shortlisted Projects	97
8	RECOMMENDATIONS	99
8.1	Improvement Opportunities	99
	Attachment A: Pipeline Project List	A
	Attachment B: Multi-Criteria Impact Assessment	B
	Attachment C: Economic Viability of Shortlisted Projects	C
	Attachment D: Potential Financiers for Dossier Projects	D
	Attachment E: Consultations with Financiers of Infrastructure	E
	Attachment F: Historic Expenditure Trends for Budget Entities	F
	Attachment G: Project Briefing Note for Dossier	G

LIST OF TABLES AND FIGURES

Figure 1 Project Approval Process (Fiji PIM for On-budget Entities).....	20
Figure 2 Total Government Expenditure, 2013–2030 (\$ billion).....	31
Figure 3 Total Capital Construction for On-Budget Infrastructure Entities (\$m).....	33
Figure 4 Forecasting Expenditure in the Database.....	70
Figure 5 Funded Infrastructure Spend Projection (All Entities by Type).....	71
Figure 6 Unfunded Infrastructure Spend Projection.....	71
Figure 7 The Impact of Maintenance and Renewal on the Service Life of Assets.....	72
Figure 8 Comparison of Pipeline Expenditure with MTFE Forecast (On-Budget).....	76
Figure 9 Benefit Assessment Tool - Self-Assessment Tab (Partial).....	86
Figure 10 Benefit Assessment Tool - Evaluator Tab (Partial).....	87
Figure 11 MCA Analysis (Extract from Attachment B).....	88
Figure 12 Action-Priority Matrix (NIIP Guide).....	89
Figure 13 Multi-criteria Analysis (Impact vs Scale Plot) – Projects/Programmes Under \$100m.....	90
Figure 14 Multi-criteria Analysis (Impact vs Scale Plot) – Projects/Programmes Over \$100m.....	90
Table 1 Infrastructure Assets Support Public Service Delivery (Example).....	1
Table 2 Primary Infrastructure Sectors.....	3
Table 3 Primary Infrastructure Agencies (2023).....	3
Table 4 Summary Ratings for the Public Infrastructure Management Assessment.....	14
Table 5 Current Fijian PIM Processes Benchmarked to International Best Practice.....	16
Table 6 Decision-Making Matrix for Evaluating PSIP Screening Papers.....	22
Table 7 Criteria for Scoring Appraised Projects (Stage 2).....	23
Table 8 Macroeconomic Indicators, Selected Years, 2013 to 2022.....	27
Table 9 Composition of Gross Value Added, 2014–2022 (%).....	28
Table 10 Fiscal Indicators, Selected Years, 2013 to 2022, as a % of GDP ¹	29
Table 11 Average Total Capital Expenditure, Selected Periods 2013 to 2025.....	32
Table 12 MOF Preliminary Policy Performance and Importance Ratings.....	34
Table 13 Historic Trend in Expenditure Across Infrastructure Entities (%).....	35
Table 14 Historic Expenditure by Entity (“On-Budget”).....	36
Table 15 Government Equity Holdings (off-budget entities).....	39
Table 16 Non-Current (Fixed) Assets (off-budget Entities).....	39
Table 17 Government Guarantees (off-budget Entities).....	39
Table 18 Construction and Acquisition of New Property Plant and Equipment.....	40
Table 19 Foreign Grant Aid Passing through the Budget.....	41
Table 20 Public Foreign and Domestic Borrowing.....	42
Table 21 Medium-term Expenditure Framework for the NIIP (on-budget).....	44
Table 22 Medium-term Funding Framework for the NIIP.....	45
Table 23 Proposed Database Fields for Central Infrastructure Project Register.....	64
Table 24 Workshop Participant List (Infrastructure Entities).....	66
Table 25 Infrastructure Capital Construction Project Database.....	67
Table 26 Project Database (Projects by Line Ministry).....	68
Table 27 Summary of Projects beyond Gateway 1 (All Entities by Sector).....	69
Table 28 Projected Expenditure on All Infrastructure Projects (All Entities by Sector).....	70
Table 29 Maintenance Burden as % of Capital Construction.....	73
Table 30 Cumulative Impact of New Construction on the Recurrent Budget.....	73
Table 31 Projects in the Infrastructure Dossier.....	74
Table 32 Future Projected Trend in Budget Allocation (on-budget entities).....	77
Table 33 Funded and Unfunded Capital Construction Pipeline (on-budget entities).....	78
Table 34 Comparison of Planned vs Projected Allocation (on-budget entities).....	79
Table 35 Extract from PSIP Guideline – Screening Note (Table 11).....	81
Table 36 MCA Criteria.....	82
Table 37 Benefit Criteria Rating (Scoring) Framework.....	83
Table 38 Weighting MCA Criteria.....	85
Table 39 Summary Potential Projects for Screening (All Entities by Sector).....	87
Table 40 Decision Making Matrix for PSIP Project Screening.....	92
Table 41 Priority Categories Assigned to Projects/Programmes (Attachment D).....	92
Table 42 Likelihood of Economic Viability for Shortlisted Priority Projects (Attachment C).....	95
Table 43 Strategic Considerations for Funding the PSIP and Likely Principal Funders.....	97
Table 44 Improvement Opportunities.....	99

ABBREVIATIONS

ADB	–	Asian Development Bank
B&P	–	Budget and Planning Division (of MOF)
CAPEX	–	capital expenditure
FY	–	fiscal year
EIA	–	environmental impact assessment
EIRR	–	economic internal rate of return
ENPV	–	economic net present value
FMIS	–	financial management information system
FNPV	–	financial net present value
FPO	–	Fiji Procurement Office
FPRAD	–	Fiscal Policy Research and Analysis Division (of MOF)
FSC	–	Fiji Sugar Corporation
GDP	–	gross domestic product
GHG	–	greenhouse gases
GFS	–	Government Financial Statistics (of IMF)
ICT	–	information and communications technology
KPI	–	key performance indicator
IMF	–	International Monetary Fund
MCA	–	multi criteria analysis
MOF	–	Ministry of Finance, Strategic Planning, National Development & Statistics
MPE	–	Ministry of Public Enterprises
MTFF	–	medium-term fiscal framework
MTFS	–	medium-term fiscal strategy
NAP	–	National Adaptation Plan
NDP	–	National Development Plan
OPEX	–	operational expenditure
PEFA	–	public expenditure financial accountability
PER	–	public expenditure review
PIM	–	public investment management
PIMA	–	public investment management assessment
PIP	–	public investment program
PPP	–	public–private partnership
PSIP	–	public sector investment program
SPO	–	Strategic Planning Office (of MOF)
SOP	–	standard operating procedures
TA	–	technical assistance

Currency

\$	Fijian dollar (Official currency of Fiji)
US\$	United States dollar



CHAPTER 1





INTRODUCTION

This chapter establishes the objectives for the National Infrastructure Investment Plan (NIIP) and presents the local country context. It also lays out the infrastructure sectors and agencies covered by this Plan.

1.1 About the Fiji Infrastructure Investment Plan

Public infrastructure assets exist to provide a service to users and the community. For example, ports allow goods to be imported and exported, roads allow those goods to get to market and power transmission lines allow those markets to operate. When infrastructure fails, these services are interrupted. Reliable infrastructure is one of the foundation stones of sustainable development in the Pacific. All the important services provided by governments, and private sector ventures that create jobs and build wealth, are built on the foundations provided by infrastructure.

Table 1 Infrastructure Assets Support Public Service Delivery (Example)

Sector				
	ROADS	WATER	ENERGY	PORT
Service	Efficient transport network to move people and goods	Deliver reliable and safe drinking water to households	Access to sustainable and reliable energy supply	Efficient movement of goods and produce
Assets	<ul style="list-style-type: none"> ▪ Roads ▪ Bridges/Culverts ▪ Signs ▪ Footpaths... 	<ul style="list-style-type: none"> ▪ Treatment Plants ▪ Wells/Reservoirs ▪ Pipelines ▪ Pump Stations... 	<ul style="list-style-type: none"> ▪ Generators ▪ Dams / Plants ▪ Solar Farms ▪ Lines... 	<ul style="list-style-type: none"> ▪ Wharfs / Jetties ▪ Navigation Aids ▪ Cranes ▪ Dredges...

Note:

1. The three dots (...) indicate that the list is not limited to the 4 examples provided.

Source: Authors.

The NIIP examines the infrastructure needs of all sectors of the nation, drawing on the existing hierarchy of National Development Plan objectives, and sectoral and institutional level plans. This brings together a list of candidate infrastructure investment projects, which are then screened and prioritised across sectors in a process that is both systematic and transparent.

At the same time an assessment is made of likely economic viability of projects and the capacity of government to fund and deliver the infrastructure investment programme so it can be scaled appropriately.

1.1.1 Scope of the NIIP Project

The Fijian Government, through Technical Assistance (TA) from the Pacific Region Infrastructure Facility (PRIF), will be developing and formulating a NIIP that will support Fiji's infrastructure planning processes, procedures, and methodologies. The concept note lays out the following objectives for the project:

1. **Review the current processes for public infrastructure investment planning**, including development of project concepts, cross sector prioritisation, inclusion in the public sector investment plan (PSIP), preparation of priority projects, project appraisal, selection criteria, implementation, and monitoring and provide recommendations to strengthen the processes. This activity will be undertaken in collaboration with the Fiji Public Expenditure Review, supported by the World Bank and the ongoing ADB TA-9427 FIJ: Supporting Public Financial Management Reform.
2. **Improve government planning processes** through strengthening capacity to prepare a country-led, medium-term, prioritised and costed NIIP and project pipeline, which will provide a roadmap for the country's infrastructure development for the next 10 years that will allow government to flexibly adapt and respond to climate change, health, and other shocks going forward.
3. **Prepare a financing strategy to cover the whole-of-life costs** of the proposed priority investments considering potential financing from service providers, the governmental budget, development partners and the private sector. Support the government to incorporate the priority investments in the medium-term expenditure framework for operational and capital budgets.
4. **Prepare a clear roadmap for "priority projects to be further developed"** and appraised. Provide guidance and build capacity for a country-led cost and benefits assessment.
5. **Enhancements to the existing asset management framework** and its linkages with the public sector investment plan.










Specific areas of focus for the NIIP prioritisation framework include:

- Priorities of the national development and sectoral plans for infrastructure development.
- The United Nations' Sustainable Development Goals.
- Collaboration and linkages between central government and implementation agencies.
- Economic recovery and jobs post-COVID-19.
- Resilience to climate change and natural disasters.
- Gender and social inclusion.
- Syncing with multi-year budget cycle and expenditure frameworks.
- Opportunities for climate finance and private sector investments.

1.2 Sectors for Inclusion in the NIIP

Clause 2.3 of the 2019 Fiji Draft Asset Management Policy defines infrastructure thusly: *"Infrastructure assets to be covered under this Policy are those which are material in value (Generally having a capital cost more than FJ\$100,000 or a combined value >5% of an agency's net assets) and have a long service life (say greater than ten years)."* The Fiji NIIP will focus on the key infrastructure sectors listed in Table 2.

Table 2 Primary Infrastructure Sectors

Icon	Infrastructure Sector*	Typical Infrastructure Assets in Sector
	ROADS AND JETTIES	Earthworks; pavement; footpaths; signals; guardrails; curbing; roadside drains; bridges; crossings; culverts; retaining walls; jetties.
	AVIATION	Runways; taxiways; aprons; navigation aids; runway lighting; weather stations; control systems; fueling systems.
	MARITIME	Wharfs; jetties; navigation aids; tugs; container yards; cranes; dredges.
	WATER AND SANITATION	Pipelines; boreholes; reservoirs; storage tanks; treatment plants; pumping stations; oxidation ponds.
	ENERGY	Diesel engines; hydro turbines; generators; transformers; solar panels; switching equipment; transmission/distribution lines.
	PUBLIC BUILDINGS	Schools; hospitals; government administration; public buildings.
	TELECOMMUNICATIONS	Internet cable and landing stations; AM/FM towers.
	WATERWAYS	Seawalls; embankments; levies; river channels; dredges; irrigation; flood gates.
	URBAN DEVELOPMENT	Public housing; public parks; commercial districts; retail; markets and commercial; city landscaping; pedestrian facilities; tourism infrastructure; waste management.

1.3 Participating Agencies

One of the primary goals of the NIIP is to bring together the infrastructure capital investment projects into a single register across all sectors. To achieve this, the NIIP needs to work with both “on-budget” government-funded agencies and statutory authorities, and “off-budget” state-owned enterprises (SOEs).

During finalisation of the NIIP, there was a major restructure of government agencies in Fiji. The new agency names and project responsibilities have been updated in the pipeline database and generally changed in the summary tables throughout this document, with the exception of the historic expenditure analysis in Section 4. Table 3 provides a list of the **main agencies** responsible for delivering capital infrastructure projects as they are structured in 2023.

Table 3 Primary Infrastructure Agencies (2023)

Participating Infrastructure Agencies		on-budget?		Previous Name
1	Fiji Roads Authority	Y	SA	-
2	Water Authority of Fiji	Y	SA	-
3	Ministry for Public Works, Transport, and Meteorological Services	Y	Gov	Ministry of Infrastructure & Met. Services
4	Ministry of Agriculture and Waterways	Y	Gov	Ministry of Waterways & Environment
5	Department of Environment	Y	Gov	

6	Ministry of Rural and Maritime Development & Disaster Management	Y	Gov	Ministry of Rural and Maritime Development & Disaster Management
7	Ministry for Multi-Ethnic Affairs and Sugar Industry	Y	Gov	Ministry of Sugar Industries
8	Ministry of Local Government	Y	Gov	
9	Ministry of Housing	Y	Gov	Ministry of Housing & Community Development
10	Ministry of Transport (MPWTMS)	Y	Gov	Department of Transport (MCTTT)
11	Government Shipping Services (MOT)	Y	Gov	(previously under MCTTT)
12	Ministry of Education	Y	Gov	Ministry of Education, Heritage and Arts
13	Ministry of Tourism and Civil Aviation	Y	Gov	(new)
14	Ministry of Health and Medical Services	Y	Gov	-
15	Housing Authority	N	Gov	-
16	Energy Fiji Limited	N	SOE	-
17	Fiji Ports Corporation Limited	N	SOE	-
18	Telecom Fiji Limited	N	SOE	-
19	Fiji Airports	N	SOE	-
20	Fiji Sugar Corporation	N	SOE	-
Other participants³				
a.	Civil Aviation Authority	-	SA	-
b.	Land Transport Authority	-	SA	-
c.	Maritime Safety Authority of Fiji	-	SA	-
d.	Climate Change Division (OPM)	-	Gov	Climate Change and International Cooperation Division (MOF)
e.	International Cooperation Division (MOF)	-	Gov	
f.	Ministry of Public Enterprises (OPM)	-	Gov	Department of Public Enterprises
g.	Asset Management (MOF)	-	Gov	-
h.	Ministry of Women, Children and Poverty Alleviation	-	Gov	Ministry for Women, Children and Poverty Alleviation

Note:

1. Specifies if the participating infrastructure entity is an on-budget agency (yes / no).
2. Specifies if the entity is a government ministry/department, Statutory Authority or State-Owned Enterprise.
3. Other participants consulted with include regulatory agencies and cross-cutting entities key to infrastructure planning but not having fiscal budget responsibilities.

Source: Authors.

CHAPTER 2

STRATEGIC ENVIRONMENT

This chapter provides an overview of the national, sectoral, and institutional strategies that drive top-down decision making on infrastructure investments. The objective of this overview is to summarise the strategic plans in place and to explore the elements of those plans that help inform the key criteria/drivers for investment decision making and carry these across to the multi-criteria analysis framework presented in Chapter 7.

2.1 Regulatory and Strategic Guidance

The **Financial Management Act 2004** (the Act), as amended, is the fundamental guiding law for all public planning and public expenditure. There is no planning law or regulation. The Act provides for annual budgets and appropriations along with forward budget estimates for the next 2 years. Budgets are to be in line with a strategic policy statement, with a summary of outcomes being pursued in the budget year and a summary of new policy actions to be pursued and their proposed outcomes. The Medium-Term Fiscal Strategy (MTFS) must be prepared and approved by the cabinet and tabled for information in the Parliament and be published by 31 January annually. The MOF must also prepare and publish a **debt management strategy**. Unspent appropriations lapse at the end of the year, but, if authorised by the Minister for Finance, can be carried forward to the next year for known liabilities.

Under the Procurement Regulation of 2010, budget entities must submit procurement plans within 2 weeks of commencement of an Appropriation Act, an important consideration for NIIP preparation. Permanent secretaries and heads of agencies are delegated significant powers in the preparation of plans and budgets and in the execution of appropriated budgets, with accountabilities including requirements for corporate plans and annual reports and financial statements. Entity financial statements to be included in the Government of Fiji annual report must be disaggregated by economic type, with no specific requirement for presentation by programmes, activities, or projects.

While the Act includes value for money as an important principle there are no specific requirements in relation to programme or performance-oriented planning and budgeting. A unified approach to budgeting is provided with operational expenditure (OPEX) and capital expenditure (CAPEX) both to be included. There is no specific requirement to separately prepare or present a public investment programme, though there is a requirement to present the budget by economic type, meaning that clear distinctions must be made between operational and capital expenditures. In practice the budget is prepared and approved in economic, programme, activity and, in part, sub-activity / project formats.

Under the Act, the Financial Instructions of 2010, as revised, are largely focused on budget execution but do provide a brief section on planning and processes that require:

- (i) all agencies to establish budget focus groups;
- (ii) preparation of budgets in line with annual circulars and templates issued by the MOF;

- (iii) budget submissions to be clearly aligned to objectives in the NDP and strategic plans;
- (iv) budgets to separately show OPEX and CAPEX;
- (v) budgets to show expenditures to be aid-funded (such projects to be formally go through MOF for endorsement); and
- (vi) all CAPEX to go through PSIP processes to be defined by MOF.

There are multiple sector laws, regulations, policies, and plans for most sectors and entities, including for infrastructure development. There are also multiple cross-cutting plans that take on policy importance, including plans related to: gender equality; disability support; poverty and social disadvantage; the environment; climate change mitigation; climate and disaster resilience; and land management. Most budget entities prepare medium-term strategic plans and annual budget costed operational and work plans as required by MOF. A detailed schedule of major policy and planning documents can be accessed in Chapter 7 of MOF's *Draft User Manual for Preparation and Approval of Projects Under the PSIP (2022)*.

2.2 National Development Plan

The 20-Year NDP 2017–2038 provides the long-term vision for transforming Fiji. The Five-Year NDP 2017–2022 provides a medium-term action plan. There are two core arms to the plans: (i) **inclusive socio-economic development**; and (ii) **key transformational strategic thrusts**. Under the Five-Year NDP, there are 11 core components for inclusive social development, and 18 core transformational strategic thrusts. For each of these 29 components, there are: goals; policies; strategies; programs; projects; and key performance indicators (KPIs).

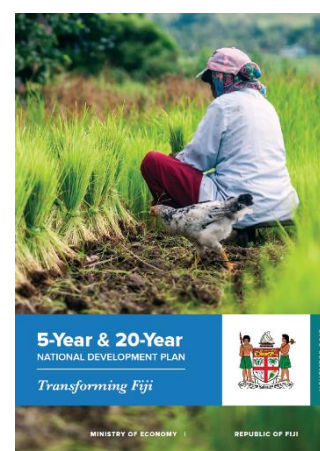
Infrastructure development features prominently in both the inclusive development and the transformational arms, very directly in some cases (e.g., roads, water, ports, etc.), but also indirectly (e.g., as important for development of education, health, youth, women, etc.). The most directly affected components for infrastructure are as follows:

- Components for inclusive social development: (i) clean water and good sanitation; (ii) resource efficient and cost-effective energy systems; and (iii) affordable housing development; and
- Core transformational strategic thrusts for modernisation and improvement: (i) land transport network; (ii) inter-island shipping network; (iii) domestic air services; (iv) international connectivity (air and sea); (v) sustainable cities and towns; and (vi) information and communications technology.

The NDP is scheduled for a review and may be replaced with a new development plan in 2023 and the pipeline of projects compiled for this investment plan will help inform that update.

2.3 Climate Change and Disaster Resilience

Fiji has many national cross-cutting policies and plans in areas such as poverty reduction, disability, gender, climate change, and disaster risk and resilience building. All of these have potentially significant funding implications, including the funding of infrastructure development, operations, and maintenance.



Fiji was the first country to ratify the Paris Climate Change Agreement on 22 April 2016, an Agreement dubbed as the world's greatest diplomatic success. The Agreement, hailed as "historic, durable, and ambitious," aims to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. Consistent with this objective, Fiji's goal is to achieve net-zero greenhouse gas (GHG) emissions by 2050, which reflects the long-term goal of the Paris Agreement to achieve climate neutrality and a low-emission world in the second half of the century.

Many cross-cutting programme and project ideas are undergoing the necessary processing steps to acquire funding in the government budget (from both domestic or external funding sources). In the increasingly important climate change and disaster resilience areas, this has included work on:

- a) the Climate Vulnerability Assessment, 2017;
- b) the National Adaptation Plan, 2018;
- c) the Low Emissions Development Strategy 2018;
- d) the Climate Change Act 2021;
- e) the National Climate Finance Strategy 2022; and
- f) the Nationally Determined Contributions Investment Plan, 2022.

Through its Climate Change Act, Fiji has declared a "Climate Emergency"; this Act is now a pivotal piece of legislation when planning infrastructure investments. Part 11 Part 71 of the Act states:

(1) ... all ministers, State entities and other persons making decisions relating to proposals for new infrastructure must—

- (a) direct that a climate risk and resilience assessment be conducted on the proposal with reference to any integrated risk scenarios developed in accordance with this Act and other relevant risk scenarios;*
- (b) consider the climate risk and resilience assessment prepared in accordance with paragraph (a) when deciding whether or not to approve the proposal; and*
- (c) make a decision to approve or not approve the proposal that promotes and is consistent with the climate risk and resilience assessment prepared in accordance with paragraph (a).*

(2) For the avoidance of doubt, proposals for new infrastructure include proposals for infrastructure that must be replaced due to the impacts of natural disasters and the adverse impacts of climate change.

(3) The Minister, in consultation with the Committee, must prepare and issue guidelines on how climate risk and resilience assessments are to be conducted in accordance with this section.

Major funding needs (and requirements for economic restructuring) have been addressed in recent studies:

- The Vulnerability Assessment preliminarily estimated investment costs to strengthen resilience to climate change and disasters to be \$9.3 billion over 10 years (i.e., approaching \$1 billion p.a. roughly equivalent to total recent annual public investment levels). Key identified areas were: (i) transport/roads (\$4.7 billion); (ii) hazard management (\$2.1 billion); (iii) water (\$1.1 billion); (iv) health/education (\$0.6 billion); (v) energy (\$0.5 billion); and (vi) others (\$0.3 billion).
- The National Climate Finance Strategy analyses existing climate-related budget expenditures (operational and capital) and provides concept notes for selected priority projects warranting future funding. While several external sources of technical assistance are listed, the main two sources of potential capital funding set out are: (i) the Green

Climate Fund; and (ii) the government budget. Further work is likely to be needed in the identification and screening of projects and in quantifying funding needs before the strategy can be more fully developed and used. While the strategy does not provide a full costing of operational and capital funding needs, partial estimates made through the selected concept notes indicate immediate investment funding needs for selected projects of \$2.68 billion, roughly three times the level of recent total annual public investment. Key financing needs are in the energy, transport, and water / sanitation sectors.¹

- The NDC Investment Plan, which focuses on 31 selected mitigation projects in the transport, renewable energy, energy efficiency, building and other secondary sectors requires estimated investments of \$2.0 billion over a medium- to longer-term framework to address mitigation commitments in the NDC (abating 2.7 million tons of GHG emissions by 2030).

NIIP projects that have been screened and prioritised have included, where sufficiently prepared, consideration of programmes and projects from the various climate change and disaster resilience plans. This is consistent with the emerging MOF approach of mainstreaming such climate considerations into all their evaluations of all investment projects submitted to the PSIP for funding, whether domestically or externally funded.

Notwithstanding the importance of such programmes, the medium- to longer-term costs of such additional investments have been estimated to be so large as to likely overwhelm normal domestic and external funding sources. Polluting countries have burdened Fiji with large unfunded disaster- and climate-related investment mandates that will only be effectively funded by special and more urgent international support. This issue is returned to in the conclusions on funding availability and strategy.

2.4 Key Entities and their Role in PIM

2.4.1 MOF and Investment Oversight

Budget and Planning Division ²

The Budget and Planning Division (B&P) of MOF has major responsibility for preparing, monitoring, and evaluating the rolling PSIP and for preparing and updating the Five- and 20-Year NDP. B&P is divided into four sectors in line with the budget presentation: (i) General Administration; (ii) Social Services; (iii) Economic Services; and (iv) Infrastructure Services. B&P also has responsibility for preparing and managing the large MOF Miscellaneous Services Head 50 allocation. The Divisional Head coordinates decisions across the four sectors and makes final recommendations to higher levels of the Permanent Secretary and Minister. As with many small countries, professional staff have diverse responsibilities, including the functions of planning, evaluating, and recommending budget submissions and undertaking policy, implementation, monitoring, and evaluation roles.

B&P writes the annual budget preparation circular and the template submissions form relying on the Fiscal Policy, Research and Analysis Division (FPRAD) and the MOF Debt Management Unit for macro-economic and debt forecasts and aggregate budget ceilings, which are

¹ Five selected projects suitable for GCF funding were identified at an estimated cost of F\$310.6m while 13 selected projects suitable for government or other funding were costed at F\$2.37b (5 of these involved minor costs for feasibility studies with ultimate potential costs of investment being much higher).

² The Division has been now separated with the establishment of the Strategic Planning Office within MoF and Planning functions moving to SPO. The monitoring and evaluating the rolling PSIP and the preparation of the new development plan will be the responsibility of SPO.

endorsed by the cabinet before the budget submission circular is issued to budget entities. The budget is presented in a unified form containing both operational and capital outlays by economic type, entity, and sector and by programmes, activities, and to some extent sub-activities / projects. There is no publication of a summary PSIP project listing of approved projects, nor is there any formal preparation or publication of a pipeline of screened or appraised unfunded projects. Currently the budget is prepared in EXCEL, but procurement of a new computerised system for preparing the budget is being planned, which, over time, will provide more options for preparing and reporting on the PSIP. B&P informally utilises expertise from within the MOF and from other ministries / agencies in cross-cutting areas such as climate change, environment, and gender.

B&P receives many substandard budget submissions, with forms not well filled out in many cases and questions not adequately backed by information and analysis. Examples of weaknesses include economic analysis, benefits articulation, and environmental and climate change analysis. More rigorous appraisals and evaluations of new projects are likely to require the raising of capacities in the budget entities. Budget Division staff consider that budget entities need to be able not only to fill out brief answers to the template but also to submit substantive supporting documentation (e.g., technical design, climate analysis, etc.).

The Fiscal Policy, Research and Analysis Division

The Fiscal Policy, Research and Analysis Division (FPRAD) prepares the macro-economic framework for the budget, the medium term fiscal strategy (MTFS) and the medium-term fiscal framework (MTFF). Aggregate expenditure targets have a long-term aim for approximate division of the budget into 60% operational and 40% capital, though recent actual ratios have been well below this. The division prepares key macro-economic documents including the annual supplement to the budget speech, the mid-year economic review, and pre-election economic statements. These documents drive the economic policy agenda, which is important for setting the framework for an orderly and effective infrastructure investment programme. The MTFS and the MTFF are highly aggregated, with the Budget Division responsible for allocations between entities and their programmes, activities, and projects.

The FPRAD sees a need to raise the quality of capital spending, feeling many projects get approved without rigorous appraisals. The NDP to be formulated is seen as being very important for charting future aggregate levels of capital funding and also for the allocation of capital. They would like to see more work on the early costing of investment options and development of a prioritised and costed pipeline of investment projects. The coronavirus disease (COVID-19) pandemic has created major economic and fiscal policy challenges. Higher deficits and ballooning debt have led to an explicit policy of severely constraining all expenditures, including capital outlays, and a move, where possible, to finance deficits and major capital projects through external grants and concessional borrowing.

The Ministry of Public Enterprises

The Ministry of Public Enterprises (MPE) supervises 13 defined public enterprises under the Public Enterprises Act of 2019. Public enterprises are supposed to operate on fully commercial business lines, though periodic budget support supplements equity positions and funds agreed social obligations. The Water Authority and Housing Authority prior to 2019 were defined as public enterprises but this is no longer the case given high operational support to them along social welfare lines. The 2019 Act provides broad criteria to consider when assessing possible budget support for social obligations with Budget Division and Strategic Planning Office (SPO) making final recommendations on budget allocations.

Officials of the MOF are also part of the various public enterprises and statutory authority Boards, providing guidance and advice on matters related to budget, finance, and other matters as required under the role of Director. They also review performance, including quarterly reviews of major projects. Public enterprise managements and boards are provided with significant autonomy in formulating and approving investment projects, including from internal cashflows and, in many cases, non-government-guaranteed borrowing. According to the MPE, the quality of submissions they receive for budget support or loan guarantees is often poor. The MPE would welcome the development of more detailed criteria and guidelines for assessing proposals seeking budget support or contingent liabilities coming from public enterprises.

Fiji Procurement Office

Procurements below \$50,000 are delegated to line ministries, while public enterprises and major authorities have their own internal procedures. All other procurements above \$50,000 go through the Government Tenders Board, with competitive bidding the predominant method. Procurement plans are required annually and are mainly monitored by the Budget Division. The Fiji Procurement Office (FPO) would prefer better multi-year procurement plans. The FPO finds the quality of procurement plans and documentation from budget entities to be mixed. Documentation involving construction is typically contracted out to private consultants and in most cases is satisfactory. For larger construction tenders (above \$5 million), there are few competent construction consulting companies. For non-construction projects, documentation submitted is often inadequate. The FPO thinks there are significant capacity-building needs for entities in all procurement, including for more detailed preparation of projects, multi-year budgets and plans, better specifications, better scope of works, better evaluation criteria, and better prepared contract documents.

Treasury Division

The accounting system for budget approval, accounting, recording, and reporting is mainly based on entities, programmes, and activities; however, it could function at the sub-activity or project level. Presentations in the annual budget estimates of sub-activities / projects is separately prepared by the Budget Division. The financial management information system (FMIS) currently does not allow for a government-wide project assets recording and management system. The FMIS also does not handle multi-year budgeting and accounting, but they are looking to introduce this over time. Audited financial statements are prepared at an aggregated level for both the whole of government and individual budget entities, so do not provide a good basis for the review of projects. Work is ongoing to allow tagging of gender- and climate-related budget expenditures.

Division of Internal Audit and Good Governance

MOF's Division of Internal Audit and Good Governance is responsible for internal audit across the whole of government. They audit the capital budget, though mainly at the programme level. Common findings include the following: (i) variations between targeted and actual outputs; (ii) budget funding shortfalls for timely implementation; (iii) poor preparation of projects leading to inaccurate cashflow estimates; (iv) annual procurement plans are not always prepared and, where done, are not accurate or effective; (v) project monitoring frameworks either do not exist or are not adequate and the respective monitoring roles of the budget entity and Budget Division are not clear; (vi) a need for greater clarity of roles and improved coordination (Budget Division, budget entities, FPO, regulatory agencies / ministries); (vii) excessive use of waivers from competitive tendering in procurement; (viii) procurement contracts and documentation are not sound (often due to poor preparation),

leading to excessive contract variations; and (ix) bidding irregularities including collusive bidding and under-bidding with subsequent requests.

Climate Change Division

With a strong planning priority, there is ongoing work to ingrain climate change matters into the planning and budget process. The Climate Change Division is within the Office of the Prime Minister but is only informally involved with budget submissions. The current budget submission template had only one question on climate change, and a general risk assessment and answers suggest limited climate analysis was occurring. The new Climate Change Law 2021 requires all budget entities to undertake risk assessments and to incorporate climate effects within strategies, plans, and budgets. Climate focal points are to be established in all budget entities but plans for operationalising this and other requirements of the new law are still to be worked out. Revisions to the current capital budget submission template could consider new requirements, including, for example, for entities to have: (i) climate risk assessment and management plans; and (ii) sub-plans of the **National Adaptation Plan (NAP)**. A simple spreadsheet model has been prepared to help cost the NAP. The NAP highlights the need for NIIP mainstreaming as NAP cuts across entities and is proving difficult to implement.

2.4.2 Cross-Cutting Entities

Ministry of Environment - Environment and climate assessment.

The environmental legal framework, including requirements for environmental impact assessments (EIAs), apply equally to public and private investments. EIAs are prepared by consultants who are registered and accredited by the Ministry. Costs of consultants are borne by the project sponsors. Standard terms of reference issued to consultants require them to assess both environmental and climate change implications of projects. The Ministry internally evaluates smaller consultant assessments, while major investments are evaluated by expert review committees. The public can make submissions to EIAs; once determined, assessments are available to the public. Appeals can be lodged and are heard by a claims tribunal. Developments that proceed without the necessary clearances and approvals can be prosecuted.

Although the current budget submission template provides no checks that all required environmental approvals are in place, the Ministry considers that all key public entities are well aware of the legal framework and seek appropriate clearances (either from the Ministry of Environment or delegated lower authorities) before construction commences. The Ministry favours new processes whereby they are required to screen all major public investments for climate and environmental impacts before funding is decided on by MOF, but they recognise they would need major additional resources for this to be operationalised. While practices for environmental processes are well established the Climate Change Law is new and not yet operationalised.

Ministry for Women, Children and Poverty Alleviation - Gender and other social assessments.

This Ministry has policy and programme responsibilities for gender and other social issues, including disability, children services and poverty. They are involved in a gender responsive budgeting initiative, which commenced with two pilot ministries in the FY2021 budget and was extended to nine ministries in the FY2022 budget. The relevant section of budget submissions is reviewed by Budget Division and SPO.

The Ministry undertakes poverty assessments, aiming to determine the impact of government programmes on poverty reduction. They work with the Bureau of Statistics using poverty surveys etc. to expand information and understanding on the nature of poverty. Recent work has focused on assessing the impact of government infrastructure investment in the eastern division of Fiji on access and utility by the poor. They seek to work with the key infrastructure ministries and entities to influence the nature of future investments to best benefit the poor. The current budget submission template requires information on location but does not specifically address distributional and poverty impacts of projects. On disability, the Ministry works with other ministries to ensure that new construction projects provide access and facilities for the disabled. They also work toward retro-engineering existing buildings. The Ministry wants to see all new construction projects screened for adequacy for the disabled.

Ministry of Lands and Mineral Resources - Land and resettlement assessments.

The great bulk of land area is comprised of customary land (96%), with only 3% held by the State and 1% in private hands. Land often becomes an issue for public investment. Public projects attempt to use State land wherever possible but, in many cases (such as extensive road or water supply projects), there is a need to either lease or acquire land from either the private sector, or, more commonly, from customary (iTaukei) owners. Acquisition can occur by agreement or through compulsory acquisition by the State commonly involving the Ministry and the iTaukei Land Trust Board.

The current budget submission template does not ask specific questions on land ownership assuming that land matters will be resolved between the entity and the Ministry and with any issues will be addressed in technical aspects of the submission. Compulsory land requires the project sponsor to make formal application to the Ministry, following which processing can be very time-consuming (years not months). Forced acquisition often involves involuntary resettlement; these issues must be addressed in the application with compensation packages.

Technically, the Ministry is one of the key sources of maps, including hazard maps (including geothermal, inundation, flooding, groundwater, landslides, and earthquake/seismic maps). These are available to developers and the public on-request. The Ministry sees a need for urgent funding to digitise the great amount of information on land they hold in hard copy form. The Ministry works with others, including the National Disaster Management Office, to develop plans and strategies for responding to natural disasters. They are also supporting the Ministry of Trade, Cooperatives, Small and Medium Enterprises and Communications to prepare a land-use master plan.

Other regulatory agencies.

The NIIP Working Group includes representatives from the Civil Aviation Authority, Land Transport Authority, Maritime Safety Authority, and Ministry for Women, Children and Poverty Alleviation. These all provide important regulatory, safety, and other forms of supervision and advice in their respective infrastructure sectors.

CHAPTER 3

PLANNING FRAMEWORK

This chapter presents the decision-making hierarchy, governance structure, and roles and responsibilities of key stakeholders in developing, prioritising, and managing the program of capital construction work (infrastructure). It includes a review of the current planning process and lays out how the NIIP integrates with the upstream strategic planning and downstream budget planning processes.

3.1 Assessment of Fiji's Current PIM Processes

Three major diagnostics and assessments of public investment management (PIM) processes in Fiji have occurred in recent periods with all involving a mixture of government leadership and independent externally supported advice. Results of these diagnostics are reported herein and provide a sound basis for assessing the strengths and weaknesses of current investment planning and budgeting processes. The three assessments reported on below are: (i) relevant sections of the public expenditure financial accountability (PEFA) assessment of 2020,³ (ii) a draft World Bank-supported public expenditure review (PER) of 2022 which included a public infrastructure investment management assessment (PIMA) based on the International Monetary Fund (IMF) version,⁴ and (iii) an ADB-supported benchmark assessment using the IMF PIMA framework conducted in 2021 and which was updated in 2022 as part of the current NIIP review and mainstreaming assessment.

3.1.1 PEFA 2020 Assessment of PIM Practices

The 2020 PEFA assessment reviewed and rated four aspects of PIM, all of which were scored a "C" rating in the PEFA system where "A" is best and "D" is worst. Summary results in relation to the four dimensions of PIM addressed were:

- **Economic analysis of investment projects.** Economic analysis (including economic and social cost-benefit analysis) is only undertaken for major investment projects funded by international donors, and these are not undertaken through use of formal national guidelines.
- **Investment project selection.** Prioritisation of projects occurs as part of the budget formulation processes but there are no set decision making criteria.
- **Investment project costing.** Total capital costs of major projects over a 3-year period are shown in the budget estimates but recurrent costs are not specifically shown.
- **Investment project monitoring.** Physical and financial progress of major projects is tracked quarterly but associated reporting is not published.

³ Republic of Fiji. 2020. PEFA Assessment Final Report (Section PI-II Public Investment Management).

⁴ World Bank. 2022. (Draft) Fiji Public Expenditure Review.

3.1.2 World Bank 2022 (Draft) PER and PIMA

The PER included a chapter on Value for Money in Infrastructure Spending including a “quality of public infrastructure investment management assessment” based on the IMF PIMA framework. Normally, PIMAs cover multiple dimensions under four key elements of the public investment cycle: (i) planning for sustainable levels of public investment; (ii) allocation of investments to the right sectors and projects; (iii) implementation of investment projects to deliver productive and durable public assets; and (iv) cross-cutting environment and arrangements. For purposes of the PER, sections A: Planning and B: Allocation were the focus of the assessment, which is relevant for the current NIIP assessment, which focuses mainly on these two stages as well, although relationships and feedback between planning, allocation, implementation and the cross-cutting environment are important. The assessment included 10 infrastructure-related institutions that were considered most relevant to the PER exercise, all of which are planned to be included in the NIIP group of 11 entities.

Table 4 summarises the main findings of the assessment covering five dimensions for planning and five dimensions for allocation, making separate assessments for: (i) institutional strength; (ii) effectiveness of implementation; and (iii) priority of the dimension for reform. On a 3-point rating scale (high/medium/low) the summary results were as follows:

- **Institutional strengths.** 60% of this dimension for both planning and allocation were scored as medium; 40% were scored as low; and none were scored as high.
- **Effectiveness of implementation.** 60% of this dimension for both planning and allocation were scored as low; 40% were scored as medium; and none were scored as high; and
- **Priority for reform strengthening.** 40% of this dimension for both planning and allocation were scored as high; 40% were scored as medium; and 20% were scored as low.

Table 4 Summary Ratings for the Public Infrastructure Management Assessment

Criteria	Institutional Strength	Effectiveness of Implementation	Priority for Reform
Planning			
1. Clear fiscal targets and rules	Medium	Medium	Medium
2. Quality national and sectoral plans	Low	Low	High
3. Good coordination between entities and levels of government	Medium	Low	Low
4. Rigorous project appraisal occurs for large projects	Low	Low	High
5. Equivalent consideration given to all alternative investment funding sources	Medium	Medium	Medium
Allocation			
1. Budget covers multi-years	Medium	Medium	Medium
2. Budget is comprehensive and unified	Medium	Low	Medium
3. Systems are in place for predictable investment budgeting	Medium	Medium	Low
4. Adequate funding provided for maintenance of investments	Low	Low	High
5. Effective systems for project evaluation and selection for the budget	Low	Low	High

Source: World Bank. 2022. Draft Fiji Public Expenditure Review.

Although all institutional areas were assessed as important for institutional strengthening, higher priority for reform was given to those arrangements which would firstly provide higher

benefits, and secondly, where MOF has already started making efforts toward reform, for example, through the proposed new PSIP guidelines and the planned development of the NIIP. The four high priority recommendations were:

- **Strengthening appraisal.** Develop a standard methodology and central support for project appraisal, including rigorous technical, economic, and financial analysis, with selected results of this analysis published or to undergo independent external review. The current update of PSIP Guidelines is noted to be incorporating standard appraisal methodologies into the project planning cycle.
- **Quality national and sectoral plans.** Develop objective prioritisation criteria to maintain a prioritised and costed database of high-priority infrastructure investment projects that are aligned with measurable national development outputs and outcomes targets. Publish investment plans, criteria, and targets. MOF activities, such as the development of the PSIP Guidelines and the NIIP, should address these recommendations and make efforts to mainstream these improvements into current processes.
- **Providing adequate funding for the maintenance of investments.** Establish and promote the use of standard methodology for determining capital and routine maintenance projects. Include maintenance costs in national and sectoral plans. Promote routine maintenance and capital maintenance to be systematically identified in the budget and reported as instructed by the National Asset Management Framework (NAMF), the implementation of which should be reviewed.
- **Develop effective systems for project evaluation and selection for the budget.** Establish processes and objective criteria for project selection, focusing on robust technical, economic, financial, and environmental assessments.

3.1.3 ADB and NIIP Study Benchmarking Fiji's PIM against Best Practice

ADB TAs supported MOF to undertake a benchmarking study in late 2021, which has been updated in 2022 by the current NIIP project (as reported below). These benchmarking assessments also made close use of the IMF PIMA methodology, with two main exceptions as follows:

- While much of the assessment focus was (as in the PER) on the planning and allocation phases of the PIM cycle, the work did review the fourth dimension of the PIMA methodology, i.e., cross-cutting arrangements. As with the PER study, only indirect attention was given to the implementation stage of the cycle, which, although connected, was not central to the work of preparing the MOF Guidelines or for preparing the NIIP.
- The benchmarking study did not formally rate performance or prioritise recommendations but rather, along with the process mapping, was used as important context for developing recommended approaches in the Guidelines and is similarly used in the preparation of this NIIP.

Table 5 compares Fijian approaches to public investment planning against PIMA's diagnostic with international best practice. The aim of the assessment was to better understand current approaches prior to considering the need and approaches to strengthening over time as reflected in the Guidelines prepared and the recommended approaches for preparing the NIIP.

Table 5 Current Fijian PIM Processes Benchmarked to International Best Practice

International (PIMA) Benchmark	Current Fiji Processes
1. Planning	
1.1 Clear fiscal targets and rules.	MTFF, MTFS and debt strategies are in place providing sound macroeconomic guidance. Forward estimates in the MTFF are not divided by operational and capital. The MTFS is strategic but with no detailed entity allocations such as in a medium-term budget framework (MTBF).
1.2 Quality national and sectoral plans	National and ministry / entity plans are in place and provide good broad qualitative strategic direction. There is no quantification or ceilings of medium-term budget entity resources or forward funding levels of key programmes, activities, and projects within entities. The forthcoming update of the NDP will be important.
1.3 Good coordination between entities and levels of government.	There is good coordination between central ministries / regulatory agencies and budget entities, including through well-coordinated planning and budget preparation systems. There is only limited coverage of the investments of public enterprises / authorities in the budget documents. ⁵
1.4 Rigorous project appraisal occurs for large projects.	Technical, economic, financial, climate and environmental elements of projects are addressed (through the budget submissions template) but only at basic levels, with some elements often excluded by submitting entities. There is no defined threshold level of "large project". Basic risk matrices and mitigation plans are prepared for all projects. MOF provides guidance and support to budget entities. There are basic SOP for project preparation, but these are no longer used – current work aims to provide detailed preparation and appraisal guidelines.
1.5 Equivalent consideration is given to all alternative investment funding sources.	There is independent regulation and competitive arrangements in the key utilities markets. Regulatory arrangements for PPPs are not complete but are being worked on. Public enterprises and authorities are required to report annually, though many are behind in their reporting and only limited alternative investment information appears in the budget or other publications.
2. Allocation	
2.1 Budget covers multi-years	Projections of capital spending by budget entity for the budget year plus 2 (not 4 as preferred under PIMA) are provided, though the outer years are not comprehensively or accurately costed. There are no binding or indicative multi-year capital ceilings by entity. There is no publication of 3-to-5-year projections by capital project.
2.2 Budget is comprehensive and unified	The capital and operational budgets are prepared by a single ministry (MOF) and are published in a single unified programmatic fashion. Apart from self-funding public enterprises and authorities which are "off budget", capital expenditure is mainly "on budget". Externally debt funded projects are all on budget as are significant numbers of grant funded projects. However, project listings are not fully available in the budget for all entities (e.g., Roads and Water Authorities) and where available only cover the budget year.

