

2021



COOK ISLANDS

National Infrastructure Investment Plan

Summarised Version





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ADB	Asian Development Bank	NZ MFAT	New Zealand Ministry of Foreign Affairs and Trade
CAPEX	Capital Expenditure	NZD	New Zealand Dollar (default Currency in NIIP)
CIG	Cook Islands Government	ODA	Official Development Assistance
CIIC	Cook Islands Investment Corporation	OPM	Office of the Prime Minister
EIB	European Investment Bank	PCC	Project Coordination Committee
IC	Infrastructure Committee	PPP	Public Private Partnership
ICI	Infrastructure Cook Islands	PRC	Peoples’ Republic of China
JICA	Japan International Cooperation Agency	PRIF	Pacific Region Infrastructure Facility
MCA	Multi-Criteria Analysis	RE	Renewable Energy
MFAI	Ministry of Foreign Affairs and Immigration	SOE	State-Owned Enterprise
MFEM	Ministry of Finance and Economic Management	SPREP	Secretariat of the Pacific Regional Envir. Program
MOE	Ministry of Education	TA	Technical Assistance
MOH	Ministry of Health	TAU	Te Aponga Uira (Power company)
MOIA	Ministry of Internal Affairs	TMV	Te Mato Vai
NES	National Environment Service	UNDP	United Nations Development Programme
NGO	Non-Governmental Organisation	USP	University of the South Pacific
NIIP	National Infrastructure Investment Plan	WATSAN	Water and Sanitation Programme
NSDC	Nationals Sustainable Development Commission	WB	World Bank Group
NSDP	National Sustainable Development Plan		



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Cover photo top: Vaikapuangi, futuristic transformational design of the Centrallised Cook Islands Government Building.

Cover photo bottom: Ports Authority, Aitutaki.

Photo p.2: ICI Coastal Protection, Vaimaanga, Rarotonga.

Photo p.4 top: Staff and patients appreciating the major renovations to the Tupapa Outpatient to aid Covid-19 response efforts, completed in March 2021.

Photo p.4 bottom: Opening of Vaimutu'uri Bridge, Avatiu, September 2020.

Photo p.6: Prime Minister Hon. Mark Brown, Chris Vaile (Managing Director of Triad) and Mata Nooroa (Chair of Te Aponga Uira), announcing the generous donation of 600,000 litres of diesel to the Cook Islands fuel from Triad, to assist in providing discounted electricity to consumers in Rarotonga amidst COVID-19 in March 2020.

Photo p.8: To Tatou Vai water intake infrastructure, Avatiu Valley, Rarotonga.

Photo p.10: Manatua Cable landing event in Aitutaki, 2019.

Photo p.12: Suwarrow Ranger Shelter renovations, completed in May 2021.

Photo p.14: Te Aponga Uira, renewable energy infrastructure, Rarotonga.

Prime Minister's Message



Introduction

*Kia orana kotou katoatoa i te aro'a ma'ata
o to tatou Atua.*

The COVID-19 pandemic effectively closed down our biggest industry with the loss of tourism resulting in 60-70% of our national economy disappearing almost overnight.

It was in fact only the prosperity of previous years, coupled with the determination of our people and if I may say, the foresight of government in setting aside our \$57million 'rainy day' fund that enabled us to weather the storm of COVID, sailing through the global turbulence caused by the pandemic began to calm around us.

Despite this, I see enduring aspects of what makes us Cook Islanders, what makes us resilient and strong as a nation.

These common threads are good people, hard work and opportunity because even in the hardest of times it is important to remember that every problem, every challenge, every crisis – is also an opportunity.

It is fitting and timely, in 2021, while we and most of the world slowly recover, that we launch our revised National Infrastructure Investment Plan (NIIP), a guide to our infrastructure investments as a country over the next 10 to 15 years.

The NIIP is a key plan that falls under our national vision, “te oraanga tu rangatira kia tau ki te anoano o te iti tangata, e kia tau ki ta tatou peu Maori e te aotini taporoporoia o te basileia”, “to enjoy the highest quality of life consistent with the aspirations of our people, and in harmony with our culture and environment.”

Along the same lines of our budget passed in June this year, a key feature of this NIIP is centered on revival and growth, with a focus on kick starting our economy.

The NIIP is a plan or pipeline of infrastructure activities, it gives us perspective in terms of what we need to collectively achieve, both public and private, to develop this beautiful nation of ours.

