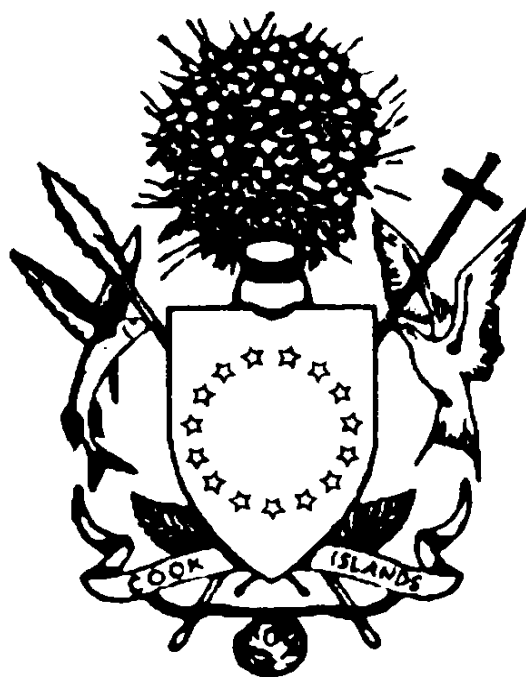

COOK ISLANDS GOVERNMENT
BUDGET ESTIMATES

2016/2017

Book 3
Capital Plan



Hon. Mark Brown
Minister of Finance
June 2016

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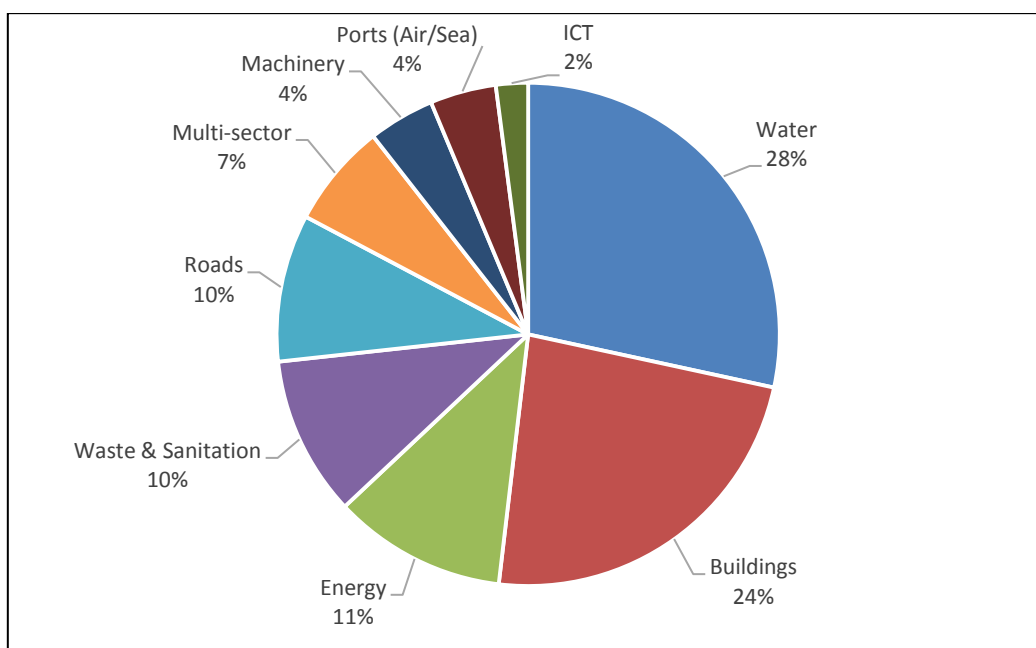
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1 2016/17 Capital Plan

The Capital Plan is intended to advise the Cook Islands community and our international partners of the Government’s intention to invest in capital infrastructure. This is guided by the visions and aspirations of our people for a vibrant economy supported by good infrastructure and energy security; where our people have opportunities to fulfill their potential; are resilient to disasters and climate change impacts; and live in a healthy environment - *Te Kaveinga Nui, National Sustainability Development Plan*.