⁵ Subnational administrations are small in Fiji and assessment of their investment procedures and relationships with the Central Government has been beyond the scope of the current work.

International (PIMA) Benchmark	Current Fiji Processes
2.3 Systems are in place for predictable investment budgeting	Investment outlays are appropriated annually but there is no published information on total project costs, or project start and end dates. While forward estimates are published for 2 years, they do not involve detailed costing and are not hard ceilings. Ongoing projects are given high priority in budget formulation. Virements from capital to operational budgets require formal approval. Considerable variances consistently occur between budgeted and actual investment outlays.
2.4 Adequate funding provided for maintenance of investments	Key infrastructure entities have a mix of formal and informal systems for planning routine maintenance. Considerable routine maintenance is included in the capital budget and not the operations budget. Needs for major future capital improvements are included where identified in the NDP and entity plans and as ongoing items in annual budgets and forward estimates.
2.5 Effective systems for project evaluation and selection for the budget	All major projects funded through the budget (including PPPs and externally funded projects) are scrutinised by the MOF. There are informal provisions for external experts to be consulted on a case by case needs basis (e.g., environment, technical, gender) but there are no formal processes for expert external evaluation, which is beyond the capacities of most small countries. Beyond general advice in the budget circular there are no published or utilised criteria for project selection. There is no comprehensive pipeline of appraised projects used for selecting projects, though MOF and some entities prepare informal lists internally.
3. Cross Cutting Arrangements	
3.1 Strong legal framework	The Financial Management Act, the Financial Instructions and the Procurement Regulation are sound but provide quite limited guidance on capital project preparation and approval procedures. There are no detailed project preparation or appraisal guidelines with the legal status of regulation or similar under the Act.
3.2 Modern IT systems and support	The current FMIS does not support budget or project preparation and currently provides for only limited accounting and reporting on a project basis. The MOF is currently procuring a new computerised system for budget preparation which should enable enhanced treatment of project budgeting and reporting.
3.3 Capable staff with clear roles and responsibilities.	Roles, responsibilities, and systems at different levels appear reasonably well understood though the proposed Guidelines and NIIP should help to clarify them. Staff at all levels are capable though at most levels and entities the need for further enhancing knowledge and skills in a wide range of project areas has been identified and is to be planned for under forthcoming implementation of the Guidelines and the NIIP.

PIM: Public Investment Management. MTF: Medium Term Fiscal Framework. MTF: Medium Term Fiscal Strategy. MTBF: Medium Term Budget Framework. NDP: National Development Plan. MOF: Ministry of Finance. PPP: public-private partnership. SOP: standard operating procedures. PIMA: Public Investment Management Assessment. NIIP: National Infrastructure Investment Plan.

Source: National Infrastructure Investment Plan Assessment in collaboration with MOF and the ADB TA team.

The three assessment studies reported above, although independently conducted, come to broadly similar conclusions. In terms of overall ratings of performance and effectiveness. The PEFA average is at "C" while the PER average is between "low" to "medium". The benchmarking study did not seek to provide scores but does indicate that, despite many

positives, there is room for improvement against all indicators benchmarked. Certainly, none of the matters assessed by each of the three studies indicated very high levels of systems or effectiveness such as might rate an “A” under PEFA grades or a “high” under the PIMA system. There is some consensus, including within the MOF, that there is a lot of strengthening work to be done on a broad range of fronts.

3.1.4 Public Investment Management Submissions

Existing Guidelines for PIM

An earlier PSIP manual was issued in 2009 and covered formulation, approval, implementation and monitoring and evaluation of PSIP projects. This was replaced by a shorter PSIP manual in 2015 prepared by the then Ministry of Strategic Planning, National Development and Statistics prior to restructuring of the MOF to include the planning function. This manual has not been widely used and it is planned to replace it by new Guidelines that has been finalised and planned to be rolled out in the 2023–2024 financial year.

Budget submission processes currently in use

In recent years, MOF has issued a budget circular in early-February with entities required to submit proposals within 6 weeks. This is followed by consultations and final MOF decision making for consideration by the cabinet and Parliament by early June, for the new budget year commencing 1 August. The circular provides broad expenditure guidance, including baseline levels reflecting current policies and forward estimates but does not provide ceilings by entity. As well as completing a standard budget submission form, entities must submit current strategic plans, costed operations plans, and other supporting documents. New and additional operational and capital funding must be identified and justified over and above baseline estimates. As well as the budget year ahead, entities are required to submit expenditure estimates for the 2 years following the budget year. Submissions cover two formats, the first by economic type using standard expenditure groups, of which capital expenditure is composed of standard expenditure groups 8 to 10 inclusive; and the second by programmes and activities.

Template for OPEX submissions

Requests must be divided into ongoing and new outlays with division between the ongoing baseline and new requests. Requests for new outlays must be backed by:

- (i) description and rationale,
- (ii) justification in terms of outputs, outcomes, and KPIs in the entity plan and the NDP, and
- (iii) explanation of how the budget entity is operating without the new funding sought.

Furthermore, a matrix must be prepared outlining the probability and severity of risks under scenarios of new funding being provided and not being provided and outlining mitigation strategies. There are no direct questions linking operational and ordinary maintenance needs of new capital investment projects, but there is scope to justify new operational requirements based on new CAPEX.

Template for CAPEX submissions

Requests must be divided into ongoing and new outlays and to be presented for each project seeking approval in terms of funding by: (i) programme; (ii) activity; and (iii) economic type. The core information collected includes:

- Project title and components

- Project objectives
- Project description including location, assets to be acquired / purchased etc.
- Contact details of responsible officer
- Expected project duration (end date or if long-term ongoing date of last review)
- Justification in terms of outputs, outcomes, KPI including in the in the 5- and 20-year NDP
- Circumstances leading to the need for the project
- Alternative options considered to address issues and why not pursued
- The extent of stakeholder consultation, and analysis of stakeholder views and support
- Extent of preparation undertaken and preparedness, e.g., land, design (attach documents)
- Planned project activities and outputs; and targeted completion timelines
- Describe project benefits (social, economic, environmental, gender) quantified if applicable
- Provide any comparisons of costs and benefits of alternative options undertaken to test viability
- Provide analysis/evidence of climate change factors that may impact project success or failure
- Project implementation arrangements including capacity to implement (available staff, etc.)
- Risk matrix – probability and severity of risks with and without funding and mitigation plans
- Specific questions on gender responsive budgeting and planning – limited to nine pilot ministries

3.2 How NIIP is Strengthening the Planning Process

Figure 1 summarises the PSIP process using a “swim lane”-based process map.

The NIIP will primarily help implement reforms and strengthen tools and approaches to screening capital construction projects (gateway 1) and provide a longer lead time for future unfunded pipeline projects to be systematically presented and discussed with financiers through the project “Dossier”.

Ultimately, what we have deployed and trialed through development of the NIIP is very much aligned and supportive of the PSIP reforms – the alignment is discussed below.

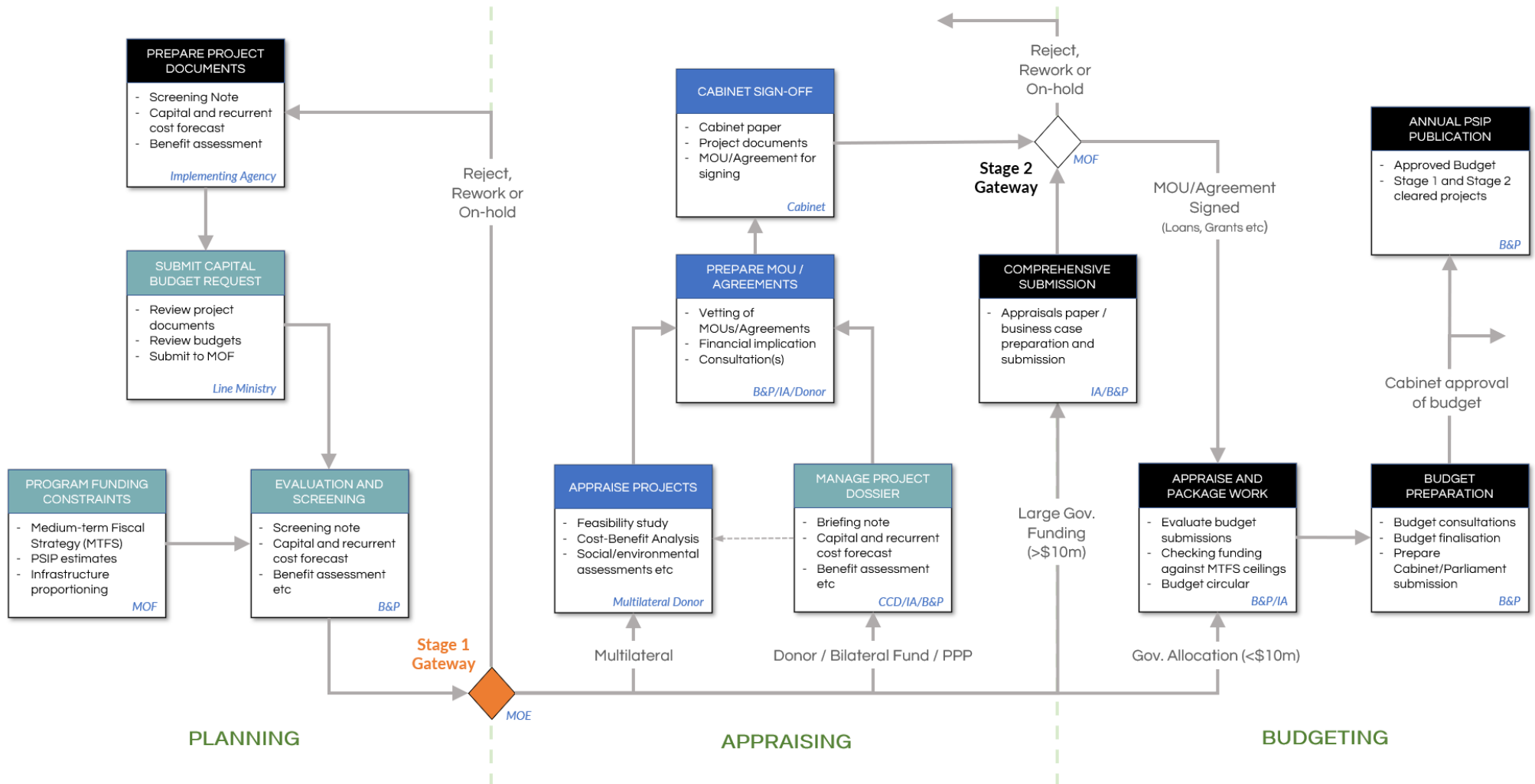
3.2.1 PSIP Reforms

There are **nine specific guidelines** informing the PSIP reforms. These are:

1. Legal framework and status
2. Public investment defined
3. Roles and responsibilities of principal actors
4. Application of guidelines to externally funded projects
5. Development and update of MTFE and MTFE (including PSIP)
6. Key steps to confirm status of ongoing projects
7. Early-stage steps in preparing new projects – stage 1
8. Late-stage steps in appraisal and evaluation of new projects – stage 2
9. Steps in final approval and publication of the annual budget (new and ongoing)

Guideline 7 provides guidance on early-stage (Gateway 1) screening of capital construction projects.

Figure 1 Project Approval Process (Fiji PIM for On-budget Entities)



MOF: Ministry of Finance. B&P: Budget and Planning. MOU: Memorandum of Understanding. IA: Implementation Agency. CCD: Climate Change Division. MTFS: Medium Term Fiscal Strategy
 Source: Authors.

Guideline 7 – Early-Stage Steps – Preparing New Projects – Stage 1

The list below provides an overview of the key steps for early-stage preparation of new projects – stage 1 processing. Guideline 7 is of significant relevance to the NIIP preparation as stage 1 processing using screening notes and MOF evaluation criteria represent the stage and nature of work that the NIIP is focused on.

Key Steps in Early-Stage Preparation of New Projects – Stage 1 Processing

1. Identification of new project(s) by budget entity
2. Preliminary research and analysis
3. Review of funding options – including MTFS (PSIP)
4. Budget entity prepares screening note
5. MOF evaluates and decides on screening note
6. Funding arrangements for costs of appraisal agreed
7. Publication of pipeline of cleared stage 1 projects

Steps 1 and 2 involving initial identification and research on potential new projects are relatively straightforward and the NIIP team's efforts in formulating the project database (Chapter 6) supports more structure and lead-in time for stage 1 project screening.

The importance of Step 3 (review of realistic funding options) is addressed more fully in Guideline 6 and 7. Pipeline projects for capital construction should be developed within a reasonable funding envelope (thresholds) so that there is no excessive over- or under-loading of the pipeline in relation to likely available medium-term resources for the entity and infrastructure management entities.

Step 4 requires the infrastructure entity to prepare a screening note for new capital construction projects. Template requirements for this screening paper is summarised below:

- Introduction
- Project title, description, and objectives
- Strategic fit and justification
- Preliminary estimated project market costs
- Preliminary funding sources
- Preliminary analysis of expected project benefits and non-financial costs
- Beneficiaries and economic
- Social (including gender)
- Environment, climate change mitigation and climate and disaster resilience
- Proposed further due diligence actions and any funding proposed for Stage 2 appraisal
- Preliminary processing and implementation plans
- Preliminary risk analysis
- Recommendations

Step 5 involves MOF (through SPO and Budget Division) evaluation of the note and deciding if the proposed project has sufficient merit and funding arrangements to allow it to proceed to a full stage 2 appraisal study. It is the intent of the reform that MOF use standard criteria contained in a decision-making matrix for evaluating screening notes. The **proposed** decision-making matrix is set out in Table 6 and leads to a pass or fail result without scoring and grading the priority of projects at this early-stage screening. The reasoning for this is that the quality of information is considered likely to be inadequate to allow such scoring. Scoring for prioritisation within entities does occur at the stage 2 appraisals stage where a more rigorous set of information is available for scoring purposes (Table 7).

Under Step 5, the majority of all criteria evaluated by MOF should be assessed as positive (or at very least as neutral) to allow the screening note to be approved. Where one or more criteria

are evaluated as negative, the submission will in most cases be declined. However, MOF retains some flexibility to clear screening notes where the overwhelming majority of criteria are evaluated as being neutral or positive while only one or a small number of criteria are assessed as being negative.

Table 6 Decision-Making Matrix for Evaluating PSIP Screening Papers

	Criteria	Evaluation Rating (Y)		
		Neutral	Positive	Negative
1	Project profile, impacts, outcomes and outputs are provided and sound			
2	There is good strategic alignment with NDP			
3	An entity / sector plan is in place with the project well aligned to it			
4	The project is well aligned to relevant crosscutting strategic plans			
5	Whole of life capital and operational costs provided and appear of sound quality			
6.	Funding sources provided with likely availability of PSIP funding within ceilings			
7	Beneficiaries and economic benefits have been provided for the 6 sub-criteria listed and are soundly formulated and positive			
8	Significant negative economic benefits (disbenefits) identified and of concern ¹			
9	Social benefits have been provided for the 7 sub-criteria listed and are soundly formulated and positive			
10	Significant negative social benefits (disbenefits) identified and are of concern ²			
11	Environmental benefits have been provided for the 3 sub-criteria listed and are soundly formulated and positive			
12	GHG emissions associated with the project are aligned with national strategies and project design has considered and included opportunities for reduced emissions			
13	There is alignment with policies etc. for CC and disaster resilience with opportunities to improve climate and disaster resilience identified and incorporated into design			
14	Climate and disaster risks identified with residual risks assessed as manageable			
15	Proposed funding for consultants etc. under stage 2 appraisal is acceptable			
16	Processing and implementation arrangements are sound			
17	Risks are soundly formulated and assessed as manageable			
	Total (Count No. 'Y')			
Recommendation of Evaluation Committee / Team: Approve / Decline / Request Further Information				
Signed by: Committee / Team Chairman _____				
Date: _____				

Source: Table 16, Updated Guidelines for Preparation, Appraisal and Approval of Projects Under the Public Sector Investment Programme (PSIP), Ministry of Finance.

Note:

1. Significant negative economic benefits (disbenefits) are to be scored as negative. Zero negative economic benefits are to be scored as positive.
2. Significant negative social benefits (disbenefits) are to be scored as negative. Zero negative social benefits are to be scored as positive.

Table 7 Criteria for Scoring Appraised Projects (Stage 2)

Criteria	Raw Score 0 – 10 (as %)	Criteria Weighting (%)	Weighted Score (as %)
Budget Entity Name and Number			
Project Name and Number			
Strategic fit with NDP, Sector / crosscutting plans, development partner country programming strategy	X	15%	X
Economic. High net economic benefits	X	45%	X
Financial and administration. Finance likely including operations and maintenance and likelihood of implementation being on time and within budget	X	9%	X
Social. High net social benefits	X	16%	X
• Gender	X	[4%]	X
• Poverty	X	[4%]	X
• Disability	X	[4%]	X
• Land / resettlement	X	[4%]	X
Environment/Climate Change Mitigation/Climate and Disaster Resilience. High net environmental, climate change mitigation, climate and disaster resilience benefits and policy compliance with robust risk assessment	X	15%	X
• Environment	X	[5%]	X
• Climate change mitigation	X	[5%]	X
• Climate and disaster resilience ¹	X	[5%]	X
Total Scores (5 headline criteria)	0 – 100	100.0	0 – 100

Guidance on Scoring Grades

Score Range	Grading Guide
0 – 2.9	Negative to very low
3.0 – 4.9	Low
5.0 – 6.9	Modestly to reasonably positive
7.0 – 10.0	Solidly to significantly positive

Source: Updated Guideline 8, Table 21, Guidelines for Preparation, Appraisal and Approval of Projects Under the Public Sector Investment Programme (PSIP), Ministry of Finance.

Note:

1. The criteria weighting for climate and disaster resilience of 5% should be calculated as: (i) 2 percentage points for climate and disaster risk management; and (ii) 3 percentage points for resilience building.

3.2.2 Recommendations from the Mainstreaming Report

As part of the NIIP project an early “Mainstreaming Report” was completed to recommend how the NIIP could **strengthen and mainstream** the infrastructure planning and management process, including institutional roles and responsibilities, methodologies, templates, and tools. Considerations were to be made to link the planning processes with other government efforts such as climate change policies, asset management framework, budget processes and PSIP reforms, social inclusion, and aid management.

It was determined that the NIIP should fundamentally align, support, and provide tools that pilot and enhance reform initiatives proposed for Fiji's PSIP processes. The specific recommendations from the Mainstream Report were:

1. Establish central register of all infrastructure projects

It is proposed that a central database is created that consolidates all infrastructure projects (from pipeline through to construction) across the primary infrastructure sector agencies listed in Table 2. This central register can then be used to report the extent of planned capital expenditure across all infrastructure sub-sectors and identify and prioritise the next wave of high-priority investment-ready projects. The register is expected to provide a model for later development of a PSIP wide register.

2. Include capital projects for "On" and "Off" budget entities

The entities whose capital projects are to be included in the NIIP should include both "on" and "off" budget entities, as detailed in Table 3 (18 agencies in total). This will enable enhanced formulation of macro-fiscal policies across all key infrastructure types and entities and assist in strengthening the strategic allocation of investment resources under the MTFSS.

3. Include projects for both domestic budget and external funding

The stage 1 prioritised pipeline projects will provide an opportunity to inform and attract possible external financiers with a view to provision of grant, concessional debt and other innovative financing modalities (such as public-private partnerships). The project will undertake broad consultations with key development partners and financiers to allow inclusion of as much information as available on future funding pipelines.

4. Incorporate priorities set in strategic plans, documents, and policies

It is essential that the NIIP considers and cascades national strategic objectives, key drivers for infrastructure and agency-level priorities into its multi-criteria analysis framework. This "top-down" information is contained in key plans, policies, laws, and regulations but must be balanced against the funding and resource constraints (refer #3 and #8 herein).

5. Systematic screening and prioritisation of pipeline projects

There is currently no formal pipeline of prioritised investment projects with screening of new projects largely confined to the budget submission and approval processes. MOF through the proposed introduction of the PSIP Guidelines will over time develop a stage 1 pipeline of screened projects and a stage 2 pipeline of fully appraised projects. The NIIP best-practice processes will assist, particularly in supporting screening and prioritisation of the stage 1 pipeline, including support to piloting the proposed PSIP wide screening instrument.

6. Introduce prioritisation principles earlier in the development cycle

A primary goal of the NIIP is to identify high-priority investment-ready projects, which requires a qualitative assessment of the social, environmental, and economic impact/benefits a project will deliver. The earlier, stage 1 introduction of these key decision-making criteria will provide a strong foundation for deeper analysis to occur during the subsequent final appraisal and budget approval stages.

7. Ensure on-going financial viability is considered

The purpose of the NIIP is to address the overall quality of the infrastructure portfolio moving forward, not merely to identify new projects. Therefore, the NIIP must consider the medium-term funding implications of existing budget approved and ongoing projects. Ongoing projects that are performing have first call on future PSIP resources and must be factored into determining the fiscal space available for new projects to be funded.

8. Support the implementation of medium-term entity funding thresholds

PSIP reforms are in their infancy. The NIIP can assist them firstly by undertaking screening and prioritisation within broadly indicative medium-term budget constraints determined by the SPO and Budget Division of MOF, and secondly by providing bottom-up information from the project pipeline, including on the quality and priority of new investments being developed by agencies. This will allow feedback of such information to assist MOF with decision making on macro-fiscal allocations under the PSIP.

The 2022 phase of enhancements to early-stage processes (Identification, Screening and Prioritisation), developed during the formulation of the NIIP, focuses on capital construction projects. Much of this early-stage NIIP work focused on piloting aspects of the new PSIP guide, building capacity and enhancing the systems supporting the development of pipeline submissions, screening of new projects and the publication of a prioritised project pipeline.

CHAPTER 4

FUNDING ASSESSMENT

This chapter reviews Fiji’s recent macroeconomic indicators and reports on the overall health of the economy. It reviews trends and the outlook for infrastructure capital construction investment levels for both “on-budget” and “off-budget” entities and likely available government revenue, borrowing and ancillary sources of infrastructure funding. It then establishes a funding strategy to help inform the project screening process and to ensure priority investments will fit within realistic funding thresholds.

4.1 Economic Conditions and Funding Policies

4.1.1 Macroeconomic policies and performance

Structural economic transformation is a core objective of the NDP. Important questions arising for infrastructure investment are: (i) what levels and composition of infrastructure are appropriate for supporting the transformation; and (ii) what evidence is there of transformation emerging and are investments in infrastructure supporting this and, more broadly, growth and development.

While there are competing macroeconomic models of growth and development, there is considerable consensus that the quantity and quality of public infrastructure investment matters for achieving successful development outcomes. Public investment is needed to improve the delivery of public services and for raising the quality of life in areas such as transport, water and sanitation, energy, and housing. Effective and efficient public investment also supports private sector development and opens up job and other economic opportunities by raising aggregate demand in the short-term during construction phases and stimulates private innovation and productivity in the medium to longer term. It can also support inclusive development if well targeted to the needs of the poor and disadvantaged.

There is currently no comprehensive model of the Fiji economy to allow easy analysis of the impacts of infrastructure investment on growth. However, three recent studies reviewing constraints to economic growth, and providing recommendations for enhancing future growth, provide insights. While all three studies outlined the complexity of factors influencing Fiji’s growth performance, all emphasised generating more investment and improving the quality of investments. Conclusions from these three studies were:

- A **2015 ADB study** identified key constraints to growth as being: “deficiencies in infrastructure provision, particularly inadequate funding for upgrading and maintenance of roads, the shortage of capacity at the main ports, the unrehabilitated infrastructure in remote areas and uneven access to productive assets, particularly to land and finance”.⁶ This study also highlighted the need for further microeconomic reform, including increasing competition through more effective regulation, especially in the key utilities where monopoly powers stifle innovation, and the speedy move to more universal uptake

6 ADB. 2015. *Fiji: Building Inclusive Institutions for Sustained Growth*. Country Diagnostic Study. Manila

of modern technologies. It also highlighted the need for more economically oriented pricing and modern management approaches in some utilities.

- A **2017 IMF study** identified investment and production in the services sector (especially tourism) as determinants of growth for the economy. It estimated that once the total investment-to-GDP ratio starts to fall below 20% there will be relatively sharp falls in GDP growth.⁷
- A **2017 World Bank diagnostic** identified three pathways to enhanced and more inclusive growth: (i) higher investment, especially private and public-private partnership (PPP) types; (ii) improved supply and access to services for all (including infrastructure provision especially in rural areas); and (iii) building resilience broadly in the economy and in existing and new infrastructure investment.⁸ This study also emphasised investment in research and development, innovation, and skills enhancement for transforming to the digital economy.

Table 8 Macroeconomic Indicators, Selected Years, 2013 to 2022

Indicator	2013	2016	2019	2020	2021	2022 Est.	Mean 2013 – 2022
GDP Real Growth (%)	4.7	2.4	(0.6)	(17.0)	(5.1)	15.6	1.9
Gross Fixed Capital Form. Govt. (% GDP)	4.9	6.0	3.4	3.5	n.a.	n.a.	4.7 ¹
Gross Fixed Capital Form. Priv. (% GDP)	21.1	12.6	10.1	8.6	n.a.	n.a.	12.9 ²
Unemployment Rate (%) ³	4.4	4.3	4.5	4.7	5.2	n.a.	4.5
Poverty Rate ⁴	28.1	n.a.	n.a.	24.1	n.a.	n.a.	
CPI Inflation (Y-on-Y %)	3.4	3.9	(0.9)	(2.8)	3.0	3.1	1.9
Current Account (% GDP)	(9.7)	(3.6)	(4.7)	(12.2)	(11.9)	(12.8)	(8.1)
Gross Official Reserves (\$m)	937	915	1,027	1,011	1,570	1,561 ⁵	1,096
Private Sector Credit Growth	9.2	12.9	4.6	-3.1	-0.1	6.7	7.6
Exchange Rate (F\$/US\$) – Average	1.84	2.09	2.16	2.17	2.07	2.20	2.08

CPI = consumer price inflation, GDP = gross domestic product.

Sources: (i) Fiji Bureau of Statistics; (ii) Reserve Bank of Fiji; (iii) Ministry of Finance.

Notes:

1. Mean calculated for period 2013 to 2020
2. Mean calculated for period 2013 to 2020
3. Unemployment data are from 31 December each year. The mean rate is calculated from 2013 to 2021
4. Poverty rate as calculated by the Fiji Bureau of Statistics with 2020 estimate based on F\$5.97 a day per adult equivalent (285,053 people were in poverty, 62% of whom resided in rural areas).
5. From 31 July 2022
6. Mean for 6 years to 30 June 2022

Table 8 sets out trends in key macroeconomic indicators from 2013 to 2022. Average annual growth from 2013 to 2022 is low at 1.9% p.a. but is significantly influenced by large contractions in growth in the two peak COVID-19 years of 2020 and 2021. A significant rebound is being experienced in 2022 with reopening of the tourist industry. In the immediate pre-COVID-19 period (2011 to 2019), growth averaged 3.5% p.a., though with significant volatility, with the range being from -0.6% in 2019 to 5.6% in 2014.

Without significant policy transformation, including through higher infrastructure investment, the potential of the economy to consistently grow above 4% p.a. seems limited.

⁷ IMF. 2018. *Fiji Article IV Report for 2017*. Washington

⁸ World Bank. 2017. *Fiji: Systematic Country Diagnostic*. Washington

Trends in the composition of **Gross Value Added**⁹ from 2014 to 2022 are set out in Table 9. While there have been compositional changes over the period, these have largely related to sector variations in value added over the peak COVID-19 years and not to any lasting or transformational changes in sector structure of value added in the economy. Structural trends include:

- The continuing high contribution of services in value added, with expansion of the share of public services in the peak COVID-19 years of 2020 and 2021 (from 39.5% in 2014 to 46.1% of total in 2021), while private services, including those directly and indirectly related to tourism, declined to historically low levels of 14.8% in 2021, down from 26.7% in 2014.
- the share of water and sanitation has been stable throughout at about 0.7% of total.
- the share of energy increased sharply from 1.0% in 2014 to 2.5% in 2018 and has been relatively stable since.
- Construction, which is integral to infrastructure development, has recorded relatively low shares at between 2.9% and 3.9% throughout the period.
- the share of communications, one of the big national planning targets for transformation, has been relatively stable throughout, ranging between 5.3% and 6.2% of total.
- agriculture, forestry, and fisheries, which continues to be the largest employment sector (formal and informal) in Fiji, improved its share from 10.3% of total in 2014 to 12.6% in 2021, in part reflecting the resilience of traditional and commercial agriculture in hard times, with the sugar industry supported by higher world commodity prices in recent years.
- the manufacturing sector has also proved to be resilient, growing its share from 13.5% in 2014 to 14.9% in 2021, with niche areas being a promising transformational source.

Table 9 Composition of Gross Value Added, 2014–2022 (%)

Year	Water & Sanit.	Energy	Construction	Communication	Agric. / Forests / Fisheries	Manufacturing	Wholesale /Retail/ Accommod/ Transport	Public Services/ Other	Total
2014	0.7	1.0	2.9	5.4	10.3	13.5	26.7	39.5	100.0
2015	0.7	1.2	2.9	5.7	10.2	13.8	26.1	39.3	100.0
2016	0.7	1.5	3.2	6.2	9.1	14.6	25.6	39.1	100.0
2017	0.7	1.9	3.4	5.7	9.6	14.2	25.7	38.8	100.0
2018	0.7	2.5	3.6	5.6	9.7	14.1	25.0	38.8	100.0
2019	0.7	2.2	3.9	5.6	10.1	13.8	24.1	39.7	100.0
2020	0.8	2.3	3.6	5.8	12.1	14.6	16.5	44.3	100.0
2021	0.8	2.3	2.9	5.7	12.6	14.9	14.8	46.1	100.0
2022	0.7	1.9	2.4	5.4	12.0	14.0	20.0	43.5	100.0

Sources: (i) Fiji Bureau of Statistics; and (ii) Reserve Bank of Fiji.

Note: 2014–19 (actual), 2020 (revised), 2021 (preliminary) and 2022 (forecast).

Public and private gross fixed capital formation. From 2013 to 2020, gross fixed capital formation in both the private and public sectors was in decline. Certainly, the very low combined public and private level of 12.1% in the peak COVID-19 year of 2020 influenced the combined average of 17.4% from 2013 to 2020. Nevertheless, in most years since 2013, combined investment has been below 20%, which is often seen as a benchmark for achieving growth of GDP at or above 3.5% p.a.

Employment and unemployment. The unemployment rate in Fiji encapsulates both paid and informal work and records those looking for but unable to obtain either paid or informal work. While unemployment rose in the peak COVID-19 years of 2020 and 2021, recorded levels

⁹ Gross Value Added is equal to Gross Domestic Product minus net taxes which in Fiji are not calculated by sector of value added

peaking at 5.2% at the end of 2021 are perhaps surprisingly low. This, in part, reflects the continued predominance of employment being in informal activities, including in agriculture and fisheries and the ability of some displaced wage earners to return to informal activities, including in villages, which remain the key form of social protection.

Poverty. Poverty, defined by the government as F\$5.97 per day, has remained stubbornly high at 28.1% in 2013 and 24.1% in 2019/2020. Poverty data for the peak COVID-19 period are not available but is thought to be higher than the 2019–2020 level. Infrastructure that supports the poor, around 65% of whom live in rural areas, remains an important element of the NDP objective of inclusive development.

Price movements. Consumer price inflation (CPI) has been consistently low, averaging 1.9% p.a. from 2013 to 2022, influenced by negative price movements in 2019 and 2020. Imported inflation has a major influence on domestic prices; to date, the relatively strong Fiji dollar against key countries, particularly Australia and New Zealand, have helped to insulate CPI movements. However, in line with world trends, inflation is on the rise, increasing to 4.3% in the year to 30 June 2022. Extreme upward price movements are now important considerations for infrastructure development in most countries and will need careful consideration in the preparation, appraisal, and selection of future public infrastructure projects.

External trends. Fiji has typically relied on capital inflows to fund current account deficits, but the current account deficit widened noticeably in 2020 and 2021 (averaging 12% of GDP) and influencing the overall average of 8.1% in GDP from 2013 to 2022. The current external balance was largely closed by external public borrowing (see Table 10 for public debt trends). Due to the high levels of foreign borrowing, gross official reserves grew sharply from \$1.0 billion at the end of 2019 to \$1.6 billion at 31 July 2022, with the average level between 2013 and 2022 being \$1.1 billion. The exchange rate with the recently strong US dollar has been relatively stable, averaging US\$1 = F\$2.06 from 2013 to 2022, with most recent levels (December) of 1:2.22.

Monetary – private sector credit growth. The banking sector has remained stable, with high levels of liquidity occurring following wide fiscal deficits and large foreign borrowing drawdowns. Private sector credit growth was negative in 2020 and 2021, with growth from 2013 to 2021 averaging 7.6% p.a.

4.1.2 Aggregate Fiscal Policies and Performance

Aggregate trends in fiscal policies and performance are set out in Table 10.

Tax, non-tax, and grant revenues. Total revenues averaged 26.3% of GDP from 2013 to 2022 but declined sharply from levels approaching 30% of GDP early in the period to an estimated low of 21.1% in 2022. As the GDP denominator fell sharply during the peak COVID-19 years, there was a substantial absolute fall in the nominal dollar value of revenues received. The decline was largely in tax and non-tax revenues, with grant revenues increasing from low levels of 0.2% to 0.4% of GDP from 2013 to 2019 to 3.1% of GDP in FY2021, as grant support for COVID-19 response increased. It remains to be seen if grant aid can be maintained at higher than trend levels moving forward. Early indications are that tax and non-tax revenues are recovering sharply in the second half of 2022.

Table 10 Fiscal Indicators, Selected Years, 2013 to 2022, as a % of GDP ¹

Indicator	2013	2016	2019	2020	2021	2022 Est.	Mean 2013 – 2022
Tax & Non-Tax Revenue	27.0	28.6	26.7	24.8	20.3	19.7	25.5
Grant Revenue	0.2	0.2	0.4	0.6	3.1	2.1	0.8
Total Revenue	27.2	28.8	27.1	25.4	23.4	21.9	26.3

Operational Expenditure	20.1	20.2	21.0	22.1	24.2	22.9	20.9
Capital Expenditure	7.6	12.5	9.6	9.2	10.6	11.2	10.3
Total Expenditure	27.7	32.7	30.6	31.3	34.8	34.1	31.3
Overall Fiscal Balance	(0.5)	(3.9)	(3.6)	(5.9)	(11.4)	(12.2)	(5.0)
External Public Debt ²	14.2	12.5	12.4	16.0	26.4	33.6	16.7
Domestic Public Debt	35.5	32.2	36.4	46.5	57.2	57.6	39.0
Total Public Debt	49.7	44.7	48.8	62.5	83.6	91.1	55.7

Sources: (i) Fiji Bureau of Statistics; (ii) Reserve Bank of Fiji; (iii) Ministry of Finance.

Notes:

1. Data 2013 to 2015 are by calendar year while those from 2016 onward are in FYs to 31 July.
2. All domestic, external and total debt on 31 July in each year recorded.

Operational expenditure. OPEX averaged 20.9% of GDP from FY2014 to FY2022, with some increase as a proportion of GDP from 20.1% in 2013 to 24.2% in 2021 (though, with a lower GDP as denominator, actual dollar expenditures were relatively flat over the period).

Capital expenditure. CAPEX averaged 10.3% of GDP from 2013 to 2022, with some volatility being 7.6% in 2013; 12.5% in 2016; 9.2% in 2020; and 11.2% in 2022 (see Section 4.5 for more detailed analysis of capital expenditure).

Total expenditure. Total expenditure averaged 31.3% of GDP from 2013 to 2022 with some increase as a proportion of GDP from 27.7% in 2013 to 34.1% in 2022 (though with a lower GDP as denominator with actual dollar expenditures being relatively flat over the period).

Overall fiscal balance. Overall fiscal balance averaged –5.0% of GDP between 2013 and 2022 but with significant increase in the deficit over the period rising from –0.5% in 2013 to –5.9% in 2020; –11.4% in 2021; and an estimated –12.2% in 2022.

Public debt. As a result of the large fiscal deficits during the peak COVID-19 years, total public debt as a proportion of GDP rose significantly and progressively from 44.7% of GDP at the end of FY2016 to 91.4% of GDP at the end of FY2022. External public debt rose sharply from 12.5% of GDP at the end of FY2016 to 33.6% of GDP at the end of FY2022. Domestic debt also rose sharply from 32.2% of GDP at the end of FY2016 to 57.6% at the end of FY2022.

Box 1 Summary of Relationship Between Economic Policies and Infrastructure Investment

- Recent studies have identified deficiencies in capital formation, including infrastructure provision, particularly road renewal and maintenance, port capacity, and upkeep of infrastructure in remote areas.
- Investment and production in the services sector (especially tourism) are important determinants of growth in the economy.
- There are no indications of major recent structural transformation and modernisation in the economy. Strategic growth in private and public investment in infrastructure can speed up the transformation sought during the post-COVID-19 period.
- Supply-side constraints and extreme increases in worldwide prices, although partly insulated in Fiji to date, present challenges for maintaining existing assets and growing real levels of new infrastructure spending, without major cost overruns.
- Large external (current account) and domestic (fiscal) imbalances will constrain resources available for infrastructure investment in the short to medium term, though rapid recovery in the services sector and revenue collections in 2022 are encouraging.
- The build-up of debt and debt service commitments during peak COVID-19 periods will also constrain fiscal and capital expansion in the near term and will be an important influence on the design of expenditure and funding frameworks for infrastructure planning.

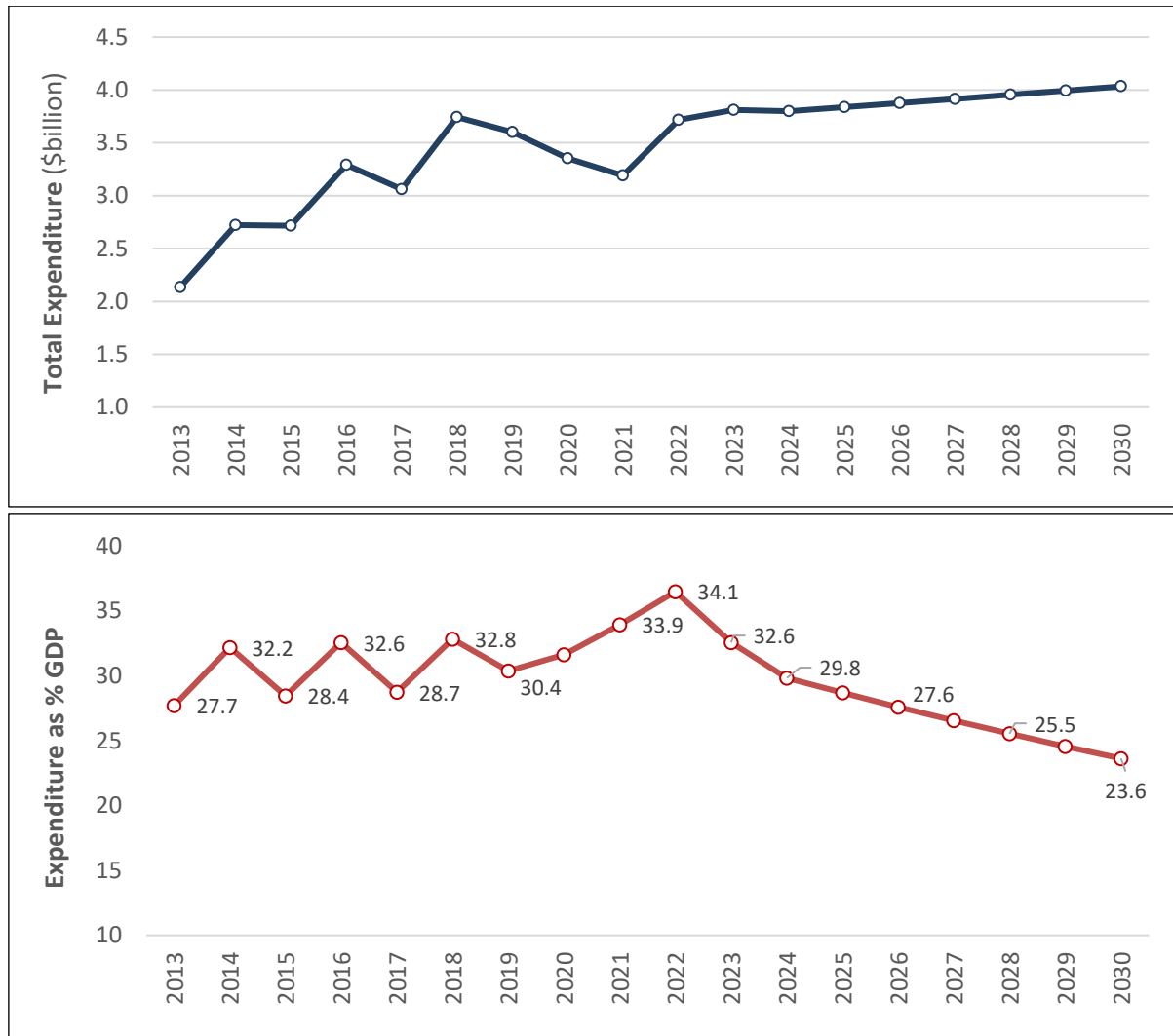
4.2 “On Budget” Infrastructure Expenditure

As discussed in Chapter 1, the 12 “on budget” (and 6 “off budget”) entities are responsible for developing and managing most infrastructure across Fiji. Assessing their financial performance, including levels of capital expenditure, provides a close approximation of the total public investment in infrastructure across Fiji. Within this section, we look at total government expenditure and aggregated expenditure for the 12 key infrastructure entities.

4.2.1 Total and Capital Government Expenditure Trends and Outlook

Figure 2 sets out historical long-term trends and the outlook for total government expenditure. Historically, total government expenditure grew sharply between FY2013 (\$2.1 billion and 27.7% of GDP) and FY2018 (\$3.7 billion and 32.8% of GDP). It then declined absolutely and relatively in FY2019 to FY2021 before a recovery in FY2022. Between FY2013 and FY2021, despite variability, average annual nominal growth of expenditure was relatively modest at 5.5% p.a.

Figure 2 Total Government Expenditure, 2013–2030 (\$ billion)



GDP = gross domestic product.

Source: MOF Budget Estimates various year and MOF Supplement to the FY 2023 Budget Speech.

The outlook for the growth in total government expenditure from FY2023 to FY2030 is set out in the government budget for FY2023, which contains the MTFE estimates to 2030. As a matter

of policy, which is now pursuing strong fiscal consolidation, total expenditure is targeted to grow on average at only 0.8% p.a. in all future years out to 2030. With nominal GDP forecast to grow at 5.5% p.a., this means that, as a proportion of GDP, total expenditure is targeted to decline very markedly to an historically very low level of 23.6% of GDP in 2030. Achieving such a contraction will not be easy. To the extent that it is successfully achieved, there will be severe constraints on all forms of expenditure (operational and capital) and with deficits also reducing markedly, there will be only limited scope for foreign or domestic borrowing to support investment spending.

Table 11 summarises historical trends and the outlook for government capital expenditure. Further detail is presented at an entity level in Table 14. Historically, capital expenditure grew sharply between 2013 (\$586.4 million and 7.6% of GDP) and 2018 (\$1.4 billion and 12.1% of GDP). It then moderated in the peak COVID-19 years to \$988.1 million and 9.2% of GDP in 2020, before rebounding in the FY2022 budget to \$1.1 billion and 11.2% of GDP.

In terms of the outlook for capital expenditure to 2030, there has been considerable consistency over extended historical periods in the mean ratios of capital expenditures to total expenditures, with these ratios ranging from 27.4% to 32.6% from 2013 to planned levels in 2025. While the MTFE does not specifically target any particular level of capital expenditure, the medium-term fiscal strategy, MTFE 2024–2026 (published on 17 February 2023), has pointed to targeting a 30:70 ratio of capital to operating mix, while the NDP mentions an even more ambitious ratio of 40:60.

For this plan, a gradual movement to a medium-term ratio of capital expenditure to total expenditure of 33% has been used. Assuming a ratio of 33% is achieved by 2030 leads to the outlook estimates for capital expenditures to grow at 2.0% p.a. to \$1.3 billion in 2030. However, as nominal GDP is forecast to grow on average at 5.5% p.a. to 2030, the ratio of capital expenditure to GDP progressively falls to a targeted level of 7.8% of GDP in 2030. The proposed fiscal contraction is so significant that the real level of CAPEX will be required to fall, though not as severely as for OPEX.