It's appropriate to reflect on what we have achieved as a nation in terms of infrastructure, so we can take these experiences forward. We have achieved much of what was outlined in our inaugural NIIP in 2015.

In the 5 years since this document was crafted projects like Te Mato Vai, the Manatua Cable, civil infrastructure like roads, bridges and the like, have come to life. We have completed or are near to completing around 80% of those projects outlined in the 2015 NIIP. This reflects the hard work and tireless efforts of many across the public and private sector. Importantly to note, we have taken the experiences from that inaugural plan and the many projects into account when crafting this plan.

I would like to thank the many people who contributed to the creation of this new NIIP, first and foremost to our Infrastructure Committee, to our development partners and PRIF and to the many public and private sector partners who have contributed. Meitaki ma'ata.

Kia orana e kia manuia

Mark Brown

HONOURABLE MARK BROWN
PRIME MINISTER
12 AUGUST 2021

This 2021 release of the Cook Islands (CI) National Infrastructure Investment Plan (NIIP) supersedes the first release published in 2015, was approved and prepared by the Infrastructure Committee (IC) assisted by the Pacific Region Infrastructure Facility (PRIF). The plan focuses on strategic investments across twelve sectors over the next ten years and provides a prioritization framework to ensure these project investments best align with the national development priorities of the Cook Islands. This publication is a summarized version of the CI NIIP 2021. A full version comprising approximately 70 pages is also available.

In April 2015, the Cook Islands Cabinet endorsed and adopted the Cook Islands National Infrastructure Investment Plan 2015 (CI NIIP 2015) that was similarly approved and prepared by the IC and assisted by PRIF. The CI NIIP 2015 by the same token outlined the country's priorities and plans for major infrastructure over a 10 year period, articulating strategic infrastructure investments important to the Cook Islands future. The CI NIIP 2015 identified 43 priority infrastructure projects. By 2020, 46% (11 projects) of the twenty four (24) 'high priority' projects were completed, 33% (8 projects) are near completion and only 17% (4 projects) have not yet been committed.

The CI NIIP 2021 process was a thorough programme managed by the IC. The programme involved extensive engagement with Government agencies, the private sector and key stakeholders. The NIIP identifies 136 candidate projects with a combined budget of \$685m. This list represents a comprehensive and complete list of infrastructure projects likely to require funding over the next 10 years. While the list of projects and priorities is complete and determined at the time of publication, it is expected that over the course of the NIIP new projects will be identified and rankings / priorities modified due to emerging circumstances and priorities, including unforeseen circumstances (e.g., a natural disaster). It is unlikely that all 136 projects can be delivered over the next 10 years due to fiscal constraints and the absorptive capacity of government to deliver this volume of work. Furthermore, the COVID-19 pandemic has significantly impacted CIG's Revenue and Net Debt levels and as a result, capital expenditure levels will need to be set in accordance with the fiscal landscape. The IC and the Ministry of Finance and Economic Management (MFEM)

will set fiscally responsible capital investment thresholds each year for the budget period (ensuing 4-years). As part of the annual budget planning cycle, the IC will present a rolling 4-year prioritised list of projects to Cabinet that fit within these budget thresholds. In doing so it will draw on the program prioritisation framework laid out in the NIIP and the policies, guidelines, and tools provided by MFEM's Tarai Vaka Process (TVP).

Assisting the IC in compiling the CI NIIP 2021 was a team of individual consultants, which included Glenn Fawcett, Des Eggleton, Petero Okotai, Denzel Hankinson and Bapon Fakhruddin working under the guidance of the PRIF Coordination Office.

PRIF is a multi-development partner coordination, research and technical facility which supports infrastructure development across its 14 member countries in the Pacific. PRIF partners include Asian Development Bank (ADB), Australian Department of Foreign Affairs and Trade (DFAT), European Union and European Investment Bank (EU/EIB), Japan International Cooperation Agency (JICA), New Zealand Ministry of Foreign Affairs and Trade (NZMFAT), United States Department of State and the World Bank Group.

The NIIP includes cost estimates in relation to a number of projects. The project cost estimates identified in the NIIP range from those based on a high degree of reliability i.e. some projects have completed extensive due diligence and other projects are based on indicative cost estimates. Only projects above \$400,000 formed part of the final NIIP plan.