Capital investments from all sources was scheduled for \$67.843 million in 2015/16. This is expected to increase significantly in the 2016/17 Budget, to \$81.240 million. The increase is largely attributed to the \$12.980 million loan administered by ADB to complete the transformation of electricity generation from diesel to solar power for the Southern Cook Islands. This brings total investment in capital over the four-year period from 2016/17 to 2019/20 at \$160 million, financed through government funds, loans and overseas development assistance.

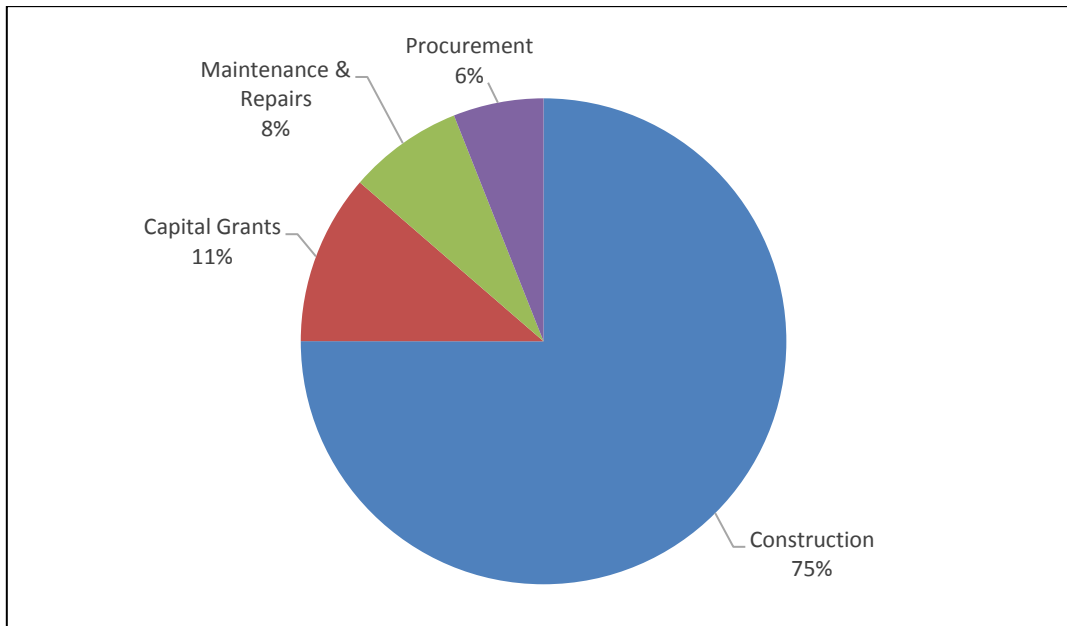
Chart 1: Infrastructure Investments



The 2015/16 capital plan focuses on a number of priority areas related to building resilience to climate change by investing in capital projects that provide access to clean water, renewable energy and better road networks. Improved access to clean water receives the largest share of capital funds and, in conjunction with projects such as Waste & Sanitation and Energy, will account for over almost half of capital funding over the years to 2019/2020. This will assist our communities adapt to the changing environment.

A number of key projects such as Te Mato Vai, Apii Nikao construction, Tereora College rebuild, Sanitation Upgrade Programme and the construction of cyclones shelters on the islands of Palmerston (2016/17), Rakahanga and Nassau (2018/19) make up the majority of the Construction spend for the 4 year forecast using all sources of funding. After project completion, investments in maintenance and repairs are expected to increase to ensure longevity and sustainability of these assets.

Chart 2: 4-year Estimates of Total



Capital investments are financed by Cook Islands Government cash reserves, operating surpluses, loans, and grants from development partners. Grant funding is expected will continue to play a major part in our capital and development initiatives into future years.