Table 11 Average Total Capital Expenditure, Selected Periods 2013 to 2025

Item	Mean FY2013–FY2021 (Actual)	Mean FY2022–FY2023 (Budget)	Mean FY2024–FY2025 (Fwd. Est.)	Mean FY2013–FY2025 (All FYs)
Total Capital Expenditure (\$m)	1,036.6	1,212.8	1,027.7	1,047.1
Capital as % Total Expenditure	33.0	32.2	28.7	31.9

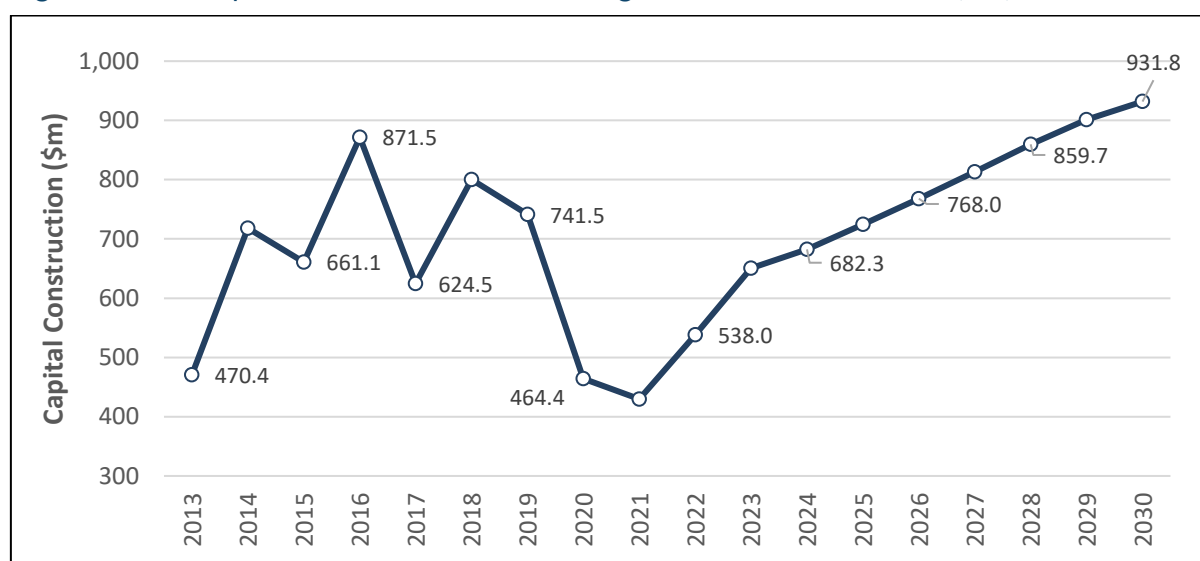
Source: MOF Budget Estimates various year and MOF Supplement to the FY 2023 Budget Speech.

4.2.2 Expenditure for On-budget Infrastructure Entities

Figure 3 sets out historical trends and the outlook for government aggregate capital expenditures of the 12 selected infrastructure entities. Infrastructure capital expenditure grew sharply between FY2013 (\$470.0 million, 6.1% of GDP) and FY2016 (\$871.5 million, 8.6% of GDP). Expenditure then declined in the peak COVID-19 years to a low of \$429.8 million in FY2021 (4.6% of GDP), before a projected rebound to \$650.8 million (5.6% of GDP) in FY2023. Note that in both absolute dollar and relative GDP terms, 2023 budgeted expenditure levels are still well below levels in FY2018. From FY2013 to FY2021, the aggregate infrastructure capital expenditures declined on average at 1.0% p.a., reflecting significant contraction in spending on infrastructure capital construction over the period, especially during peak COVID-19 years.

In terms of the outlook for infrastructure capital expenditures to 2030, the historical data demonstrate considerable volatility in the ratios of capital expenditure for the 12 infrastructure entities to total government capital (PSIP) expenditures. These historical ratios ranged from a low of 42.5% in FY2022 to a high of 80.2% in FY2013. While the MTFE or MTFE do not specifically target any particular level of infrastructure capital expenditure, following consideration, the MOF has determined that gradual movement to a medium-term ratio of 70% for infrastructure capital expenditure as a proportion of total capital expenditure be used for planning and policy purposes in the preparation of the NIIP. Using this ratio of 70% by 2030 leads to the estimates shown in Figure 3. Thus, the “on-budget” infrastructure entities CAPEX are targeted to grow to \$931.8 million in 2030 (5.5% of GDP).

Figure 3 Total Capital Construction for On-Budget Infrastructure Entities (\$m)



Source: MOF Budget Estimates various year and MOF Supplement to the FY 2023 Budget Speech.

This policy framework allows capital expenditures to grow on average at 5.2% p.a. from 2023 to 2030 (faster than total expenditure, which will only grow at 0.8% p.a. and broadly in line with average nominal GDP growth of 5.5% p.a.). While the infrastructure entities capital outlays will see no significant real growth over the period, they will expand more rapidly in nominal terms than either operational expenditures or non-infrastructure capital expenditures. The policy justification for this is that infrastructure capital construction was on a significant decline from 2016 to 2021 and the return to higher levels as commenced in the FY2022 budget warrant continuation given the high importance of hard physical infrastructure spending for Fiji’s growth and development model.

4.2.3 Resource Allocation (Setting Funding Thresholds)

While historical expenditure trends for each of the 12 infrastructure entities can be calculated accurately, the outlook for each of these entities is more difficult to assess and depends on, among other things: (i) historical trends that reflect the past and current views of policy makers; (ii) current and forward policy which may prioritise particular entities / sub-sectors over others; and (iii) the importance and quality of new investment projects that particular entities can bring to the table. Based on discussion and analysis within the MOF, this section aims to provide broad guidance from MOF as to indicative thresholds of funding likely to be available to individual entities to 2030. Threshold levels by entity are still under discussion with and consideration by MOF and this sub-section on resource allocation may be updated in subsequent drafts of the NIIP. Funding available to individual entities is also constrained by the aggregate level available to all entities as estimated in the previous section.

Attachment F and **Table 14** provide historic expenditure figures for each of the 12 infrastructure entities indicating historical trends from FY2013 to FY2025. FY2013 to FY2021 are based on actual expenditures; FY2022 and FY2023 are budget estimates; while FY2024 and FY2025 represent estimates as provided in the FY2023 budget. For each entity, there are two figures in Attachment F covering firstly, dollar capital expenditures; and secondly, the proportion of each entity's expenditure to (i) total NIIP expenditure, (ii) total PSIP expenditure, and (iii) total government expenditure. From the data underlying these appendix figures, long-term expenditure trends have been estimated and are presented in Table 13 (column 3), which shows the historic proportion of funding allocated to each of the 12 entities.

As part of broader PSIP reform work, MOF has also commenced preliminary qualitative analysis to assess relative policy performance and importance of each of the 12 NIIP entities so that this work, if it progresses adequately in time, can be considered along with the historic trend analysis above to determine indicative thresholds for future investment. The factors being considered in the analysis are: (i) as a prerequisite the entity must be strategically well aligned with the NDP and relevant sector/cross-cutting plans (not scored); (ii) economic contribution (scored out of 42); (iii) social contribution (scored out of 24); (iv) environmental / climate change / disaster (scored out of 24); (v) administrative / project delivery capacities (scored out of 5); and (vi) risk levels and management capacities (scored out of 5).

Table 12 MOF Preliminary Policy Performance and Importance Ratings

Ministry / Criteria	Econ. /42	Social /24	Envir. /24	Deliver /5	Risk /5	Total /100
Fiji Roads Authority	35.7	18.7	16.8	3.3	3.5	78.0
Water Authority of Fiji	23.9	21.6	21.6	3.4	3.5	74.0
MOF Miscellaneous 10	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Ministry Infrastructure & Met. Services	25.2	20.4	20.4	3.1	3.4	72.5
Ministry Health and Medical Services	27.3	20.4	19.2	2.6	4.0	73.5
Ministry of Housing	27.3	20.4	20.4	2.5	3.5	74.1
Ministry Waterways and Environment	21.0	19.2	20.7	3.3	3.8	68.0
Ministry Rural & Maritime Dev. & DMO	23.1	19.2	16.8	2.0	3.5	64.6
Ministry of Edu., Heritage, and Arts	29.4	20.4	18.0	1.8	4.0	73.6
Ministry of Local Government	21.0	20.4	19.2	3.0	3.5	67.1
Min. Commerce, Trade, Tourism, Trans.	25.2	15.6	16.8	4.7	3.8	66.1
Ministry of Sugar	31.5	15.6	16.8	4.0	3.5	71.4
Total	26.4	19.3	18.8	3.1	3.6	71.2

Source: MOF qualitative estimates

Note: This assessment was completed prior to the restructuring of ministries and departments in December 2022 after elections. The spend analysis is for old-line ministry structures and financing as entities were merged/split in the restructure and it is not clear yet how their historic spend correlates to any change in responsibilities.

After consideration of these preliminary policy performance and importance ratings (Table 12) and the historic expenditure trends (Table 13, column 3), MOF has taken preliminary qualitative strategic judgments as to the indicative composition of total infrastructure capital expenditure out to 2030. The preliminary ratios developed to date for planning purposes are summarised in the final column of Table 13. Providing agreed ratios are finalised in MOF in time, it will be possible to apply them to total estimated capital construction resources (Figure 3) to arrive at dollar values of forward resources available to each of the 12 infrastructure entities. As these policy-adjusted ratios are still under development in MOF, they are not yet used as indicative thresholds in this early draft of the NIIP, but may be used in later versions. For the current draft, NIIP indicative thresholds used for resource allocation planning purposes are confined to

10 Due to variability infrastructure spending under MoE Miscellaneous 50 is not scored (n.s.=not scored)

historical trend levels by entity (column 3 of Table 13). The historical trend dollar values by entity are thus presented in Table 14 and are used in Chapter 6 to compare emerging pipeline levels with indicative threshold levels based on past trends.

Table 13 Historic Trend in Expenditure Across Infrastructure Entities (%)

Entity	Policy Importance Rating (%)	Historic Trend Proportion (%)	Policy Adjusted Ratio (%)
Fiji Roads Authority	78.0	58.0	55.0
Water Authority of Fiji	74.0	19.0	20.0
Ministry Health and Medical Services	73.5	3.5	5.0
Ministry Infrastructure & Meteorological Services	72.5	4.0	4.0
Ministry of Housing	74.1	2.5	3.5
MOF Miscellaneous Services	n.a.	7.1	3.0
Ministry of Education, Heritage, and Arts	73.6	0.8	3.0
Ministry of Waterways and Environment	68.0	1.5	2.0
Ministry Rural & Maritime Development & NDMO	64.6	1.5	1.5
Ministry of Local Government	67.1	1.2	1.5
Min. Commerce, Trade, Tourism, Transport	66.1	0.5	1.1
Ministry of Sugar	71.4	0.4	0.4
Total	71.2	100.0	100.0

Source: MOF qualitative estimates

Note: This assessment was completed prior to the restructuring of ministries and departments in December 2022 after elections. The spend analysis is for old-line ministry structures and financing as entities were merged/split in the restructure and it is not clear yet how their historic spend correlates to any change in responsibilities.

Table 14 Historic Expenditure by Entity (“On-Budget”)

Item	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Budget	2023 Budget
Fiji Roads Authority	501.3	427.1	548.1	256.7	355.9	402.0	256.1	262.9	325.1	362.9
Water Authority of Fiji	80.8	115.1	137.1	195.4	166.2	148.6	92.7	85.9	114.5	115.1
MOF Misc. Services (infrastructure only) ¹	18.7	21.9	43.0	71.9	140.1	60.7	36.0	33.1	36.5	69.6
Ministry Infrastructure, Meteorological Services ²	46.7	29.6	56.8	30.8	57.4	47.4	13.4	6.0	6.0	14.8
Ministry of Waterways and Environment ³	-	-	-	9.7	12.6	15.7	12.1	3.9	5.9	11.3
Ministry of Housing	9.6	12.2	12.3	14.2	17.8	9.7	9.9	10.8	15.7	24.8
Ministry of Local Government	11.8	14.3	26.0	9.7	15.7	8.0	5.8	0.8	3.0	12.1
Ministry of Education, Heritage and Arts	7.5	5.2	5.8	6.3	3.8	7.1	6.9	1.5	3.8	4.7
Ministry Rural & Maritime Development & DMO	23.1	15.1	7.6	4.6	4.3	5.2	4.6	5.1	5.1	4.6
Ministry of Health and Medical Services ⁴	16.7	18.1	31.8	22.2	20.4	23.4	23.4	17.0	18.3	23.9
Ministry Commerce, Trade, Tourism, Transport ⁵	-	-	-	-	-	7.7	0.5	1.8	2.1	5.0
Ministry of Sugar ⁶	2.0	2.5	3.0	3.0	6.0	6.0	3.0	1.0	2.0	2.0
Total NIIP Expenditure	718.2	661.1	871.5	624.5	800.2	741.5	464.4	429.8	538.0	650.8

Sources: MTFE estimates in: MOF. Economic and Fiscal Update Supplement to the 2022-2023 Budget Address.

Notes:

1. This assessment was completed prior to the 2023 restructure. The old-line ministry structures and financing is reported on.
2. Based on study review of Head 50 for all years, with only expenditures of an infrastructure nature included. Multiple expenditure items of a non-infrastructure nature excluded.
3. This ministry included the Transport Department up to and including FY 2018. From FY 2019 the Transport Department has been included under the Ministry of Commerce, Trade, Tourism and Transport.
4. Estimates for Health exclude: (i) expenditures on medical supplies and equipment (in most years Programme 4); and (ii) for FY2021, FY2022, and FY2023 special funding for Covid supplies and equipment.
5. This Ministry was newly created in FY2017 and appears in all years since then. In earlier years the waterways functions were subsumed under other entities, mainly the Ministry of Infrastructure.
6. Only expenditures under the Transport Department included (mainly LTA – Programme 7 – and Shipping – Programme 8). Transport only under this Ministry from FY2019 – prior to that was under Ministry of Infrastructure (Note 2).
7. Expenditures under this Ministry only include outlays on projects for rehabilitation of cane access roads. They are based on budgeted data as actuals are not provided in the published accounts. Multiple other expenditures of the Ministry and the Fiji Sugar Corporation are excluded.

Comparisons of indicative funding thresholds by entity (for now based on past expenditure trends) and in total with the emerging NIIP pipeline of high priority projects are made in Section 6.4 where the emerging priority pipeline is presented. It is important that there is reasonable balance and consistency between total and entity funding likely to be available as presented as indicative thresholds based on past trends and the emerging pipeline of priority projects. However, there is no need for a precise one-to-one relationship between estimated indicative thresholds and the emerging pipeline. Some overprogramming of the pipeline is common (say to 150%) but pipelines that exceed likely thresholds by higher amounts are likely to lack credibility and seen as unfunded wish lists.

Box 2 Infrastructure Expenditure of “On-Budget” Entities

- Fiji’s strong fiscal consolidation policy under the MTFF plans for total expenditure to progressively fall from 34.1% of GDP in FY2022 to 23.6% by 2030 (Figure 2). This implies a need for very tight management of capital (and recurrent) infrastructure expenditure.
- This plan assumes a medium-term increase in the ratio of capital expenditure to total expenditure from an average of 30% in FY2019 to FY2021 to 33% by 2030.
- MOF policy also targets significant progressive increases in the ratio of infrastructure to total capital expenditure from historic low levels averaging 52% from FY2019 to FY2021 to 70% by 2030.
- Allocating 70% of the PSIP capital budget to infrastructure entities will see an average growth of 5.2% p.a. from 2023 to 2030 (faster than total expenditure, which will only grow at 0.8% p.a. and broadly in line with average nominal GDP growth of 5.5% p.a.).
- Historically, 77% of the infrastructure capital construction budget has gone to FRA (58%) and WAF (19%) which are by far the predominant “on-budget” entities.
- MOF, under the PSIP reform initiative, is working to establish indicative medium-term funding allocations by entity, which will allow future capital expenditure to be monitored against them. However, these at present remain a work in progress so the pipeline in this draft of the NIIP is only compared to past historical expenditure trends.

4.3 “Off-Budget” Infrastructure Expenditure

As elaborated in Chapter 1, six “off-budget” entities have been included for consideration in the NIIP preparation. This section reviews: (i) government funding policies; (ii) government equity, assets, gearing and liabilities; and (iii) investment plans, for these six entities. As government devolves significant powers to the boards and management teams, their future investment plans need to be considered on a case-by-case basis.

4.3.1 Government Funding Policies

Fiji Airports is a fully owned government commercial company established on 12 April 1999 under the Public Enterprise Act, 1996. It operates two international airports in Nadi and Nausori and 13 other domestic airports, which are located on islands scattered over Fiji’s maritime zone. Fiji Airports also provides air traffic management services within the Nadi Flight Information Region (Nadi FIR) which includes the sovereign air spaces of Tuvalu, New Caledonia, Kiribati and Vanuatu. Public enterprises, under government policy, are expected to operate with similar processes to private enterprises. As a matter of policy, public enterprise investments are expected to be funded from internal or other sources not requiring government funding or the creation of contingent liabilities to the government such as through the issue of loan guarantees.

The remaining five “off-budget” entities are not specifically defined as public enterprises under the 2019 law but are treated as **SOEs** or **Authorities** and all generally follow similar funding policies. However, some exceptions to general policies toward independent operations of SOEs and Authorities do exist as follows:

- The Housing Authority of Fiji Pty Ltd has accumulated significant liabilities through the issue of government-guaranteed housing bonds as its main medium of funding.
- The Fiji Sugar Corporation (FSC) has received significant indirect budget funding mainly through PSIP grants provided through the Ministry of Sugar, which, although shown as capital grants, in reality are largely operating subsidies to growers and thus outside of the scope of the NIIP (examples include grower price subsidies, fertiliser subsidies, and weedicide subsidies). Small grant funding is also provided through the FSC for rehabilitating sugar cane roads, and these have been covered as on-budget funding as part of the Ministry of Sugar.
- Small government equity holdings in the parent company of Telecom Fiji Ltd (i.e., Amalgamated Telecoms Holdings Ltd.) are treated as passive equity assets of the government, and are not classified as an SOE.

For analysis purposes, all six entities are assessed below as a group, though the differences between public enterprises and non-public enterprises should be noted. Notwithstanding the government policy of not directly funding public enterprises (or SOEs and Authorities), periodic budget support has been provided occasionally in the past to most of the infrastructure entities, either to supplement equity holdings and/or to fund agreed non-commercial social obligations the government has requested to be funded. Fiji Airways is one example of a public enterprise having had significant recent equity injections funded through the MOF Miscellaneous Head 50 of the budget.

The 2019 Public Enterprises Act provides scope for providing budget support to a public enterprise when requested by the government to provide goods or services of a social obligation’s nature (e.g., rural electrification, public housing). In such cases, a Non-Commercial Obligations Agreement must be reached setting out the revenue and expenditure implications. Agreements should be subject to the normal scrutiny by MOF (advised by the Public Enterprises department) prior to inclusion in the budget. Some social obligations funding has been channelled to public enterprises through the budgets of their supervising ministries (e.g., electricity subsidies channelled to Energy Fiji Ltd [EFL] through the budget of the Ministry of Public Works, Transport and Meteorological Services). However, at other times, such funding has been channelled through the MOF Miscellaneous Head 50 vote. In such cases, these expenditures have been captured in the on-budget estimates in Chapter 4.

Officials of the MOF and supervising sector ministries sit on the boards of most public enterprises and SOEs, though mainly only with observer status. They also review performance, including quarterly reviews of entities and their major projects. For the defined public enterprises and most SOEs, appointed management and boards are provided with significant autonomy in formulating and approving investment plans and projects, including from internal cashflows and, in most cases, non-government-guaranteed borrowing. For example, the boards of Fiji Airports and EFL regularly take investment decisions alone off their balance sheets involving non-government-guaranteed loans and private equity placements.

4.3.2 Government Equity, Assets, and Liabilities

Government equity holdings in each of the six infrastructure entities is set out in Table 15. Significant government equity is held in five of the six entities while major negative equity is held in the FSC, which has been insolvent for extended periods due to recurring annual and cumulative losses.

Table 15 Government Equity Holdings (off-budget entities)

Entity	Government Equity Value (\$m)	% of Equity held by Government
Energy Fiji Limited (2020)	458.3	51.0
Fiji Ports Corporation Limited (2021)	63.6	41.0
Telecom Fiji Limited (2020)	n.a. ¹	16.3
Fiji Airports Limited (2020)	449.0	100.0
Housing Authority of Fiji Pty Ltd (2016)	57.9	100.0
Fiji Sugar Corporation (2020)	(300.0)	68.0

Sources: Latest annual financial statements of all entities (as per bracketed years).

Note:

1 The 2020 accounts of the holding company Amalgamated Telecoms Holdings Ltd (ATH) indicate Telecom Fiji Limited is a 100%-owned subsidiary of ATH, while the government owns 16.3% of ATH with its holding in ATH worth \$89.6 million. The value of Telecom Fiji Ltd is not directly provided in the accounts; in any event, the government's broader holdings in ATH are of most relevance.

Total assets at the most current balance date are set out in Table 16. Significant fixed infrastructure assets (>\$100m) are held and managed by Energy Fiji Ltd, Telecom Fiji Ltd, Fiji Airports Ltd, and Fiji Sugar Corp.

Table 16 Non-Current (Fixed) Assets (off-budget Entities)

Entity	Non-Current Assets (\$m)	Current Assets (\$m)	Total Assets (\$m)
Energy Fiji Limited (2020)	1,160.5	286.0	1,446.5
Fiji Ports Corporation Limited (2021)	76.1	95.3	171.4
Telecom Fiji Limited (2020) ¹	984.4	296.8	1,281.2
Fiji Airports Limited (2020)	496.3	71.9	568.2
Housing Authority of Fiji Pty Ltd (2016)	87.6	89.8	176.4
Fiji Sugar Corporation (2020)	167.9	56.0	223.9

Sources: Latest annual balance dates in financial statements of all entities (as per bracketed years).

Total entity assets are shown regardless of government ownership shares.

Note:

1 Based on total asset holdings of Amalgamated Telecoms Holdings Ltd. and not Telecom Fiji Ltd alone.

Three of the six infrastructure entities have recently benefited from explicit government guarantees and other support creating contingent liabilities for the government. Details of the three receiving explicit guarantee support over recent years are set out in Table 17.

Table 17 Government Guarantees (off-budget Entities)

Entity	On 31 July 2019 \$m	On 31 July 2020 \$m	On 31 July 2021 \$m	On 31 May 2022 \$m
Energy Fiji Ltd	53.9	50.2	-	-
Fiji Sugar Corporation	241.3	199.2	216.9	237.8
Housing Authority	68.0	90.2	102.2	81.7

Source: MOF. July 2022. Economic and Fiscal Update Supplement to the 2022-2023 Budget Address.

4.3.3 Public Enterprise and SOE Investment Plans

Construction and acquisitions of new property, plant, and equipment (PPE) for the 3 most recent years available for the six selected entities are set out in Table 18. Excluding the results for Telecom Fiji Ltd / ATH Group (because of the government's limited and passive holding), the preliminary analysis indicates new aggregate investments of on average around \$125 million per year is coming from this group largely through self-funded outlays.

Table 18 Construction and Acquisition of New Property Plant and Equipment

Entity	Year 1 \$m	Year 2 \$m	Year 3 \$m	Average 3 Years (\$m)
Energy Fiji Limited (2018–2020)	61.7	78.2	47.9	62.6
Fiji Ports Corporation Ltd. (2019–2021)	4.7	3.6	5.0	4.4
Fiji Airports Limited (2018–2020)	30.2	42.3	29.8	34.1
Fiji Sugar Corporation (2018–2020)	13.3	26.7	31.1	23.7
Subtotal	109.9	150.8	113.8	124.8
Telecom Fiji Limited (2018–2020) ¹	150.5	124.4	134.8	136.6
Housing Authority of Fiji (2014–2016)	0.2	0	0	0.1

Sources: Latest 3 years' investment expenditure data in financial statements of all entities (as per bracketed years).

Note:

1 Based on total construction and acquisitions of Amalgamated Telecoms Holdings Ltd. and not Telecom Fiji Ltd alone.

Government budget for FY2023 and forward estimates for FY2024 and FY2025. Only limited and largely indirect funding is provided in the most recent budget and forward estimates for the six entities covered in this section. Expenditures of relevance here are:

- Under the Ministry of Sugar Industry, total estimates for the current FY2023 budget and the 2 forward estimate years of FY2024 and FY2025 all provide for \$2.0 million p.a. for sugar cane road rehabilitation. All years are domestically funded with no external funding budgeted.
- Under the MOF Miscellaneous Head 50 vote, estimates are made for capital grants to be made to Energy Fiji Ltd for the purpose of undertaking grid extensions and related electric wiring of houses. Funding provides for \$19.3 million in the budget of FY2023 and for \$15.0 million in each of the forward estimate FY2024 and FY2025; and
- Under the Ministry of Public Works, Transport and Meteorological Services capital grants are provided for two energy projects with funding as follows: (i) Solar Homes Systems - \$4 million p.a. in FY2023, FY2024, and FY2025; and (ii) House Wiring for Completed Grid Extensions - \$5.8 million p.a. in FY2023, FY2024, and FY2025. It appears that these capital grants will ultimately pass through to Energy Fiji Ltd.

Pipeline of planned but unfunded projects from FY2026 and beyond. The future pipeline of projects for off-budget entities is set out in Chapters 6 and 7. Most funding for future investments is expected to come from off-budget sources, which is in line with government policies.

Box 3 Financing Infrastructure (off-budget Entities)

- The 2019 Public Enterprises Act supports public enterprise when requested by the government to provide goods or services stemming from a social obligation (e.g., rural electrification, public housing).
- In such cases a Non-Commercial Obligations Agreement must be reached setting out the revenue and expenditure implications of the Agreement.
- In the FY2023–25 budget, indirect grant assistance is being provided to the energy sector for social obligations through MOF Miscellaneous Head 50 and the Ministry of Public Works, Transport and Meteorological Services, and to sugar cane roads through the Ministry of Sugar.
- Government policy indicates that most substantive investment funding should come from the internal resources and non-sovereign borrowing undertaken by 'non-budget' entities. However, contingent liability and other sovereign forms of support can be considered on a case-by-case basis where strong public policy justifications exist.

4.4 Medium-term Expenditure and Funding Strategies

4.4.1 Trends in Funding on-budget Infrastructure Investment

On-budget funding of infrastructure investment is determined by multiple fiscal sources, including: (i) tax and non-tax revenues; (ii) foreign grant aid; (iii) expenditure (operational and capital); (iv) the budget deficit; (v) gross and net domestic borrowing; and (vi) gross and net foreign borrowing. Money is fungible, so, except in the case of grant aid or debt specifically conditioned to fund a particular project, it is not possible to consider funding of infrastructure projects without considering overall fiscal policies of the government. General tax and non-tax revenues and general budget support grants and loans are fungible and cannot be tied to individual projects.

A full review of fiscal policies is not possible here, so the focus is on matters that the NIIP can potentially control, particularly:

- total level of infrastructure investment (already estimated in Section 4.2);
- levels of foreign grant funding available to support infrastructure spending;
- levels of project-specific foreign borrowing available to support infrastructure; and
- any other domestic or foreign borrowing specifically targeted to infrastructure spending (e.g., green or blue bonds that entail specific project spending).

Recent trends in items (b), (c), and (d) are briefly reviewed below as context for developing the NIIP funding framework.

Foreign grant funding. As indicated in Table 19, foreign grant aid grew very rapidly during the peak COVID-19 years from an average of \$36.6 million p.a. in FY2017 to FY2019 to record actual inflows of \$283.8 million in FY2021 and budgeted levels of \$212.2 million in FY2022 and \$244.9 million in FY2023. The forward estimates for FY2024 and FY2025 suggest a return to more normal pre-COVID-19 levels of \$50.0 million per year. As outlined in **Attachment E**, the great bulk of grant aid is for non-capital purposes with grant assistance applied to capital infrastructure spending estimated in normal years to be below 20% of total assistance or around \$10 million p.a. More grant aid for infrastructure spending would help Fiji, especially during the current consolidation period, and negotiating higher proportions of aid for infrastructure development in country partnership agreements is a moderately important consideration for future funding strategy.

Table 19 Foreign Grant Aid Passing through the Budget

Donor / Year	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Australia	-	-	-	25.9	154.8	128.8	...	...	...
New Zealand	-	3.5	0.1	11.6	61.3	57.1	...	...	...
United Nations	2.9	12.5	23.7	14.3	17.5	11.4	...	...	...
European Union	-	22.5	0.4	-	32.3	12.2	...	...	...
Japan	0.2	0.2	-	1.2	0.8	0.2	...	...	...
Others	15.7	10.4	17.8	14.6	17.1	2.5	244.9	50.0	50.0
Total	18.8	49.1	42.0	67.6	283.8	212.2	244.9	50.0	50.0

Source: MOF Budget Estimates for various years. FY2017 to FY2021 are actuals. FY2022 is an MOF estimate, FY2023 is budget level and FY2024 and FY2025 are forward estimates as per the FY2023 budget. Excludes off-budget aid in kind. FY2017 to FY2019 are understated as Australian official development assistance was not reported in these years.

Project finance has been a low proportion of domestic and foreign borrowing. Table 20 indicates only quite minor total public borrowing from 2017 to 2021 occurred in the form of project specific financing. Over these years, annual gross borrowing from project financing were limited to external funding and only totaled \$181.6 million, an average of \$36.3 million per

year with this level inflated by urgently activated drawdowns in the peak COVID-19 year of 2021. None of the domestic debt disbursements totaling \$3.4 billion over the 5 years were for specific project financing. Total project financing over the 5 years as a proportion of total external loan drawdowns was 11.0% though higher in the pre-COVID-19 years of 2017 to 2019 due to very large drawdowns of non-project general budget financing during the peak COVID-19 years. Total project specific financing over the 5 years as a proportion of total debt drawdowns (foreign and domestic) was a low 4.9%.

Table 20 Public Foreign and Domestic Borrowing

Borrowing	2017	2018	2019	2020	2021
Domestic Borrowing					
Gross borrowing (of which specific project borrowing)	364.1 (-)	669.6 (-)	630.8 (-)	902.7 (-)	866.0 (-)
Minus amortization	118.9	233.3	206.1	144.9	271.9
Net borrowing	245.2	436.3	424.7	757.8	594.1
Foreign Borrowing					
Gross borrowing (of which specific project borrowing)	122.3 (15.1)	77.6 (11.6)	38.0 (13.5)	871.8 (28.2)	671.0 (113.2)
Minus amortization	42.9	59.2	56.5	470.8	29.6
Net borrowing	79.4	18.4	-18.5	401	641.4
Total Borrowing					
Gross borrowing (of which specific project borrowing)	486.4 (15.1)	747.2 (11.6)	668.8 (13.5)	1,774.5 (28.2)	1,537.0 (113.2)
Minus amortisation	161.8	292.5	262.6	615.7	301.5
Net borrowing	324.6	454.7	406.2	1,158.8	1,235.5

Source: Reserve Bank of Fiji Quarterly Review, June 2022, and MOF Budget Estimates for various years.

Domestic borrowing has been critical for funding the deficit and infrastructure investment. Traditionally, Fiji has financed most of its budget deficit (and capital expenditure) through raising domestic debt, though the importance of external financing has been increasing and grew substantially during the COVID-19 pandemic. Gross foreign loan drawdowns as a percentage of total capital expenditures were relatively low from FY2017 to FY2020 (from 2.7% to 22.6%). However, these ratios escalated to budgeted levels of 116.7% in FY2021 and 91.0% in FY2022. The great majority of the COVID-19 period external debt growth was for general budget and balance of payments support of a non-specific capital nature. Gross domestic loan drawdowns also rose sharply as a percentage of total capital expenditures – from FY2017 to FY2019 they ranged from 20.0% to 32.9% – but they then accelerated to 110.9% in FY2021 and 70.6% in FY2022. Combined foreign and domestic drawdowns averaging about 200% of capital expenditures in FY2021 and FY2022 are not sustainable and have occasioned a move to severe fiscal restraint.

Rapidly expanding public debt constrains scope for future borrowing. Largely pandemic-driven, with sharp contractions in GDP and rapid growth in debt, the ratio of total public debt to GDP rose sharply from 43.5% in July 2017 to 89.4% in July 2022.¹¹ Over this period, domestic public debt grew from 30.7% to 56.6% of GDP while external public debt rose from 12.8% to 32.8% of GDP. Longer-term MTFP projections are for total public debt to peak at around 2022 levels of 90% of GDP and to then gradually decrease to around 68% of GDP by 2030. Improvement is estimated to come from a return to economic expansion, aligned with consistent contractions in total expenditure from an unsustainable 37.3% of GDP in FY 2022 to around 24% of GDP in 2036 (significantly lower than recent pre-COVID-19 levels of around 30% of GDP).

11 MOF. July 2022. Economic and Fiscal Update Supplement to the 2022 – 2023 Budget Address

4.4.2 Medium-term Expenditure Framework

Table 21 sets out the medium-term expenditure framework for infrastructure capital construction. Key elements are the following:

- Total government expenditure is directly taken from the latest MTFE estimates published by MOF in July 2022 where total medium-term expenditure growth is constrained by recent and current high debt and deficit levels. Total expenditure grows slowly in dollar terms from an estimated \$3.7 billion in FY2022 to \$4.0 billion in FY2030 (nominal average annual growth of only 0.8%). As a proportion of GDP, total expenditure declines progressively and sharply from an estimated 36.5% of GDP in FY2022 to 23.6% of GDP in FY2030.
- Total PSIP capital expenditures are policy-driven, expanding progressively from 30.4% of total expenditures in FY2023 to 33.0% in FY2030 (from a budgeted level of \$1.16 billion in FY2023 to \$1.33 billion in FY2030) with annual average nominal growth of 2% p.a.
- Total estimated infrastructure capital construction expenditures are policy-driven, expanding progressively and sharply from 56.1% of the PSIP in the FY2023 budget (and much lower at an estimated 42.5% in FY2022) to reach 70% of the PSIP by 2030, with annual average nominal growth of 5.2% p.a.

4.4.3 Medium-term Funding Framework

Table 22 sets out the medium-term funding framework for infrastructure capital construction. Important elements and approaches underlying the framework are summarised below.

The overall environment for funding is challenging. It is not possible to isolate funding arrangements for the NIIP from broader macro-funding issues, including the split between domestic and foreign funding and the extent to which private funding can be leveraged to support infrastructure development. The broader context means the starting point for planning funding for infrastructure is challenging due to: (i) low access to grant funding which itself is comprised of minimal infrastructure expenditure; (ii) low approval and utilisation of concessional external project funding with high dependence on general budget funding (both domestically and also more recently externally); and (iii) recent high deficits and high foreign and domestic debt levels.

Total infrastructure entity expenditures to be funded are driven largely by the MTFE. As set out in Table 21, total infrastructure capital expenditures are expected to grow from \$650.8 million in the FY2023 budget to \$931.8 million in FY2030.

Fiscal and debt management policies significantly influence the mix of future funding sources. MOF policies target future outstanding debt to be approximately 70% domestically and 30% foreign sourced. The current ratio (July 2022) is above that, with 63.3% of outstanding debt being domestic and 36.7% foreign. As return to a 70:30 ratio will take time, it is assumed that, by 2030, 30% of gross funding of the NIIP will come from external (mainly debt) sources.

For the budget, gross borrowing in the FY2023 budget is \$1.18 billion (approximately equal to total capital expenditures of \$1.16 billion and much above infrastructure entity expenditures of \$650.8 million). Some 42.6% of FY2023 gross borrowing will thus come from foreign sources (\$503 million) and 57.4% from domestic sources (\$676.7 million). Post-FY2023 deficits are planned to contract consistently out to 2030, by which time under the MTFE the projected deficit will only be \$85.4 million, with gross borrowings of around \$600 million of which \$180 million would be foreign-financed under the 70:30 policy. This compares to projected total capital expenditures of \$1.33 billion through 2030 (\$931.8 million across the 12 on-budget infrastructure agencies).

Table 21 Medium-term Expenditure Framework for the NIIP (on-budget)

Item	FY 2021 Actual	FY 2022 Revised	FY 2023 Budget	FY 2024 Est.	FY 2025 Est.	FY 2026 MTFF	FY 2027 MTFF	FY 2028 MTFF	FY 2029 MTFF	FY 2030 MTFF
In \$										
Total Government (MTFF) Expenditure [1]	3,190.4	3,414.1	3,812.1	3,800.0	3,838.0	3,876.4	3,915.1	3,954.3	3,993.8	4,033.8
Total Capital (PSIP) Expenditure ¹	973.4	1,123.0	1,160.6	1,170.4	1,197.5	1,224.9	1,252.8	1,281.2	1,306.0	1,331.2
Total Infrastructure Capital Expenditure ²	429.8	538.0	650.8	682.34	724.5	768.0	813.1	859.7	901.1	931.8
In % of GDP										
Total Government Expenditure	34.8	34.1	32.2	29.8	28.7	27.6	26.5	25.5	24.6	23.6
Total Capital (PSIP) Expenditure	10.6	11.2	9.8	9.2	8.9	8.7	8.5	8.3	8.0	7.8
Total Infrastructure Capital Expenditure	4.6	5.3	5.6	5.4	5.4	5.5	5.5	5.5	5.5	5.5
Memorandum Items:										
Nominal GDP (\$m)	9,168	10,021	11,827	12,744	13,381	14,050	14,753	15,490	16,265	17,078
Total Capital (PSIP) as % of Total Expenditure	30.5	32.9	30.4	30.8	31.2	31.6	32.0	32.4	32.7	33.0
Total Infrastructure as % of Total PSIP Exp.	44.2	42.5	56.1	58.3	60.5	62.7	64.9	67.1	69.0	70.0

Sources: MTFF estimates in: MOF. Economic and Fiscal Update Supplement to the 2022-2023 Budget Address.

Notes:

1. For FY2021 to 2023 as contained in: MOF. 2022-2023 Budget Estimates. For FY2024 to FY2030 study estimates using policy targets of the ratio of capital to total expenditure growing steadily from 30.4% in 2023 to 33% in 2030.
2. For FY2021 to 2023 as contained in: MOF. 2022-2023 Budget Estimates. For FY2024 to FY2030 study estimates using policy targets of targets of the ratio of NIIP to total PSIP expenditure growing steadily from 56.1% in 2023 to 70% in 2030.

Table 22 Medium-term Funding Framework for the NIIP

Item	FY 2021 Actual	FY 2022 Rev.	FY 2023 Bud.	FY 2024 Est.	FY 2025 Est.	FY 2026 Est.	FY 2027 Est.	FY 2028 Est.	FY 2029 Est.	FY 2030 Est.
Total Infrastructure Expenditure ¹	429.8	538.0	650.8	682.3	724.5	768.0	813.1	859.7	901.1	931.8
NIIP FUNDING SOURCES:										
A. External Funding Sources:										
A1. Foreign Grant Aid ²	10.0	10.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0
A2. Policy / Infrastructure Sector General Budget Support ³	-	-	-	-	50.0	-	-	50.0	-	-
A3. Ongoing Approved Externally Funded Projects ⁴	23.2	135.0	184.4	12.5	9.0	-	-	-	-	-
- 2014 ADB Transport Infrastructure Investment (US\$100m)	[12.7]	[70.0]	[113.8]	-	-	-	-	-	-	-
- 2016 WB Transport Infrastructure Investment (US\$50m)	[3.8]	[30.0]	[48.8]	-	-	-	-	-	-	-
- 2016 WB Cable and Connection to Vanua Levu (US\$5.9m)	-	[2.8]	-	-	-	-	-	-	-	-
- 2017 ADB Urban Water Supply & Wastewater (US\$42.1m)	[6.7]	[7.0]	[12.4]	[12.5]	[9.0]	-	-	-	-	-
- 2017 EIB Urban Water and Wastewater (US\$75m)	-	[25.2]	[9.4]	-	-	-	-	-	-	-
A4. Pipeline & Unidentified Projects to be Externally Funded ⁵	-	-	-	221.1	180.6	245.1	250.3	205.1	257.3	255.5
- ADB & EIB Urban Water & Wastewater and Sanitation II (US\$229.7m)	-	-	-	...	...	...	...	...	...	...
- ADB, Suva Port Relocation (US\$300m) ⁷	-	-	-	...	...	...	...	...	...	...
- ADB, WB & CIF Renewable Energy (US\$210m)	-	-	-	...	...	...	...	...	...	...
- ADB Upgrade Power Transmission Facilities (US\$ n.a.)	-	-	-	...	...	...	...	...	...	...
- WB & IFC Private Sector Growth & Inclusive Economy (US\$ n.a.)	-	-	-	...	...	...	...	...	...	...
- WB Building Resilience (US\$ n.a.)	-	-	-	...	...	...	...	...	...	...
- International Blue Bonds Issuance (US\$ n.a.)	-	-	-	...	...	...	...	...	...	...
- AIFFP Nadi Flood Alleviation Feasibility Study (AUD\$5m)	-	-	-	...	...	...	...	...	...	...
- EIB Hydropower at Natiwana / Nadarivatu (US\$300m)	-	-	-	...	...	...	...	...	...	...
- Nadi Flood Alleviation Project (US\$ n.a.)	-	-	-	...	...	...	...	...	...	...
- GCF Small Energy and Agriculture Projects through FDB (\$ n.a.)	-	-	-	...	...	...	...	...	...	...
- New project financings yet to be identified (\$n.a.)	-	-	-	...	...	...	...	...	...	...
Total Foreign Funding (\$m)	33.2	145.0	194.4	245.6	253.6	261.1	268.3	275.1	279.3	279.5
Foreign Funding as % of Total Funding	8%	27%	30%	36%	35%	34%	33%	32%	31%	30%

Item	FY 2021 Actual	FY 2022 Rev.	FY 2023 Bud.	FY 2024 Est.	FY 2025 Est.	FY 2026 Est.	FY 2027 Est.	FY 2028 Est.	FY 2029 Est.	FY 2030 Est.
B. Domestic Funding Sources										
B1. Domestic Revenues and Debt ⁶	396.6	393.0	456.4	411.7	445.9	481.9	519.8	584.6	621.8	652.3
B2. Domestically (Privately) Funded Utilities PPP	-	-	-	25.0	25.0	25.0	25.0	-	-	-
Total Domestic Funding	396.6	393.0	456.4	436.7	470.9	506.9	544.8	584.6	621.8	652.3
Domestic Funding as % of Total Funding	92%	73%	70%	64%	65%	66%	67%	68%	69%	70%
Total Capital Infrastructure (NIP) Funding (A + B)	429.8	538.0	650.8	682.3	724.5	768.0	813.1	859.7	901.1	931.8

Notes and Sources:

1. Refer to estimation of NIIP medium-term expenditure in Table 21.
2. Refer to estimation of foreign grant funding in Attachment E and Sections 4.4.1 and 4.4.2 with estimates confined to infrastructure expenditure. Estimates exclude Australian defence and security related infrastructure expenditures which are assumed to remain off-budget.
3. Refer to estimation of relevant policy-based budget support lending in Section 4.4.2 with estimates confined to policy / budget support specific to infrastructure development. Projected funding not yet confirmed by any financier and would require preparation and negotiation with a financier.
4. Part A3 is confined to externally funded projects which support infrastructure development which are formally approved and are disbursing.
5. Part A4 is mainly confined to projects that are relatively advanced in an external financier's pipeline (most are in a country programming strategy), but which are not yet disbursing (cashflow estimates are not provided due to uncertainties especially as a number of these are only partially targeting infrastructure investment). Part A4 also includes scope for projects not yet identified. Bracketed US\$ amounts are for preliminarily estimated total project costs).
6. B1 mainly relates to domestic tax and non-tax revenues and domestic borrowing. However, especially in FY2021 to FY2023 it includes some external general budget support borrowing which cannot be separated from other budget funding sources due to the fungibility of money. As per Section 4.4 as a matter of debt policy, domestic gross funding of infrastructure capital construction is targeted to gradually increase from 64.0% in FY2024 to 70% of total by 2030.
7. The Suva Port had an original budget of \$300 million, however options in the emerging feasibility study have this as high as \$1 billion. Further work is ongoing to set the budget for this project.

Allowing for some flexibility for possible moderate expenditure and deficit expansion, the infrastructure funding strategy targets gross funding for the NIIP by 2030 to be funded 30% from external sources (mainly project debt but with some general budget debt and grant support). The remaining 70% is to be funded from a mix of domestic revenues and domestic debt and a small amount targeted at domestic private sector funding through modest PPP development. The proposed funding mix in the strategy is summarised in Table 22 with key funding components further elaborated below.

Foreign grant aid funding although small can play a larger role.

As elaborated in Attachment E and Table 19, apart from military facilities only limited grant aid funding has been allocated to past infrastructure investment; without major reforms by external financiers, this is likely to continue. However, it is proposed to take more proactive stances in the negotiation of future partnership agreements with a view to reducing operational type aid (especially TAs) so providing for higher capital expenditures. Accordingly, a small growth in funding provision is made for capital grants commencing from current estimated annual levels on small projects of \$10m growing to \$24m by 2030. There is significant potential upside to such levels if major additional climate-related grant funding can be attracted over time, such as, for example, through the proposed New Zealand Resilient Climate Fund and through possible structural reforms to international climate financing institutions, especially the Green Climate Fund (GCF). Additional foreign grant funding targeting infrastructure development would have the benefit of letting total capital investment expenditure grow above planned levels without being constrained by deficits and debt.

Strategic policy-based general budget support external borrowing can support infrastructure expenditures over time. Recent gross drawdowns from policy and other general budget support loans have been very high, totalling \$1.9 billion from FY2021 to 2023. Continuation of such major budget debt support funding far beyond FY2023 is neither likely nor desirable. However, some rapidly disbursing debt funding of this nature targeting better PIM and effective implementation of key priority projects would benefit the government and some external financiers, providing there were assurances that funding would support high targeted levels of infrastructure capital funding with attainment of receding deficits as is planned. Some funding from this modality would also help to fill potential NIIP funding gaps in the near term of 2 to 4 years when there is not a significant pipeline of concessionally funded projects that are fully prepared to the project readiness stage.