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Identifying our NIIP Projects



Prioritising our NIIP Programs

The long list of infrastructure projects was assembled from:

- a) The long list of candidate projects compiled during the 2015 NIIP
- b) The annual budget spreadsheet (and its 4-year funding commitment)
- c) The infrastructure project list managed by the IC, maintained by the Secretariat (CIIC) and the Project Coordinating Committee (PCC)
- d) Corporate plans of lead infrastructure agencies
- e) Strategic reports and studies (e.g. Cook Islands Climate Change Country Program 2018)
- f) Interviews with lead infrastructure agencies
- g) A workshop to validate the final list with sector agencies

In total, 136 infrastructure projects and studies were identified with a total budget in excess of \$685 million. This included ongoing projects, planned projects and those having the potential to start in the next 10 years. While budget figures are ‘very preliminary’ for many of these projects they were estimated and included to allow the team to assess the scale of the overarching program and the prioritisation process. The table below summarises the distribution of the projects and studies across the sectors and islands they will benefit.

Distribution of Infrastructure Projects across Sectors and Geography

Islands Serviced / Benefiting	Roads & Bridges	Airports	Marine Facilities	Water Supply	Sanitation	Energy	Solid Waste	Coastal Protection	Buildings	Health	Education	ICT	GRAND TOTAL
National Level			1.50%		0.02%			0.17%	11.25%	0.75%	1.85%	0.25%	15.8%
Rarotonga	6.22%	9.76%	0.87%	6.72%	8.01%	5.25%	0.93%	3.27%	6.44%	10.33%	3.64%		61.5%
Southern Total	0.73%	2.40%	2.63%	2.71%	0.75%	1.02%	0.03%					1.46%	11.7%
Northern Total		2.87%	3.79%	0.87%	0.46%	0.73%	0.01%	1.38%	0.92%				11.0%
Grand Total	6.9%	15.0%	9.5%	9.6%	9.2%	7.0%	1.0%	4.8%	18.6%	11.1%	5.5%	1.7%	100.0%

During its review of the 2015 NIIP achievements, the project team made a recommendation to broaden the planning phase beyond one-off projects to consider the importance of a wider program of work i.e. themed groupings of related projects. Thus, our project team took the long list of projects and grouped them into **38 infrastructure programs**. These programs have commonalities of:

- Sector (Energy, Ports, Buildings etc.)
- Geographic location (Rarotonga, Southern Group, Northern Group, Aitutaki etc.)
- Similarity in design brief and/or dependencies within the program

Moving to 10-year planning by program versus project assists in discussing these programs of work with government and donor agencies without necessarily having the underlying projects identified.

The programs were prioritised utilising the **multi-criteria analysis (MCA)** from the Cook Islands Te Tarai Vaka Process (TVP). The TVP prioritisation process assesses the relative beneficial impact of each project or program against the following four criteria:

- | | | |
|----|---|-------|
| 1) | Scope (how many people would be impacted) | (25%) |
| 2) | Economic impacts (return on investment) | (30%) |
| 3) | Environmental (adverse of positive impact on environment) | (25%) |
| 4) | Social benefits (adverse of positive impact on society) | (20%) |

The second component of the MCA evaluation is assessing the relative scale (size and complexity) of each project or program against the following three criteria:

- | | | |
|----|---|-------|
| 1) | Program cost | (30%) |
| 2) | Complexity of the project | (35%) |
| 3) | Sustainability (capacity to operate and maintain) | (35%) |