Capital programmes, projects and purchases are facilitated by the various Ministries, Crown Agencies and Island Governments. The Infrastructure Committee monitors the delivery of the capital plan and is responsible for reporting on overall progress.

This Budget Book 3 should be read in conjunction with the information from the Crown Debt and Net Worth Chapter and Official Development Assistance (ODA) Chapter contained in Budget Book 1.

2 Financing the Capital Plan

Total spending on capital from all sources in 2015/16 was \$67.843 million. Savings were realized due to the deferment of some projects including but not limited to:

- Provision for land rent reviews (-\$0.5 million) pending court decision;
- Te Mato Vai Rarotonga Water Upgrade (-\$6.204 million) and Stage 1 & 2 (-\$0.5 million) due to further planning and design requirements;
- Atiu Airport Runway stabilization programme (-\$0.762 million) and Atiu Roads (-\$0.1 million) stockpiling of crushed aggregates;
- Bridges and drainage improvements (-\$0.6 million), due to reprioritising of funding to cover other road projects; and
- Pa Enea machinery shelters (-\$0.25 million) & Pukapuka hospital reconstruction (-\$0.3 million) pending government procurement and tender process in 2016/17.

Spending in 2016/17 is now estimated to reach \$81.24 million. Table 1 provides a breakdown of the various capital funding sources over the 2016/17-2019/20 period.

Table 1 Funding Source 2016/17 to 2019/20 (\$)

	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
CIG	36,663,124	34,433,030	8,450,335	5,918,335	85,464,824
ADF	1,100,000	100,000	1,100,000	100,000	2,400,000
China	4,965,000	8,765,000	9,310,000	0	23,040,000
EIB	513,000	0	0	0	513,000
EU	9,075,651	92,600	0	0	9,168,251
EU-GDC	210,000	420,000	0	0	630,000
GEF	5,517,000	0	0	0	5,517,000
Japan- PEC	558,922	0	0	0	558,922
Korea	307,692	0	0	0	307,692
NZ	20,150,000	8,100,000	0	0	28,250,000
UNAF	2,117,982	1,973,779	0	0	4,091,761
UNDP	62,508	0	0	0	62,508
Total	81,240,879	53,884,409	18,860,335	6,018,335	160,003,958

3 Expenditure 2016/17 to 2019/20

The capital projects listed in Table 2 will be resourced by the Cook Islands (through the Crown's cash reserves, operating surpluses, loans or budget support). Funding for these projects are processed through the Treasury Division of the Ministry of Finance and Economic Management.

The capital projects in Table 3 are those funded by development partners in order to develop, improve and maintain infrastructure assets and in turn improve the livelihood of all Cook Islanders. The majority of the programs are the outcome of various development partners' forums and conventions that Government authorities have facilitated or attended.