External project funding still represents the major funding source to be pursued in the medium to longer term. Notwithstanding Fiji's accession to upper middle income level status in the World Bank (Group B in ADB) to the extent possible, project funding should be pursued on a concessional basis. Such concessional (and blended) opportunities have opened up for Fiji and other middle-income Small Island Development States (SIDS) countries during the COVID-19 pandemic and will continue to be pursued to the extent possible. As indicated in Table 22, the strategy provides for NIIP external concessional funding gross drawdowns to grow from the budgeted level of \$184.4 million in FY2023 to \$255.5 million in FY2030. At present, only relatively limited NIIP-related forward project funding from external sources has been approved and is being implemented (currently limited to two major projects in transport and water). While the major concessional financiers do have several future projects at various stages of processing (Attachment E and Table 22), there are risks of external funding gaps in the next 2 to 4 years should processing delays occur.

Domestic government revenue raising, and domestic borrowing will remain principal sources of NIIP funding in all years out to 2030. Although domestic revenue and borrowing sources (including general budget support borrowing) cannot be directly linked to particular NIIP project expenditures, they will nevertheless remain key sources of NIIP funding. While government policy anticipates that, over the longer term, 70% of debt outstanding will be

comprised of domestic sources, a gradual transition toward this with initial focus on generating high external concessional financing is proposed, though purely targeted at investment and especially hard investment through the NIIP. Opportunities to limit domestic borrowing in the short to medium term will depend on success in attracting additional external funding of either a project-specific or general budget support nature, preferably involving grants or highly concessional terms. Estimates for domestic funding of the NIIP are contained in Table 22 and commence at \$456.4 million in FY2023 growing to \$652.3 million by 2030.

The leveraging of private sector funding for infrastructure development, for example, through development of PPPs, represents an important opportunity for expanding funding sources in a period of expected public fiscal constraint. Estimates for domestic private sector funding of infrastructure through a PPP targeting funding from insurance, provident, and superannuation funds and other financial institutions are contained in and raise a total of \$100 million over the four fiscal years, 2024 to 2027.

Box 4 Infrastructure Expenditure Framework

- Largely COVID-19-driven, the ratio of total public debt to GDP rose sharply from 43.5% in July 2017 to 91.1% in July 2022.
- Longer-term projections in the MTFE are for total public debt to gradually decrease to around 68% of GDP by 2030, with austerity policy summarized in Box 2.
- Total project-specific financing over the 5 years (2017–21) as a proportion of total debt drawdowns (foreign and domestic) was a low 4.9%.
- MOF policies target future outstanding debt to be approximately 70% domestically and 30% foreign sourced. The current ratio (July 2022) is above that, with 63.3% of outstanding debt being domestic and 36.7% foreign.
- Total infrastructure capital expenditures are expected to grow from \$650.8 million in the FY2023 budget to \$931.8 million in FY2030.

Box 5 Infrastructure Funding Framework

The approach to funding infrastructure is based around:

- Rigorous screening, appraisal, and evaluation of all investment funding. Agencies proposing new investments must undertake rigorous appraisals, which will be independently evaluated by MOF.
- Pursuing external grants to fund infrastructure investment to the extent possible. Negotiation of partnership agreements will pursue redirection from OPEX, especially TAs.
- Prioritising concessional borrowing of a policy and general budget support nature. This will include PIM strengthening while ensuring funds disbursed support infrastructure development.
- Prioritising efficient and effective projects financed by external concessional loans (within external borrowing limits of fiscal and debt management policies).
- Cease external borrowing for non-capital investment purposes. External borrowing will not be used to support consumption, TA, social welfare, social protection, or other operational expenditures.
- Pursue PPPs / innovative financing to leverage more private capital. Support to infrastructure development through the capital market / utilisation of domestic sources of long-term funding.
- Funding of public enterprises, SOEs, etc., to remain largely off-budget. Innovative financing arrangements to be fostered including, commercial viability and greater engagement with the private sector.

CHAPTER 5

SECTOR LEVEL SUMMARY

This chapter presents a sector-by-sector summary of the key issues and infrastructure needs to meet service expectations. The information has been extracted from sector and corporate plans, asset management plans where they exist, and interviews with the sector's primary infrastructure agencies. It sets the context for the identified candidate infrastructure projects in Chapter 6.

5.1 ENERGY Sector



5.1.1 Infrastructure Management Responsibilities

<ul style="list-style-type: none"> Department of Energy 	The DOE is responsible for the development of energy policies, legislations and regulations to guide the development of energy services in Fiji and improve service delivery. The department sits within the Ministry of Public Works, Transport and Meteorology Services
<ul style="list-style-type: none"> Energy Fiji Limited 	Energy Fiji Limited, previously the Fiji Electricity Authority, was established, incorporated, and constituted under the provisions of the Electricity Act of 1966 and began operating from 1 August of that year. 51% owned by the government, 5% owned by the local investors, and 44% held by Seven Pacific Pte Ltd. Registered company established 2018.
<ul style="list-style-type: none"> Renewables Fiji Pte Limited 	100%-owned subsidiary of Energy Fiji Limited.
<ul style="list-style-type: none"> Fiji Sugar Corporation 	The Fiji Sugar Corporation Limited was incorporated in Fiji by an Act of Parliament in 1972 to take over the milling activities with effect from 1 April 1973. It is successor to SPSM Limited and CSR Limited. In 2006, the Fiji Sugar Corporation Act was repealed allowing to be governed solely under the Companies Act

5.1.2 Sector Summary (Extent and Condition of Infrastructure)

Fiji's energy sector has been shaped by the demands of the growing economy as well as by the natural environment, tropical climate, and cultures. Fiji's energy sector will continue to be shaped by these factors. Today, as much as 60% of Fiji's electricity is derived from hydropower, while remote islands and some rural areas are largely dependent on fossil fuel-powered production.

The growth of Fiji's land transport sector has been largely concentrated around growing urban centres. At the same time, connectivity and the provision of transport services to outer islands by sea and by air is an ongoing challenge and development priority. In the future, oil price volatility, new transport technologies, new investments in achieving carbon emissions reduction targets, changes to rainfall patterns, and the increasing affordability of locally deployable renewable electricity are likely to transform Fiji's energy sector dramatically. While this transformation is a national priority and will be a core driver of economic transformational

change globally, the nature and speed of this transition and the ability for this shift to effectively support Fiji's economic and social objectives will be shaped by Fiji's public policy and the ability to attract new forms of private sector investment while supporting fair and affordable access to energy services.¹²

In 2018, Fiji Electricity Authority transitioned to a commercial company and its corporatization was formalized under what is now known as Energy Fiji Limited (EFL). The Fijian Government announced the partial divestment of shares in EFL in 2019 and further divestment intention was confirmed in 2020. EFL reviews its 10-year Power Development Plan (PDP) every 2–3 years. The PDP was reviewed at the end of 2019 and again in 2022. It contains the load forecasting and power generation planning scenarios up to 2028 for Viti Levu, Vanua Levu, Ovalau and Taveuni Power Systems, with associated network assets to be augmented/developed and the investment plan required to implement the PDP.¹³

In August 2020, EFL moved away from a single banking arrangement, which it has adopted as its funding arrangement for many years and implemented one of the largest Syndicate Banking Facilities in Fiji, with a credit appetite of around \$335 million. The Syndicate Banking Facility was signed with ANZ, BSP, and WBC banks. This is a major achievement for a government company like EFL shows the level of confidence commercial banks have in EFL. Fiji has the following potential renewable energy sources which are considered as an upside to its business:

- Hydro projects
- Solar projects
- Biomass – waste to energy plants

The Department of Energy within the Ministry of Public Works, Transport and Meteorological Services provides energy services to the greater public. The Department ensures all Fijians have access to electricity by working together with EFL or providing advice on potential energy sources (hydro, solar or hybrid solar). The Department also spreads awareness on energy efficiency and gives approval for the importation of domestic refrigerators/freezers.

The FSC is a major independent power producer with several major forthcoming investments. Recent capital investments included juice stabilisation systems, three new centrifuges, three 1.6 MW diesel generators, three new rotary vacuum filters, and the reinstallation of the 12 MW turbine generator set at Lautoka and the 10 MW turbine generator set at Labasa. These all assisted in achieving stable operations at the mills during the COVID-19 pandemic.

The Fiji Rural Electrification Fund (FREF) has been electrifying remote rural communities around Fiji – an initial target of 300 communities. FREF needs ongoing support to electrify the remaining 4% of the Fijian population, in addition to what the Department of Energy and other organisations are doing to provide renewable electricity access to these communities.

5.1.3 Issues and Challenges (Investment Drivers)

The resilient development and diversification of Fiji's energy sector is a long-term priority for the Fijian Government due in part to rising national demand, volatile oil prices, ageing infrastructure, and the intensifying impact of climate change and disaster events. Beyond these factors and trends, there is an array of current and projected socio-economic and cultural changes that are reconfiguring the way Fijians utilise different forms of energy and depend on energy services. The introduction of new energy technologies, increased digitisation, and shifting national preferences will continue to change the way energy services

¹² Draft National Energy Policy 2021-2030 [Draft Energy Policy : 2021 - 2030 - Dataset - Pacific Data Hub](#)

¹³ Energy Fiji Limited Annual Report 2020. <https://efl.com.fj/wp-content/uploads/2021/07/2020-EFL-Annual-Report.pdf>

must be designed, scaled, and delivered. These factors mean that specific actions and policy measures will be required to maintain and improve energy security.

National energy production and consumption in Fiji remains highly dependent on imported fossil fuels in part due to the current demands of the transport sector and the ongoing reliance on thermal power plants to supplement renewable energy sources within Fiji's electricity sector. In light of Fiji's commitments to address both the causes and impacts of climate change and transition rapidly to a sustainable economy producing net-zero emissions annually by 2050, the draft National Energy Policy provides the intent, direction, and priority objectives to support national energy security, achieve universal and equitable access to energy services, harness sustainable sources of energy, maximise energy efficiency, and improve the institutional arrangements to facilitate this transition.

Notwithstanding the setback caused by the COVID-19 pandemic, EFL still rose above these challenges and recorded a profit before tax of \$82.7 million, \$3.4 million more than 2019. This level of profitability was achieved due to the good hydrology at Monasavu, low fuel prices, and prudent operational and financial management.

Following corporatisation, EFL remains wholly committed to its basic corporate fundamentals. Its chief priority remains the future-facing investment strategy, balancing prudent financial management and thoughtful reinvestment to meet the growing need for clean energy through the expansion and upgrade of Fiji's energy infrastructure. EFL reviews its 10-year Power Development Plan every 2 to 3 years. The PDP was reviewed at the end of 2019. The next review is due in 2022. It contains the load forecasting and power generation planning scenarios up to 2028 for Viti Levu, Vanua Levu, Ovalau and Taveuni power systems with associated network assets to be augmented/developed and the investment plan required to implement the PDP.

The total investment required in the generation, transmission, and distribution sectors is estimated to be around \$1.97 billion. EFL has identified a suite of renewable energy projects to develop and commission over the next 10 years. These investments would create new capacity to meet the future demand of electricity via renewable energy sources and satisfy relevant network redundancy requirements to improve the security and reliability of power supply.

EFL plans to execute significant worth of capital expenditures over the next three years and is envisaged to cover distribution reinforcement projects, urban reticulation and rural electrification projects, the purchase of electricity meters and motor vehicles, the refurbishment of the Monasavu Hydro-Electric Scheme, the 33 kV sub-transmission network development from Vuda to Naikabula, three 132 kV tower replacements, equipment and system upgrades to enhance power supply security and reliability through greater automation and the new 132 kV transmission network development from Virara, Ba to Koronubu, Ba and other capital projects. EFL has carried out a re-prioritisation of its 2021 CAPEX and most of the CAPEX amounting to \$213.52 million that has not been carried out in 2019 and 2020 have been re-prioritised to be implemented either in 2021, 2022 and 2023 respectively. It is assumed that the current average electricity tariff of 38.4 c/u (VAT exclusive price), which has incorporated the tariff increase of 2.74% effective from 1 October 2019 as approved by the FCCC will be reviewed every 4 years under the new regulated tariff regime.

5.2 WATERWAYS Sector

5.2.1 Infrastructure Management Responsibilities



<ul style="list-style-type: none"> Ministry of Agriculture and Waterways 	<p>The Ministry derived its core mandate from the 2013 Constitution and is currently responsible for three key pieces of Legislations. The Ministry of Waterways and Environment is guided in its daily operations by the following laws and regulations: 1. Drainage (Budget Amendment) Act 2018 (Principal Act: Drainage 1961) 2. Irrigation Act 1973 3. Litter Act 2008.</p>
<ul style="list-style-type: none"> Ministry of Environment 	<p>The work of the Ministry of Environment is in accordance with the Ozone Depleting Substances Act 1998 (and Regulations 2010), Endangered and Protected Species Act 2002 (and Regulations 2003), Environment Management Act 2005 (and Environment Management and Environment Management Regulations 2007), and Litter Act 2008. The work of the Ministry of Environment is aligned with Section 40 of the Constitution of the Republic of Fiji.</p>
<ul style="list-style-type: none"> Department of Waterways 	<p>The Department of Waterways is responsible for the provision of flood mitigation measures, improved drainage, riverbank protection, smart irrigation technologies, and coastal protection throughout the country. The Department of Waterways will deliver the above through catchment management, dredging, and improved drainage, as well as work toward coastal protection.</p>

5.2.2 Sector Summary (Extent and Condition of Infrastructure)

The Ministry of Agriculture and Waterways (MOAW) has been established by the Fijian Government in recognition that waterways management and the preservation of Fiji's natural environment share many inherent linkages. Fiji's waterways, as part of its natural environment, also share a unique vulnerability to the worsening impacts of climate change. This merger has streamlined the government's ability to direct environmental funding and support to the nation's flood adaptation and resilience efforts. This merger further ensures that no development in Fiji comes at the cost of the overall health of its natural environment.

MOAW is central in contributing to the achievements of all the NDP goals. Broadly, all the sub-sectors, such as water supply and sanitation infrastructure and climate change, are fundamental in boosting production and productivity along value chains for social transformation and sustainable development. While sustainable waterways are central to flood mitigation, agricultural production and productivity and mitigation of climate change effects, a healthy, clean and productive environment is essential for sustainable development because it reflects the balance between the demand and supply of natural resources. Therefore, once this sector is properly implemented it will ultimately meet the overarching aims of the socio-economic transformation of the country and will also ultimately contribute to the attainment of the national targets for the 2030 Agenda for Sustainable Development in totality.¹⁴

The Waterways (and Environment) sectors provide a natural and built infrastructure that is central to supporting economic growth by sustaining crop production and productivity, tourism development and food security. It is evident that environmental management is critical to support the sustainability of the benefits from nature supporting the country's economic growth. Furthermore, it has strong linkages with key sectors of the economy such as agriculture, tourism, and fisheries. The MOAW and MOF recognise that waterways and the environment are intrinsically linked and play a critical part of the livelihoods of Fijians.

¹⁴ MoWE Strategic Plan 2020-2024 [2020_2024_Strategic-Plan_MoWE.pdf](#)

5.2.3 Issues and Challenges (Investment Drivers)

The sector's investment drivers are in line with the national development goals as articulated in the Five- and 20-Year NDP, the NAP, and the Green Growth Framework. Government effort in the waterways and environment sub-sector has led to significant investments and to improved waterways and management services.

Waterways and the environment encounter degradation and abuse, and need special care that involves developing and enforcing legislation. This also involves providing effective specialised qualified human field intervention, as well as advocating to solicit the participation of all stakeholders in Fiji. MoAW recognises its important role as stewards of Fiji's waterways and natural environment to ensure these unique assets are protected and sustainably managed for future generations to enjoy. The Ministry's strategic Plan further identifies its role in managing waterway-related hazards that are further exacerbated through climate change. The challenge of managing these hazards needs a whole-of-catchment approach that transcends local boundaries. A major project identified is the Nadi River Flood Alleviation program in the coming years.

5.3 AVIATION Sector



5.3.1 Infrastructure Management Responsibilities

<ul style="list-style-type: none"> ▪ Civil Aviation Authority of Fiji (CAAF) 	<p>The Civil Aviation Act 1976, the Civil Aviation Authority of Fiji Act 1979, the Civil Aviation Security Act 1994, and the Civil Aviation Reform Act 1999 set the platform for the role of the Civil Aviation Authority of Fiji (CAAF) as the statutory authority responsible for ensuring the safety and security of Fijian civil aviation operations and those of Fiji-registered aircraft outside of Fijian territory. Responsible for the regulatory system for air transportation in Fiji. CAAF is the regulator for airport operators, air traffic control and air navigation service providers, airline operators, pilots and air traffic controllers, and aircraft engineers.</p>
<ul style="list-style-type: none"> ▪ Fiji Airports 	<p>Fiji Airports is a fully Government-owned Commercial Company (GCCFA owns and operates Nadi International Airport and manages Nausori Airport and 13 other domestic outer island airports). Fiji Airports also provides air traffic management services in the Nadi Flight Information Region (Nadi FIR). This includes the air space of Fiji, Tuvalu, New Caledonia, Kiribati, and Vanuatu, covering an area of 6 million square km.</p>

5.3.2 Sector Summary (Extent and Condition of Infrastructure)

Nadi International Airport is the main international airport and Fiji's gateway for tourists entering the country (and Fijian's departing). Before COVID-19, the airport handled 97% of international visitors to Fiji annually, 86% of which are tourists., up to 41 international and 335 domestic flights a day equating to around 15,000 International aircraft movements annually with 50,043 over-flights per year. Nadi International Airport generates 97% of Fiji Airports' total revenue and 100% of its profits. A well-functioning aviation industry supports Fiji's tourism sector, which contributes around 40% of Fiji's GDP.

The total international passenger movements in 2019 for Nadi International Airport were 2,166,584, while the total domestic passengers were 318,735. Nausori Airport is the second international airport and domestic hub in Fiji. It handled 37,394 international passengers and 329,112 domestic passengers in 2019. Operationally, the 13 outer island airports do not present a business case for Fiji Airports. Their operation, maintenance, and CAPEX are justified based on the resulting positive socioeconomic impact, and being part of bettering the lives of

all Fijians in lesser developed areas. Total passenger movements at these airports in 2019 were 249,814, while aircraft movements were approximately 24,037.¹⁵

2019 saw Nadi International Airport recognised by Airports Council International as one of the leading green airports in the Asia-Pacific region. Nadi International Airport received silver accreditation in the “under 10 million passenger movements per annum” category.

The new Rotuma chip seal runway was officially opened on 29 October 2018. It is one of the most significant achievements for Fiji Airports. The project was a work-in-progress for the past 40 years, designed and shelved several times due to challenges with its isolation and resulting cost factors. Fiji Airports continues to invest in loss-making airports, and, in 2018, completed a \$620,000 infrastructure upgrade in and around Labasa Airport to facilitate night landings and take-offs in accordance with safety protocols.

5.3.3 Issues and Challenges (Investment Drivers)

The year 2020 has been an unprecedented one in the history of aviation. The onset of the COVID-19 pandemic in 2020 impacted many industries, aviation being no exception. Early 2020 saw international air travel take a plunge and, as the virus continued its global spread, air transport activities came to a virtual standstill at the end of March 2020.

The International Civil Aviation Organisation’s economic impact analysis of COVID-19 showed that international passenger traffic suffered a dramatic 60% drop over 2020, bringing air travel totals back to 2003 levels. Locally, the total domestic and international aircraft movements across the two international aerodromes dropped by 50%; within the Nadi Flight Information Region, traffic levels dropped by 61.30% compared to 2019 numbers.

Fiji Airports continues to further enhance the safety culture across the responsible for ensuring the safety and efficiency of its 15 airports and the 6 million square km of airspace it manages under the Nadi Flight Information Region.

In June 2021, the Australian Infrastructure Financing Facility for the Pacific (AIFFP) alongside ANZ Fiji, signed a \$106 million loan to Fiji Airports. The loan will fund essential maintenance and capital works at Nadi International Airport and several outer islands’ airports, refinances existing debt, and supports the infrastructure priorities of Fiji Airports.

The AIFFP’s financing package consists of a \$96 million guarantee to ANZ Fiji for ANZ’s loan to Fiji Airports, and a direct \$10 million loan to AFL. The AIFFP’s innovative partnership with ANZ, utilising AIFFP’s newly established guarantee instrument, ensured it could provide a local currency loan to Fiji Airports that best supported its operational needs.

Fiji Airports has completed a Master Plan for Nadi International Airport by using passenger growth projections and air traffic demand to future-proof the airport’s requirements through 2043. The Nadi Airport Master Plan 2018–2043 identifies and outlines areas for development as part of its growth strategy. The Nadi Airport Terminal will be further expanded to align with Fiji Airports’ long-term strategic objectives.

Underpinning the success of an aviation industry in Fiji is an effective regulator. In an evolving aviation industry post-COVID-19, the Civil Aviation Authority of Fiji (CAAF) must respond to an increased need for regulatory and security services to keep people safe and secure. A safe and reliable aviation sector (ICAO compliant) goes hand in hand with Fiji’s desire to build back tourism.

¹⁵ AFL Annual Report 2019 [annual_report-2019-2018-final.pdf](https://airportsfiji.com/annual-report-2019-2018-final.pdf) (airportsfiji.com)

5.4 WATER and SANITATION Sector



5.4.1 Infrastructure Management Responsibilities

<ul style="list-style-type: none"> Water Authority of Fiji 	Water Authority of Fiji (WAF) is a Commercial Statutory Authority (CSA). It was established by the Government of Fiji to provide efficient and effective water and wastewater services in an environmentally sound and sustainable manner. The WAF Act 2007 provided the legal basis for the establishment.
<ul style="list-style-type: none"> Department of Water and Sewage 	The Department of Water and Sewerage under MPW is responsible for the formulation of policies, legislation, and regulatory frameworks for the provision of a sustainable water and sewerage sector. The Department is the focal government agency that provides policy and technical advice and also monitors the sector's compliance with legislation, policies, and standards. The Department is also mandated to monitor WAF activities in line with budgetary allocations. The Department sits within the Ministry of Infrastructure and Meteorological Services.

5.4.2 Sector Summary (Extent and Condition of Infrastructure)

The Government of Fiji started reforming the Water and Sewerage Department (WSD) in 2009. The objective of this reform was to enhance the sustainable delivery of water and wastewater services to appropriate service levels. The reform aimed at strengthening the then WSD before establishing the WAF as autonomous and able to mobilise the necessary resources to meet demand effectively and efficiently at required quality standards. From 1 January 2010, WAF officially took over responsibilities, functions, and operations previously carried out by WSD. The first few years of operations are key to establishing the most effective culture and mix of people, processes, procedures, governance, equipment, policies, and monitoring and reporting. 2023 will be WAF's 13th year in operation. WAF is responsible for providing access to quality drinking water and wastewater services to 152,261 residential and non-residential metered customers residing largely in urban areas and also setting up water supply systems in rural schemes, reaching 829,110 people nationwide. The authority's area of operation covers 18,274 square km of the 332 islands in the Fiji archipelago of which only 114 islands are inhabited and the current water and wastewater network constitutes approximately 5,000 km of pipes. WAF supply 134,254 ML of treated water annually to homes and businesses nationwide including treatment of wastewater to an average of 21,666 ML. In the last 10 years, WAF has adopted two strategic plans to address day-to-day operations, meeting future demand, and building capacity of its systems, processes, and people to ensure a continued supply of water and wastewater services for all Fijians.¹⁶

5.4.3 Issues and Challenges (Investment Drivers)

WAF has the responsibility to provide water and wastewater services to all Fijians progressively. The three key strategic imperatives for WAF have been developed recognising a global financial crisis as a result of COVID-19, which will reverberate for several years; the development of an organisational culture capable of delivering efficient and effective services; and the ability to meet future demands of WAF. Further, these strategic drivers have been developed looking at WAF's previous performances, requirements under its master plans, and alignment to the NDP. WAF has made numerous attempts to resolve as many opportunities as possible for improvement that has been highlighted in the last 10 years. The added challenges now include the development of climate-resilient infrastructure, continued efforts for compliance with environmental standards, ensuring the supply of services during a global pandemic, and developing an organisational culture capable of delivering world-class

¹⁶ [WAF Strategic Plan 2020-2025 1644365931.pdf \(waterauthority.com.fj\)](#)

services to all Fijians. The three strategic imperatives are: water and wastewater, accountability, and finance.

In parallel to its consolidation strategy, WAF has secured funding for a major project to address demand in the greater Suva area now and until at least 2028. The Rewa River Water Supply Scheme is planned to be commissioned by the year 2022. This project will be on the Rewa River near Viria, Nausori. The deliverables of this project include a new river intake with a pumping station on the Rewa River, a new 40 ML/d water treatment plant which is expandable to 80 ML/d, a 5 ML treated water reservoir at the treatment plant site to be duplicated at Stage 2, a treated water pumping station, a 10 ML reservoir at Waitolu, and 8.6 km of pipeline to connect to the Waitolu reservoir. The total cost for this project is \$268 million. WAF will be working with its line ministry, other government ministries and agencies, the regulators, and consumer protection agencies, non-governmental organisations, donor agencies, and unions in addressing the challenges of water and wastewater in Fiji. The journey for the next 5 years shall allow WAF to take progressive steps in achieving the set of strategic imperatives.

5.5 MARITIME PORTS Sector



5.5.1 Infrastructure Management Responsibilities

Fiji Ports Corporation Limited	Fiji Ports Corporation Limited owns and operates the four major ports in Fiji; Port of Suva, Port of Lautoka on Fiji's largest island of Viti Levu; Port of Malau is situated on Fiji's second-largest island of Vanua Levu, while Port of Levuka is at the old capital of Fiji.
Fiji Ports Terminal Limited	Private Public Partnership (PPP) between the Fiji Ports Corporation Limited and prominent Sri Lankan conglomerate, Aitken Spence PLC took place on 31st July 2013. The two companies joined forces through FPCL's subsidiary Ports Terminal Limited to bring international best practice to the ports of Suva and Lautoka.
Fiji Ships and Heavy Industries Limited	Fiji Ships and Heavy Industries Limited is a subsidiary company of Fiji Ports Corporation Ltd and operates as a self-funded, commercial company.
Maritime Safety Authority of Fiji	The Maritime Safety Authority of Fiji is the sole regulatory authority in Fiji that monitors and ensures all vessels registered comply with all International Maritime Organisation instruments ratified by the Fijian Government.
Government Shipping Services	The Department of Government Shipping Services promotes and facilitates, in accordance with the national need for sea transportation. This is through the provision of shipping and maritime aids to navigational services. The department sits under the Ministry of Transport.

5.5.2 Sector Summary (Extent and Condition of Infrastructure)

Fiji Ports Corporation Limited (FPCL) owns and operates the four major ports in Fiji. These are the Port of Suva; the Port of Lautoka on Fiji's largest island of Viti Levu; the Port of Malau, situated on Fiji's second-largest island of Vanua Levu; and Port of Levuka, which is situated at the old capital of Fiji.

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. 95% of Fiji's imports and exports are today traded through FPCL Ports and handled by Ports Terminal Limited. The ownership

structure of FPCL is effectively a PPP. FPCL's subsidiary (i.e., FSHIL) and associate (i.e., FPTL) also have varying shareholdings as follows:

- FPCL – Government 41%, FNPF 39%, and Aitken Spence PLC 20%.
- FPTL- Aitken Spence PLC 51%, FPCL 49%.
- FHIL- FPCL 100%

FPCL aims to be the Smart Green Gateway for Trade in the Pacific Region. Its Five-Year Strategic Plan 2019–2023 is a cornerstone of the overall alignment of the Port to an increasingly dynamic and competitive business environment. Through its Strategic Plan, the Port will meet key challenges and leverage opportunities to achieve its goals. The Plan addresses the physical, operational, economic, environmental and recreational requirements of the company. It forms the basis for the strategic policy for effective resources utilisation and efficient service delivery.¹⁷

With maritime trade and travel playing a vital part of the country's life and economy, Maritime Safety Authority of Fiji (MSAF) is responsible for the overall safety of all maritime operations in Fiji, focusing on safety and marine environment protection.

The heavy dependency by many Fijians on maritime travel means MSAF must ensure that Fijians travel safely, and the marine environment is free from pollution. The Government Shipping Services functions as a department providing shipping and related services, development of shipping strategies, and related infrastructure. The objective is to operate and maintain mandatory marine navigational aids by facilitating sea transportation, thus providing travel, tourism, agriculture, fisheries, and commercial activity as well as facilitating sea safety and fulfilling national obligations.

5.5.3 Issues and Challenges (Investment Drivers)

In conjunction with traditional capacity and infrastructure requirements, FPCL and its entities must deal with numerous legacy legislative commitments. Many of these are no longer relevant to the ownership structure in place for FPCL. FPCL is not responsible for infrastructure nationally; however, it is cognisant of substandard or inadequate infrastructure regionally for many of the operations undertaken. As the only body with requisite skills, FPCL considers that it should be engaged to document minimum standards and oversee alignment with these. Reforms proposed will certainly improve these conditions and, in most instances, will assist in eliminating barriers to trade, reduce transaction costs, and improve connectivity to domestic and global value chains.

During the pandemic delays in ship arrivals, port closures, lockdowns in specific areas, and varying quarantine periods, for example, did have a negative influence on domestic inter-island shipping during a pandemic. The Government Shipping Franchise Scheme ensures the movement of cargo and passengers between maritime islands. The Franchise Scheme enables connectivity and accessibility to markets, increasing economic activities and improving livelihoods. This is essential for maritime connectivity and accessibility, especially on uneconomical routes.

The MSAF will need to continue to work closely with the Government Shipping Services in carrying out repairs and maintenance of navigation systems such as lighthouses, beacons and buoys that sustained major damage during recent climatic events such as Tropical Cyclones Winston, Yasa, and Ana. Fiji requires significant investment to transition to resilient and sustainable maritime transport and connectivity; access to finance and opportunities for investment will be critical for economic growth, resilience and recovery.

¹⁷ [FPCL – Fiji Ports](#)

5.6 ROAD Sector



5.6.1 Infrastructure Management Responsibilities

<ul style="list-style-type: none"> ▪ Fiji Road Authority 	The Fiji Roads Authority (FRA) was established in January 2012 to effectively manage and develop Fiji's road network.
<ul style="list-style-type: none"> ▪ Ministry for Multi-Ethnic Affairs and Sugar 	The Ministry for Multi-Ethnic Affairs and Sugar was established to develop policies and implement reforms through various capital projects that benefit over 12,500 active cane farmers.
<ul style="list-style-type: none"> ▪ Ministry of Public Works, Transport and Metrological Services 	The Ministry of Public Works, Transport and Meteorological Services is directly responsible for policy formulation, planning, design, regulatory, coordination and implementation of programs, projects for transport (and public works, meteorological and hydrological services).
<ul style="list-style-type: none"> ▪ Ministry of Transport 	The Ministry is part of MPW and is responsible for the Land and Maritime Transport industry through its capacity to strengthen coordination, planning, policies and monitoring of the transport sector in Fiji.
<ul style="list-style-type: none"> ▪ Land Transport Authority 	The Land Transport Authority was established under the Land Transport Act 1998 under section 6(2) "A body corporate". The LTA Regulation 2000 came into effect on 10 July 2000.

5.6.2 Sector Summary (Extent and Condition of Infrastructure)

The FRA's assets are all of Fiji's roads, bridges, and jetties. This includes the land on which the assets are located, together with all the associated infrastructure such as drainage, street lighting, traffic signals and other street furniture. FRA's latest review estimated these assets are worth nearly \$11 billion, making the road network Fiji's most valuable built asset.

Over the last 3 years, FRA has managed a \$600 million-plus program of maintenance, renewal, and capital projects. The FRA uses international best practice for asset management. This is how many other developed and developing countries look after their transport, water, electrical, and other infrastructure networks.

FRA's maintenance priority focus is broadly classed into the following sub-groups:

- i) Emergency reinstatement, which pertains to either the loss or extreme degradation of service of a transport infrastructure facility; provision will be made to accumulate funds for emergency works so that these can be called upon when needed so as not to draw funding from planned work;
- ii) Routine maintenance and operation, which involves the day-to-day costs of operating and maintaining transport facilities, which are usually low level but continuing costs that, if attended to regularly, will offset or delay costlier heavy maintenance;
- iii) Periodic or specific maintenance needed at intervals of years to restore service levels of infrastructure;
- iv) Rehabilitation needed at longer intervals, involving partial renewal of parts of the facility that are subject to traffic-based and environment-based long-term degradation, but short of full renewal or reconstruction; and
- v) Renewal and reconstruction needed when facilities reach the end of their economic service life or are damaged beyond economic repair.

For new capital works, this usually involves upgrading or new construction. Upgrading involves improving the design standard of the asset. For a road, examples are widening, realignment, surface sealing and strengthening to carry heavier loads. For jetties and ports, upgrading can involve deepening and lengthening of berths, increasing and strengthening jetty causeway and wharf working and storage areas. New construction involves expanding

the transport network, by constructing new roads, ports and landings and new associated navigation infrastructure.

The Ministry of Sugar maintains several cane access roads. The overall program is aimed to reduce input costs of cane production, plant cane to increase production and yield, enhance efficiency in transportation, promote farm mechanisation to improve land preparation and harvesting systems, transfer and promote adoption of modern technologies, and encourage sustainable land management to mitigate climate change.

In terms of regulatory functions concerning road transport, LTA was created to improve management systems and human resources incentives. LTA combined the operations of the Transport Control Board (TCB), Central Traffic Authority (CTA) and Principal Licensing Authority (PLA) under the administrative arm of the Department of Road Transport to be a commercially oriented entity with strict accountability guidelines and to operate as a successful commercial business, upholding Government policy on deregulation.

5.6.3 Issues and Challenges (Investment Drivers)

It is useful to identify the extent to which transport infrastructure serves economic activity that increases export income as opposed to a general contribution to internal production and consumption. In view of the growing importance of climate change adaptation and the exposure of Fiji's coastal transport infrastructure to extreme weather events, it is also worth separate consideration because of the uncertainty surrounding future exposure risk and the nature of the decision to protect and/or adapt to threats of low frequency but high cost. Projects can include disaster resilience features in their design or be projects or programmes aimed at retrofitting the transport network to better withstand these risks. In the next 5 years, more investments will be anticipated to further improve the road network.

There is a case for separating out remote rural access, which can be combined with the parallel objective of reducing relative poverty and improving human development indicators.

FRA's budget estimate is subject to the following:

- (i) Government Strategic Plan;
- (ii) Project budget allocation for the next 5 years;
- (iii) Market capacity to deliver the programme;
- (iv) Sustainable spending to ensure adequate work is available for the construction industry in the long term; and
- (v) Funding available to maintain the new infrastructure installed.

5.7 TELECOMMUNICATION Sector



5.7.1 Infrastructure Management Responsibilities

- | | |
|--|--|
| <ul style="list-style-type: none"> ▪ Telecom Fiji Pte Limited | <p>Telecom Fiji Pte Limited is a 100%-owned subsidiary of Amalgamated Telecom Holdings and provides fixed telephony services, broadband internet, international voice and data connectivity, sale of telephone equipment and sale of office and computer equipment</p> |
|--|--|

5.7.2 Sector Summary (Extent and Condition of Infrastructure)

Telecom Fiji is reinvigorating its strategy and investing in fibre-to-the-home broadband technologies, which can deliver gigabyte speeds to customers, a capability that drives the

market in Fiji. The recent management of TFL led key actions to support the company's strategy through its rollout of Ultra-Fast Fiber Broadband, Fiber to the Home service, which essentially delivers users an unmatched optical fiber broadband experience while future-proofing its network. Other elements being implemented, including continued focus on operational efficiency, cost reduction measures, and human capacity building, are geared to usher Telecom Fiji and its customers into the future of broadband.

Fiber-to-the-home is the underlying foundation of Telecom Fiji's long-term strategy to bring the high level of communication services found in "developed" countries to Fiji. Telecom Fiji is focusing on the Suva area as Phase 1 of its "fiber-in, copper-out" model. This ambitious project will gradually expand into other towns throughout Fiji. Fiber-to-the-Home enables high-speed broadband service, more reliable service, and reduced truck-roll, and allows Telecom Fiji to introduce other content-based service bundles.

5.7.3 Issues and Challenges (Investment Drivers)

Telecom Fiji is driven by five key strategic objectives in its new 3-year business plan: a) sustainable revenue growth; b) cost optimisation; c) delivering brilliant customer experience; d) maximising operational efficiency; and e) technology refresh.

TFL will continue to upgrade and carry out maintenance work on the supporting infrastructure of towers, buildings and power systems throughout the country. These upgrades are essential for risk mitigation and business continuity. TFL continues to strengthen its core network infrastructure, enhancing resiliency of the entire backbone network, to support all bandwidth requirements for corporate customers and government.

5.8 BUILDINGS Sector (incl. Health and Education)



5.8.1 Infrastructure Management Responsibilities

<ul style="list-style-type: none"> Ministry of Health and Medical Services 	The Ministry of Health and Medical Services (MHMS) is responsible for managing Fiji's overall health care system.
<ul style="list-style-type: none"> Ministry of Public Works, Transport and Meteorological Services 	The Ministry of Public Works, Transport and Meteorological Services is responsible for planning, design, regulatory, coordination and implementation of programs, projects for: <ol style="list-style-type: none"> 1) Infrastructural Work (Energy, Works, Water and Sewerage, Building and Government Architects and the Divisional Engineers) 2) Meteorological and Hydrological Services
<ul style="list-style-type: none"> Ministry of Local Government 	The Ministry is responsible for the overall administration and regulation of Municipal Councils and the oversight of National Fire Authority through the Local Government Act 1972, and the National Fire Services Act 1994 respectively.
<ul style="list-style-type: none"> Ministry of Education 	The Ministry of Education is the ministry of Fiji responsible for overseeing Fiji's education system and school buildings.

5.8.2 Sector Summary (Extent and Condition of Infrastructure)

There are several large-scale projects across three main non-infrastructure sectors of Health, Education, and Public Service. Building facilities are the main assets within these service delivery-based sectors.

The integrated approach to service delivery, strengthening of patient services, and continuum of care is reflected in the Ministry of Health and Medical Services' three core strategic priorities. Colonial War Memorial Hospital is building a new maternity wing that will modernise maternal health services and increase bed numbers. They have built new health facilities such as Nakasi and Makoi, along with Waimaro, which was rebuilt after being destroyed by Cyclone Winston. Suitable and appropriate facilities are required to support health and well-being across Fiji, particularly as the focus shifts from hospital-centric services to strengthening the continuum of care, so more services are located closer to people's homes and communities.

On the education front, the capital construction projects will focus on rebuilding schools impacted by the recent cyclones through adopt-the-school programs. Additionally, there needs to be a focus on the upgrade and maintenance of existing schools and the expansion to meet capacity demands, especially across the government schools. Non-government schools will be addressed via the Free Education Grant and, where needed, separate building grant approvals. There is a program currently under way to address sanitation, which represents one of the most significant environmental challenges for rural and maritime schools as development is likely to continue, with tourism expected to return as the world gains control of COVID-19.

The Department of Works within the Ministry of Public Works, Transport, and Meteorological Services consists of the three Divisional Engineers in the Central/Eastern, Northern and Western Division. The Department is responsible for the provision of professional advice, technical services and construction of small project works for other Ministries and Departments, vehicles and other mechanical appliances that are used by other Departments and Sections within the Ministry. The Department also offers inclusive electrical engineering service to clients and this falls into two main categories of capital projects and maintenance works.

5.8.3 Issues and Challenges (Investment Drivers)

COVID-19 has highlighted the need to have a properly resourced and equipped health system. Currently, the health centres and offices of the MHMS are along a vulnerable high-risk coastal cyclone zone and need to be relocated. Specific areas of support are often strategically identified to fill critical gaps that may have inadequate domestic funding or to provide additional technical expertise. In some cases, support from development partners has been ad hoc, duplicative, and/or disjointed from initiatives being implemented by the MHMS and other health sector stakeholders. To minimise the impact of these situations, MHMS has an important role to play in clearly communicating national priorities, providing updates on its efforts and progress, and coordinating support between relevant partners and stakeholders. Fiji has already strengthened its capacity to deal with diseases and the climate crisis, which MHMS will continue to build on. The threat of the climate crisis is real, and Fiji will focus on locations most at risk, such as those areas prone to flooding or environmental shocks.

5.9 URBAN DEVELOPMENT Sector



5.9.1 Infrastructure Management Responsibilities

<ul style="list-style-type: none"> Department of Town and Country Planning 	The Department of Town and Country Planning is responsible for the overall administration, planning and regulating of land use in Fiji through the Town Planning Act Cap. 139 and the Subdivision of Land Act Cap: 140. The department sits within the Ministry of Commerce, Trade, Tourism and Transport.
<ul style="list-style-type: none"> Ministry of Housing 	The Ministry of Housing is responsible for strategy, policy, funding assistance, monitoring and regulation of Fiji's housing system. The Ministry plays a lead role in promoting and facilitating the provision of accessible and adequate housing for low- and middle-income households and people living in informal settlements.
<ul style="list-style-type: none"> Ministry of Local Government 	The Ministry of Local Government includes the Department of Local Government and the Department of Town & Country Planning. It is responsible for the overall administration and regulation of Municipal Councils, and the formulation of urban and rural planning policies that are environmentally compliant and that accommodate Fiji's economic and demographic growth objectives.
<ul style="list-style-type: none"> Housing Authority 	Established by an Act of Parliament in 1955, the Housing Authority became an operating entity in 1958.

5.9.2 Sector Summary (Extent and Condition of Infrastructure)

Developments by the Department of Town and Country Planning have focused on town centres in respective provinces of identified rural growth centres within the rural areas, for trading centres and urban development, that are prepared for local governments. The Department is also undertaking master planning exercises to create a holistic plan for Fiji's major infrastructure and urban centres for the next 50 years. The plan is divided into six stages with two major deliverables: a Strategic Master Plan Study of Viti Levu Island, and a Conceptual Master Plan of Greater Suva, Nadi, and Lautoka.

The Ministry of Housing is a dedicated stand-alone line ministry with a singular focus on the housing sector bringing together Fiji's long-running urban housing programme, previously overseen by the Department of Housing.

The Housing Authority began operation with the development of rental flats and progressed into the development of lots and the designing and building of homes. In 1996, the Housing Authority was declared a commercial statutory authority and is now required to provide returns to the government. The Authority moved away from the designing and building of homes to concentrate on the production of land lots and the provision of financing in 1997.

With the initial vision to provide affordable housing for low-income earners in urban centres who could otherwise be unable to secure a permanent residence for themselves, the Authority has in recent years expanded its services to include mortgage financing for middle- to high-income earners.

The Ministry of Local Government administers Municipal Councils, including solid waste collection and management across Fiji.

5.9.3 Issues and Challenges (Investment Drivers)

The ongoing program by MHLG to improve housing conditions for Fijians living in informal settlements also supports the right to accessible and adequate housing, as guaranteed under

the Constitution of Fiji (2013) Sec. 35, and the strategic goal of the National Housing Policy to achieve affordable and decent housing for all in Fiji.

Through the Housing Authority, since 2009, three subdivisions, namely Wainibuku, Matavolivoli and Tacirua, have completed and assisted over 1,400 households. Five capital projects in Nepani, Davuilevu, Tavakubu, Koronisalusalu (Tavua), and Wainibuku Stage 2 are currently on-going and are currently earmarked for the PPP opportunities that the government is currently exploring with assistance from International Financial Corporation (IFC).

While the groundwork is being laid for the PPP, the Housing Authority is working on several other projects that are scheduled for completion in the next 3 years. These projects are in Covata (Labasa), Waila City (Davuilevu), Tacirua Stage 3, Veisari and Veikoba. Upon completion of these five projects, a further 2,400 lots will be available to low- and mid-income earners.

The Housing Authority is seriously considering “design and build” for future development to facilitate home ownership, noting the difficulty customers face in building their own homes. Continuous collaboration with other government agencies including WAF, EFL, FRA, iTaukei Lands Trust Board and Lands Department to ensure that the lots delivered are fully serviced and timely. The challenges that remain for housing are consideration of affordability and building for climate resilience.

CHAPTER 6

PROJECT PIPELINE

This chapter lists the candidate projects submitted by the participating agencies and performs checks on any gaps in coverage or disproportionate representation. Another key output from the NIIP process is a structured, central register of all projects and their key attributes (impact, costs, responsibilities, timeframe, etc.). This project database has been provided to MOF (SPO and Budget Division) for their ongoing management and upkeep.

6.1 Establishing the Project Database

To complete the analysis presented in this Section, it was necessary to develop a central database to register projects in a structured manner. The format of this database is described in Table 23.