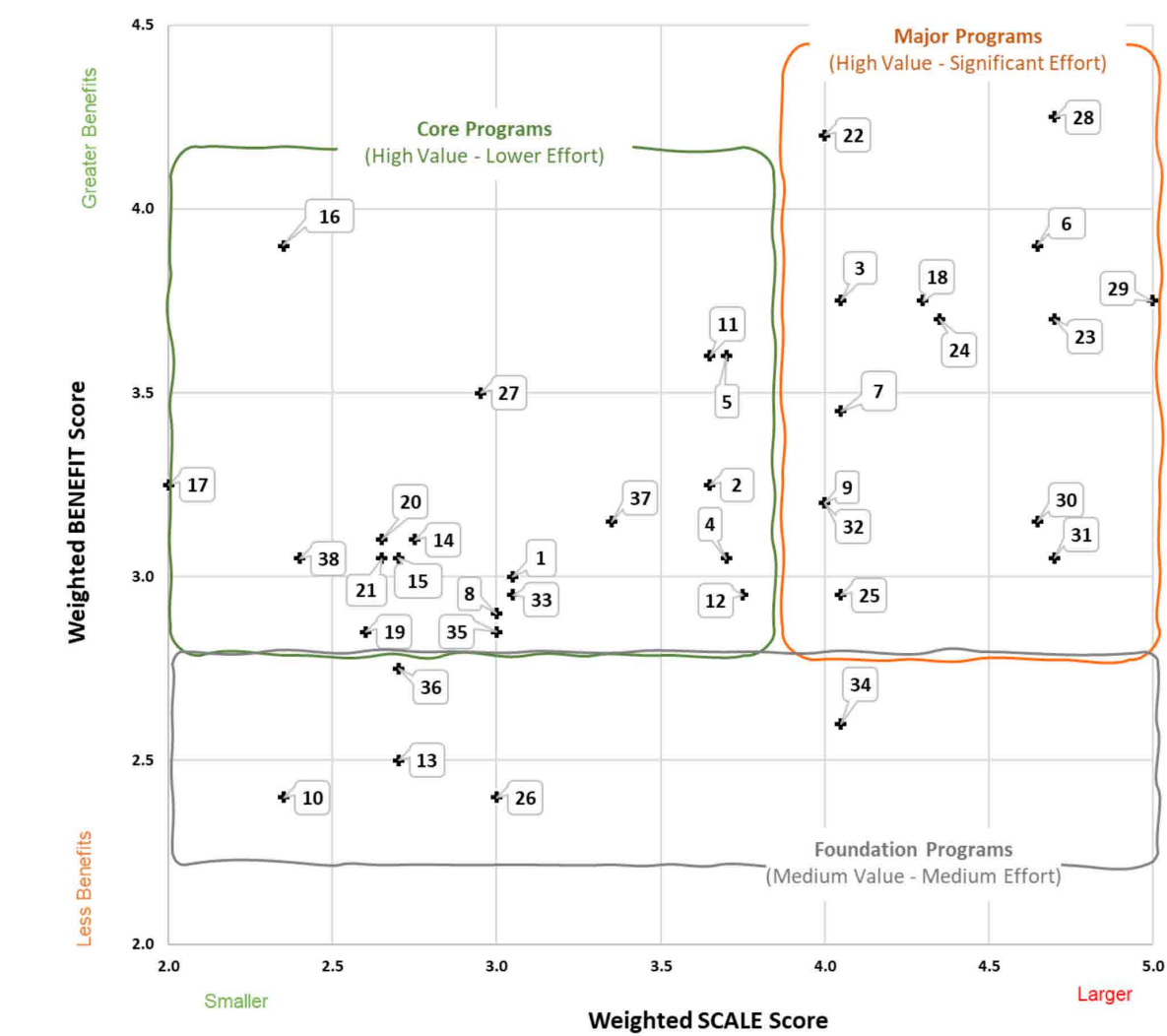
Prioritising our NIIP Programs cont...



Prioritising our NIIP Programs cont...

Program Prioritisation and Grouping

The assessment criteria for the prioritisation were taken from the Cook Island’s TVP process which rates economic, social, environment and climate resilience benefits on the vertical axis. The horizontal axis represents the relative size and complexity of the program.



The grouping of the programs above becomes important when building the rolling 4-year capital investment plan each year. Ideally, projects listed in the 4-year budget commitment would be selected across programs in each of the three groupings (as tabled below). We do not want to only tackle the major ‘complex’ infrastructure investments as these require a significant amount of capacity to deliver, similarly, we do not just want to implement the easy ‘quick-win’ projects.

It is important to note that the prioritisation process is just one tool to aid making decisions on an annual basis as to which projects should be incorporated into the 4-year budget plan. It is not a silver bullet solution whereby you rank all projects in order of the benefits they deliver and start at the top of the list... if only investment planning were that easy!