Table 2 Capital Plan 2016/17 to 2019/20 Funded By Cook Islands Government

PROJECT/PROGRAMME	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Aitutaki Island Government	997,000	478,440	381,340	0	0	859,780
Aitutaki pickup truck replacement	40,000	0	0	0	0	0
Aitutaki road sealing	915,000	0	0	0	0	0
Aitutaki rock hammer	16,000	0	0	0	0	0
Establishing new water galleries	0	478,440	381,340	0	0	859,780
Aitutaki Water Pumps (Vaiepeka, Tautu, Vaipae)	26,000	0	0	0	0	0
Aitutaki Power Supply	0	63,000	0	0	0	63,000
Streetlights for Aitutaki	0	63,000	0	0	0	63,000
Cook Islands Investment Corporation	1,750,000	4,502,000	3,359,000	892,000	0	8,753,000
Apii Nikao design, demolition, construction supervision and quality assurance	250,000	384,000	0	0	0	384,000
Government House	0	26,000	0	0	0	26,000
Orongo Development Master Plan and Centre reconstruction (Ports Authority)	300,000	250,000	250,000	250,000	0	750,000
Pa Enea Renewable Energy Projects-Land Acquisition	1,000,000	50,000	0	0	0	50,000
Provision for land rent reviews	0	642,000	642,000	642,000	0	1,926,000
Pukapuka Hospital Reconstruction	200,000	300,000	0	0	0	300,000
Te Mato Vai - Stage 1: road & pipeline easement & Stage 2 land acquisition for water intakes	0	750,000	0	0	0	750,000
Vaikapuangi Government Building - construction	0	1,920,000	2,467,000	0	0	4,387,000
Vaikapuangi Government Building - design	0	180,000	0	0	0	180,000
Education	448,000	448,000	360,000	110,000	110,000	1,028,000
Fund to be Prioritised by Education	360,000	360,000	360,000	110,000	110,000	940,000
ICT upgrades (computers & laptops)	88,000	88,000	0	0	0	88,000
Health	613,447	744,500	584,500	275,000	275,000	1,879,000
Fund to be Prioritised by Health for Technical Equipment	275,000	275,000	275,000	275,000	275,000	1,100,000
Haematology Instrument	110,035	0	0	0	0	0
Ultrasound Machine	0	160,000	0	0	0	160,000
Medical Service Bed End Panels	0	309,500	309,500	0	0	619,000
Theatre bed	228,412	0	0	0	0	0
Infrastructure Cook Islands	7,787,050	9,870,556	7,618,000	4,870,000	3,230,000	25,588,556
Atiu Airport Runway Stabilisation	88,056	762,160	0	0	0	762,160
Atiu Crusher	107,694	0	0	0	0	0
Atiu Road Sealing	100,000	0	235,000	0	0	235,000
Atiu Tipper Truck	127,774	0	0	0	0	0
Avatiu Valley Stream embankment	0	360,000	36,000	0	0	396,000

PROJECT/PROGRAMME	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Bitumen Truck	305,000	0	0	0	0	0
Bridges & Drainage	50,436	1,348,650	750,000	0	0	2,098,650
Cargo barge repair program for Palmerston & Mangaia	0	100,000	0	0	0	100,000
Central water project	0	125,000	0	0	0	125,000
Cyclone Centre Program	0	400,000	800,000	0	0	1,200,000
HIAB (includes man cage & fork)	0	150,000	0	0	0	150,000
HV Transport Trailer	0	180,000	0	0	0	180,000
Large boat & outboard motor	0	100,000	0	0	0	100,000
Manea Games Upgrade	0	100,000	0	0	100,000	200,000
Mangaia Road Sealing	0	250,000	0	0	0	250,000
Mangaia Water and Roads	111,516	0	0	0	0	0
Manihiki Harbours	100,000	0	0	0	0	0
Manihiki Island Airport Terminal - construction	0	60,000	0	0	0	60,000
Medium Genset (42kVA)	0	20,000	0	0	0	20,000
National Incinerator Feasibility Study	29,705	120,000	0	0	0	120,000
Omoka Harbour Upgrade	0	250,000	0	0	0	250,000
Outboard Motor replacement program	0	70,000	0	0	0	70,000
Pa Enuia Machinery Shelters	500,000	0	0	0	0	0
Project City Project Management Unit	95,333	0	0	0	0	0
Water network maintenance	500,000	500,000	500,000	500,000	500,000	2,000,000
Project City Stage 3 - ADB ERSP	3,288,395	0	0	0	0	0
Project City Stage 3 - Retention fund	0	205,746	0	0	0	205,746
Rarotonga Road Sealing Programme	0	2,000,000	2,000,000	2,000,000	2,000,000	8,000,000
Road Network Maintenance	428,691	630,000	630,000	630,000	630,000	2,520,000
RSA Cemetery Rock Wall	142,000	0	0	0	0	0
Rutaki Foreshore Rock Revetment	80,000	120,000	0	0	0	120,000
Sanitation Upgrade Programme	1,410,000	1,780,000	2,420,000	1,740,000	0	5,940,000
Slasher	0	4,000	0	0	0	4,000
Te Mato Vai Titikaveka backroad ringmain pipeline	322,450	127,000	0	0	0	127,000
Upgrade of Airport terminal buildings	0	20,000	0	0	0	20,000
Water Upgrade	0	80,000	247,000	0	0	327,000
Yato Cargo Shed Upgrade	0	8,000	0	0	0	8,000
Internal Affairs	88,000	50,000	50,000	50,000	50,000	200,000
Internal Affairs Tipper Truck	38,000	0	0	0	0	0
Vaka Maintenance Capital Projects	50,000	50,000	50,000	50,000	50,000	200,000
Marine Resources	0	500,000	0	0	0	500,000
Central Laboratory	0	500,000	0	0	0	500,000
Ministry of Finance and Economic Management	1,472,085	6,907,728	21,334,190	1,903,335	1,903,335	32,048,588