Table 23 Proposed Database Fields for Central Infrastructure Project Register

	Field	Field Description																		
1	Reference Number	A unique project reference. This is a temporary number generated for pipeline projects in the NIIP.																		
2	Budget	Flag to indicate if the entity is ON or OFF Budget.																		
3	Ext Fund	Entity set flag if they believe the project might require additional/donor funding support (and a reference to the associated MCA).																		
4	Sector Code	<p>The primary sector the infrastructure is associated with. This is not always the same as the main sector the entity operates in. For example, if MSI has a project to build a bridge then it would be classed as a 'Road' sector project.</p> <table border="1"> <tbody> <tr> <td>ROAD</td> <td>Land Transport</td> </tr> <tr> <td>MARINE</td> <td>Maritime and Ports</td> </tr> <tr> <td>AIR</td> <td>Airports</td> </tr> <tr> <td>ENERGY</td> <td>Energy Generation and Transmission</td> </tr> <tr> <td>WATER</td> <td>Water and Sanitation</td> </tr> <tr> <td>BUILDINGS</td> <td>Government Facilities, Hospitals, Schools etc</td> </tr> <tr> <td>URBAN</td> <td>Urban Development</td> </tr> <tr> <td>WATERWAYS</td> <td>River And Coastal Protection</td> </tr> <tr> <td>TELECOM</td> <td>Information and Telecommunications</td> </tr> </tbody> </table>	ROAD	Land Transport	MARINE	Maritime and Ports	AIR	Airports	ENERGY	Energy Generation and Transmission	WATER	Water and Sanitation	BUILDINGS	Government Facilities, Hospitals, Schools etc	URBAN	Urban Development	WATERWAYS	River And Coastal Protection	TELECOM	Information and Telecommunications
ROAD	Land Transport																			
MARINE	Maritime and Ports																			
AIR	Airports																			
ENERGY	Energy Generation and Transmission																			
WATER	Water and Sanitation																			
BUILDINGS	Government Facilities, Hospitals, Schools etc																			
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WATERWAYS	River And Coastal Protection																			
TELECOM	Information and Telecommunications																			
5	Project Type	<p>Is the capital project to build, rebuild or improve infrastructure?</p> <table border="1"> <tbody> <tr> <td>New</td> <td>Build new infrastructure</td> </tr> <tr> <td>Upgrade</td> <td>Upgrade/Improve existing capacity of expand extent</td> </tr> <tr> <td>Renew</td> <td>Refurbish or replace existing (like with like)</td> </tr> <tr> <td>Study</td> <td>Feasibility study for major infrastructure</td> </tr> </tbody> </table>	New	Build new infrastructure	Upgrade	Upgrade/Improve existing capacity of expand extent	Renew	Refurbish or replace existing (like with like)	Study	Feasibility study for major infrastructure										
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Upgrade	Upgrade/Improve existing capacity of expand extent																			
Renew	Refurbish or replace existing (like with like)																			
Study	Feasibility study for major infrastructure																			

	Field	Field Description										
6	Is Programme (PgM) Header	Programmes cover many sites, can include infrastructure and non-infrastructure components, and often relate to renewing existing infrastructure (e.g., road rehabilitation, town centre upgrade, bridge replacements, pipe renewals). The database allows entities to account for programmes of work. This field flags if the record entry in the database is a project or a programme header entry.										
7	Line Ministry	The concerned ministry(s) or responsible minister that has a stake in funding or administering the capital construction.										
8	Budget Unit	The lead agency/entity who manages the budget expenditure.										
9	Lead	The department/entity who is responsible for delivering the project										
10	Program Name	Brief description of the programme the project is delivered under. Or the programme header expenditure is forecast against.										
11	Project Name	Brief project title.										
12	Brief Description	Brief description which will help people understand the broad scope of the project.										
13	Division	The location (division) that the <u>project will serve</u> which may be wider than where the project is based.										
14	Province	Geographic location the project is mostly based within.										
15	Project Sourced From	The generic entity who has knowledge of the project and/or maintains a list from which this project was identified.										
16	Status of Project	The stage the project is at in the delivery cycle. <table border="1"> <tr> <td>Ongoing</td> <td>Ongoing (multi-year budgeted).</td> </tr> <tr> <td>Budgeting</td> <td>Project included in budget spreadsheets (approved)</td> </tr> <tr> <td>Appraising</td> <td>Submitted for appraisal. Not yet funded or in budget sheet</td> </tr> <tr> <td>Planning</td> <td>Pipeline project. Early stage of development for screening</td> </tr> </table>	Ongoing	Ongoing (multi-year budgeted).	Budgeting	Project included in budget spreadsheets (approved)	Appraising	Submitted for appraisal. Not yet funded or in budget sheet	Planning	Pipeline project. Early stage of development for screening		
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Planning	Pipeline project. Early stage of development for screening											
17	Latest Estimate	Best estimate of construction cost.										
18	Currency	The currency of the estimate.										
19	Estimate Quality	The quality of the project capital cost estimate. <table border="1"> <tr> <td>Excellent</td> <td>"Engineering level". Scope and design parameters known. Budget level estimate built up from unit costs.</td> </tr> <tr> <td>Good</td> <td>"Feasibility level". Scope defined and reasonable estimate and cost breakdown.</td> </tr> <tr> <td>Fair</td> <td>"Rough order cost". Scope reasonably defined. Estimate based on engineering judgement. No breakdown.</td> </tr> <tr> <td>Poor</td> <td>"Order of Magnitude". Scope not well defined. Cost indicative only.</td> </tr> </table>	Excellent	"Engineering level". Scope and design parameters known. Budget level estimate built up from unit costs.	Good	"Feasibility level". Scope defined and reasonable estimate and cost breakdown.	Fair	"Rough order cost". Scope reasonably defined. Estimate based on engineering judgement. No breakdown.	Poor	"Order of Magnitude". Scope not well defined. Cost indicative only.		
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Fair	"Rough order cost". Scope reasonably defined. Estimate based on engineering judgement. No breakdown.											
Poor	"Order of Magnitude". Scope not well defined. Cost indicative only.											
20	Likely Funding	Best estimate of the likely budget source(s) from which the project will be funded. One or more sources marked with "X". If the donor is known, specify in Field#17. <table border="1"> <tr> <td>CAPEX</td> <td>Funding likely from agencies own capital/recurrent budget</td> </tr> <tr> <td>Grant</td> <td>Funding likely from government grant/transfer/budget</td> </tr> <tr> <td>Donor</td> <td>Funding likely from development partner or fund</td> </tr> <tr> <td>Private</td> <td>Private funding source (e.g., church, community)</td> </tr> <tr> <td>Multilateral</td> <td>Funding likely from multilateral agency</td> </tr> </table>	CAPEX	Funding likely from agencies own capital/recurrent budget	Grant	Funding likely from government grant/transfer/budget	Donor	Funding likely from development partner or fund	Private	Private funding source (e.g., church, community)	Multilateral	Funding likely from multilateral agency
CAPEX	Funding likely from agencies own capital/recurrent budget											
Grant	Funding likely from government grant/transfer/budget											
Donor	Funding likely from development partner or fund											
Private	Private funding source (e.g., church, community)											
Multilateral	Funding likely from multilateral agency											
21	Secured Funding from	For Approved, Budgeted, and Ongoing projects where development partners providing funding, please name the donor(s).										
22	Cost Estimate	The cost estimate (Field#17) converted to million Fijian dollars.										
23+	Estimated Progress / Expenditure (%)	Used to estimate how non-pipeline (i.e., committed-ongoing) project costs will be spread/spent across the next 10 years. Annual cashflow projections to the nearest 5%–10% is sufficient when estimating future spend on approved/committed projects.										

A workshop was held at the Tanoa Plaza on 17 August 2022. The above database template was circulated ahead of the workshop and the NIIP team prepared a first draft of the project register for review and discussion within the workshop. The workshop participant list is provided in Table 24.

Table 24 Workshop Participant List (Infrastructure Entities)

Agencies Invited	
- Ministry of Education, Heritage, and Arts	- Fiji Roads Authority
- Ministry of Health and Medical Services	- Water Authority of Fiji
- Energy Fiji Limited	- Ministry of Infrastructure & Met. Services
- Fiji Ports Corporation Limited	- Ministry of Waterways & Environment
- Telecom Fiji Limited	- Ministry of Rural and Maritime Development & Disaster Management
- Airports Fiji Limited	- Ministry of Sugar (Roads, Buildings, Energy)
- Fiji Sugar Corporation	- Ministry of Local Government
- Civil Aviation Authority	- Department of Transport (MCTTT)
- Land Transport Authority	- Government Shipping Services (MCTTT)
- Maritime Safety Authority of Fiji	- Ministry of Housing & Community Development
- Construction Implementation Unit (MoE)	- Housing Authority
- Asset Management / Climate Units (MoE)	
- Ministry of Women, Children and Poverty Alleviation	

Note: Workshops were completed prior to the 2023 restructure. Participation is based on the ministry names in place at the time.

This interactive workshop provided an excellent opportunity for participants to understand the importance of infrastructure and why a 10-year view of planned investments is needed to fund these large projects.



NIIP Workshops (August and October 2022).

A second iteration of the database was provided to all participating agencies during a second workshop held on 20 October 2022. This iteration held over 500 projects and provides the information analysed in this chapter.

Table 25 Infrastructure Capital Construction Project Database

Proj. No.	External Funding MCA	Sector Code	Project Type	Priority	Line Ministry	Budget Year	Lead	Program Name	Project Name	Brief Description	Division (Ministry)	Province (Location of Work)	Project Sourced From	Lifecycle Status
W52		Water	New	Yes	MROS	WAF	DONS	SCADA Automation Programme (Seva-Nausori Water)	SCADA for Nausori Water Treatment Plant, Pump Stations & Valve	Project will involve installation of SCADA & control systems to enhance	Central	Seva	P&D	Planning
W53		Water	New	Yes	MROS	WAF	DONS	Water Sources & Water Treatment Plant (Sigatoka)	Proposed trunk mains	Design & Construction works to install new low water mains	Western	Northqoliobu	P&D	Planning
W54		Water	New	Yes	MROS	WAF	DONS	SCADA Automation Programme (Northern Division)	SCADA for Nausori Water Treatment Plant, Pump Stations & Valve	Project will involve installation of Automation & control systems to enhance	Naitenu	Makuluva	P&D	Planning
W55		Water	New	No	MROS	WAF	DONS	Water Source & Water Treatment Plant Programme (Haboro)	Wainodori River Intake and WTP	Primary study, design and construction of Wainodori River Intake, new raw	Central	Seva	P&D	Planning
W56		Water	Upgrade	Yes	MROS	WAF	DONS	Water Distribution Programme (Sigatoka Water Supply Enhancement)	Proposed new upgrade works	The programme will involve the replacement & upgrading of WAF's water	Western	Northqoliobu	P&D	Planning
W57		Water	New	Yes	MROS	WAF	DONS	Rural Water Supply Scheme Central Eastern (New)	Installation of new reservoir, water treatment and water reduction mains	The project involves the design, construction, testing, water treatment and	Central/Eastern	Seva	P&D	Designing
W58		Water	New	No	MROS	WAF	DONS	Water Distribution Programme (Koroisaki/Levuka)	New Reservoir Tanks for Naitenu & Makuluva	Design & Construction works for the installation & commissioning of new water	Western	Seva	P&D	Planning
W59		Water	New	No	MROS	WAF	DONS	Water Distribution Programme (Sigatoka)	Sigatoka Water Retention Expansion	Design & Construction works to install new water retention structure with	Western	Northqoliobu	P&D	Planning
W60		Water	Upgrade	No	MROS	WAF	DONS	Water Sources & Water Treatment Plant Programme	Substations WTP and Intake	The project will involve the installation & construction of new water treatment	Naitenu	Makuluva	P&D	Designing
W61		Water	Upgrade	No	MROS	WAF	DONS	Water Source & Water Treatment Plant Programme (Haboro)	Haboro Work Upgrade, WTP & PS Upgrades	Installation of new water treatment and pumping infrastructure to meet	Central	Seva	P&D	Planning
W62		Water	New	Yes	MROS	WAF	DONS	Water Distribution Programme (BaTavua)	Proposed trunk mains	Design & Construction works to install new low water mains	Western	Seva	P&D	Planning
W63		Water	Renew	Yes	MROS	WAF	DONS	New Reservoir Water (Nausori - Dugab)	Reduction leakage assets, installation of hydrants & isolation valves.	Includes pipeline replacement and installation of underground for hydrants.	Central	Seva	P&D	Planning
W64		Water	Upgrade	No	MROS	WAF	DONS	Water Source & Water Treatment Plant Programme (Nausori - Dugab)	New Water Pipeline (Nausori Basin to Dugab WTP)	Installation of the proposed water pipeline from Nausori Basin to Dugab WTP	Central	Seva	P&D	Planning
W65		Water	New	No	MROS	WAF	DONS	Water Distribution Programme (BaTavua)	New Reservoir Tanks for Naitenu & Makuluva	Design & Construction works for the installation & commissioning of new water	Western	Seva	P&D	Planning
W66		Water	New	No	MROS	WAF	DONS	Water Source & Water Treatment Plant Programme	Sigatoka Reservoir Upgrade	The water will be stored above or in the existing reservoir in the Sigatoka	Western	Northqoliobu	P&D	Planning
W67		Water	New	Yes	MROS	WAF	DONS	Water Distribution Programme (BaTavua)	Proposed new water	Design & Construction works for the installation & commissioning of new water	Western	Seva	P&D	Planning
W68		Water	New	Yes	MROS	WAF	DONS	Water Distribution Programme (Koroisaki/Baitaki)	Pump station for Dugabua	Design & Construction works for the installation & commissioning of new pump	Western	Makuluva	P&D	Planning
W69		Water	New	Yes	MROS	WAF	DONS	Water Distribution Programme (BaTavua)	Makuluva Pump Station	Design & Construction works for the installation & commissioning of new pump	Western	Seva	P&D	Planning
W70		Water	New	Yes	MROS	WAF	DONS	Water Distribution Programme (BaTavua)	Pump station	Design & Construction works for the installation & commissioning of new pump	Western	Seva	P&D	Planning
W71		Water	Renew	Yes	MROS	WAF	DONS	Water Distribution Programme (Seva-Nausori Water)	Reduction of Decommissioned Reservoirs & Pump Stations	Reduction of decommissioned Reservoirs & Pump Stations	Central	Seva	P&D	Planning
W72		Water	Upgrade	Yes	MROS	WAF	DONS	Water Distribution Programme (Seva-Nausori Water)	Reduction of Decommissioned Reservoirs & Pump Stations	Reduction of decommissioned Reservoirs & Pump Stations	Central	Seva	P&D	Planning
W73		Water	Upgrade	No	MROS	WAF	DONS	Water Distribution Programme (Haboro)	Reduction of Decommissioned Reservoirs & Pump Stations	Reduction of decommissioned Reservoirs & Pump Stations	Central	Seva	P&D	Planning
W74		Water	Study	No	MROS	WAF	DONS	Catchment Management Programme (Nausori Dugab)	Water Catchment Protection	Construction & civil works for water catchment protection	Central	Seva	P&D	Planning

Source: National Infrastructure Investment Plan Project Database, 2022.

The final project database of infrastructure capital construction projects assembled for the NIIP project contains **over 570 projects**, including current projects that are ongoing, budgeted, or being appraised and those planned pipeline projects that would require funding within the next 10 years.

A summary of the Project Database has been provided as **Attachment A** to the NIIP with MOF being provided a full copy, which, due to the sensitivity of some fields, cannot be distributed in its raw form.

A general threshold of >\$500k was set for determining whether projects should be included in the database, since its key purpose is to identify the next wave of planned projects that might require external funding. Summary statistics from the compiled database are provided in Tables 26 and 27.

The primary objectives for establishing a central database of all infrastructure capital construction projects (and related studies) are to answer the following questions:

- Q1. What is the size of the funded (committed) infrastructure programme? (Section 6.2)
- Q2. What is the forecast expenditure for this committed programme? (Section 6.3)
- Q3. What additional projects are planned but unfunded? (Section 6.4)

By using the project database described above and the MCA prioritisation criteria outlined in Chapter 7, we ultimately answer the final question:

- Q4. Which investment ready projects should be prioritised for development? (Chapter 7)

6.2 Summary of Current Project Commitments

This section provides a summary of the project database formulated for the NIIP. The combined cost estimate for funded projects (those with a status of “ongoing” or “budgeting” is \$5.75 billion for on-budget and \$292 million for off-budget entities. The pipeline of unfunded projects held in the database is \$5.66 billion and \$2.0 billion for on- and off-budget entities, respectively.

Table 26 Project Database (Projects by Line Ministry)

Entity	Name	Funded ¹		Unfunded ¹	
		#	(\$m)	#	(\$m)
On-Budget Entities					
MFF	Ministry of Fisheries and Forestry	1	11.0		
MHMS	Ministry of Health and Medical Services	7	170.0	32	378.2
MIAC	Ministry of Itaukei Affairs, Culture, Heritage and Art	1	3.0		
MOH	Ministry of Housing	19	182.0	27	471.5
MLG	Ministry of Local Government	16	85.4	2	2.9
MoAW	Ministry of Agriculture and Waterways	15	7.7	25	18.7
MoEd	Ministry of Education	6	27.6	24	143.6
MOF	Ministry of Finance			5	742.0
MOJ	Ministry of Justice	8	139.8		
DOT	Department of Transport	1	22.2	1	2.0
WAF	Water Authority Fiji (MPW)	20	79.0	55	1,421.0
FRA	Fiji Roads Authority (MPW)	14	534.1	53	813.2
MPW	Ministry of Public Works, Transport and Met. Services	10	4,429.1	20	968.1
MRMD	Ministry of Rural and Maritime Development & Disaster Management			8	312.0
MSI	Ministry of Sugar Industry			2	2.0
MTCA	Ministry of Tourism and Civil Aviation			3	8.9
MWC	Ministry of Women, Children and Poverty Alleviation	1	4.7		
OPM	Office of Prime Minister			1	526.9
	Total (On-Budget)	119	5,695.5	258	5,810.9
Off-Budget Entities					
AF	Fiji Airports Limited	23	169.4	94	784.1
DOT	Department of Transport				
FPCL	Fiji Ports Corporation Limited	14	87.5	8	369.0
FSC	Fiji Sugar Corporation			8	350.0
HA	Housing Authority			4	255.1
MSAF	Maritime Safety Authority of Fiji			15	13.1
TFL	Telecom Fiji Limited	2	3.6	30	142.2
	Total (Off-Budget)	39	260.5	159	1,913.6

Source: National Infrastructure Investment Plan Project Database

1. “Funded” projects are those project that are ongoing or in the budget. “Unfunded” projects are those that are being appraised (already passed gateway 1) or in the planned pipeline.
2. The cost/budget for projects is the total estimated construction costs. Thus the dollar sum in the current column does not equate to remaining spend.

It can be observed in Table 26 that the majority of infrastructure has historically been delivered by FRA and WAF but that there are some entities who are anticipating significant increases in the future, such as MPWTMS (renewable energy), Housing Authority (residential subdivisions), MLGH (formalising settlements) and FPCL (Suva port relocation).

The project database contains 575 capital construction projects/programmes, of which 158 are committed for funding (having a status of ongoing or budgeting). The committed programme is dominated by the recurrent capital programs of FRA (\$4.4 billion or 73% of total), namely:

- Capital Road Maintenance Programme
- Emergency Works
- Renewal and Replacement (Roads and Services)
- Bridge and Crossings Upgrade and Replacement
- Jetties Upgrade and Replacement
- Rural Roads Programme
- Road Furniture (Bus Shelters, Footpaths, Streetlights)
- Congestion and Capacity Improvements
- Road Resilience

With reference to Figure 1, the database also accommodates projects in the “appraising” stage, i.e., those that have been screened and approved by MOF B&P (past Gateway 1 at the time of preparing the NIIP) and will be included in the next budget round or are currently in discussions with donors to seek funding.

Table 27 Summary of Projects beyond Gateway 1 (All Entities by Sector)

Sector	#	Ongoing	Budgeting	Appraising	Total
Air	31	154.1	20.1	23.8	198.0
Buildings	41	446.6	35.1	92.0	573.7
ICT	2	3.6			3.6
Marine	18	90	36.8		126.8
Road	14	4,429.6	0.8	346.0	4,776.4
Urban	40	173.6	107.0	89.9	370.5
Water	17	260	274.1	228.2	762.3
Waterways	15	1.8	5.9		7.7
Energy	1			47.0	47.0
Totals	179	5,559.3	479.7	826.9	6,865.9
		81%	7%	12%	

Source: National Infrastructure Investment Plan Project Database

A key activity performed by the NIIP project team was to work with infrastructure entities and the participating agencies to forecast the likely expenditure (remaining % by year), for funded projects. This included an estimate of the percentage spent at the end of the current (2022) budget year.

6.3 Capital Construction Forecast

6.3.1 Forecast Capital Construction

The project database captures the agencies’ best expenditure estimate for all projects (funded and unfunded) based on a percentage of the total cost estimate as shown in Figure 4 and summarised in Table 28.

Figure 4 Forecasting Expenditure in the Database

Cost Estimate (F\$m)	% Complete (Dec22)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	% (sum)	To 22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	
\$ 3.469	31%	65%	4%									100%	1.08	2.25	0.14									
\$ 4.894	28%	68%	4%									100%	1.37	3.33	0.20									
\$ 7.800	29%	52%	14%	5%								100%	2.26	4.06	1.09	0.39								
\$ 7.900	1%	26%	51%	17%	5%							100%	0.08	2.05	4.03	1.34	0.40							
\$ 3.912	4%	47%	43%	6%								100%	0.16	1.84	1.68	0.23								
\$ 3.167	5%	53%	32%	10%								100%	0.16	1.68	1.01	0.32								
\$ 6.604	2%	25%	51%	17%	5%							100%	0.13	1.65	3.37	1.12	0.33							
\$ 5.071	4%	25%	50%	17%	4%							100%	0.20	1.27	2.54	0.86	0.20							

Source: National Infrastructure Investment Plan Project Database

Table 28 Projected Expenditure on All Infrastructure Projects (All Entities by Sector)

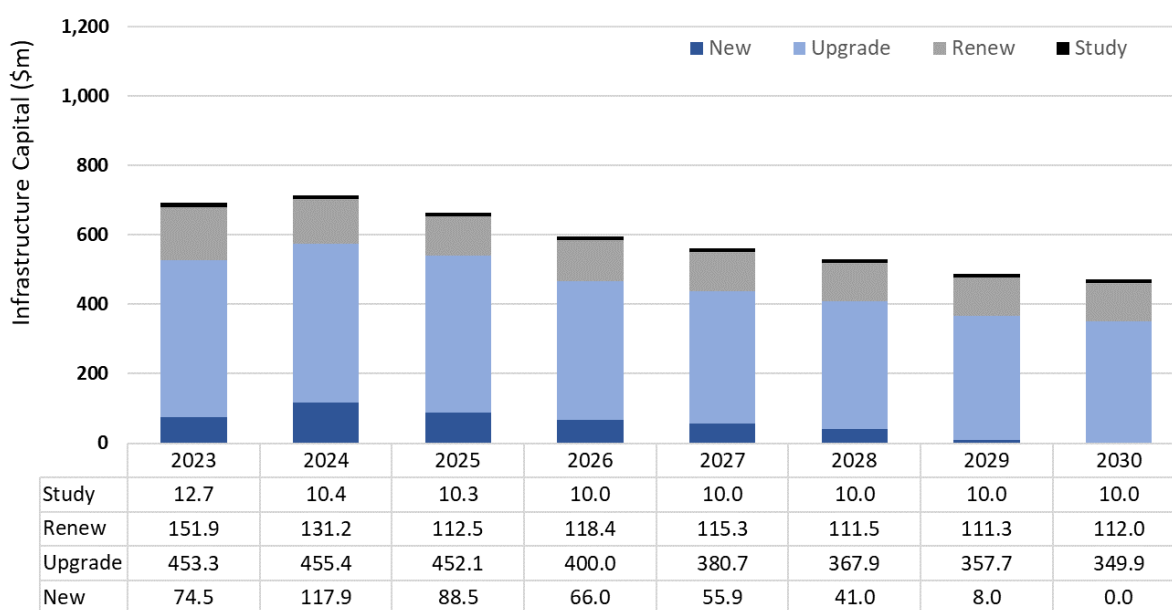
Sector	#	Total Cost	To 2022	2023	2024	2025	2026	2027
Air	128	977.4	20.1	48.9	40.7	99.9	72.9	32.0
Buildings	121	1,604.9	174.7	109.1	166.8	247.5	338.8	102.3
Energy	38	161.3	1.1	18.4	55.4	21.8	11.8	14.1
ICT	49	698.2	35.7	48.2	55.4	56.4	69.3	84.2
Marine	36	5,404.3	0.0	499.1	520.4	520.2	520.5	533.1
Road	69	1,543.0	28.4	77.3	292.1	324.4	373.8	141.2
Urban	73	1,383.3	0.0	106.4	159.1	170.9	171.4	178.9
Water	44	490.8	0.9	8.6	6.6	8.1	15.5	57.5
Waterways	21	1,417.2	0.0	105.1	130.9	171.3	235.0	248.2
Totals	575	13,680.4	260.9	1021.2	1427.5	1620.5	1809.0	1,391.6

ICT = information and communications technology.

Source: National Infrastructure Investment Plan Project Database.

This forward projection of the likely timing of the spend allows us to estimate the 5–10-year forecast and compare it with past levels of expenditure to aid in the identification of any significant pending liabilities. It also provides some insight into the completeness of the project pipeline (both funded and unfunded), as demonstrated in Figure 5 and Figure 6.

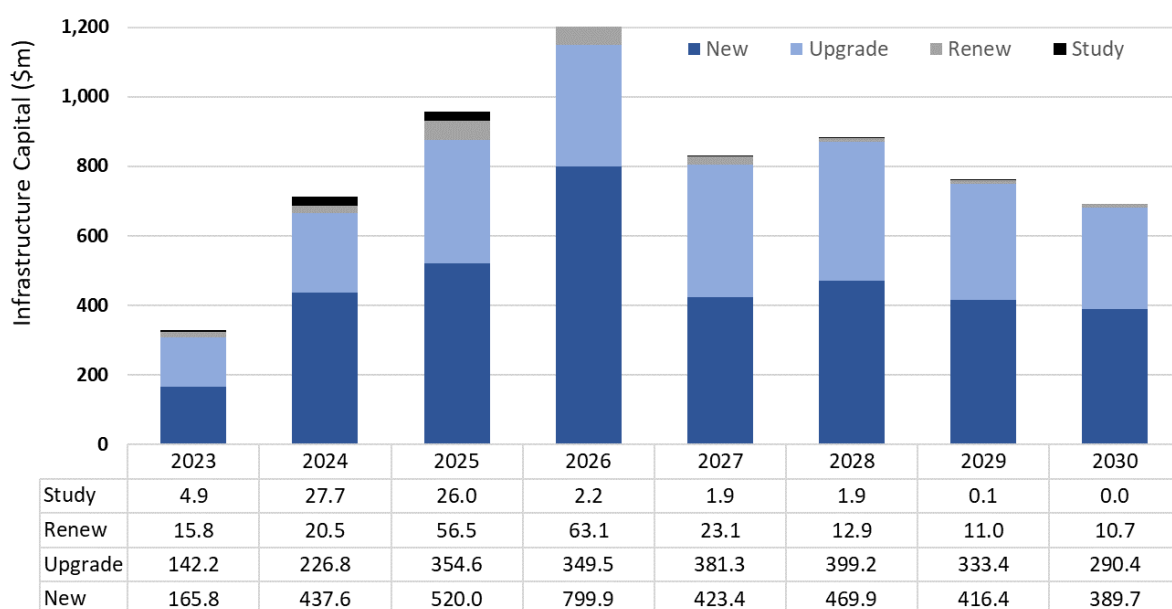
Figure 5 Funded Infrastructure Spend Projection (All Entities by Type)



Source: National Infrastructure Investment Plan Project Database

As expected, there is a reasonably consistent projected spend for funded projects over the next 5 years (2023–2027), indicating a good level of thought has gone into the database and the forecast project and programme expenditures. This result is reflective of the sound asset management programs (recurrent capital on rehab and renewals) run by FRA and WAF (who account for over 75% of the on-budget spend).

Figure 6 Unfunded Infrastructure Spend Projection



Source: National Infrastructure Investment Plan Project Database.

For the unfunded projects (Figure 6), we see a less consistent forward projection and a significant bow wave of planned investment over the next 5 years that is not currently funded.

While not perfect, the database does give us a longer-term view of infrastructure entities' capital programme, and this is explored further in Section 6.4.

6.3.2 Maintenance Liability of New Capital Construction Projects

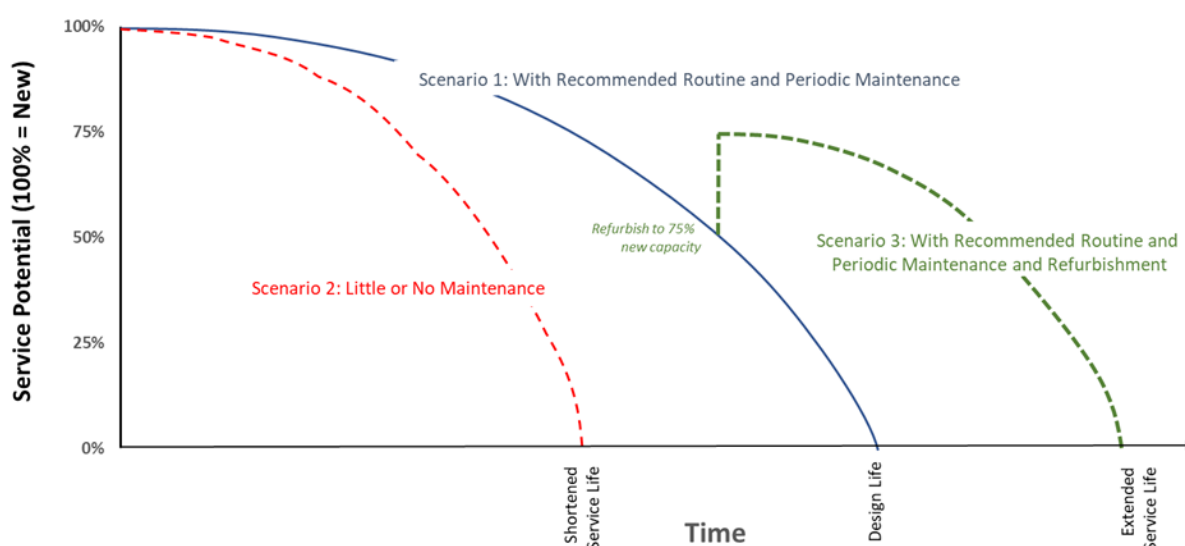
Another observation from the project database is that there is a healthy volume of upgrade and renewal in the spend forecast. This again reflects a strong asset management programme of work focused on maintaining the existing asset base to meet current and future demand.

A recent PRIF study into maintenance across the Pacific outlines the importance of adequately budgeting and managing “whole-of-life” infrastructure costs to ensure the maximum potential life of infrastructure.

When new infrastructure is built, it will typically have a “design life” assigned upon which its economic viability will have been assessed. To achieve this, asset managers need to adhere to the manufacturers' recommended maintenance regime or accepted best practice. When maintenance regimes are not followed, assets will fail to meet service standards (for example, pumping capacity, in-service hours) and thus need replacement before their design life has been realised. In this situation the “service life” of the asset will be less than its design life (Scenario 2 in Figure 7).

“Capital maintenance” in the form of a **rehabilitation or refurbishment** can restore the service potential of an asset and extend its service life beyond its original design life (Scenario 3 in Figure 7). The Maintenance Benchmarking Report promotes a move toward this scenario (3) whereby a greater volume of planned capital maintenance is carried out to extend the service life of infrastructure assets beyond their original design life and result in overall lower whole-of-life costs to infrastructure entities.

Figure 7 The Impact of Maintenance and Renewal on the Service Life of Assets



Source: Adapted from Asset Management Insights Ltd. (2013). *Effective Age*. Retrieved from [Asset Insights.net](https://www.assetinsights.net/Glossary/G_Effective_Age.html): https://www.assetinsights.net/Glossary/G_Effective_Age.html.

The other negative consequence of the forward program having a disproportionate focus on building new infrastructure to the detriment of having sufficient funds to operate, maintain, refurbish, and rehabilitate existing, is that expanding the asset base also increases the ongoing liabilities to operate and maintain (and rehabilitate) that new infrastructure.

To illustrate the ongoing operation and maintenance expenditure (OPEX) burden on private and public resources, we could make a very broad and conservative assumption that the annual operating and maintaining of new infrastructure capital construction is, on average, 6% per year. As evidenced in Table 29, it can be much higher than this for active assets (e.g., plant and equipment, vessels, aircraft) and lower for passive assets (e.g., roads, retaining walls, bridges).

Table 29 Maintenance Burden as % of Capital Construction

Asset Class	Avg. Annual Maintenance	Avg. Annual Operating
Buildings	0.7%–1.5%	7%–14%
Aquatic Centre	1.1%	13.9%
Museum	0.6%	9.7%
Commercial	0.8%	7.0%
Roads	2%–2.5%	<0.2%
Carparks	2.1%	NR
Bridges	0.5%	NR
Parks and Reserves	5%–10%	4%
Plant and Equipment	3%–5%	NR

Source: Local government and municipal knowledge base.

Note: This is a wiki-type site contributed to by LG Australia that continues to develop over time as Australia has reasonably advanced recording of costs and expenditure coded by asset type. It is provided as context to our 3% estimate of maintenance as percent of capital construction.

Using this broad assumption that annual maintenance across all infrastructure classes is conservatively, 6% of new construction cost, and the average annual funded forecast expenditure on new capital construction (Table 30) of \$94.4 m for all entities, the Government of Fiji would need to add an estimated \$5.7 million per year to its recurrent budget to cover the ongoing maintenance of this infrastructure; a similar increase would also apply to operating budgets, especially when the infrastructure is buildings, which generally require energy to operate.

Table 30 Cumulative Impact of New Construction on the Recurrent Budget

Capital Cost Estimate (\$, million)	2023	2024	2025	2026	2027	Average
New Construction	74.5	117.9	88.5	66	55.9	80.6
6% of Capital on O&M	4.5	7.1	5.3	4.0	3.4	4.8
Cumulative OPEX Cost (annual)	4.5	11.5	16.9	20.8	24.2	15.6

O&M = Operations and Maintenance.

Source: Authors.

The net impact of the new /expanded infrastructure forecast over the next 5 years would result in a cumulative increase to \$24.2 m by 2027, or a total additional cost of \$77.9 m in maintenance expenditure over that same 5-year period.

The above analysis is illustrative of the significance of expanding Fiji's infrastructure and how important it is to consider the whole-of-life costs of this infrastructure at the time of project appraisal. This is reflected in the MCA criteria and benefit assessment form used to rate the impact of a project as outlined in Chapter 7.

6.3.3 Project Dossier – Current

The Infrastructure Sector Project Dossier is a register/compendium of project summary notes that MOF maintains to solicit discussions with development partners (Figure 1). At present, the Dossier only covers a handful of on-budget entities, namely:

- Ministry of Public Works, Transport and Meteorological Services (Head 40)
- Water Authority of Fiji (Head 41)
- Fiji Roads Authority (Head 43)

The prioritised list of projects identified through the MCA analysis presented in Chapter 7 (and Attachment B) will update the Dossier and expand the list of agencies included. All projects in the Dossier have been entered in the project database with a combined capital construction estimate of \$381.5 million (Table 31).

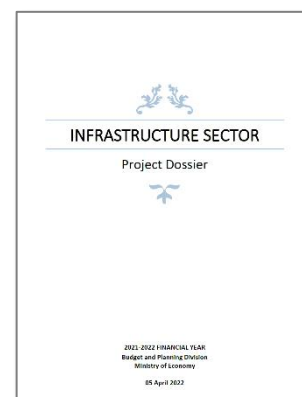


Table 31 Projects in the Infrastructure Dossier

ID	Sector	Lead	Project Name	Status	Cost Est. (\$,m)
W13	Water	WAF	(Nadi-Lautoka Supply Scheme	Budgeting	77.4
W14	Water	WAF	Upgrade of Navakai Wastewater Treatment Plant	Appraising	60.0
W15	Water	WAF	Nadi/Lautoka WTP Augmentation	Planning	52.8
W16	Water	WAF	Nadi-Lautoka Augmentation of Water Sources	Planning	50.2
W18	Water	WAF	Nadi-Lautoka Reservoir Augmentations	Planning	38.9
W21	Water	WAF	Nadi-Lautoka Replacement of Water Mains	Budgeting	30.2
R22	Road	FRA	Raising of Emily Flats along Siberia Road	Planning	1.4
R23	Road	FRA	Raising of Coastal Road, Lakeba Rd	Planning	1.8
R24	Road	FRA	Raising of Navoalevu Flats, Wainikoro Road	Planning	1.4
R25	Road	FRA	Raising of Olana Flats along Vunivutu Road	Planning	5.3
R26	Road	FRA	Satulaki Road Upgrading Project	Planning	4.1
R27	Road	FRA	Nakobo Road Upgrading Project	Planning	2.5
R28	Road	FRA	Namovoivoi Navakasali to Cogea Road	Planning	10.0
R29	Road	FRA	Wailevu – Bala (Salia) Rural Roads Upgrading	Planning	10.8
R30	Road	FRA	Savusavu Climate Resilient Project	Planning	7.6
R31	Road	FRA	North Coastal Road Climate Resilient Project	Planning	3.0
R32	Road	FRA	Waidamudamu Bridge Construction Project	Planning	2.0
R33	Road	FRA	Daku 1 Bridge Construction Project	Planning	8.0
R34	Road	FRA	Laqere Bridge Construction Project	Planning	8.0
R35	Road	FRA	Taveuni Jetty Upgrading Project	Planning	1.2
R36	Road	FRA	Naqai Bridge Construction Project	Planning	5.0

Source: Infrastructure Sector Project Dossier, MOF, April 2022

6.4 Planned Spend against Historic Projection Forecasts

6.4.1 Historic Allocation Levels (On-Budget)

Section 4.2 (Table 11, Table 13 and Table 29) analyses historic expenditure levels, with FRA consuming 58% of the capital expenditure across the 12 on-budget infrastructure entities and WAF consuming 19%. Using those historic proportions, we can project a forward estimated allocation of the totals from Table 21 to determine likely levels of future available funding. It must be stressed that these are not “ceiling thresholds” but merely a means of comparing the

planned pipeline expenditure against the likely funds available in order to determine if the fiscal policy set in the MTFF will be sufficient to fund the pending pipeline if not (as the case appears), MOF can then begin to plan for that scenario through tighter screening of projects, the setting of funding thresholds, and through seeking donor and private sector funding.

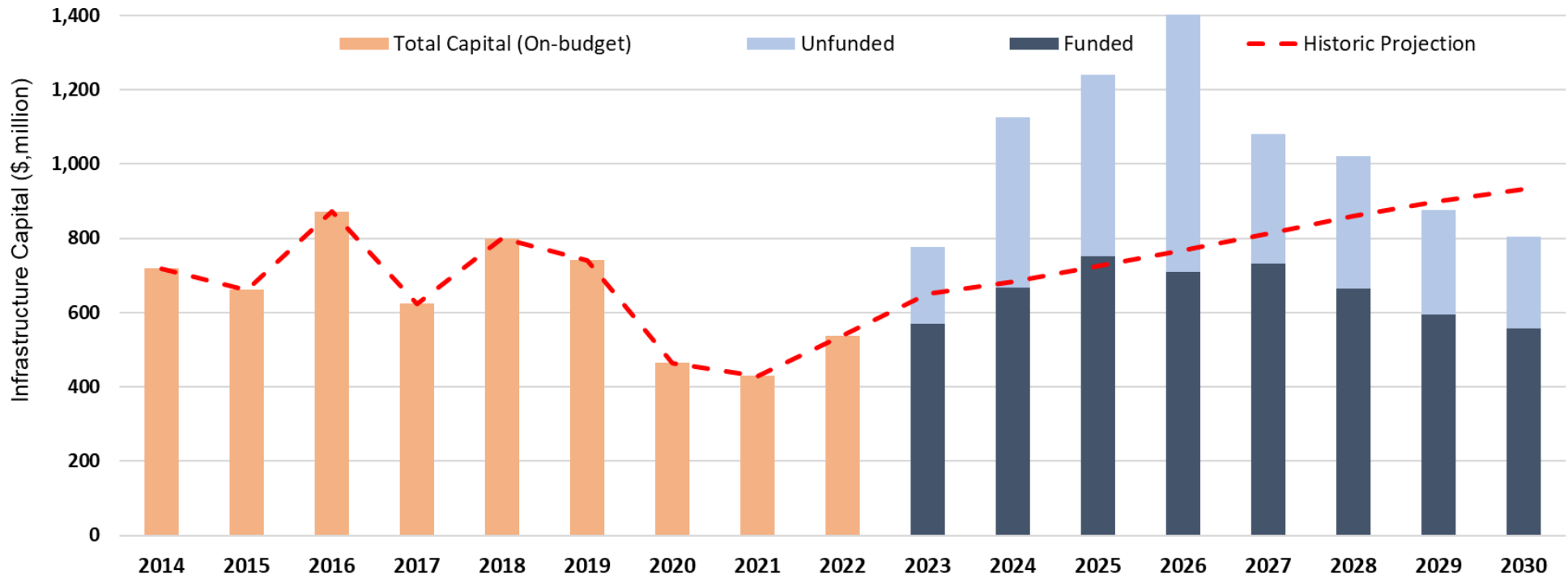
Figure 8 displays a composite of data from the historic analysis in Chapter 4, the projection of future funding from the MTFF analysis also in Chapter 4 (Table 21), and the forecast pipeline from the database reported in Section 6.3. The analysis shows that the current funded infrastructure programme will achieve similar levels of expenditure to historic levels (when adjusted for expected revenue growth); that is, the dark blue area is generally below the red dashed line or threshold. Capacity to add new projects appears beyond 2026–27.

However, when you add the forecast expenditure associated with unfunded infrastructure projects (light blue), the backlog in projects requiring funding becomes evident. With a balanced consideration of the fiscal constraints and austerity measures Fiji is undertaking in its COVID-19 recovery strategy, and an examination of the make-up and completeness of the planned pipeline submitted by infrastructure agencies, it is considered **very likely that government revenues will be insufficient to cover the expenditure** necessary to deliver the planned infrastructure capital programme. MOF will need to adopt strategies to manage this shortfall, including:

- Lobbying for a greater proportion of governments total expenditure go to PSIP (currently assumed in the NIIP to grow from 31% in 2020 to 33% by 2030).
- Moving forward with priority projects and deferring (or abandoning) projects with lesser impact – supported by the MCA and economic viability analysis in Chapter 7.
- Approaching development partners for grant or concessional funding if projects align with their strategic or fund priorities.

Additionally, as discussed in Chapter 4, the MTFF forecast is based on a relatively conservative revenue recovery from COVID-19. Should the recovery be quicker, then the revenue projection for infrastructure (red dotted line) will increase.

Figure 8 Comparison of Pipeline Expenditure with MTFF Forecast (On-Budget)



MTFF = Medium-Term Fiscal Framework.

Source: NIIP Project Database, analysis of MTFF and analysis of historic expenditure.

Table 32 Future Projected Trend in Budget Allocation (on-budget entities)

Item	Past Alloc. ⁽¹⁾	2022 Budget	2023 Budget	2024 Est.	2025 Est.	2026 Est.	2027 Est.	2028 Est.	2029 Est.	2030 Est.
Total Infrastructure Capital Budget Est. (Table 21)	100%	538.0	650.8	682.34	724.5	768.0	813.1	859.7	901.1	931.8
Apportionment based on historic levels:										
- Fiji Roads Authority	57.2%	325.10	362.90	390.54	414.70	439.60	465.41	492.09	515.78	533.36
- Water Authority of Fiji	19.4%	114.50	115.10	132.55	140.75	149.20	157.96	167.01	175.05	181.02
- Ministry of Public Works, Transport and Meteorological Services	5.0%	6.00	14.80	34.31	36.43	38.62	40.88	43.23	45.31	46.85
- Ministry of Agriculture and Waterways ⁽³⁾	1.0%	5.90	11.30	6.99	7.42	7.86	8.33	8.80	9.23	9.54
- Ministry of Environment										
- Ministry of Housing	1.9%	15.70	24.80	13.09	13.90	14.73	15.60	16.49	17.28	17.87
- Ministry of Local Government	1.6%	3.00	12.10	11.09	11.78	12.49	13.22	13.98	14.65	15.15
- Ministry of Education	0.8%	3.80	4.70	5.59	5.93	6.29	6.66	7.04	7.38	7.63
- Ministry Rural & Maritime Development & NDMO	1.3%	5.10	4.60	8.71	9.25	9.81	10.38	10.98	11.51	11.90
- Ministry of Health and Medical Services	3.3%	18.30	23.90	22.31	23.70	25.12	26.59	28.12	29.47	30.47
- Ministry of Tourism and Civil Aviation	0.6%	2.10	5.00	3.80	4.03	4.28	4.53	4.79	5.02	5.19
- Ministry of Sugar Industry	0.5%	2.00	2.00	3.32	3.53	3.74	3.96	4.19	4.39	4.54
- MOF Services, Head 50 (Infrastructure Only) ⁽²⁾	7.3%	36.50	69.60	49.81	52.89	56.06	59.36	62.76	65.78	68.02

Sources: MTFE estimates in MOF's Economic and Fiscal Update Supplement to the 2022 - 2023 Budget Address

Notes:

(1) Mean of 2014-2022 expenditure proportions from Table 13.

(2) Based on study review of Head 50 for all years, with only expenditures of an infrastructure nature included. Multiple expenditure items of a non-infrastructure nature excluded.

(3) These new entities were previously with the Ministry of Waterways and Environment so their projections cannot be disaggregated in this analysis.