ID	Program Name	Sector	Budget (\$million)	Benefit Score	Scale Score
MAJOR PROGRAMS (High Value – Significant Effort)					
3	Aitutaki Renewable Energy Program	Energy	7.0	4.05	3.75
6	National Health Infrastructure Program	Health	76.2	4.65	3.90
7	National Tertiary Campus Improvements	Education	12.7	4.05	3.45
9	Northern Airport Improvements	Air	19.7	4.00	3.20
18	Rarotonga Airport Upgrades	Air	67.1	4.30	3.75
22	Rarotonga Education Infrastructure Program	Education	25.0	4.00	4.20
23	Rarotonga Energy Upgrades	Energy	36.1	4.70	3.70
24	Rarotonga Government Buildings	Buildings	66.0	4.35	3.70
25	Rarotonga Harbour Improvements	Marine	6.3	4.05	2.95
28	Rarotonga Sanitation Improvements	Sanitation	55.0	4.70	4.25
29	Rarotonga Solid Waste Management Program	Waste	6.4	5.00	3.75
30	Rarotonga Township Enhancements	Municipal	16.3	4.65	3.15
31	Rarotonga Water Security Program	Water	46.2	4.70	3.05
32	Southern Airport Improvements	Air	13.4	4.00	3.20
CORE PROGRAMS (High Value – Medium Effort)					
1	Aitutaki Airport Improvements	Air	3.2	3.05	3.00
2	Aitutaki Harbour and Marina Improvements	Marine	14.8	3.65	3.25
4	Aitutaki Water Security Program	Water	10.7	3.70	3.05
5	National Coastal Protection Program	Coastal	31.0	3.70	3.60
8	National Vessel Program	Marine	10.0	3.00	2.90
11	Northern Harbour Improvements	Marine	26.4	3.65	3.60
12	Northern Renewable Energy Program	Energy	5.0	3.75	2.95
14	Northern Solid Waste Program	Waste	0.1	2.75	3.10
15	Northern Water Security Program	Water	1.3	2.70	3.05

Prioritising our NIIP Programs *cont...*



Assessing Economic Impacts and Funding

ID	Program Name	Sector	Budget (\$million)	Benefit Score	Scale Score
CORE PROGRAMS (High Value – Medium Effort)					
16	Pa Enea Cyclone Shelter Program	Buildings	4.9	2.35	3.90
17	Pukapuka Harbour Improvements	Marine	4.4	2.00	3.25
19	Rarotonga Bridge Renewals	Road	18.5	2.60	2.85
20	Rarotonga Buildings Program	Buildings	11.0	2.65	3.10
21	Rarotonga Cyclone Shelter Program	Buildings	30.3	2.65	3.05
27	Rarotonga Road Reconstruction Program	Sanitation	55.0	2.65	4.25
33	Southern Harbour Improvements	Marine	3.3	3.05	2.95
35	Southern Road Improvement Program	Road	5.0	3.00	2.85
37	Southern Solid Waste Management Program	Waste	0.2	3.35	3.15
38	Southern Water Security Program	Water	7.9	2.40	3.05
FOUNDATION PROGRAMS (Medium Value– Medium Effort)					
10	Northern Building Improvements	Buildings	1.5	2.35	2.40
13	Northern Sanitation Improvements	Sanitation	3.2	2.70	2.50
26	Rarotonga Road Improvements	Road	5.4	3.00	2.40
34	Southern ICT Connectivity	ICT	11.7	4.05	2.60
36	Southern Sanitation Improvements	Sanitation	5.3	2.70	2.75

The final step in the NIIP process was to assess the economic impact of the proposed investment on government’s fiscal responsibilities. This task is particularly important given the economic impact of the recent COVID pandemic. Potential funding sources for the Cook Island’s capital investment in economic and social infrastructure include:

- Financing by Government from domestic revenues (referred to as CAPEX in the Cook Islands).
- Concessional borrowing by Government, applied directly or on-lent to SOEs.
- Self-financing by SOEs, using cash reserves or commercial loans.
- Overseas development assistance (ODA), in the form of grants from Development Partners.
- Financing by the private sector, in the form of domestic, foreign private investment or public-private partnerships.

The unprecedented economic fallout from the COVID-19 pandemic has changed the fiscal landscape for infrastructure projects and is expected to have a lasting impact in the medium term. From 2018/19 to 2019/20, revenue fell by 7.8 percent, largely driven by the onset of the pandemic in the last quarter of the 2019/20 fiscal year. Prior to the onset of the pandemic in 2018/19, the Cook Island’s net debt was 17 percent of GDP, well under the net debt rule of 35 percent of GDP. To cope with the pandemic, the CIG took on three loans from ADB and AIIB to finance its Economic Response Plan. Net debt has more than doubled over the past two years, increasing from \$86.3 million to \$175.6 million (2020/21).

The total (unconstrained) capital investment budget for all projects in the NIIP (2021) is forecast at \$685 million over 10-years. The final phasing of the NIIP projects over the 10-year plan period will need to work within the CAPEX thresholds set by the Ministry of Finance and Economy. The figure below shows the gap between the projected CAPEX thresholds set by MFEM in its 2021-25 Budget Book (Table 4.8, p.44) and the 10-year average expenditure (\$68.5 million) NIIP projects in an ‘unconstrained’ budget scenario.

Capital Expenditure Projections (COVID-19 recovery)