Table 33 Funded and Unfunded Capital Construction Pipeline (on-budget entities)

Item	2023 Budget	2024 Est.	2025 Est.	2026 Est.	2027 Est.	2028 Est.	2029 Est.	2030 Est.
Forecast Pipeline by Entity (project database) ⁽²⁾								
- Fiji Roads Authority	442.9	487.9	512.8	522.8	546.0	569.4	522.5	522.5
- Water Authority of Fiji	102.9	102.9	155.4	167.2	167.7	175.2	156.5	117.8
- Ministry of Public Works, Transport and Meteorological Services	107.5	107.5	124.3	144.5	182.1	210.8	182.6	99.6
- Ministry of Agriculture and Waterways ⁽³⁾	5.7	5.7	161.7	163.2	223.4	54.6	89.1	88.0
- Ministry of Environment								
- Ministry of Housing	40.3	40.3	110.0	168.8	312.4	97.7	95.2	63.2
- Ministry of Local Government	25.6	29.0	33.4	16.5	1.0	0.0	0.0	0.0
- Ministry of Education	29.0	25.6	15.0	14.4	14.4	14.4	14.4	14.4
- Ministry Rural & Maritime Development & NDMO	TBC	31.2	31.2	31.2	31.2	31.2	31.2	31.2
- Ministry of Health and Medical Services	38.8	39.7	65.1	76.2	68.3	49.7	45.8	46.6
- Ministry of Tourism and Civil Aviation	13.0	23.5	36.4	63.3	10.7	3.3	3.3	7.1
- Ministry of Sugar Industry	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
TOTAL		893.4	1,245.5	1,368.3	1,557.4	1,206.4	1,140.6	990.6

Sources: MTFE estimates and the NIIP Project Database

Notes:

(1) MOF. Economic and Fiscal Update Supplement to the 2022-2023 Budget Address.

(2) Forecast from Project Database projections for both funded and unfunded projects/programmes.

(3) These new entities were previously with the Ministry of Waterways and Environment so their projections can't be disaggregated in this analysis.

6.4.2 Comparison of Planned Pipeline with Historic Projections

There are many reasons why historic expenditure might not represent future levels of investment, including:

- Underinvestment in long-life fixed assets, leading to extensive backlog
- Changes in policy or service levels driving investment in new infrastructure
- Rapid growth leading to network expansion/capacity improvements
- Merging of entities or transferring of asset ownership between entities, etc.

Nevertheless, Table 34 compares the forecast budget allocations, based on past expenditure proportions, across the on-budget entities (Figure 8) with the planned capital construction pipeline submitted by those entities and contained in the NIIP project database described in Section 6.1 (Table 28).

Table 34 Comparison of Planned vs Projected Allocation (on-budget entities)

Entity	5-yr Budget Projectn. ('23-27) ⁽¹⁾	5-yr Pipeline Forecast ('23-27) ⁽²⁾	Diff. Budget † vs Plan ⁽³⁾	Observations
FRA	414.6	527.8	127%	
WAF	139.1	153.7	110%	
MPWTMS	33.0	153.8	466%	New renewable energy projects
MoAW	8.4	121.7	1449%	Regional recycling facility and Nadi flood alleviation
MoH	16.4	145.9	889%	Formalisation of settlements
MLG	12.1	16.0	132%	
MoEd	5.8	16.7	288%	Classroom and ablution upgrade programme
MRMD	8.6	31.2	363%	Rural road projects
MHMS	24.3	59.8	246%	Hospital upgrade programme
MSI	3.3	0.2	6%	Limited projects submitted / FSC has more

Sources: MTFE estimates and NIIP project database

Notes:

(1) Mean of 2023-2027 expenditure forecast from Table 32

(2) Mean pipeline capital spend projections from project database (Table 33).

(3) Difference between projected budget and planned pipeline expenditure, >100% is a budget shortfall.

Given the likely funding shortfall, MOF will need to ensure they have a robust prioritisation methodology for the early-stage screening of project, as presented in Chapter 7.

CHAPTER 7

MULTI-CRITERIA ANALYSIS FRAMEWORK

This chapter describes the multi-criteria analysis and decision-making framework that has been used to assess the relative impact (benefits) delivered by projects in the 10-year pipeline and aid in determining the next wave of priority projects for further development. This framework includes screening the projects for completeness, development of the MCA criteria conducting the assessment and scoring.

7.1 Prioritisation Criteria

7.1.1 Multi-Criteria Analysis

At the heart of a NIIP is the multi-criteria analysis and prioritisation (MCA) framework. MCA is a rapid appraisal technique used to rank projects; it is particularly useful at the early stage of project preparation. It defines a set of criteria against which projects are assessed and applies a scoring system to this assessment, with a weighting system to allow adjustments where appropriate.

Prioritisation of candidate infrastructure projects helps focus planning activity on the achievement of national development objectives. Infrastructure needs are always likely to exceed available resources, and the MCA helps direct scarce resources toward projects that are most strongly aligned with the strategic development objectives of Fiji.

It is common for MCA criteria to be grouped under three “triple bottom line” reporting criteria, namely, **economic**, **social**, and **environmental** outcomes. There may also be a fourth grouping of criteria that do not neatly fit under these three headings, typically bespoke criteria that rate the strength of a project’s alignment with strategy and the capacity of government to implement the project.

The MCA guides more informed judgement by decision makers in ranking projects. Each criterion is applied with judgment based on the information that is available at the time – this can obviously be limited for less-developed projects in the 10-year pipeline. Hence the resulting MCA-priority list published within this report **should be reviewed annually** as projects are developed and potentially as priorities shift over time (e.g., pandemic response may put a greater weighting on projects that drive increased revenue for government).

7.1.2 Impact Criteria

As discussed in Section 3.2, the NIIP will primarily help implement planned PSIP reforms and strengthen tools and approaches to screening capital construction projects (gateway 1).

The PSIP Guideline, particularly Guideline 7, lays out the principles of the early-stage screening of projects and presents an evaluation form to aid this screening review (Table 7). The criteria

and tool that aids the MCA are based on Guideline 7 – and to the extent possible referenced back to Screening Note from this guideline (Table 35).

Table 35 Extract from PSIP Guideline – Screening Note (Table 11)

F. Preliminary Analysis of Beneficiaries and Economic Benefits and Costs			
Criteria	Yes/No/N/TBC	Briefly Explain and Justify the Answer	Sponsor Rating (P/F/N/TBC)
Have project beneficiaries been identified by numbers and type?			
Have number and types of new jobs during the investment stage been identified?			
Have number and types of new jobs during operational stage been identified?			
Has the likely impact on economic production / GDP been identified?			
Have potential efficiency, innovation and productivity improvements been identified?			
Have other economic benefits been identified? If so, explain in column 3 ^a			
Have any negative economic benefits (disbenefits) been identified? If so, explain in column 3			
G. Preliminary Analysis of Social Benefits and Costs			
Criteria	Yes/No/N/TBC	Briefly Explain and Justify the Answer	Sponsor Rating (P/F/N/TBC)
Has the community to be most impacted been consulted and are they supportive?			
Have implications for access to key public services and infrastructure / utilities been identified?			
Has the likely impact on poorer regions and communities been identified?			
Have the likely impacts on gender equity been identified and have gender equity improvements been planned for?			
Have likely impacts on the disabled been identified and have needs for disabled access / participation been planned for?			
Have land availability issues been considered and planned for? Land conflicts /issues to be explained in column 3			
Have other social benefits been identified? If so, explain in column 3			
Have any negative social benefits (disbenefits) been identified? If so, explain in column 3			
H. Preliminary Analysis of Environmental, Climate Mitigation, and Disaster Resilience Benefits and Costs			

Source: Table 11, Guidelines for Preparation, Appraisal and Approval of Projects Under the Public Sector Investment Programme (PSIP), Ministry of Economy, 2022.

Table 36 presents the 11 criteria the project team compiled from Fiji's PSIP Guideline that reflect a balanced set of economic, social, and environmental criteria, along with an assessment of how well the project aligns with strategic planning documents and policies.

Table 36 MCA Criteria

Benefit Criteria	Consideration (when assigning relative rating score)
STRATEGIC ALIGNMENT (Part C of Screening Note)	
C.1 NDP Alignment	How well are the project objectives and outcomes aligned to the NDP?
C.2 Strategic Planning Alignment	Is this project identified in, or aligned with, other cross-cutting or institutional plans?
FINANCIAL AND ECONOMIC BENEFITS (Part F)	
F.1 Project Costing	Have the whole-of-life project costs been assessed and of a high quality?
F.2 Financial Viability	Is the project likely to generate a positive return for the entity?
F.3 Economic Viability	Is the project likely to have a positive impact on the economy and generate a positive cost-benefit ratio?
SOCIAL IMPACT (Part G)	
G.1 Community and Inclusion	Does the project adequately address community concerns, gender equity and people with disabilities?
G.2 Public and Social Services	Does the project provide greater or improved access to public services?
G.3 Poverty Reduction	Is the project likely to reduce poverty and/or assist disadvantaged communities?
ENVIRONMENTAL IMPACT (Part H)	
H.1 Environmental Planning	Is the project likely to adversely impact the environment or natural resources?
H.2 Climate Change Mitigation	Is the project likely to have a net positive impact on greenhouse gas emissions?
H.3 Climate and Disaster Resilience	Will the project mitigate the impact of climate change or is it designed to be climate resilient?

NDP = National Development Plan.

Source: Derived from Table 11, Guidelines for Preparation, Appraisal and Approval of Projects Under the Public Sector Investment Programme (PSIP), Ministry of Economy, 2022.

7.2 Rating Against the Criteria

7.2.1 Establishing Criteria Impact Ratings

To build an effective MCA framework, the next step is to create an objective set of impact assessment rating bands for each of the benefit streams/criteria outlined in Table 36. The PSIP screening note approach simply assigns a Pass (P), Fail (F) or Neutral/Not Relevant (N) against the criteria and then there is a “Decision Making Matrix” to aid in determining if the project advances through gateway 1 (Table 6).

In line with best-practice MCA approaches, the NIIP screening approach “enhances” the proposed reformative process to assign a relative score against each of the criteria (rather than a simple Pass/Fail). The goal is to make the scoring as objective as possible with a defined scale; however, given the disparate multi-sector, multi-asset environment covered by the NIIP, the scoring will always be somewhat subjective between bands.

The general principles in setting the rating bands were to:

- Where possible, keep to six bands
- Scores always positive (1–10)
- Provide an abbreviated description for each band (e.g., Low, Moderate, High)

- Elaborate with a more detailed band description to assist with objective scoring
- Keep rating criteria independent of project scale (normalised)
- Keep generic as MCA to apply across multiple sectors and capital project types
- Avoid (or penalise) use of “n/a” or “unknown” – encourage a deeper response.

This led to the following rating assessment bands for each benefit criteria.

Table 37 Benefit Criteria Rating (Scoring) Framework

Criteria Rating	Objective Description
STRATEGIC ALIGNMENT	
C.1 NDP Alignment	
0 UNKNOWN	Not assessed or can't be identified.
2 POOR	Indirect alignment with an objective and intent but not strong.
4 FAIR	Clear alignment with one objective only.
6 GOOD	Direct alignment with 1-2 objectives in single focus area.
8 VERY GOOD	Good alignment with 2 objectives across multiple focus areas or 3 in a single area.
10 EXCELLENT	Strong alignment with 3 or more objectives spanning multiple focus areas.
C.2 Strategic Planning Alignment	
0 UNKNOWN	Not assessed or entity does not have strategic planning documents.
2 POOR	Indirect alignment with entity's development goals. No strategic planning docs.
4 FAIR	Direct alignment with objectives in a single planning document.
6 GOOD	Good alignment with specific objectives across multiple planning documents and/or specifically mentioned.
8 VERY GOOD	Strong alignment with the objectives of multiple planning documents and/or development partners engaged.
10 EXCELLENT	Specifically identified as a high priority project in entity or partner planning documents.
ECONOMIC BENEFITS	
F.1 Project Costing	
0 UNKNOWN	Project costs not yet determined
2 POOR	Fair capital costs estimated only. Ongoing O&M not costed.
4 FAIR	Good capital cost estimate. Ongoing O&M not costed.
6 GOOD	Good capital cost estimate. Ongoing O&M estimated. Funding not fully determined.
8 VERY GOOD	Capital, operational and maintenance costs estimated. Funding sources identified.
10 EXCELLENT	Capital, operational and maintenance costs estimated. Reliable estimates and funding determined.
F.2 Financial Viability	
0 UNKNOWN	Little to no work done to identify financial return for entity (TBD)
2 NO RECOVERY	No capital cost recovery and a likelihood of higher operational costs. Net increase in lifecycle costs.
4 SOME RECOVERY	Some capital cost recovery and/or likely reduction in operating costs. Net increase in lifecycle costs.
6 COST NEUTRAL	A moderate level of savings to entity (additional revenue or reduced operating costs) summing over life close to capital cost.
8 POSITIVE RETURN	High level of tangible savings or increased revenue. Capable of recovering capital and operation costs. Net reduction in lifecycle costs.
10 EXCELLENT RETURN	Significant financial cost benefits to entity. Capable of recovering lifecycle costs and generating an internal rate of return > 6%.
F.3 Economic Viability	
0 UNKNOWN	Little to no work done to identify economic benefit streams from project (TBD)
0 POOR	Project will result in a slightly negative economic benefits (cost transfer to users, taxpayers). Disbenefits outweigh benefits.
2 LOW	Little to no impact on economy. No post-construction job creation. Status quo.

Criteria Rating	Objective Description
4 NEUTRAL	Some positive external economic benefits identified. Economic benefits likely to be close to financial costs.
7 POSSIBLE RETURN	Good stream of economic benefits identified. Very likely to generate positive economic return.
10 PROBABLE RETURN	Economic benefits likely to significantly exceed the whole-of-life costs of the new infrastructure. Strong economic rate of return.
SOCIAL BENEFITS	
G.1 Community and Inclusion	
0 UNKNOWN	Little to no work done to assess and engage with community groups.
0 NEGATIVE	Negative impact on some community groups. A few people disadvantaged by project.
4 NEUTRAL	Generally little to no impact on community groups. Little engagement needed.
6 MODEST	Some positive benefits to community. Negative impacts mitigated with engagement.
8 GOOD	Good level of support within the community. Positive benefits to community groups.
10 SIGNIFICANT	Project's primary aim is to improve equality, assist people with disabilities or benefit communities.
G.2 Public and Social Services	
0 UNKNOWN	Little to no work done to assess improved service levels or land issues.
0 NEGATIVE	Negative impact on access (discontinued service) or major land challenges identified.
4 NEUTRAL	Generally little to no impact on access and quality of service and/or minimal land issues.
6 MODEST	Some improvement to quality of services or slightly greater access to services. Manageable land issues.
8 GOOD	Improved quality and/or access to public services. Manageable land issues.
10 SIGNIFICANT	Project's primary aim is to improve the quality and accessibility of public and social services.
G.3 Poverty Reduction	
0 UNKNOWN	Little to no work done to assess improved service levels or land issues.
0 NEGATIVE	Negative impact on access (discontinued service) or major land challenges identified.
4 NEUTRAL	Generally little to no impact on access and quality of service and/or minimal land issues.
6 MODEST	Some improvement to quality of services or slightly greater access to services. Manageable land issues.
8 GOOD	Improved quality and/or access to public services. Manageable land issues.
10 SIGNIFICANT	Project's primary aim is to improve the quality and accessibility of public and social services.
ENVIRONMENTAL BENEFITS	
H.1 Environmental Planning	
0 UNKNOWN	Little to no work done to assess environmental impacts.
2 MAJOR	Significant detrimental risks to environment need to be addressed through a full EIA. Mitigation costs unknown.
4 MODERATE	Risks to environment need to be addressed through a full EIA. Mitigation measures have been costed.
6 MINOR	Some environmental impacts during construction. Easily mitigated. No full EIA required. No objections likely.
8 NEUTRAL	Project has been assessed to have no adverse impact on the environment. No consultation required.
10 POSITIVE	Project has been assessed to have a beneficial positive impact on the environment.
H.2 Climate Change Mitigation	
0 NEGATIVE	Project will result in a measurable net increase in emissions which can't be addressed.
2 LOW	Project construction will result in additional emissions, but little change long-term.
4 N/A	Project will not have an impact on net emissions (or N/A).
6 NEUTRAL	Design has mitigated emissions during and after construction to be 'carbon neutral'.
8 GOOD	Project will result in a demonstrable net reduction in greenhouse gas emission.
10 SIGNIFICANT	Project's primary aim is to reduce greenhouse gas emissions.

Criteria Rating	Objective Description
H.3	Climate and Disaster Resilience
0	UNKNOWN Little to no work done to assess climate and disaster resilience.
0	NEGATIVE There is a risk the project will exposure government to higher recovery costs.
4	NEUTRAL Project will not result in any change to current situation (or Not Applicable)
6	MODEST Climate resilience accommodated and costed in design to mitigate risk.
8	GOOD Project can demonstrate a direct reduction in risk exposure and impact of climate change.
10	SIGNIFICANT Project's primary aim is to provide climate and disaster resilience to communities.

EIA = environmental impact assessment, NDP = National Development Plan, O&M = operations and maintenance, TBD = to be determined.

Source: Adapted from Guideline to Preparing National Infrastructure Investment Plans (PRIF, 2022) and Table 16 of PSIP Guideline.

7.2.2 Assigning Criteria Weightings

The final part of an MCA framework is to assign relative weightings to the individual criteria scores so that an overall score can be assigned to the evaluation. Once again, we looked to the PSIP Guideline to determine the relative weighting against each criterion. Table 7, presented earlier, provides an excellent starting point and our final weights (Table 38) reflect this guidance.

Table 38 Weighting MCA Criteria

	Benefit Criteria	Weighting	Combined
C.1	NDP Alignment	9%	15%
C.2	Strategic Planning Alignment	6%	
F.1	Project Costing	10%	45%
F.2	Financial Viability	15%	
F.3	Economic Viability	20%	
G.1	Community and Inclusion	6%	20%
G.2	Public and Social Services	7%	
G.3	Poverty Reduction	7%	
H.1	Environmental Planning	8%	20%
H.2	Climate Change Mitigation	4%	
H.3	Climate and Disaster Resilience	8%	
		100%	100%

NDP = National Development Plan.

Source: Derived from Table 6, Draft Updated PSIP Guidelines, Ministry of Finance.

7.2.3 Developing the Benefit Assessment Tool

The final step in building the MCA framework was to create a tool (spreadsheet) which would allow participating agencies to self-assess the benefits their project will deliver. The aim of the scoring tool/form is twofold; first is to get the agency to think about and describe the benefits in a structured manner, and second is to provide an objective assessment of the relative merits/benefits of the project so it may be compared with disparate projects across sectors.

The resulting “Benefit Assessment Tool”, presented in Figure 9, allows agencies to describe and score the relative benefit of their project to then submit to MOF (SPO and Budget Division) for screening. The form was designed to have drop-down lists and promote a structured description of the economic, social, and environmental benefits the project was expected to deliver.

Figure 9 Benefit Assessment Tool - Self-Assessment Tab (Partial)

A	B	C	D	E	F	G	H	I
CAPITAL CONSTRUCTION PROJECT IMPACT ASSESSMENT TOOL								
<i>Completed for Capital Construction Projects</i>								
Project ID	<input type="text" value="M25"/>							
Project Name	<input type="text" value="Cruise Terminal Upgrade (Kings Wharf, Suva)"/>							
Lead Entity	<input type="text" value="FPCL"/>							
Cost Estimate	<input type="text" value="\$ 10,000,000 (FJ\$)"/>					Estimate Quality	<input type="text" value="Good"/>	
Completed by	<input type="text" value="Florence Nand"/>						Email	<input type="text" value="florence@fijiports.com.fj"/>
PART F: FINANCIAL AND ECONOMIC IMPACT								
F1 Project Costing (Evaluation of Part D and E of form)								
<input type="radio" value="Fair"/>	Is the capital construction cost estimate of a reliable <u>quality</u> ? (Specify)							
<input type="radio" value="No"/>	Has a potential <u>funding source</u> for <u>capital construction</u> been determined?							
<input type="radio" value="No"/>	Have the ongoing <u>O&M costs</u> for the new/refurbished asset been calculated?							
<input type="radio" value="No"/>	Has a potential <u>funding source</u> for <u>ongoing O&M</u> been determined?							
Have the whole-of-life project costs been assessed and of a high quality?								
<input checked="" type="radio" value="4"/>	FAIR | Good capital cost estimate. Ongoing O&M not costed.							
<i>Describe potential sources of additional revenue, financial benefits and O&M impact</i>								
<i>Additional rental income</i>								
<i>Increase in O&M costs</i>								
F2 Financial Viability								
<input type="radio" value="Significant"/>	Is the project likely to increase the <u>revenue</u> collected by the managing agency or SOE?							
<input type="radio" value="Neutral"/>	Is the project likely to decrease the entities ongoing <u>operation or maintenance</u> costs?							
<input type="radio" value="TBD"/>	Have any other <u>cost savings</u> to the entity been identified as a result of this project?							
Is the project likely to return a positive Benefit/Cost Ratio for the entity?								
<input checked="" type="radio" value="6"/>	COST NEUTRAL | A moderate level of savings to entity (additional revenue or reduced operating costs) summing over life close to capi							
<i>Describe the net impact on entity's bottom line costs.</i>								
<i>Entity will be earning additional revenue.</i>								
<i>Overhead costs such as utilities would be borne by the tenant.</i>								

Source: Partial extract from Benefit Assessment Form (Authors).

Note that the Benefit Assessment Form is a tool for gathering the required information for the MCA and produces the criteria and scoring described in Section 7.1 and 7.2 above. The tool allows submitting agencies to do their own self-assessment (rating) of the benefits against each of the 11 criteria and asks them to describe the basis of their assigned score in a free text box.

An evaluator (within MOF) then reviews the scoring and justification submitted by the entity and updates/refines the scoring if needed in order to ensure consistency/application of the framework. This evaluator review is captured on a second tab in the workbook (Figure 10).

Figure 10 Benefit Assessment Tool - Evaluator Tab (Partial)

	Submitted	Evaluated	Weight	Evaluator comment (if req'd)
PART H: Environmental Impacts				
H1 Is the project likely to adversely impact the environment or natural resources? <i>None at this stage however, applicable approvals will be sought with the Department of Environment for EIA and EMP.</i>	6	7	5%	Existing terminal so incremental disruption less significant
H2 Is the project likely to have a net positive impact on greenhouse gas emissions? <i>As the buildings/facilities will be owned by FPCL, it will ensure to install energy efficient lighting, install appropriate recycle signages to reduce pollution, etc.</i>	6	5	5%	Larger terminal so slightly negative
H3 Will the project mitigate the impact of climate change or is it designed to be climate resilient? <i>The buildings/facilities will be upgraded to meet the local authorities and engineer's requirements.</i>	6	6	5%	More resilient
Impact Rating and Final Weighted Score (Max of 15%)				9.0
Overall Project Impact Rating (100)				61.3

Source: Partial extract from Benefit Assessment Form (Authors).

7.3 Conducting the Assessments

7.3.1 Projects for Prioritisation

It was determined that all projects currently being appraised but not yet funded should be considered for screening during the NIIP, even though once the process improvements become operational, projects with a status of “appraising” would have already passed the early-stage screening. There are over 400 projects in the database with a status of “Appraising” or “Planning” (Table 39).

Table 39 Summary Potential Projects for Screening (All Entities by Sector)

Sector	Ongoing	Budgeting	Appraising	Planning	Req. MCA ¹
Air	18	7	6	97	45
Buildings	26	11	4	76	48
Energy			1	20	17
ICT	2			36	3
Marine	15	3		31	13
Road	11	2	1	22	20
Urban	28	6	6	29	31
Water	1	13	3	56	12
Waterways	7	8		29	3
Totals	109	50	21	396	192

ICT = information and communications technology.

Source: NIIP project database.

Note:

1. Entities identified projects which might need grant or donor support to deliver (outside normal capital budget).

As discussed in Chapter 4 and Section 6.4, most of these projects can be funded through revenue raised by the government or through fees and charges of SOEs/public enterprises, etc. In the second workshop, following the presentation of the final pipeline comparison with projected funding (Table 34), entities were asked to identify projects in the database that **might require funding outside of their normal capital budget** – by way of grant or donor assistance.

A total of 192 projects, many part of wider programmes of work, were identified and entities were asked to complete a benefit assessment form for these projects or the overarching programmes they were part of.

In total, 80 MCA assessments were completed:

- 17 were completed at programme level (covering 129 projects)
- 63 were completed for individual projects.

7.3.2 Conducting the Assessment

The purpose of completing the benefit assessment form was twofold:

- 1) It describes the benefits the projects will deliver in a structured comparable format across projects.
- 2) It allows objective scoring of the projects to enhance decision making about which projects deliver the greatest impact (economic, social, and environmental).

Ultimately the MCA process generates a weighted benefit score for the project that can be compared across the portfolio. While this provides a useful comparison of the relative impact a project will deliver, it is not the only mechanism by which government ultimately determines which projects should receive funding.

As one example, a development partner may have a fund aligned to a particular strategic goal, such as the Green Climate Fund, which was established in response to climate change by investing in low-emission and climate-resilient development. To access this fund, the Government of Fiji and development partners would look specifically at projects that achieved a high “Environmental” Impact score and specifically, those that scored a 10 against criteria H.2 and/or H.3 (Table 36).

For this reason, **Attachment B** presents the results of the MCA analysis as an ordered listing of the projects sorted on the weighted impact score along with the raw score (out of 10) for the grouped criteria bands of Performance/Other, Social, Environmental and Economic/Financial (Figure 11).

Figure 11 MCA Analysis (Extract from Attachment B)

PRIORITISED MCA RESULTS					Strategy	Economic	Social	Environ	Weighted
ID	Name	Lead	Cost		15%	45%	20%	20%	Score
M102	Wharf Rehabilitation Projects - Lautoka	FPCL	11.8		10	10	7	8	88
5D	Supporting Growth & Resilience of Rural Economy	MRMD	22.5		9	9	9	7	87
M107	Levuka Wharf Rehabilitation Project	FPCL	15.0		10	8	9	6	81
5C	Strengthen Disaster Risk Reduction Management	MRMD	99.1		10	6	9	8	78
5E	Improving Connectivity - Rural & Maritime Communities	MRMD	60.6		9	8	9	6	78
E15	15,000 SHS for Rural and Maritime Communities	DOE	60.0		10	6	9	8	76
TBD	Nadi Flood Alleviation Project	MOE	435.0		10	7	9	7	76
E11	Renewable Energy - Hydro	Departme	200.0		10	7	8	7	76
5A	Access to Water for Rural Communities	MRMD	31.3		9	6	9	7	75
M115	Suva Port Relocation	FPCL	300.0		10	8	6	6	75
M110	Muaiwalu 2 New Interisland Terminal Project	FPCL	0.7		9	7	8	6	75
B102	Upgrade Buildings & Factory Equipments	FSC	50.0		9	7	6	9	74
5B	Enabling Access to Quality Rural Public Service	MRMD	98.6		10	6	9	8	74
A115	Green Airport Upgrades	Fiji Airpoi	3.5		8	7	7	7	73
E12	Upgrading - 50 Diesel Generators to 50 Solar Hybrid Systems.	DOE	50.0		9	6	7	8	73
E104	50T Labasa Co-Gen High Pressure Boiler - Labasa	FSC	30.0		9	7	6	8	72

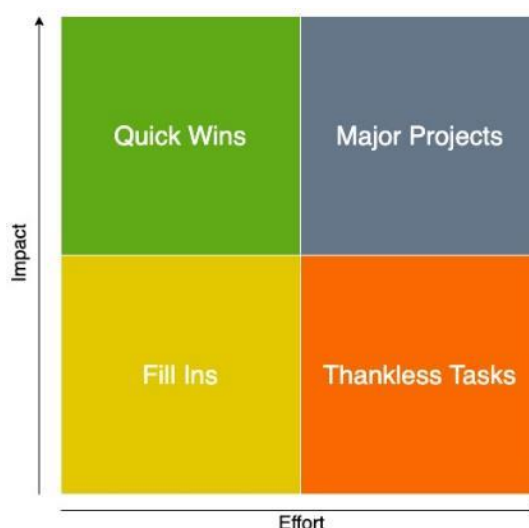
Source: Analysis of Benefit Assessment Ratings (Attachment B).

The overall project impact score developed for this NIIP (and based on the PSIP guideline) is a clear indication of the relative benefit these projects are likely to deliver. However, it should be noted that the precise ranking of each project should be treated with some care. The

somewhat subjective nature of the prioritisation process and other intangibles not included in the ranking criteria, means that the detailed results can always be challenged. Ultimately however, a few points difference against one or two criteria rarely has a significant effect on the overall score or the position of the project in the ranking.

Another technique to aid screening projects is to plot projects on an x-y axis representing the impact the project will have against the effort to implement. This is known as an Impact-Effort Matrix or an Action Priority Matrix (Figure 12).

Figure 12 Action-Priority Matrix (NIIP Guide)



Source: Action Priority Matrix: Identify the right opportunities to pursue, Think Insights
<https://thinkinsights.net/consulting/action-priority-matrix/>

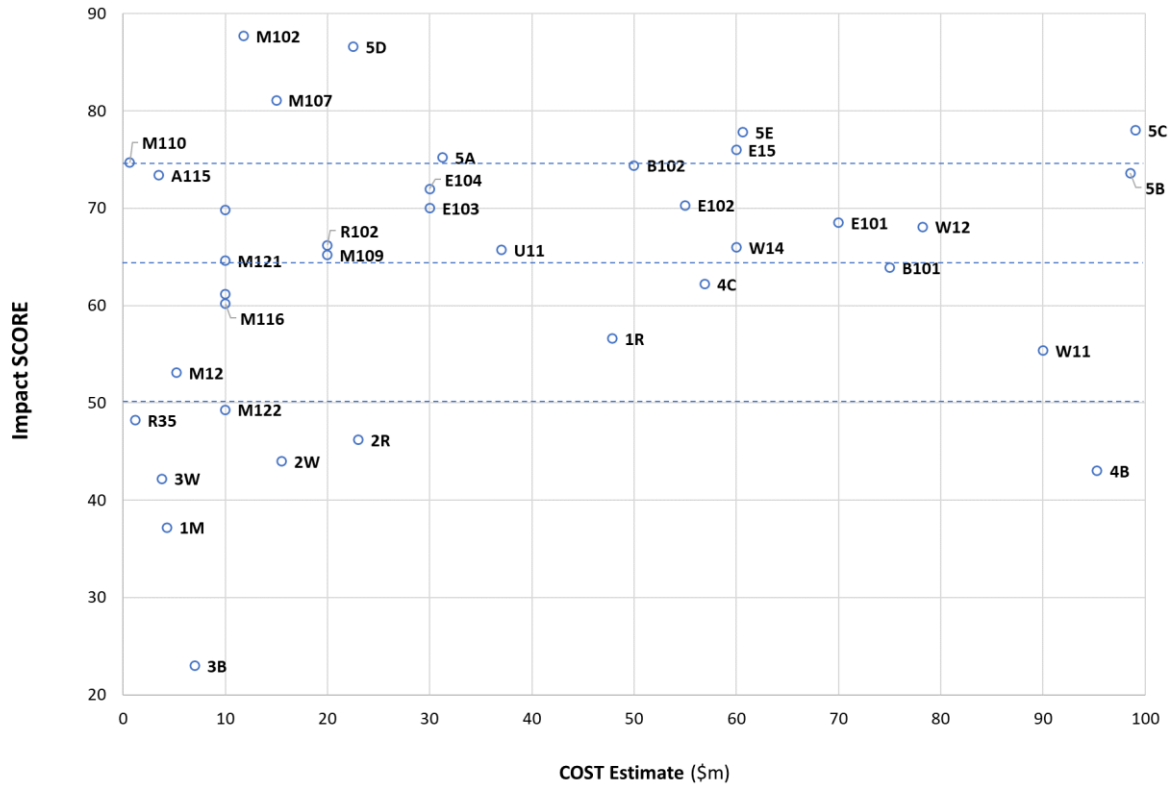
Once plotted, activities can then be considered within four quadrants:

1. **Quick Wins** (*higher impact, lower effort*): These are generally the most attractive projects, because they give you a good return for less effort.
2. **Major Projects** (*higher impact, higher effort*): Major projects give good returns, but they are time-consuming and often difficult to deliver. This means that one major project can "crowd out" many quick wins.
3. **Fill Ins** (*lower impact, lower effort*): These projects generally progress when they are foundational or part of a bigger program of related works – otherwise they are delivered when time permits.
4. **Thankless Tasks** (*lower impact, higher effort*): Projects in this quadrant typically do not progress. Not only do they give little return, but they also soak up time that you should be committed to projects in the other three quadrants.

Figure 13 and Figure 14 use this concept to plot projects based on their overall impact score and the capital costs of the project (as a pseudo-measure of scale/effort).

It is important to remember that the **Impact Score** is independent of scale; that is, the benefits assessed are normalised by cost. For example, if two projects that have the same weighted impact score, but one is double the cost of the other, then, in principle, it will deliver double to net benefits. However, larger projects also consume far greater resources, they can be more challenging to deliver, and they can stretch the capacity and capability of on-island resources.

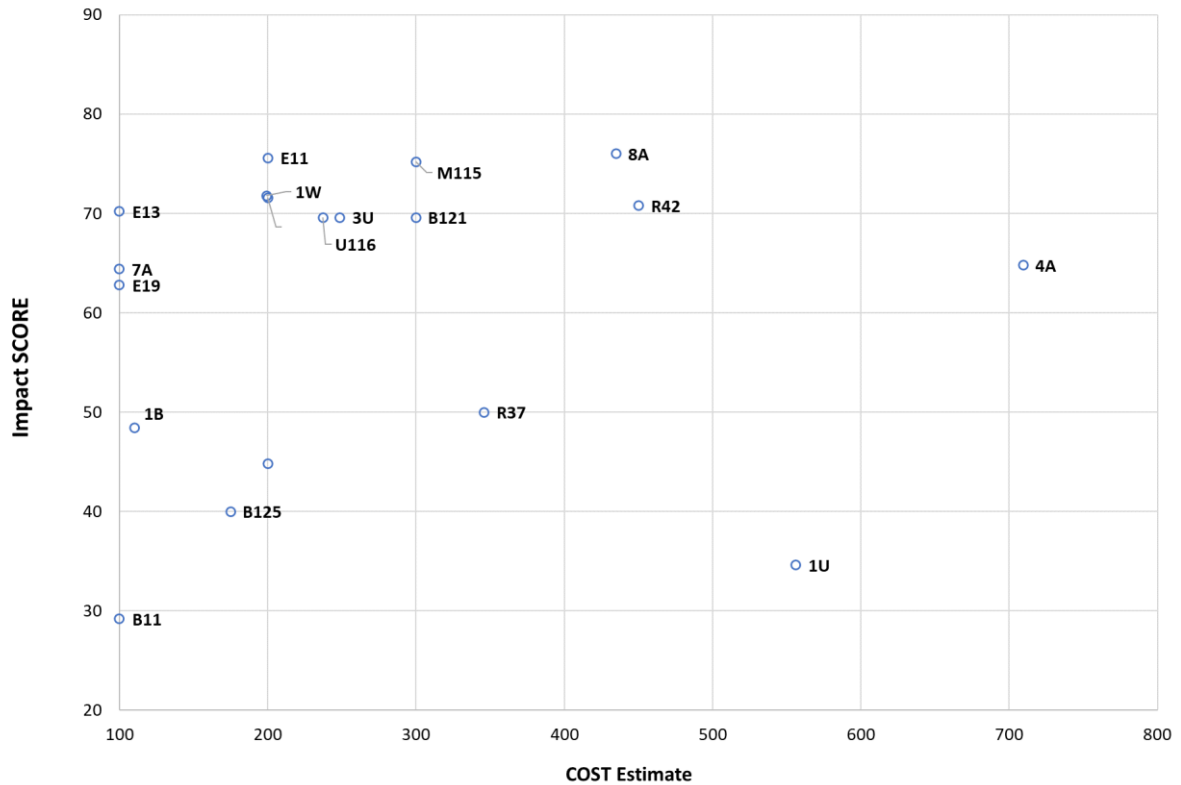
Figure 13 Multi-criteria Analysis (Impact vs Scale Plot) – Projects/Programmes Under \$100m



Source: Analysis of Benefit Assessment Ratings (Attachment B)

Note: Four bands emerge, VERY HIGH impact projects ≥ 75 , HIGH impact projects 65–74, MEDIUM impact projects 50–64 and LOW impact < 50

Figure 14 Multi-criteria Analysis (Impact vs Scale Plot) – Projects/Programmes Over \$100m



Source: Analysis of Benefit Assessment Ratings (Attachment B).

From Figure 13, we see four useful bands for analysis. The first two bands cover those projects with a weighted score ≥ 75 (Significant Impact) having very strong overall benefit followed by those projects rated 65–74 (High Impact) also having a good, combined impact score. A third band forms for projects rated 50–64 (Medium Impact). These projects might have strong benefits in a particular area (e.g., the upgrade to the Natabua Wastewater Treatment Plant, which scores highly on strategic and economic criteria but less on environmental) and hence could be picked up under special funds aligned with these specific benefit areas. The final band is projects with an overall weighted score < 50 (Low Impact). These projects are likely to require closer scrutiny to ensure they return sufficient overall benefits to government and the community.

It is recommended that following the initial scoring (as presented in **Attachment B**) projects should be grouped, reflecting their relative impact, and de-emphasising the specific score and inter-project ranking.

The primary goal of the MCA process, which it achieves in this plan, is to move the discussion toward the relative impact a project delivers in terms of triple bottom line reporting and evaluation of social, environmental, and economic impacts. The framework also encourages agencies to consider the ongoing sustainability and costs of maintaining and operating the infrastructure once delivered (Criteria F.1 and F.2) and the scale of the project when balancing the portfolio.

7.4 Shortlisted Projects for Further Development

7.4.1 Preliminary Determination (Shortlist)

The NIIP is focused on strengthening processes associated with the early-stage screening of projects (Figure 1, Gateway 1) to determine if they should progress to a full appraisal. The process of screening projects is a dynamic one with the resulting list of investment ready priority projects being added to the project Dossier, and removed as funding is secured and approved. To aid in this determination, MOF (through SPO and Budget Division) needs to:

1. Review all new projects in the planned pipeline.
2. Review the submitted screening notes for new projects.
3. Peer review assessed benefits the project is expected to deliver.
4. Consider the projects overall impact (using multi-criteria analysis and scoring).
5. Consider the overall economic viability of a project.
6. Consider an agencies capacity and current commitments.
7. Consider governments fiscal policy and funding constraints.
8. Determine a projects alignment with governments strategic policy/plans.
9. Make a recommendation to the Evaluation Committee as to which projects should proceed to the stage 2 appraisal.

More information on this process is presented in PSIP User Manual (2022), Guideline 7 Step 5 and Table 40 below.

Table 40 Decision Making Matrix for PSIP Project Screening

No.	Criteria	Evaluation Rating (Y)		
		Neutral (or Not Applicable for this Project)	Positive - meets Requirements	Negative - Fails to meet Requirements
1	Project profile, impacts, outcomes and outputs are provided and sound			
2	There is good strategic alignment with NDP			
3	An entity / sector plan is in place with the project well aligned to it			
4	The project is well aligned to relevant crosscutting strategic plans			
5	Whole of life capital and operational costs provided and appear of sound quality			
6	Funding sources provided with likely availability of PSIP funding within ceilings			
7	Beneficiaries and economic benefits have been provided for the 6 sub-criteria listed and are soundly formulated and positive			
8	Significant negative economic benefits (disbenefits) identified and are of concern ²⁴			
9	Social benefits have been provided for the 7 sub-criteria listed and are soundly formulated and positive			
10	Significant negative social benefits (disbenefits) identified and are of concern ²⁵			
11	Environmental benefits have been provided for the 3 sub-criteria listed and are soundly formulated and positive			
12	GHG emissions associated with the project are aligned with national strategies and project design has considered and included opportunities for reduced emissions			
13	There is alignment with policies etc. for CC and disaster resilience with opportunities to improve climate and disaster resilience identified and incorporated into design			
14	Climate and disaster risks identified with residual risks assessed as manageable			
15	Proposed funding for consultants etc. under stage 2 appraisal is acceptable			

CC = climate change, GHG = greenhouse gas, NDP = National Development Plan.

Source: Guideline 7 Table 16, Guidelines for Preparation, Appraisal and Approval of Projects Under the Public Sector Investment Programme (PSIP), Ministry of Economy, 2022.

The NIIP project has implemented a Benefit Assessment Form as described in Section 7.2 and a supporting MCA analysis tool (**Attachment B**) to support the capture and scoring of the relative impact a project delivers.

To develop the short-list of investment-ready “priority projects for further development”, MOF applied the decision-making matrix with a particular focus on the MCA impact score and from the 80 project and programme evaluations, grouped the screened projects as shown in Table 41:

Table 41 Priority Categories Assigned to Projects/Programmes (Attachment D)

Screened Status	Description of Status	No.
Shortlist	Projects/Programmes which meet screening criteria and have a high impact as assessed through the MCA analysis.	31
Longlist	Projects/Programmes which meet the screening criteria and have a moderate impact.	17
Hold	Projects/Programmes which only partly meet the screening criteria and/or were assessed to deliver a low level of benefits. These projects will require further evaluation and are not ready for funding discussions at this stage.	14
Defer	Projects/Programmes which do not meet the screening criteria and require resubmission or termination.	18
	Totals	80

Source: MCA Analysis and B&P preliminary screening (Attachment D).

7.4.2 Considering Likelihood of Economic Viability

Governments, development partners and other infrastructure financiers typically want to know, even at the very early stages of project processing, whether projects are likely to eventually meet rigorous tests of economic and social viability (including environmental and climate viability). At the early stage of processing, as is the case with the Fiji NIIP, this presents significant challenges for project analysts. Some of the challenges are briefly outlined below.

Notwithstanding the challenges, techniques have emerged for early-stage analysis, within a broad framework of simple economic and social cost-benefit analysis. Such approaches allow preliminary judgments to be made on the likelihood of incurring later and more rigorous analysis, including comprehensive cost-benefit analysis. One very useful source of such early-stage methodology is contained in the PRIF-supported Tonga NIIP, 2021–2030. While the current Fiji work has attempted to build on and extend the approach in Tonga, the core elements of viability consideration in both plans are very similar, so it is important to fully acknowledge the important work undertaken first in Tonga.

Assessment Methodology

The analysis focuses on review of the 31 shortlisted Dossier projects as identified through the MCA analysis and discussions with project proponents and the MOF. Summary results of the analysis are contained in Table 42 while detailed spreadsheets containing Economic Net Present Value (ENPV) and Economic Internal Rates of Return (EIRR) for each of the 31 projects are contained in the EIRR and ENPV model accessible at **Attachment C**. The approaches contain a mix of quantitative and qualitative analysis with ultimate judgments on viability being essentially qualitative at this early stage of processing.

The core starting point of the analysis is to generate financial cost data for both the CAPEX and OPEX over the full anticipated lifespan of the investment. The likelihood and nature of non-market external costs are also considered qualitatively but no attempt to measure them is made at this stage.

For discounting purposes, a modest 6% discount rate is used as contained in the MOF Draft Guidelines for processing all investments under the PSIP, which recognises that most projects in Fiji contain social, environmental, and climate-related objectives as well as economic goals. Very few projects prepared in Fiji have major non-market negative externalities due to the strong emphasis given to social, environmental, and climate change-related dimensions of project design by Fiji's policy makers.

The model, then, estimates through iteration what levels of consolidated benefits (p.a. and over the full project lifespan) would be needed to achieve a minimum EIRR of 6% and an ENPV of at least zero, given the cost basis. These break-even consolidated benefit levels are presented in total and p.a. (year 1 dollar values) and also per beneficiary and per beneficiary household. No attempt is made to measure individual elements of benefits, but qualitative consideration is made of: (i) likely direct financial benefits from revenues generated or cost efficiencies gained (and the likely financial internal rate of return); (ii) expected non-financial benefits; and (iii) expected non-financial disbenefits / costs related to negative externalities).

The final mixed quantitative and qualitative assessment of viability also considers other information available, particularly content of the screening forms used for MCA analysis, the MCA scores themselves, plus other information captured, including from two workshops and consultations with proponents. Where available, EIRRs and ENPVs from appraisals and / or evaluations of similar projects supported in the past, including by development partners, are reported.

Common assumptions used for the 31 projects (adapted for particular projects) were:

- CAPEX and its phasing over-time (ranging from 2 to 10 years) as per preliminary project proponent cost estimates.
- OPEX is calculated as a proportion of cumulative capital expenditure, commencing in year 1 of operations (typically the range is from 1% to 5% depending on type).

- Benefit flows start from commencement of operations (which ranges from years 2 to 11) in line with proponent projections (for some projects where implementation is staggered benefits start to flow from earlier than implementation completion).
- Full lifespan of projects as per project proponent's estimates (typically 20 to 40 years).
- Nil residual value at the end of projected lifetime is provided for.
- Consolidated benefits are estimated as the residual in the model being the benefit level needed to hit the break-even IRR of 6.0% and ENPV of zero, given estimated cost levels and phasing.

Results

The summary results are set out in columns 2 to 11 in Table 42 with sources of information / estimation provided in the related footnotes 1 to 10. Fuller estimation details, and the rationales for summary assessment can be obtained from the EIRR and ENPV model (Attachment C). Final assessments of viability appear in the final column of Table 42 and can be summarised as per the chart below. Broadly consistent with the MCA findings, all 31 projects demonstrate likely viability, though with some variation in the assessed strength of such viability.

Summary Chart for Table 42

Likely Viability at 6% EIRR (Zero ENPV)	No.	%	CAPEX Value (\$m)	%
Unlikely	-	-	-	-
Moderately likely	9	29.9	1,001.3	25.7
Solidly likely	11	35.5	1,039.7	26.7
Strongly likely	11	35.5	1,850.2	47.5
Total	31	100	3,891.3	100

Source: Attachment C

Challenges and Cautions

There are two core challenges with early-stage work of this nature that indicate results should be considered with caution. These are:

- Projects are at a quite early stage of processing (some are more advanced than others) and key estimates such as CAPEX and its phasing, OPEX, beneficiary numbers, and non-market costs and benefits, and their phasing, may be subject to considerable change as more extensive research work occurs during full appraisals.
- Column 10 in Table 42 (average p.a. dollar benefits per beneficiary to meet an EIRR of 6%) warrants very careful interpretation for each project before considering this as part of the assessment of viability. On the one hand, higher dollar benefits per beneficiary (and beneficiary household) appear appealing; to an extent, they are. However, these are break-even levels to hit a 6% EIRR (zero ENPV) and, in some cases, they may be so prohibitively high as to be non-achievable in terms of likely realistic benefits from the project. A simple revealed preference form of test that has been applied to these per-capita break-even benefit levels is to consider whether the beneficiary plus the government combined would be willing to pay the additional amount annually to cover the benefit derived (e.g., for better quality water, sanitation, or more reliable energy).

Table 42 Likelihood of Economic Viability for Shortlisted Priority Projects (Attachment C)

Project Details			MCA Analysis			Lifecycle Costs			Benefits		Beneficiary		Likely Econ. Viability ⁽¹⁰⁾
ID	Project Name	Lead Entity	Overall Benefit Rating	Fin. Score ⁽¹⁾	Econ. Score ⁽²⁾	Capital Cost (\$m) ⁽³⁾	O&M (\$m) ⁽⁴⁾	Total Cost (\$m) ⁽⁵⁾	Total for 6% IRR (\$m) ⁽⁶⁾	Ann. for 6% IRR (\$m) ⁽⁷⁾	Number ⁽⁸⁾	Ann. \$/Ben. (\$m) ⁽⁹⁾	
M102	Wharf Rehabilitation Projects - Lautoka	FPCL	88	10	10	11.8	9.9	21.7	35.5	1.27	300,000	4.23	Strong
5D	Supporting Growth & Resilience of Rural Econ.	MRMD	87	10	10	22.5	11.0	33.5	55.8	1.9	180,000	10.55	Solid
M107	Levuka Wharf Rehabilitation Project	FPCL	81	8	8	15.0	12.6	27.6	45.2	1.61	15,000	107.60	Moderate
5C	Strengthen Disaster Risk Reduction Man.	MRMD	78	7	7	99.1	48.3	147.4	241.0	8.0	180,000	44.44	Solid
5E	Improving Connectivity - Rural & Maritime	MRMD	78	8	8	60.6	44.4	105.0	157.0	5.2	180,000	28.88	Solid
E15	SHS for Rural and Maritime Communities	DOE	76	6	6	60.0	29.3	89.3	144.3	5.2	75,000	69.33	Strong
TBD	Nadi Flood Alleviation Project	MOF	76	7	7	435.0	105.3	540.3	995.2	36.9	150,000	246.00	Strong
E11	Renewable Energy - Hydro	DOE	76	8	8	200.0	96.0	296.0	544.3	22.7	50,000	406.00	Strong
5A	Access to Water for Rural Communities	MRMD	75	7	7	31.3	15.3	46.5	74.8	2.5	180,000	13.88	Solid
M115	Suva Port Relocation	FPCL	75	10	10	300.0	225.0	525.0	891.9	35.7	450,000	79.33	Strong
M110	Muaiwalu 2 New Interisland Terminal Project	FPCL	75	7	7	0.7	0.53	1.18	1.9	0.07	300,000	2.40	Strong
B102	Upgrade Buildings & Factory Equipment	FSC	74	7	7	50.0	27.0	77.0	136.4	5.1	150,000	34.00	Moderate
5B	Enabling Access to Quality Rural Public Service	MRMD	74	7	7	98.6	48.1	146.6	235.8	7.9	180,000	43.88	Solid
A115	Green Airport Upgrades	FAL	73	7	7	3.5	2.9	6.4	10.5	0.38	300,000	1.27	Strong
E12	Upgrading - Diesel Generators to Solar Hybrid	DOE	73	7	7	50.0	27.0	77.0	136.4	5.1	120,000	42.50	Strong
E104	50T Labasa Co-Gen High Pressure Boiler - Labasa	FSC	72	7	7	30.0	15.0	45.0	81.8	3.3	150,000	22.00	Moderate
1W	Water Sources WTP (Nadi-Lautoka Scheme)	WAF	72	7	7	199.2	290.9	490.1	717.6	22.5	200,000	112.50	Solid
E22	National Grid Extension	EFL	72	7	7	200.0	101.5	301.5	506.5	18.1	220,000	82.27	Solid
TBD	Savusavu Water / Wastewater Scheme	WAF	72	7	7	89.3	116.0	205.3	312.8	12.0	10,000	1,200.00	Moderate
TBD	40 Critical Bridges	FRA	71	7	7	450.0	243.0	693.0	1,226.6	45.4	120,000	378.33	Moderate
E25	Zero energy building deployment	DOE	70	7	7	10.0	5.6	15.6	27.4	0.98	250,000	3.92	Solid

3U	Waila Development	HA	70	7	7	248.4	120.2	368.6	611.8	23.3	35,000	665.71	Solid
TBD	PPP Affordable Housing Project	MOF	70	7	7	300.0	146.4	446.4	759.2	27.1	50,000	542.00	Moderate
TBD	Suva Automation	WAF	69	7	7	1.6	2.5	4.1	4.4	0.16	300,000	0.53	Strong
W12	Renew Distribution Mains (Suva-Nausori)	WAF	68	7	7	78.2	37.1	115.3	194.4	6.9	300,000	23.0	Strong
R102	Upgrade Cane Access Roads and Crossings	FSC	66	6	6	20.0	9.8	29.8	48.6	1.7	150,000	11.33	Moderate
W14	Upgrade of Navakai Wastewater Treatment Plant to IDEA Process	WAF	66	6	6	60.0	81.0	141.0	212.2	7.9	180,000	43.67	Solid
TBC	New Town Development Programme	DTCP	66	7	7	37.0	19.2	56.2	100.9	3.9	45,000	86.67	Moderate
E21	Nabouwalu Gov. Stations - Solar Hybrid	DOE	65	4	4	10.0	5.6	15.6	27.4	1.00	12,000	83.30	Moderate
4A	Critical Infrastructure for International Conn.	AFL	65	7	7	709.5	343.4	1,053.0	1,753.2	64.9	400,000	162.25	Strong
M121	Building Upgrades - Lautoka: Tourism Related	FPCL	65	8	8	10.0	8.1	18.1	30.0	1.11	180,000	6.11	Solid

MFF: Ministry of Fisheries and Forestry. MRMD: Ministry of Rural and Maritime Development and Disaster Management. FPCL: Fiji Ports Corporation Limited. FSC: Fiji Sugar Corporation. MOF: Ministry of Finance. DOE: Department of Energy, FAL: Fiji Airports Ltd. WAF: Water Authority Fiji. EFL: Energy Fiji Limited. FRA: Fiji Road Authority. HA: Housing Authority. DTCP: Department of Town Planning.

Source: MCA Analysis and B&P preliminary screening (Attachment D)

Notes:

- (1) Financial return rating (out of 10) as assessed against Criteria F.2 on the Benefit Assessment Form (Refer Section 7.2)
- (2) Economic return rating (out of 10) as assessed against Criteria F.3 on the Benefit Assessment Form (Refer Section 7.2)
- (3) As per screened estimates of project proponent (constant year 1 \$ values)
- (4) Estimated lifecycle O&M costs based on estimated % of capital construction (0.5% to 8% based on the nature of the infrastructure) – Refer Section 6.3.2
- (5) Full capital plus O&M costs over the life of the asset
- (6) Calculated in the financial model which for the given lifetime stream of costs, estimates break-even benefits needed to achieve an IRR of 6% in total and p.a. (from the commencement of operations / benefits) [constant year 1 \$ values].
- (7) Calculated in the financial model averaging all years from commencement of operations / [benefits](constant year 1 \$ values).
- (8) Taken from MCA forms where available and where not available desk estimates have been made in consultation with proposing agency, MOF and using census population data by region.
- (9) Column 8 divided by column 9 (constant year 1 dollar values).
- (10) Qualitatively assessed by authors, particularly considering (i) MCA total and economic / financial scores; (ii) estimated total and p.a. benefits needed to achieve a 6% IRR; (iii) estimated average benefits per beneficiary p.a. needed to hit a 6% IRR. For (ii) and (iii) reference is made to articulated costs and benefits itemized in the MCA form for qualitative assessment of realism in achieving benefits needed to hit the 6% IRR. Further details of considerations in arriving at the assessment of viability are contained in individual spread sheets for each project contained in the financial model which is separately available.

7.5 Funding Sources for Shortlisted Projects

Funding needs and strategies have been addressed at some length in Section 4.4 and Attachment E. The current section focuses mainly on likely potential funding sources for the shortlisted Dossier projects. Table 43 recaps in a general sense the main elements of the funding strategy and identifies likely principal funding sources for each element. This provides a broad guide on the most likely funding sources for priority projects. **Attachment D** then more directly addresses each of the selected priority projects and indicates possible funding sources for each project. As the NIIP pipeline extends to 2030 and over time, and as most of Fiji's key financiers do not programme their funding beyond a 3-year horizon, it is not possible to be precise about future funding sources, beyond those where funding has already been agreed or is at an advanced stage of processing with likely funding over the next few years. Two other general strategic considerations are also worth recalling:

- Firstly, the funding strategy favours pursuit of grant and highly concessional funding to the extent possible, but there are challenges and uncertainties as to the extent to which such funding will be possible to negotiate. Success or otherwise in increasing grant and highly concessional funding is likely to depend to some extent on progress of Fiji and other small island states in attracting special funding arrangements for climate-related initiatives, including possibilities of general damages and reparation payments being received from wealthy nations and multilaterals. Some agreements on such funding were agreed at the 2022 CPP 27 in Egypt but how these will materialise in terms of hard funding over time remains highly uncertain.
- Secondly, although the economy is recovering in 2022, Fiji's fiscal and debt constraints remain severe, suggesting the scope for external funding that is not of a grant or highly concessional nature is extremely constrained. The funding framework presented indicates that at least 70% of new gross funding for the NIIP (and the PSIP) will need to come from domestically raised revenues and domestic debt. Very selective approaches will be needed regarding external funding that is not of a grant or highly concessional nature.

Table 43 Strategic Considerations for Funding the PSIP and Likely Principal Funders

Strategic Consideration	Likely Principal Funders
1. Domestic funding. Domestic funding (domestic revenues and debt) will, post-COVID-19, return to being the predominant form of infrastructure funding.	Government revenues and debt from mainly traditional domestic funding instruments, possibly supplemented by new domestic / international instruments (e.g., climate adaptation and/or blue bonds)
2. External grants. External grants to be top priority to the extent possible. Negotiation of new partnership agreements will pursue redirection from operational expenditures, especially TA to infrastructure support.	DFAT, EU, JICA, USAID, New Zealand, United Nations (various), Indonesia, People's Republic of China, India, Cuba, France, Republic of Korea, Malaysia, UK, Spain, Singapore
3. External concessional policy loans. Concessional borrowing of a policy and budget support nature also has high priority - including PIM, climate change, and resilience strengthening while ensuring funds disbursed are tightly earmarked to support infrastructure development.	ADB, WB, IFC, EIB, GCF, CIF, AIFFP, AIIB, JBIC,
4. External concessional project loans. To next prioritise efficient and effective projects financed by external concessional loans (as concessional as possible). These shall be within external borrowing limits of fiscal and debt management policies.	ADB, WB, IFC, EIB, GCF, CIF, AIFFP, AIIB, JBIC, Exim Bank PRC

Strategic Consideration	Likely Principal Funders
<p>5. Leveraging private sector funding. To pursue PPPs / innovative financing to leverage more private capital, especially for public enterprises, SOEs, etc. whose funding will remain largely off budget from internal resources, borrowing, and PPPs</p>	<p>Private investors (South Pacific Stock Exchange, Fiji's capital market, international capital markets), domestic banks / financial institutions, FNPf, life and general insurers, IFC, private sector arms of ADB, EIB, AIFFP, AIIB, JBIC, EXIMBank PRC</p>

Notes: ADB = Asian Development Bank; AIFFP = Australian Infrastructure Financing Facility for the Pacific; AIIB = Asian Infrastructure Investment Bank; CIF = Climate Investment Fund; DFAT = Department of Foreign Affairs and Trade (Australia); EIB = European Investment Bank; EU = European Union; FNPf = Fiji National Provident Fund; GCF = Green Climate Fund; IFC = International Finance Corporation; JBIC = Japan Bank for International Cooperation; JICA = Japan International Cooperation Agency; PRC = People's Republic of China; WB = World Bank.

CHAPTER 8

RECOMMENDATIONS

This chapter presents the key observations of the project team in preparing the NIIP. It presents these observations and recommendations in an executive format for endorsement by government.

8.1 Improvement Opportunities

Through completion of this NIIP, the project team has identified several potential areas for improvement.

Table 44 Improvement Opportunities

Improvement	Description
1. Further MOF development of medium-term strategic and policy priorities	<p>The current draft NIIP uses forward threshold projections of past infrastructure expenditure trends by entity to allow analysis of future entity budgeted and planned expenditures. MOF has indicated, including through an address given by the Permanent Secretary to the October 2022 NIIP workshop, that they wish to allocate future public investment expenditures, including for infrastructure, through the use of strategically and policy-driven medium-term planning and expenditure approaches. Their aims include closer linking of plans, policies, and budgets so as to generate investments of greater national importance that provide for enhanced value for money invested.</p> <p>Developing more strategic and policy-focused medium-term approaches is likely to take time and will be developed in tandem with current work in formulating the next NDP. The longer-term ADB TA supporting PSIP reforms will be working with MOF over the next three annual budgets to improve policy and strategic prioritisation of the PSIP and thus also infrastructure investment.</p>
2. Future capacity building in project screening and MCA analysis	<p>Further work is likely to be needed to enhance capacity with MOF and infrastructure agencies to complete project screening notes and benefit assessment forms for the MCA and subsequent screening of projects. Further near-term training of officials in MOF and the key infrastructure entities has been requested by MOF and would be beneficial. While the scoring for the MCA has been relatively straightforward more detailed and robust explanations and justifications provided in open ended boxes could be developed in the immediate period ahead by a mix of classroom training and on the job technical support, particularly in the investing entities.</p> <p>Particular areas where responses, and thus infrastructure investment screening, can be strengthened are:</p> <ul style="list-style-type: none"> (i) financial analysis; (ii) economic analysis (particularly beneficiary and benefits analysis); (iii) social analysis (particularly gender analysis and planning); (iv) climate change and disasters; and (v) risk analysis. <p>MOF in future will consider incorporating the MCA scoring approach into the stage one screening form in its Draft PSIP Guidelines. Future training in relation</p>

Improvement	Description
	to MCA is likely to be supported by the longer term PSIP TA, depending on the extent to which MCA scoring becomes institutionalised as part of finally agreed formats for stage 1 screening.
<p>3. Further development of briefing notes for the Infrastructure Dossier</p>	<p>The NIIP provides an example of the summary screening/briefing note that will improve the quality of project write-ups in the Infrastructure Dossier (Attachment G). Further time and training is likely to be required to enable proposing entities and MOF to prepare similarly comprehensive and robust notes themselves for all new priority projects identified through the ongoing early-stage screening of new projects at gateway 1.</p> <p>MOF and the investing entities indicated in the October workshop that further technical support will particularly be needed to enhance the presentation of financial, economic, and climate change / disaster analysis in the most robust form possible, at this still early stage 1 of project screening.</p>
<p>4. Formalising the central register (database) of pipeline projects</p>	<p>A comprehensive database of ongoing and planned projects has been developed during the NIIP project. However, it will take more time and resources for this pipeline database to be fully integrated into the systems and work practices of MOF and the investing entities. Further work is likely to require either integration with or linking / interfacing to the computerised budget preparation application currently at an advanced stage of being designed and installed within the SPO and Budget Division of MOF.</p> <p>From MOF's perspective, the current NIIP database will also require eventual expansion to cover all PSIP projects, but with capacity to report in detail on infrastructure (and other sectors / sub-sectors) as required.</p> <p>This will require all on-budget entities to regularly update and publish their future pipelines. As well as likely publication of a regular MOF Dossier of pipeline infrastructure projects, there will also be work undertaken in tandem to build infrastructure pipeline information into broader annual PSIP publications that are planned. These publications are to be completed by MOF and sponsoring entities respectively, covering all PSIP ongoing and stages 1 and 2 pipeline projects.</p>
<p>6. Further development of published pipelines for off-budget entities</p>	<p>Improvement planning over time should aim to develop ways to optimally include the key infrastructure off-budget entities into the national planning and budgeting framework. This integration of off-budget information into national plans and budgets is a challenging and long-term task for most countries. In the Fiji context, this is likely to require:</p> <ul style="list-style-type: none"> (i) developing further willingness, coordination and systems for the enhanced sharing and publication of current and future investment plans - though fully transparent methods will need to continue to be tempered by the need for sensitive approaches to the treatment and publication of commercial in confidence information; and (ii) developing more detailed policy frameworks and medium-term expenditure and funding arrangements for consideration of government direct and / or contingent support for investments in programmes and projects of high national planning importance.
<p>7. Enhanced ongoing engagement of development partners</p>	<p>Synchronising and planning for the relatively short-term business plans of key development partners and other external financiers of infrastructure development is a challenging task. It is recommended that MOF and PRIF (or similar regional entity) consider convening regular round-table meetings of key infrastructure funding partners in Fiji to regularly discuss ongoing funding experiences and future planning for the NIIP. Particularly as annual and mid-term reviews and updates of the NIIP occur, this should enable revisions and additions to be made as necessary over time, particularly with regard to emerging future funding plans and opportunities.</p>

Attachment A: Pipeline Project List

Proj. Ref.	Budget	External Funding MCA	Sector Code	Project Type	PgM Hdr?	Line Ministry	Budget Unit	Lead	Program Name	Project Name
W13	ON	1W	Water	Upgrade	Yes	MIMS	WAF	DoWS	Water Sources WTP Programme (Nadi-Lautoka Supply Scheme)	Trunk Main Augmentations
W14	ON	W14	Water	Upgrade	No	MIMS	WAF	DoWS	Waste Water Treatment Plant Upgrade Programme	Upgrade of Navakai WWTP
W15	ON	1W	Water	Upgrade	Yes	MIMS	WAF	DoWS	Water Sources WTP Programme (Nadi-Lautoka Supply Scheme)	Nadi/Lautoka Water Treatment Pl
W16	ON		Water	New	Yes	MIMS	WAF	DoWS	Water Sources WTP Programme (Nadi-Lautoka Supply Scheme)	Augmentations on Potential Wate
W17	ON		Water	New	No	MIMS	WAF	DoWS	Water Sources & Water Treatment Plant Programme	Matani Raw Water Source
W18	ON	1W	Water	Upgrade	Yes	MIMS	WAF	DoWS	Water Sources WTP Programme (Nadi-Lautoka Supply Scheme)	Reservoir Augmentations
W19	ON		Water	Renew	Yes	MIMS	WAF	DoWS	NRW Programme (Suva- Nausori Water Supply Scheme)	Meter , PRV & Air Valve Replacen
W20	ON		Water	New	Yes	MIMS	WAF	DoWS	Water Distribution Programme (Nadi-Sigatoka Water Supply Scheme)	Trunk Mains and Major Reticulatio
W21	ON	1W	Water	Upgrade	Yes	MIMS	WAF	DoWS	Water Sources WTP Programme (Nadi-Lautoka Supply Scheme)	Replacement & Augmentation of U
W22	ON		Water	Upgrade	Yes	MIMS	WAF	DoWS	NRW Programme (Nadi-Lautoka Water Supply Scheme)	Meter , PRV & Air Valve Replacen
W23	ON		Water	Upgrade	No	MIMS	WAF	DoWS	Water Sources & Water Treatment Plant (Sigatoka Water Supply Scheme)	Matovo WTP & Pump Upgrade
W24	ON		Water	New	Yes	MIMS	WAF	DoWS	Water Distribution Programme (Ba/Lautoka)	Water reticulation extension
W25	ON		Water							Upgrade of Namara WWTP
W26	ON		Water							Wa River Water Supply Serv
W27	ON		Water							Water Reticulation Extension
W28	ON		Water							placement & Augmentation of /
W29	ON		Water							Water Supply System
W30	ON		Water							Increasing Storage Capacity - Fla
W31	ON		Water							placement & Augmentation of
W32	ON		Water							Tualevu Raw Water & Tuva V
W33	ON		Water							Augmentations for Rehabilitation (
W34	ON		Water	Upgrade	No	MIMS	WAF	DoWS	Rural Water Supply Scheme Northern (New)	Installation of new reservoir, water
W35	ON		Water	Study	No	MIMS	WAF	DoWS	Water Sources & Water Treatment Plant Programme (Suva- Nausori Water Supply Scheme)	Upgrading Wailea & Tamavua W
W36	ON		Water	New	Yes	MIMS	WAF	DoWS	Water Distribution Programme (Suva- Nausori Water Supply Scheme)	Conditional Assessment of Wat
W37	ON		Water	New	Yes	MIMS	WAF	DoWS	Rural Water Supply Scheme Western	Installation of new reservoir, water
W38	ON		Water	Upgrade	No	MIMS	WAF	DoWS	Waste Water Treatment Plant Upgrade Programme	Upgrade of Naboro WWTP
W39	ON		Water	Upgrade	No	MIMS	WAF	DoWS	Waste Water Treatment Plant Upgrade Programme	Upgrade of Olosara WWTP
W40	ON		Water	Upgrade	No	MIMS	WAF	DoWS	Waste Water Treatment Plant Upgrade Programme	Upgrade of Pacific Harbour WW
W41	ON		Water	New	Yes	MIMS	WAF	DoWS	Water Distribution Programme (Ba/Lautoka)	Proposed trunk mains
W42	ON		Water	New	Yes	MIMS	WAF	DoWS	Water Distribution Programme (Sigatoka)	Proposed reservoirs
W43	ON		Water	Renew	No	MIMS	WAF	DoWS	Water Distribution Programme (Northern Division)	Refurbishment of Reservoirs f
W44	ON		Water	Renew	Yes	MIMS	WAF	DoWS	NRW Programme (Northern Division)	Valve & Meter Replacement Progi
W45	ON		Water	New	Yes	MIMS	WAF	DoWS	Water Distribution Programme (Ba/Tavua)	Water reticulation extension
W46	ON		Water	New	No	MIMS	WAF	DoWS	Water Distribution Programme (Ba/Lautoka)	Teidamu WTP
W47	ON		Water	Upgrade	Yes	MIMS	WAF	DoWS	Non-Revenue Water (Sigatoka Water Supply Scheme)	Meter Replacement Programme
W48	ON		Water	Upgrade	Yes	MIMS	WAF	DoWS	Water Sources & Water Treatment Plant Programme (Northern Division)	Design & Construction of Water T
W49	ON		Water	New	Yes	MIMS	WAF	DoWS	Water Distribution Programme (Nadi-Sigatoka Water Supply Scheme)	Pump Stations & Reservoirs
W50	ON		Water	Upgrade	No	MIMS	WAF	DoWS	Waste Water Treatment Plant Upgrade Programme	Upgrade of ACS WWTP
W51	ON		Water	Upgrade	Yes	MIMS	WAF	DoWS	Rural Water Supply Scheme Central Eastern	Upgrade of reservoir, water treat
W52	ON		Water	New	Yes	MIMS	WAF	DoWS	SCADA Automation Programme (Suva- Nausori Water Supply Scheme)	SCADA for Reservoirs, Water Tre Valve Operations

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Attachment B: Multi-Criteria Impact Assessment

PRIORITISED MCA RESULTS				Strategic	Conomi	Social	Environ	Weighted	Overall	Gov.
ID	Name	Lead	Cost	15%	45%	20%	20%	Score	Impac	Priori
8 M102	Wharf Rehabilitation Projects - Lautoka	FPCL	11.8	10	10	7	8	88	Very High	A1
39 5D	Supporting Growth & Resilience of Rural Economy	MRMD	22.5	9	9	9	7	87	Very High	A1
5 M107	Levuka Wharf Rehabilitation Project	FPCL	15.0	10	8	9	6	81	Very High	A1
38 5C	Strengthen Disaster Risk Reduction Management	MRMD	99.1	10	6	9	8	78	Very High	A1
40 5E	Improving Connectivity - Rural & Maritime Communities	MRMD	60.6	9	8	9	6	78	Very High	A1
42 E15	15,000 SHS for Rural and Maritime Communities	DOE	60.0	10	6	9	8	76	Very High	A1
73 TBD	Nadi Flood Alleviation Project	MOE	435.0	10	7	9	7	76	Very High	A1
47 E11	Renewable Energy - Hydro	Departm	200.0	10	7	8	7	76	Very High	A1
37 5A	Access to Water for Rural Communities	MRMD	31.3	9	6	9	7	75	Very High	A1
9 M115	Suva Port Relocation	FPCL	300.0	10	8	6	6	75	Very High	A1
6 M110	Muaivalu 2 New Interisland Terminal Project	FPCL	0.7	9	7	8	6	75	Very High	A1
29 B102	Upgrade Buildings & Factory Equipments	FSC	50.0	9	7	6	9	74	High	A1
36 5B	Enabling Access to Quality Rural Public Service	MRMD	98.6	10	6	9	8	74	High	A1
25 A115	Green Airport Upgrades	Fiji Airpo	3.5	8	7	7	7	73	High	A1
53 E12	Upgrading - 50 Diesel Generators to 50 Solar Hybrid Systems	DOE	50.0	9	6	7	8	73	High	A1
32 E104	50T Labasa Co-Gen High Pressure Boiler - Labasa	FSC	30.0	9	7	6	8	72	High	A1
13 1w	Water Sources WTP Programme (Nadi-Lautoka Scheme)	WAF	199.2	10	7	8	4	72	High	A1
43 E22	National Grid Extension	EFL	200.0	8	6	9	8	72	High	A1
71 TBD	Savusavu Water Supply and Wastewater Collection Scheme	WAF	89.3	9	6	9	7	72	High	A1
72 TBD	40 Critical Bridges							71	High	A1
35 E102	200T High Pressure Boiler							70	High	Defer
51 E13	Renewable Energy - Hydro							70	High	Defer
34 E103	10Mw TG Set							70	High	Defer
44 E25	Zero energy building design							70	High	A1
56 3U	Waiva Development							70	High	A1
75 TBD	PPP Affordable Housing							70	High	A1
41 TBC	Regional Recycling Facility							70	High	Defer
70 TBD	Suva Automation							69	High	A1
31 E101	New Ethanol Plant							69	High	Defer
24 W12	Renew Distribution Main							68	High	A1
30 R102	Upgrade Cane Access							66	High	A1
3 W14	Upgrade of Navakai Wharf							66	High	A1
11 TBC	New Town Development Programme	DTCP	37.0	8	7	7	5	66	High	A1
10 M109	Foreshore Development at Lautoka Port	FPCL	20.0	9	7	5	5	65	High	Defer
52 E21	Nabouwalu Government Stations - Solar Hybrid System	DOE	10.0	8	6	7	7	65	High	A1
26 4A	Critical Infrastructure for International Connectivity	Fiji Airpo	709.5	9	7	7	4	65	High	A1
2 M121	Building Upgrades - Lautoka: Tourism Related	FPCL	10.0	7	7	6	6	65	High	A1
74 TBD	Upgrade of Jetties in Central & Northern Division	FRA	100.0	8	6	7	5	64	Medium	A2
33 B101	Sugar Refinery Plant	FSC	75.0	6	8	3	6	64	Medium	Defer
48 E19	Expansion of Grid - LAKARD	DOE	100.0	8	5	7	7	63	Medium	A2
50 E14	Biomass - Coconut Replanting	DOE	20.0	9	5	6	6	63	Medium	Defer
28 4C	Suva and Nausori Airport Connectivity Improvements	Fiji Airpo	56.9	8	6	7	4	62	Medium	A2
45 E20	Nabouwalu Government Station Upgrade & Expand	EFL	10.0	8	4	8	8	61	Medium	A2
79 TBD	Roof Top Solar - EV Charger	LTA	15.0	6	6	5	8	61	Medium	A2
68 B51	Solar Upgrading / Installation Works for Rural & Maritime Health Centres	AMU MH	20.0	9	4	6	9	60	Medium	A2
1 M116	Cruise Terminal Upgrade - Suva	FPCL	10.0	7	6	5	6	60	Medium	A2
60 B17	Relocation of Health Facilities - Climate Change	AMU MH	10.0	8	3	9	7	57	Medium	A2
54 E24	Renewable Energy - EV Charging Stations	Departm	10.0	9	5	4	6	57	Medium	A2
21 1R	Road Resilience Programs for Northern Division	FRA	47.9	8	5	6	5	57	Medium	A2
55 W37	Coastal Protection Works - Kanakana	Ministry of	0.3	5	5	5	8	57	Medium	A2
14 W11	Upgrade of Natabua w/WTP	WAF	90.0	9	6	4	3	55	Medium	A2
12 M18	Government Wharf Upgrade	Government	5.2	7	4	7	6	53	Medium	A2
49 A13	Installation of Weather Surveillance Radar - Rotuma	Departm	8.0	8	4	6	5	51	Medium	Defer
80 TBD	National Charging Station Network	LTA	47.0	8	4	5	5	51	Medium	A2
78 TBD	Solar Lighthouse	MCTTT	26.0	3	4	5	8	51	Medium	A2
76 TBD	Construction of Sub-Urban Shuttle Station	MCTTT	65.0	5	5	6	3	50	Medium	A2
4 R37	Nadi - Lautoka Four Lane	FRA	346.0	8	5	7	1	50	Medium	A2
7 M122	Multi Purpose Complex - Local Wharves	FPCL	10.0	6	4	5	7	49	Low	Defer
16 TBC	Classroom and Ablution Renovations	MEHA	110.0	7	4	3	6	48	Low	Defer
23 R35	Taveuni Jetty Upgrading Project	FRA	1.2	7	3	6	6	48	Low	Hold
77 TBD	Electric Vessel	MCTTT	5.5	6	4	4	5	47	Low	Hold
22 2R	Bridge and Crossings Upgrade and Replacement	FRA	23.0	8	4	5	4	46	Low	Hold
67 B47	Construction of New Sub-Divisional Hospital or Health Centres	AMU MH	30.0	8	4	7	1	46	Low	Defer
46 E23	House Wiring	EFL	200.0	8	2	8	4	45	Low	Hold
18 2w	Upgrade and Maintenance of ICT in Schools	MEHA	15.5	7	5	3	3	44	Low	Hold
27 4B	Outer Islands Airport Connectivity Improvements	Fiji Airpo	95.3	8	3	6	2	43	Low	Hold
20 3w	Upgrade Water Facilities	MEHA	3.8	8	4	3	3	42	Low	Hold
69 TBD	Upgrading and Maintenance of Hospitals / Health Centres	AMU MH	175.0	8	3	5	2	40	Low	Hold
17 1M	Supply of Boat & Engine to Schools	MEHA	4.3	9	2	4	3	37	Very Low	Hold
62 B29	Replacement of Dreketi Health Centre	AMU MH	18.0	4	2	7	4	37	Very Low	Defer
65 B37	Construction of New Health Center - Nadi Sub-Division	AMU MH	10.0	7	2	7	1	35	Very Low	Defer
15 1U	Settlement Formalisation (Central, West & North Div.)	MHCD	556.2	8	3	5	0	35	Very Low	Hold
63 B25	Construction of FPBS Warehouse - Western Division	AMU MH	5.0	7	2	5	1	33	Very Low	Defer
61 B21	Construction of National Wellness Center	AMU MH	15.0	9	2	3	1	32	Very Low	Defer
59 B11	Upgrading and Maintenance of Specialised Hospitals and	AMU MH	100.0	9	1	5	1	29	Very Low	Hold

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Attachment C: Economic Viability of Shortlisted Projects

	A	B	C	D	E	F	G	H	I
1	Project 23: MOE - PPP Affordable Housing Project								
2									
3		1	2	3	4	5	6	7	8
4									
5									
6	Consolidated Benefits	0.0	0.0	3.0	6.0	9.0	12.0	15.0	18.0
7									
8	Capex Costs	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
9	Total Opex Costs			1.2	1.8	2.4	3.0	3.6	4.2
10	Total Costs	30	30.0	31.2	31.8	32.4	33.0	33.6	34.2
11									
12	Net Benefits							-18.6	-16.2
13									
14									
15									
16									
17									
18	Assumptions:								
19	1. Capex as per MOE preliminary								
20	2. Construction phased over an es								
21	3. Benefits start to flow from year								
22	4. Full life of investment is estim								
23	5. Total Opex calculated as 2% of cumulative capex commencing in year 3.								
24	6. Consolidated benefits are estimated as the residual in the model being the benefit level needed to hit the break-even IRR of 6.0% given estimated								
25									
26	Assessment of Economic, Social, Environmental and Climate Viability: Moderate								
27									
28	Considerations in Assessment of Viability								
29	Market Revenues: The investment targets low cost housing for poorer people. Some revenues in the form of either rents or leveraged sales are possible								
30	Non-Market Benefits: Indirect economic benefits are expected through stimulation of local production and employment both pre and post investment. S								
31	Non-Market Costs / Disbenefits: Minor environment and climate related negative externalities are expected to the extent that proposed land and housin								
32	Summary of Considerations in Assessment of Viability: Proposed project design is very preliminary which is cause for caution in being too optimistic as to l								
33	This equates to \$542 per beneficiary (\$2,710 per beneficiary household) p.a. Considering t								
34									
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Attachment D: Potential Financiers for Dossier Projects

Project	Likely Principal Funding Type ⁽¹⁾ ⁽²⁾	Potential Financiers(s)
1. FPCL – Wharf Rehabilitation Projects – Lautoka	FPCL internal, private sector funding windows	FPCL, IFC, (private sector arms of ADB, EIB, AIFFP, AIIB, JBC, PRC), domestic banks, FNPF, insurance co.
2. MRMD – Supporting Growth & Resilience of Rural Economy	Government funding and external grants	Government, DFAT, EU, JICA, NZ, PRC, Indonesia, UNDP, India, Cuba, South Korea, Malaysia, Spain
3. FPCL – Levuka Wharf Rehabilitation Project (Tourist Infrast.)	FPCL internal, plus external grants to address moderate viability	FPCL, DFAT, EU, JICA, NZ, PRC, UK, India, Cuba, South Korea, Malaysia
4. MRMD. Strengthen Disaster Risk Reduction Management	Government funding, external CC grants, if necessary blended with concessional CC finance	Government, GCF, CIF, ADB, EIB, AIFFP, AIIB, JBC, PRC, DFAT, EU, JICA, NZ, PRC, UK
5. MRMD – Improve Connectivity Rural/Maritime Communities	Government funding and external grants	Government, DFAT, EU, JICA, NZ, PRC, Indonesia, UNDP, India, Cuba, South Korea, Malaysia, Spain
6. DOE – 15,000 SHS for Rural and Maritime Communities	Government funding, external CC grants, if necessary blended with concessional CC finance	Government, GCF, CIF, ADB, EIB, AIFFP, AIIB, JBC, PRC, DFAT, EU, JICA, NZ, PRC, UK
7. MOF – Nadi Flood Alleviation Project	Government funding, external policy and concessional loans, CC funding	Government, ADB, WB, EIB, AIFFP, AIIB, JBIC, GCF, CIF
8. DOE – Renewable Energy, Hydro	Government funding, external CC grants if necessary blended with concessional CC finance	Government, GCF, CIF, ADB, EIB, AIFFP, AIIB, JBC, PRC, DFAT, EU, JICA, NZ, PRC, UK
9. MRMD – Access to Water for Rural Communities	Government funding and external grants	Government, DFAT, EU, JICA, NZ, PRC, Indonesia, UNDP, India, Cuba, South Korea, Malaysia, Spain
10. FPCL – Suva Port Relocation	FPCL internal, multilateral, and domestic funding windows	FPCL, ADB (processing is advanced). Co-financing possibilities with EIB, AIFFP, domestic banks, FNPF.
11. FPCL – Muaiwalu 2 New Interisland Terminal Project	FPCL internal and external grants	FPCL, DFAT, EU, JICA, NZ, PRC, UK
12. FSC – Upgrade Buildings & Factory Equipment	FSC internal, government, potentially external policy funding to support restructuring	FSC, Government, IFC, (ADB, EIB, AIFFP, AIIB, JBC, PRC), domestic banks, FNPF, insurance cos.
13. MRMD – Enabling Access to Quality Rural Public Service	Government funding and external grants	Government, DFAT, EU, JICA, NZ, PRC, Indonesia, UNDP, India, Cuba, South Korea, Malaysia, Spain
14. Fiji Airports – Green Airport Upgrades	FA internal, external climate grant funds	FA, GCF, CIF, DFAT, EU, JICA, NZ, PRC, UK
15. MOPWTMS – Upgrade 50 Diesel Generators to Solar Hybrid	Government funding and external climate related grants	Government, GCF, CIF, DFAT, EU, JICA, NZ, PRC, UK
16. FSC. 50T Labasa Co-Gen High Pressure Boiler – Labasa	FSC internal, government, potentially external policy and CC funding to support restructuring	FSC, Government, IFC, (private sector arms of ADB, EIB, AIFFP, AIIB, JBC, PRC), GCF, CIF, domestic banks, FNPF, insurance cos.

17. WAF – Water WTP Programme Nadi – Lautoka Scheme	Government plus external policy and if necessary concessional loans	Government, ADB, WB, EIB, AIFFP, AIIB, JBIC plus Government.
18. EFL – National Grid Extension	EFL plus external policy concessional loans, and climate financing	EFL, IFC, ADB, EIB, AIFFP, AIIB, JBC, PRC, GCF, CIF, domestic banks, FNPF, insurance cos.
19. WAF – Savusavu Water & Wastewater Collection Scheme	Government plus external policy and if necessary concessional loans	Government, ADB, WB, EIB, AIFFP, AIIB, JBIC
20. FRA – 40 Critical Bridges	Government plus external policy and concessional loans	Government, ADB, WB, EIB, AIFFP, AIIB, JBIC
21. MOPWTMS – Zero Energy Building Deployment	Government funding and external climate related grants, and if necessary concessional loans	Government, GCF, CIF, DFAT, EU, JICA, NZ, PRC, UK
22. Housing Authority – Waila Development	HA internal, private sector funding windows	HA, IFC, (private sector arms of ADB, EIB, AIFFP, AIIB, JBC, PRC), domestic banks, FNPF, insurance companies, private PPP investors
23. MOF – PPP Affordable Housing Project	Government funding, external grants, and private sector funding windows	Government, IFC, (private sector arms of ADB, EIB, AIFFP, AIIB, JBC, PRC), domestic banks, FNPF, insurance co, private PPP investors
24. WAF – Suva Automation	Government funding and external grants	Government, DFAT, EU, JICA, NZ
25. WAF – Renew Distribution Mains, Suva – Nausori Water	Government, external policy, and if required concessional loans	Government, ADB, WB, EIB, AIFFP, AIIB, JBIC
26. FSC – Upgrade Cane Access Roads and Crossings	FSC internal, government, potentially external or domestic / PPP policy funding to support restructuring	FSC, Government, IFC, (private sector arms of ADB, EIB, AIFFP, AIIB, JBC, PRC), domestic banks, FNPF, insurance companies, private PPP investors
27. WAF – Upgrade Navakai WWTP to IDEA Process	Government, external policy and if necessary concessional loans	Government, ADB, WB, EIB, AIFFP, AIIB, JBIC
28. DTCP – New Town Development Programme	Government funding and external grants	Government, DFAT, EU, JICA, NZ, Indonesia, Singapore, PRC
29. MOPWTMS – Nabouwalu Govt. Stations – Solar Hybrid System	Government funding and external climate related grants	Government, GCF, CIF, DFAT, EU, JICA, NZ, PRC, UK
30. Fiji Airports – Critical Infrastructure for Intl. Connectivity	FA internal, private sector funding windows	FA, IFC, (private sector arms of ADB, EIB, AIFFP, AIIB, JBC, PRC), domestic banks, FNPF, insurance cos.
31. FPCL – Building Upgrades – Lautoka: Tourism Related	FPCL internal, private sector funding windows	FPCL, IFC, (private sector arms of ADB, EIB, AIFFP, AIIB, JBC, PRC), domestic banks, FNPF, insurance co.

Source: Authors.

Notes:

- (1) Section 4.4 and Table 43 indicate that external concessional policy-based borrowing should be one important priority for future funding. As Appendix C is project focused all possible projects and sectors are not exhaustively proposed for development of policy-based funding in column two. There are a range of sectors (and their projects) which are amenable for structuring as policy-based funding. From the priority projects listed the best opportunities may come from the energy, water and sanitation, roads; and sugar sectors / subsectors. Structuring could address a single sector or cover multiple sectors.
- (2) Section 4.4 and Table 43 indicate that increased grant funding is a high priority for funding, though amounts available will depend on enhanced development partner supply, including progress with international discussions regarding climate related grant reparations for small states. Should grant funding increase substantially it could replace concessional external funding for many indicated projects. Should grant levels remain modest such grants could be increasingly used to blend with concessional and policy-based debt funding outlined above.

Attachment E:

Consultations with Financiers of Infrastructure

This Attachment provides an overview of consultations undertaken with actual and potential key financiers of infrastructure in Fiji. The main categories of financier covered are:

- a) development partner grant aid;
- b) multilateral and bilateral lending; and
- c) other possible financiers;

The investigation focuses on general information, including recent and immediate infrastructure funding transactions and any medium- to longer-term plans and policies. Medium- to longer-term expenditure and funding frameworks and strategies are addressed in **Section 4.4**. Most infrastructure financiers in Fiji plan with a relatively short-term outlook (typically 2–3 years ahead), which makes it challenging to match Fiji’s long-term infrastructure funding needs with likely availability of different forms and sources of funding.

A) Development Partners Focusing on Grant Aid

Australian Department of Foreign Affairs and Trade and other agencies

Australia provides significant official development assistance (ODA) and defense assistance to Fiji in various forms, including:

- **Directly through bilateral ODA programs.** In recent years normal budgeted aid has been 2019–20: A\$35.0 million; 2020–21: A\$40.0 million; 2021–22: A\$40 million; and 2022–23: A\$40 million. Additional special budget support was also provided during the peak COVID-19 years (F\$127 million in FY2022) linked to performance-oriented reform indicators. Assistance is mainly composed of operational expenditures, including in recent years in special support of health (particularly COVID-19 vaccines). Other areas of assistance include education, private sector development, and wide-ranging forms of TA. Small capital outlays have been provided recently, particularly: (i) post-cyclone reconstruction for schools and health centres (a Schools and Health Centre [Infrastructure] Recovery Program of A\$18.5 million is being implemented from 2022–2026); (ii) support to digital interconnectivity; and (iii) minor equipment and other infrastructure to support TVET and information system upgrades in the health and education sectors. Additionally, infrastructure financing may also be provided through AIFFP, which was established in 2019 (see below) and through Australian global contributions to the multilateral financial institutions.
- **Indirectly through regional ODA.** In recent years, regional ODA in part supporting Fiji has been 2020: A\$14.3 million; 2021: A\$19.9 million; 2022: A\$41.2 million; and 2023: A\$45.6 million. Typically regional funding does not support infrastructure development, mainly supporting agencies such as the Pacific Islands Forum, Forum Fisheries and regional associations such as for police, customs, immigration and trade; and
- **Special defense and security arrangements.** In recent years, important infrastructure investment grants have been provided for: (i) the construction of the Blackrock Camp for the Fiji Military Forces between 2018 and 2022 at an estimated cost of A\$65m; and (ii) design and planned construction of the Maritime Essential Services Centre (navy headquarters, including a coastal radio station rescue coordination center and a hydrographic service). This is being implemented from 2021 to 2024 at an estimated cost of A\$60 million.

New Zealand ODA

ODA focuses on: (i) democracy; (ii) security; (iii) economic resilience; (iv) climate change; and (v) social well-being. Support to hard infrastructure development and rehabilitation occurs but is typically small and indirect, e.g., recently with: (i) rehabilitation construction post-cyclone, especially to school buildings, health centres and cyclone shelters and recovery centres; and (ii) development of renewable energy as one plank of resilience (e.g., technical support to ADB in development of Taveuni Hydropower Project).

Possible future support to infrastructure development (not yet firmly programmed) includes: (i) funding and TA to set up the Relocation Trust Fund, which will allow the homeless from climate change to relocate, including new housing alternatives; (ii) possible PPPs in the conversion of municipal waste to energy, though reaching agreement on tariff levels for power purchasing agreements to feed into the grid is proving difficult and may require competition and regulatory reform (a review of the Fijian Competition and Consumer Commission [FCCC] to support a more vibrant utilities market is being supported); (iii) technical and other support to the ADB- and EIB-led water and sanitation projects; (iv) technical support to a World Bank- and IFC-led large low-cost housing development projects in conjunction with the private sector (with elements of PPP); and (v) more broadly, a New Zealand Resilient Climate Fund is being established with initial capital of NZ\$1.3 billion, of which 50% of annually allocated investment funds will go to Pacific countries, including Fiji, with significant amounts expected to be allocated for the development of more resilient infrastructure.

European Union ODA

Fiji falls within a broader regional program of the EU, which does not contain significant direct funding for hard infrastructure projects. In the past, smaller infrastructure projects (now largely completed) have been supported, including: (i) construction of Siphon bridge; (ii) electricity transmission and connections in remote locations; and (iii) rehabilitation and connection of feeder roads in sugar cane areas. In the future, under their newly emerging Global Gateway Program (to be implemented mainly by EIB and EBRD), they are likely to give more attention to the sectors of: (i) transport; (ii) digital economy; (iii) energy; and (iv) climate change. Much hard infrastructure support from the EU to the Pacific comes through EIB lending programs (see below).

Government of Japan – Japan International Cooperation Agency ODA

JICA manages a 2- to 3-year forward pipeline of ODA-supported initiatives. The 2022 listing contains 23 activities, most of which are of an operational spending nature (advisers, technical cooperation, etc.). Most activities are not (or do not lead to) investments of a hard infrastructure nature. The main items in the current pipeline which have (or may have) implications for infrastructure funding are: (i) a grant of ¥2.9 billion to construct the new Tamavua-i-wai bridge along the Queens Road Suva, commencing in 2021, with completion by the end of 2022; (ii) a 2020 Disaster Recovery / Rehabilitation concessional loan of ¥5.0 billion, which was disbursed in two tranches in 2021 and 2022 partly addressing past cyclones but also supporting the response to COVID-19 through general budget support (an ODA JICA loan with a 40-year tenor, 10 years' grace period, and an interest rate of 0.01%); and (iii) various TAs may support future infrastructure funding (though none is yet programmed), including: (a) support to WAF development of non-revenue water policies; (b) survey work for the proposed large Nadi Flood Alleviation Project; and (c) development with WAF and the Ministry of Infrastructure a Sewerage Master Plan for the western region of Fiji. Also see below Japan Bank for International Cooperation for their lending activities.

B) Multilateral and Bi-lateral Lenders

Asian Development Bank

Current ongoing projects of an infrastructure development nature are: (i) Transport Infrastructure Investment of US\$100 million due to close in 2022 or 2023, with fate of a further phase uncertain; (ii) Urban Water Supply and Wastewater Phase 1 (US\$42.1 million) due to close in 2023 or 2024; and (iii) small TAs / projects supporting rural electrification through the Department of Energy. Pipeline projects under consideration (approval and implementation amounts and dates all uncertain) include: (i) Phase 2 of Urban Water Supply and Wastewater expected approval 2023 to include Sanitation (Total project of US\$229.7 million, US\$69.4 million of which is provided ADB, with Government of Fiji, EIB, and others co-financing); (ii) Suva Port Relocation of US\$310 million (US\$200 million by ADB) for approval 2022 or 2023; (iii) Renewable Energy Project (rural energy integration, low-carbon monitoring, e-vehicle stations) of US\$210 million (ADB US\$70 million, World Bank US\$70 million and Climate Investment Fund [CIF] US\$70 million); and (iv) Project to upgrade transmission infrastructure (to increase capacity and reliability). Note that earlier indicated pipeline support to the Nadi Flood Alleviation Project (US\$200 million, US\$100 million of which ADB is supplying) is no longer to proceed due in part to assessed adverse environmental effects.

The ADB consultation highlighted several non-project policy and regulatory issues, which the NIIP could consider. Firstly, independent regulation for all key utilities warrants consideration, especially those with monopoly powers; (ii) options for policy-based general budget support rather than project lending should not be ruled out from the lenders side if considered acceptable to the government; (iii) the deteriorating state of assets is a major concern, with emergency maintenance needs crowding out new investments with particular problems in water where low tariffs severely limit cash for maintenance and new investment; and (iv) some priority investments could be funded by non-fiscal means, e.g., by improving the policy and regulatory environment for private participation and through PPPs.

World Bank / International Finance Corporation

Current ongoing projects of an infrastructure development nature are: (i) WB Transport Infrastructure Investment of US\$50 million due to close in 2022 or 2023, with fate of a further phase uncertain; (ii) WB Cable and Connection to improve internet on Vanua Levu of US\$5.9 million due to close in 2022; and (iii) IFC US\$15 million project, 2020–2022 for a private sector operator to develop a large 15 MW PPP solar project in conjunction with and feeding into the EFL grid.

One immediate pipeline project under close consideration is the Renewable Energy Project of \$210 million (World Bank \$70 million). Other pipeline projects are at varying stages of preparation under the country program, 2021–2024, which has two main thrusts (only parts of which relate to infrastructure development):

- **Private sector-led growth and inclusive economic opportunities, especially on Vanua Levu Island.** This includes enhanced infrastructure development, especially in tourism, agriculture, and the enabling connective infrastructure - more resilient roads, bridges, and jetties and extending benefits of the submarine cable more broadly across Vanua Levu including increased access to the internet; and
- **Building resilience – including housing and transport infrastructure.** Infrastructure-related elements of this component include developing climate-resilient infrastructure, including in housing, building codes, transport, marine protected areas, health facilities, waste management, and renewable energy.

Green Climate Fund / Climate Investment Fund and Other Climate Funding

Green Climate Fund (GCF) in 2015 provided grant funding of US\$31.0 million to the joint ADB / EIB Urban Water and Wastewater Project. Significant processing difficulties and delays have been experienced in developing further GCF funding though small proposals in solar and agriculture are currently being processed by the Fiji Development Bank – the National Accredited Entity in Fiji for GCF projects up to \$10 million. Delays and constraints have also occurred in progressing proposals with CIF though a joint funding with the World Bank and ADB for a Renewable Energy Project is currently being processed (see further under ADB and World Bank above in this section).

Fiji has experience in issuing global bonds, including: (i) a 2006 issuance for US\$150 million with a 5-year tenor and a coupon rate of 6.875%; (ii) a 2011 issuance of US\$250 million with a 5-year tenor and a coupon rate of 9.0%; and (iii) a 2015 issuance of US\$200 million with a 5-year tenor and a coupon rate of 6.625%. All three have since been repaid. In 2017, Fiji internationally issued Green Bonds totaling F\$100 million with \$20 million of this repayable in 4 years at a coupon rate of 4.0% and \$80 million repayable in 13 years at a coupon rate of 6.3%. Interest rates on all the above bonds were considerably higher than Fiji's other sources of external funding notwithstanding that Fiji's middle-income status makes it difficult to get access to highly concessional loans. Furthermore, payback periods were all considerably shorter than alternatives available. Notwithstanding this, Fiji is currently considering issuance of a further Blue Bond in 2022 or 2023, the terms of which have not been settled. Global issuances provide the convenience of not meeting conditionality and the time-sapping bureaucracy of concessional borrowing but generally come at the cost of higher interest and shorter tenors.

Three important climate-related documents which have assisted to develop the NIIP pipeline and its funding strategy and which have already been outlined in Chapter 4 as representing fundamental elements of Fiji's national and cross-cutting planning framework are: (i) the Climate Vulnerability Assessment 2017; (ii) the NDC Investment Plan, 2022; and (iii) the National Climate Finance Strategy 2022. These documents provide useful insights into the huge magnitude of climate mitigation and climate change adaptation and disaster resilience investment needed. However, they do not provide a clear pathway as to how meaningful funding will be secured, given severe domestic fiscal constraints (and competing investments) and the long history of failed attempts at developing international financing solutions relevant for small island nations.

Australian Infrastructure Financing Facility for the Pacific

The Australian Infrastructure Financing Facility for the Pacific (AIFFP), which is a relatively new infrastructure financing facility has approved two transactions in Fiji. The first of these approved in June 2021 was for an \$106 million facility to Fiji Airports to allow for maintenance and new capital projects at Nadi International Airport and several outer island airports. It is expected to be implemented over 3 years with loan funding to be repaid over 5 years. Some \$96 million is being provided by an AIFFP-guaranteed ANZ Bank loan (the interest rate incorporating a guaranteed fee is not disclosed), while \$10 million is provided directly by AIFFP at a flat interest rate of 4.25% p.a. The second transaction was a A\$5 million grant to allow scoping and preparation work on a planned part C (upper catchment and watershed management) of a larger Nadi Flood Alleviation Program targeting flood mitigation, especially for Nadi town. Any future AIFFP funding will depend on findings of the current preparatory work.

While AIFFP does not have further specific projects in its pipeline for Fiji, it continues to explore opportunities across sectors including for roads, energy, communications, and perhaps health and education hard infrastructure. AIFFP has capacity for further grants and / or loans (or

blended finance), which will be considered over time on a case-by-case basis as and when the Fijian government or its institutions or the private sector (which is eligible) choose to apply. Funding amounts below A\$5 million are generally considered too low. AIFFP policies aim to set interest rates close to rates charged by the IBRD window of the World Bank while tenors depend on the nature of the project. There is willingness to partner and co-finance with other financiers including flexibility to leverage finance from commercial banks / institutions / provident and superannuation funds, etc., through use of guarantees and other securitisation mechanisms.

The AIFFP has recently signed another loan with the government (18 October 2022). This is for the Fiji Transport Infrastructure Restoration Project. The financing was provided in US dollars – total of US\$50.3 million (loan of US\$40 million and grant of US\$10.4 million), results-based financing.

Asian Infrastructure Investment Bank

To date, the People's Republic of China-based Asian Infrastructure Investment Bank has not been active in hard infrastructure funding in Fiji. Its first loan to Fiji (and the Pacific) was in 2021 for \$50 million being a rapid disbursement loan for COVID-19 emergency spending linked to the non-infrastructure ADB Sustained Private Sector Led Growth Reform Program.

Exim Bank China

There is significant older debt owed to Exim Bank China from earlier borrowings prior to 2015, but, with no new borrowing since then, outstanding debt has been gradually decreasing from US\$530.3 million in 2018 to recent levels of around US\$400 million. Although in the past a significant lender for infrastructure, this source no longer seems likely to be called on during the period of the NIIP.

Japan Bank for International Cooperation

Japan Bank for International Cooperation (JBIC) in 2021 joined with the Chugoku Electric Power Company of Japan to jointly purchase from the government and the National Provident Fund a 44% equity stake in EFL. The Government of Fiji retained 51% of the equity with 5% held by small Fijian shareholders. JBIC played an innovative role by taking on some of the equity and assuming some of the risk from Chugoku. JBIC as a development and policy agent of the Japanese Government has a stated aim of advancing renewable energy objectives of the government and EFL, though progress since acquisition has been slow.

European Investment Bank

The European Investment Bank (EIB) has one large ongoing project in conjunction with ADB and the Green Climate Fund, namely the Urban Water and Wastewater Project, to which EIB has contributed US\$75 million to phase 1 water treatment plant, which is due for completion in 2023 or 2024 at a total cost of US\$345 million. EIB may contribute up to a further US\$44 million to phase 2, which is under preparation by ADB and focused on a wastewater management plant at Kinoya. Total phase 2 costs of US\$230m are estimated though final decisions on approval and commencement of phase 2 (probably for 2023 or 2024) are still to be taken. Other infrastructure pipeline projects being developed but still not firmly confirmed or costed, include: (i) a hydropower project at Natiwana / Nadarivatu preliminarily estimated to be a US\$ 300 million project, mainly EIB loan funded but possibly blended with EU grant support or a guarantee; (ii) a possible additional hydropower plant on Taveuni Island to be developed by EFL possibly co-financed by ADB; and (iii) possible support to the Nadi Flood alleviation

program, though there is considerable uncertainty here due to contentious environmental issues to be resolved. EIB, often in collaboration with ADB, is a significant debt financier of hard infrastructure in Fiji.

D) Other Possible Financiers

Commercial Banks and Financial Institutions

Several commercial banks in Fiji were consulted for their views on funding for infrastructure development. To maintain the confidentiality of discussions, only general observations are recorded here. While many common positions were put by the banks, there are also differences among them, with some more philosophically attuned to lending to the public and quasi-public sectors than others. Views on guarantees either from the government or other institutions also differ. Some prefer commercial viability over guarantees. Some general observations were:

- Banks survived the COVID-19 crisis reasonably well and, despite flexible approaches provided to customers, provisions for bad and doubtful debts are manageable. The tourism sector is recovering this year, improving the situations of those directly and indirectly involved in it.
- Currently and into the immediate future the banking system is extremely liquid, with historically low interest rates. Thus, for attractive deals, funding is potentially available, with a competitive environment between the banks.
- The banks hold government / central bank paper (mainly short-term treasury Bills) largely for liquidity purposes and prefer to lend to the private sector at higher yields. Due to the short-term tenor of most deposit liabilities, there is little interest in holding paper longer than 6 to 12 months, especially as there is no substantive secondary market for bonds.
- Some banks have recently participated in infrastructure related transactions including: (i) syndicated lending to EFL (Westpac, Bank of South Pacific; and ANZ Bank); (ii) AIFFP-guaranteed ANZ Bank lending to Fiji Airports; (iii) direct (non-sovereign guaranteed) lending to public entities (e.g., EFL); and (iv) direct lending with government guarantees for less viable public enterprises (e.g., FSC, Fiji Airways). Generally, such lending is provided based on a general charge over assets and is not project-related.
- Some banks are willing to lend for quite extended tenors where consistent with policy (e.g., 20 to 25 years for housing finance). Reserve Bank policy requires banks to hold at least 5% of their loan assets in the agriculture sector.

Insurance Companies, Provident and Superannuation Funds

The insurance industry (both life and general) holds significant assets in Fiji and, with many of their liabilities being of a long-tail nature, represent an important, and as yet largely untapped, source of long-term funding for infrastructure development.

On 31 March 2022, total assets of all life insurance companies stood at \$1.8 billion, with adjusted capital holdings of \$489.6 million. Total investments of \$1.6 billion were held predominantly in fixed interest financial assets (68.5% of total investments were held in government securities, bank deposits and debentures, with 23.7% in shares and 7.8% in land and buildings).

On 31 March 2022, total assets of the General Insurance sector stood at \$521.6 million, with adjusted capital holdings of \$189.4 million. Total investments of \$299.9 million were held predominantly in fixed interest financial assets (80.8% of total investments were held in bank deposits, with 6.5% in shares, and 12.2% in land and buildings).

On 31 March 2022, investments of the Fiji National Provident Fund totaled \$8.3 billion, with the composition of holdings being: Land and buildings (5.0%); Bank Deposits (8.5%); Loans (15.3%); Equities (28.2%); and Government / Other Financial Securities (43.0%).

Total investments of all the above institutions of \$10.2 billion with no major infrastructure holdings in significant part reflects limited development of the capital markets in Fiji, a situation that will be difficult to alter in the short term, though longer-term strategic opportunities exist for funding arms-length investments that are mutually beneficial for the government and members of the various funds.

Equity / Capital Markets

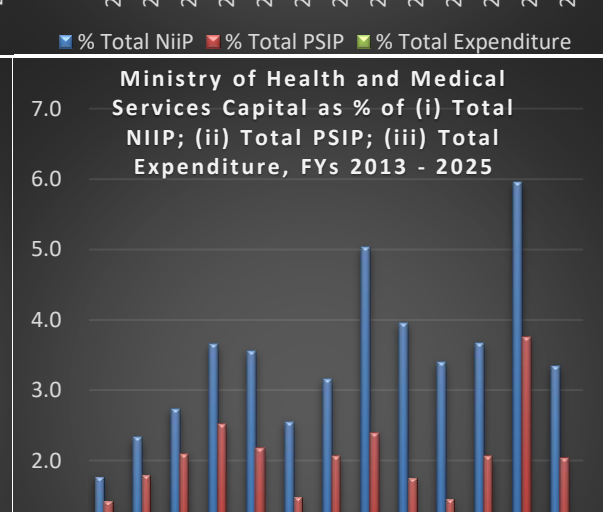
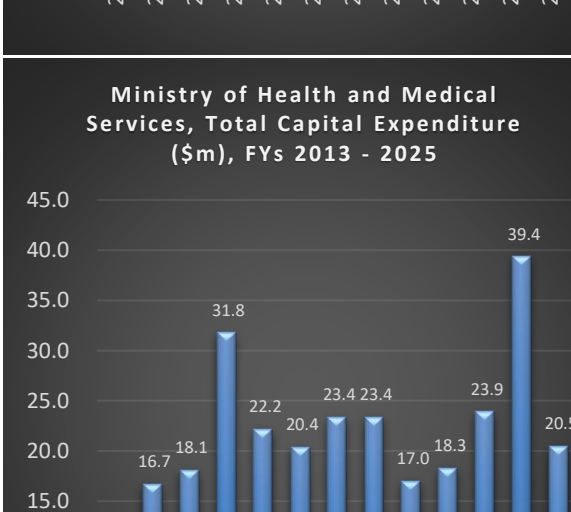
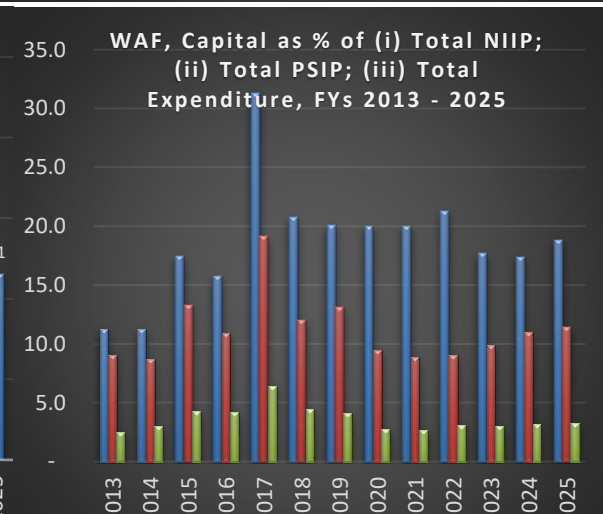
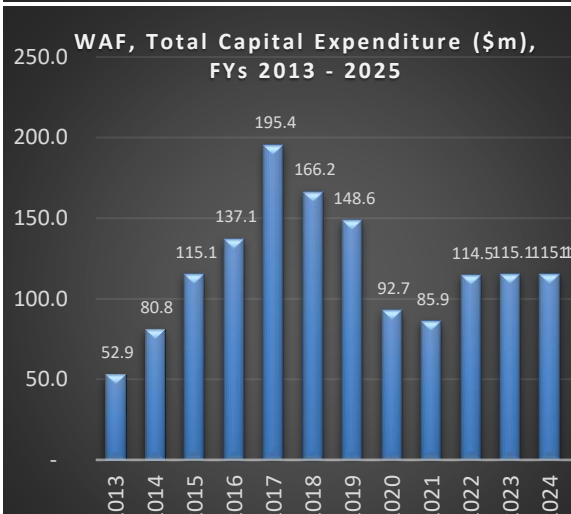
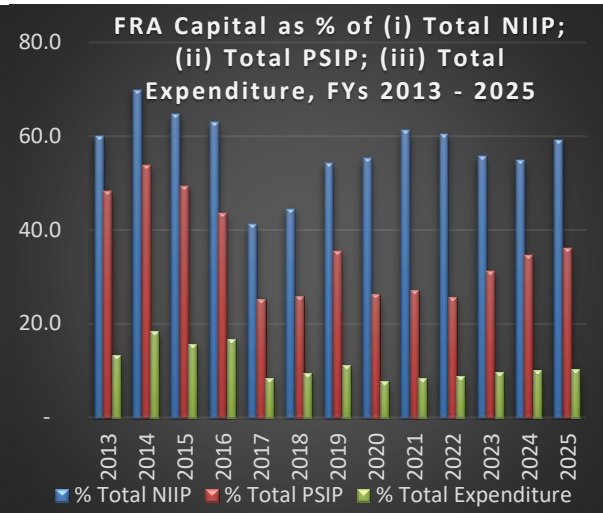
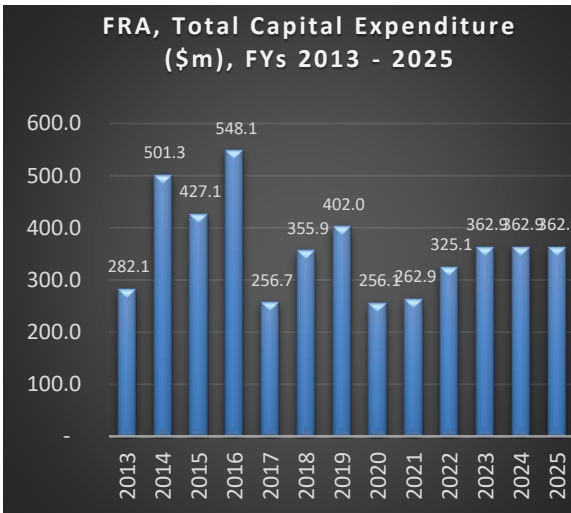
The capital markets in Fiji remain weak, with the preponderance of family companies typically unwilling to devolve interests beyond the family. Fiji's South Pacific Stock Exchange has 19 companies listed (10 on the main board) with total market capitalization of \$3.2 billion and with only limited trading activity. Only one of the six off-budget companies is listed, this being Amalgamated Telecom Holdings Ltd in which the government has a passive holding of 16.3%. While the private sector has significant equity holdings in EFL; FSC; and FPCL, none are listed on the Exchange and thus have limited access to non-debt financing sources.

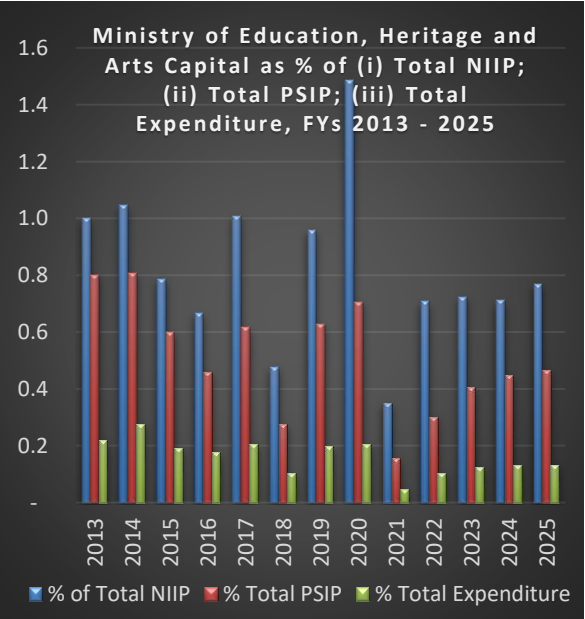
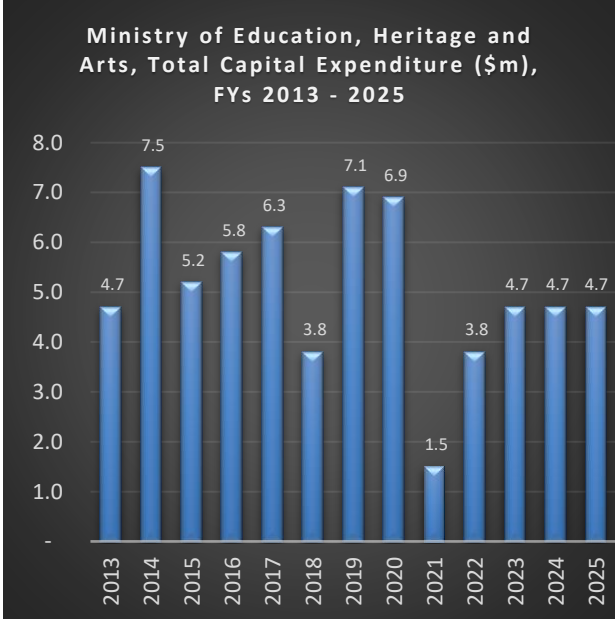
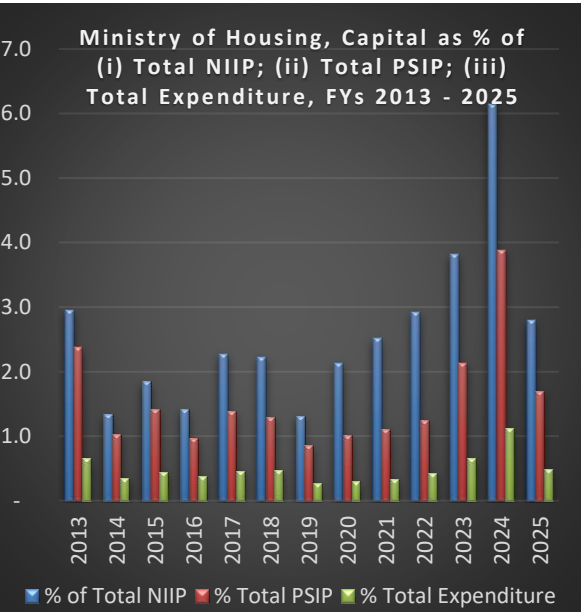
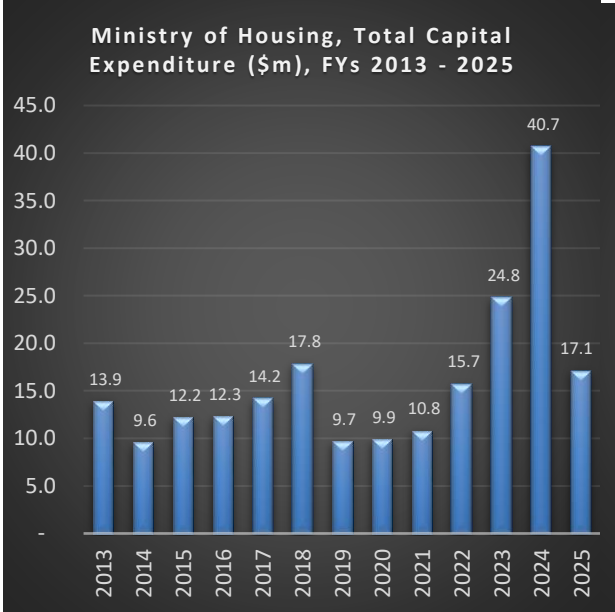
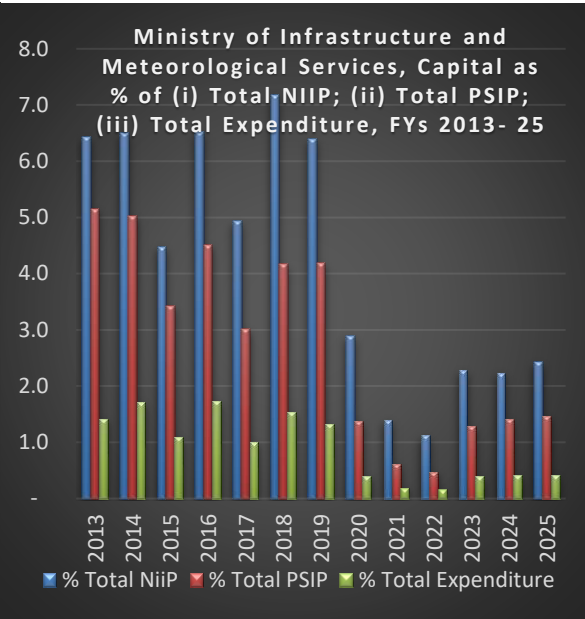
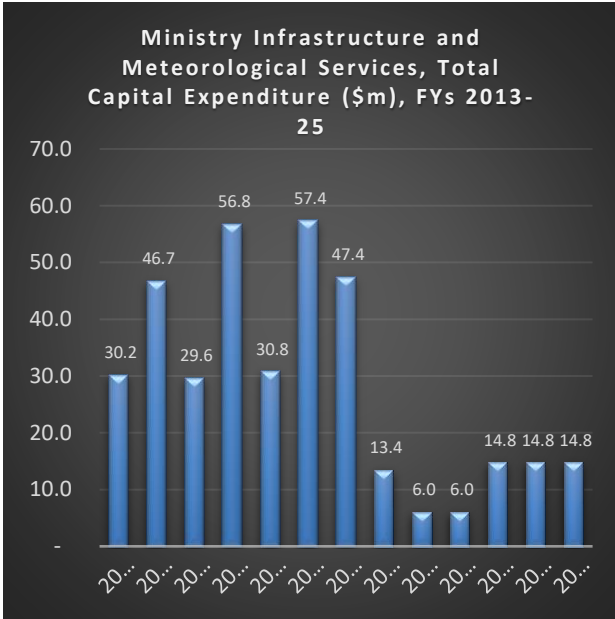
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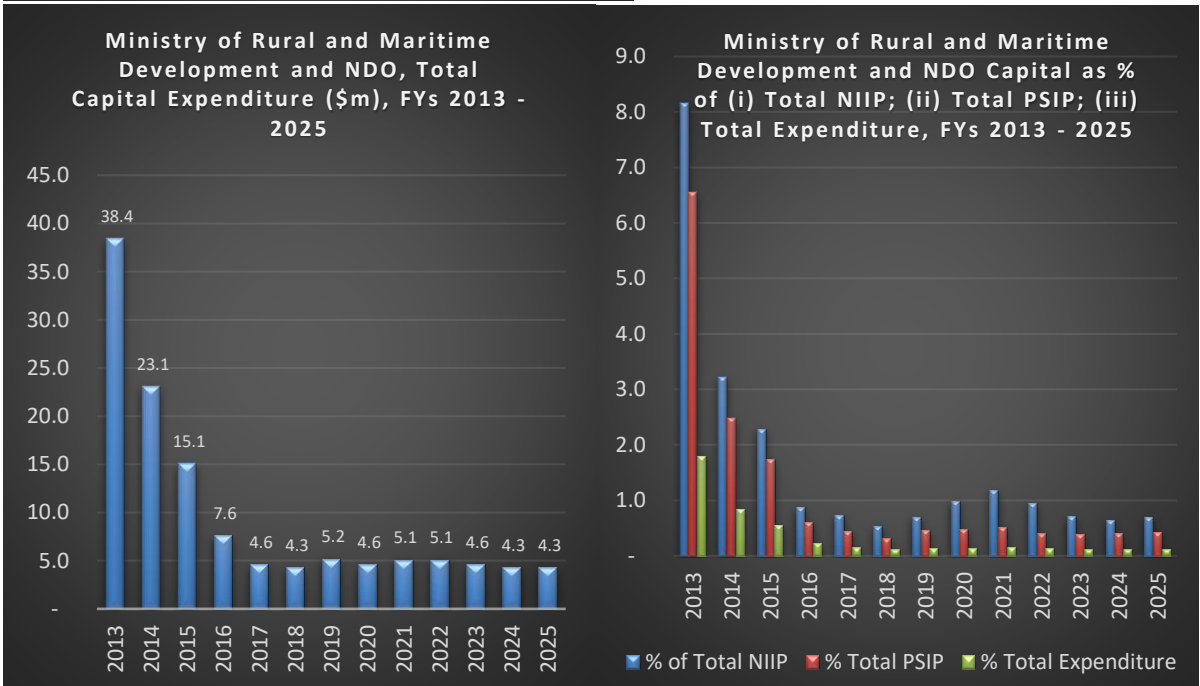
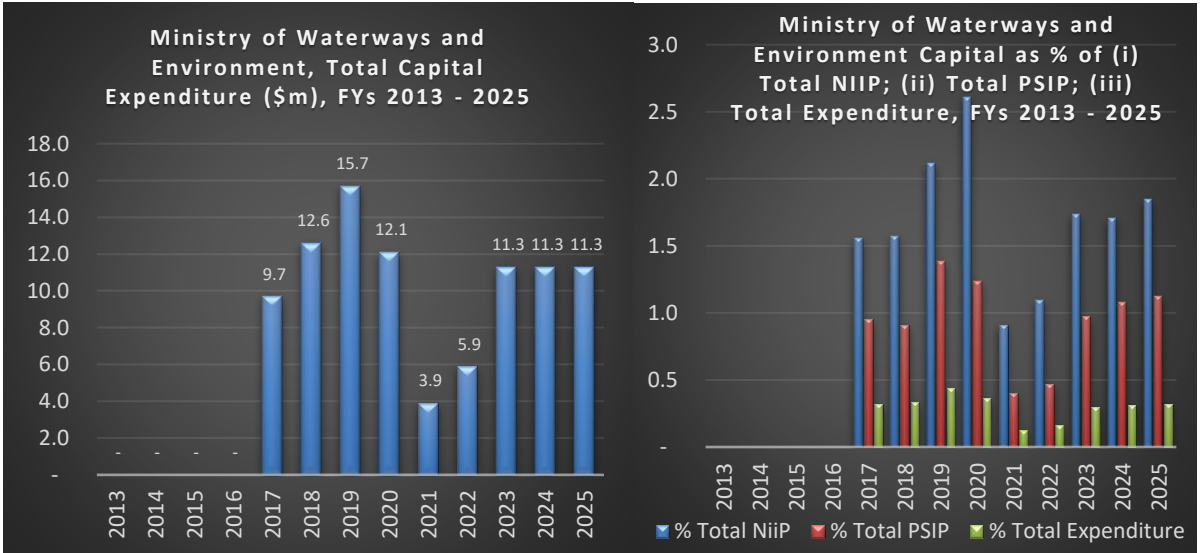
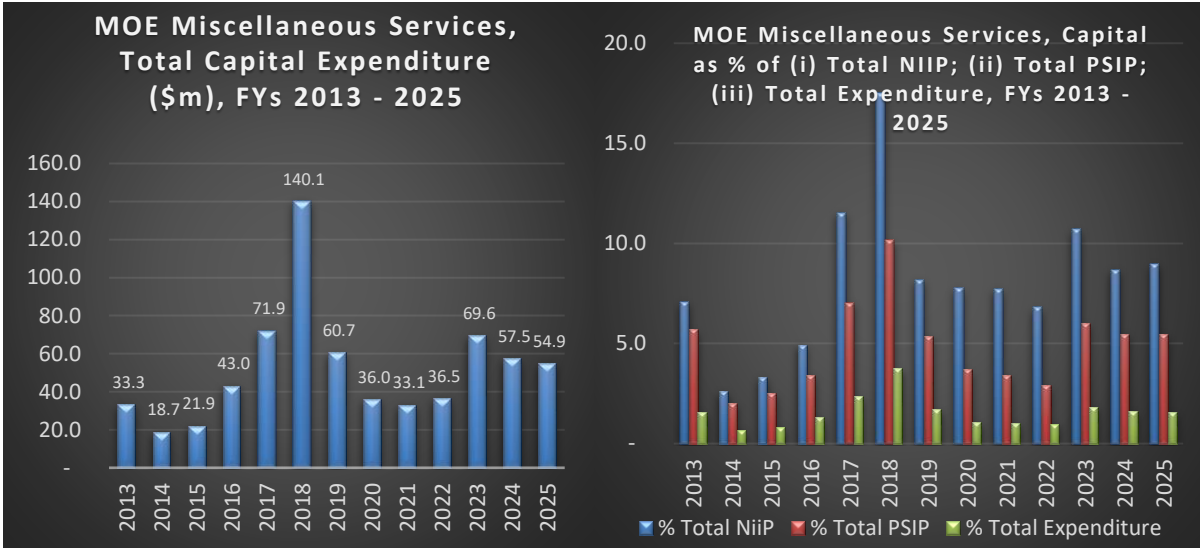
Historic Expenditure Trends for Budget Entities

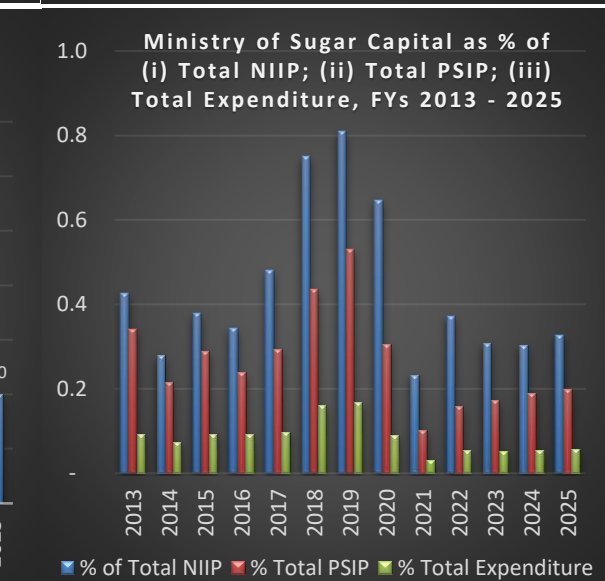
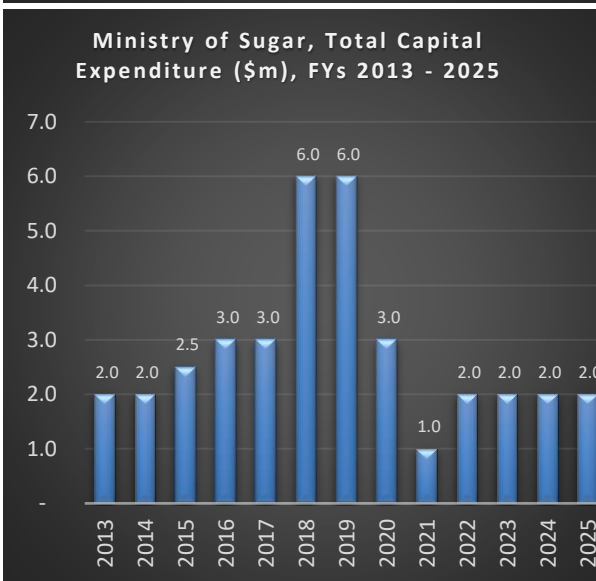
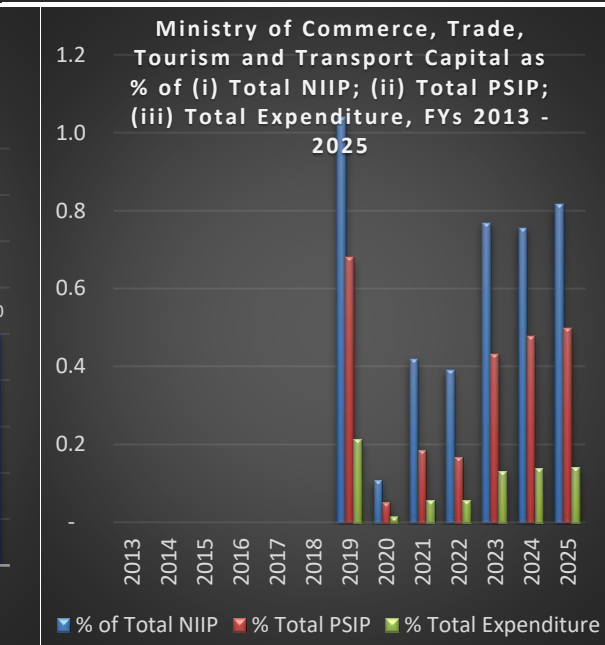
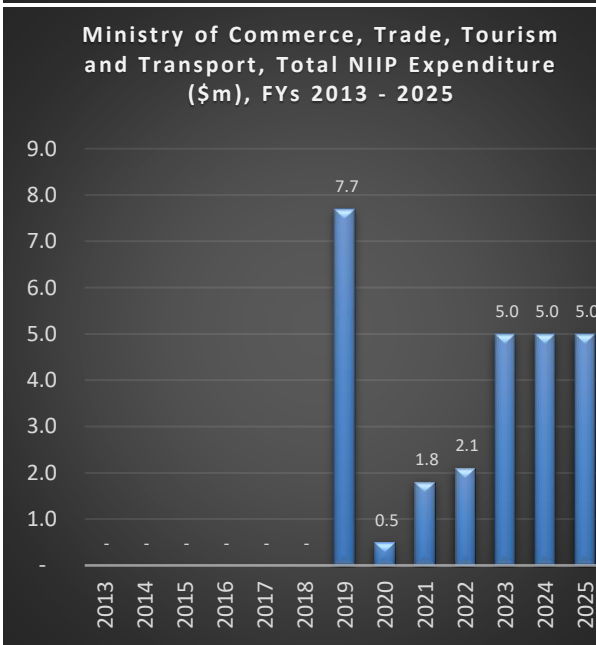
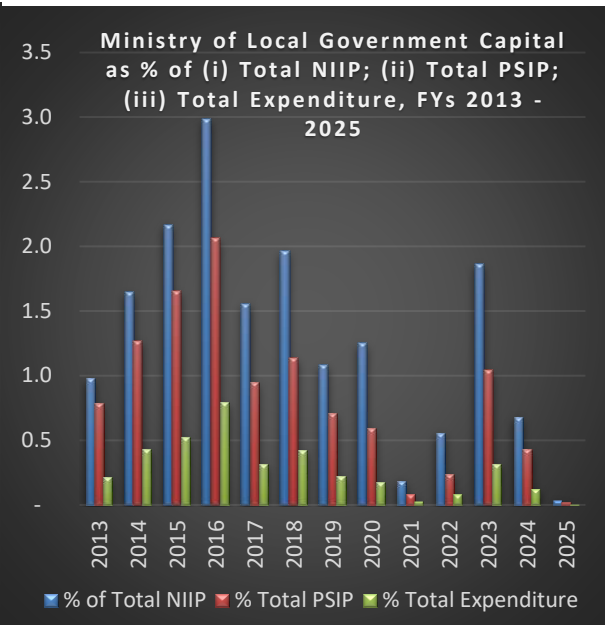
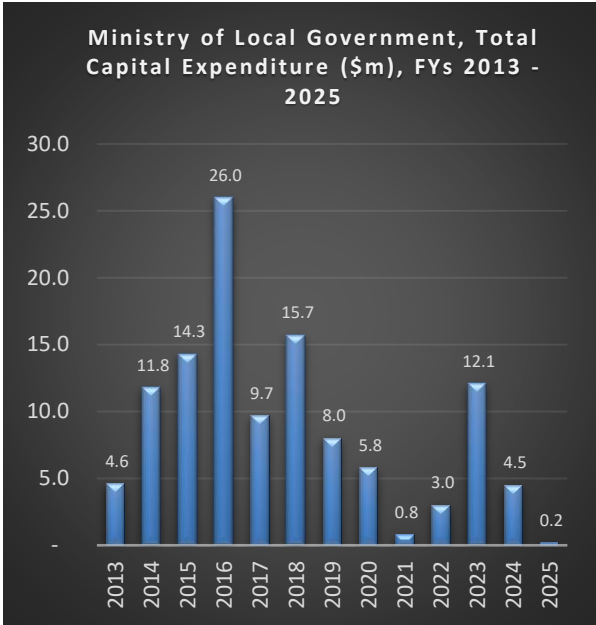
The following tables present a snapshot of historic expenditure for the following agencies (as they were structured in 2022 and referenced in Section 4):

1. Fiji Roads Authority
2. Water Authority of Fiji
3. Ministry of Health and Medical Services
4. Ministry of Infrastructure & Met. Services
5. Ministry of Housing
6. Ministry of Education, Heritage and Arts
7. Ministry of Waterways & Environment
8. Ministry of Rural and Maritime Development & Disaster Management
9. Ministry of Local Government
10. Ministry of Commerce Tourism Trade & Transport
11. Ministry of Sugar - Fiji Sugar Cane Roads
12. Ministry of Economy (Miscellaneous Services)









Attachment G:

Project Briefing Note for Dossier

Outline of Project Screening Summary Form for Priority Projects

1. Ministry / Agency:	
2. Short Project Title:	
3. Sector / subsector:	4. Location:
5. Invest Start Date:	6. Invest End Date:
7. Investment Life:	
8. Project Profile:	
9. Project Driver and Long Run Impact Sought:	
10. Solutions Considered and the Proposed Solution / Project Structuring:	
11. Medium-term Outcome Sought (with PI)	
12. Core Outputs Sought (with PI)	
(i)	
(ii)	
(iii)	
13. Alignment to NDP	
14. Alignment to Entity / Sector Plan	
15. Alignment to Climate and Other Cross-Cutting Plans	
16. Technical Status (Design, Engineering etc.)	
17. Project Delivery Method (Implementation Schedule):	
18. Indicative Financial Assessment:	
(i) Revenues (lifetime stream)	
(ii) CAPEX and OPEX Expenditures (lifetime stream)	
(iii) Net Financial Flows (lifetime stream)	
(iv) Indicative Financial Ratios (FNPV, financial internal rate of return)	

<p>19. Proposed Funding Source: (budget, grant, loan, other)</p> <p>(i) CAPEX (ii) OPEX</p>
<p>20. Indicative Economic Assessment</p> <p>(i) Articulation and where possible monetisation of non-revenue economic benefits (ii) Articulation and where possible monetisation of non-financial economic costs</p>
<p>21. Indicative Social Assessment</p> <p>(i) Articulation and where possible monetisation of non-revenue social benefits (ii) Articulation and where possible monetisation of non-financial social costs</p>
<p>22. Indicative Environmental, Climate Mitigation, Climate Change Adaptation and Disaster Resilience Assessment</p> <p>(i) Articulation and where possible monetisation of non-revenue environmental, climate mitigation, climate change adaptation and disaster resilience benefits (ii) Articulation and where possible monetisation of non-financial environmental, climate mitigation, climate change adaptation and disaster resilience costs</p>
<p>23. Summary of Economic, Social, Environmental, Climate Mitigation, Climate Change Adaptation and Disaster Resilience Costs and Benefits</p>
<p>24. Risk Analysis (as per screening form matrix)</p> <p>(i) Risks if Funding Approved (probability of occurrence, severity of impact) (ii) Risks if Funding Not Approved (probability of occurrence, severity of impact)</p>
<p>25. Summary of Screening MCA Scores</p> <p>See attachment 1</p>
<p>26. Summary of Matters Requiring More Detailed Study During Stage 2 Appraisal (and Funding Arrangements)</p>
<p>27. Summary of MOF Decision:</p> <ul style="list-style-type: none"> ✓ Cleared for initial non-committal discussions with external financiers. ✓ Cleared for phase 2 appraisal study with specific requirements and funding arrangements as per box 26. ✓ Final decisions on budget funding to await stage 2 appraisal study and approval



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