PROJECT/PROGRAMME	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
AEOI IT System	0	0	500,000	0	0	500,000
Banking payments system	0	600,000	35,000	0	0	635,000
China Grant Heavy Machinery & Pearl Equipment Freight, Training & Inspections	434,688	0	0	0	0	0
CIGov Procurement Website - ADB ERSP	0	0	0	0	0	0
FMIS purchase and implementation	0	0	500,000	0	0	500,000
Government IT Network	178,000	0	0	0	0	0
Rarotonga Watertank Subsidy - ADB ERSP	207,000	0	0	0	0	0
RMS Web Lodgement System	287,397	0	0	0	0	0
Te Mato Vai - Rarotonga Water Upgrade, incl China loan	365,000	6,307,728	20,299,190	1,903,335	1,903,335	30,413,588
Ministry of Justice	0	0	200,000	0	0	200,000
Online business registry	0	0	200,000	0	0	200,000
Office Of Prime Minister	1,014,558	12,749,000	236,000	40,000	40,000	13,065,000
Atiu Power Distribution	99,558	395,000	0	0	0	395,000
Atiu water distribution mains	115,000	280,000	0	0	0	280,000
Computers and Printers	0	50,000	0	0	0	50,000
Government IT Network	0	40,000	40,000	40,000	40,000	160,000
Renewable Energy-ADB loan drawdown Project Loan (Southern Group)	700,000	11,784,000	0	0	0	11,784,000
Renewable Management Project Management and Support	100,000	200,000	196,000	0	0	396,000
MINISTRY TOTAL	14,170,141	36,313,224	34,123,030	8,140,335	5,608,335	84,184,924
	910,000	349,900	310,000	310,000	310,000	1,279,900
Capital Distribution Fund	800,000	239,900	200,000	200,000	200,000	839,900
Outer Islands Small Capital Fund	110,000	110,000	110,000	110,000	110,000	440,000
<i>Aitutaki</i>	16,000	16,000	16,000	16,000	16,000	64,000
<i>Atiu</i>	12,000	12,000	12,000	12,000	12,000	48,000
<i>Mangaia</i>	12,000	12,000	12,000	12,000	12,000	48,000
<i>Manihiki</i>	10,000	10,000	10,000	10,000	10,000	40,000
<i>Mauke</i>	10,000	10,000	10,000	10,000	10,000	40,000
<i>Mitiaro</i>	8,000	8,000	8,000	8,000	8,000	32,000
<i>Palmerston</i>	10,000	10,000	10,000	10,000	10,000	40,000
<i>Penrhyn</i>	12,000	12,000	12,000	12,000	12,000	48,000
<i>Pukapuka-Nassau</i>	12,000	12,000	12,000	12,000	12,000	48,000
<i>Rakahanga</i>	8,000	8,000	8,000	8,000	8,000	32,000
GRAND TOTAL	15,080,141	36,663,124	34,433,030	8,450,335	5,918,335	85,464,824

Table 3 Capital Plan 2016/17 to 2019/20 Funded By ODA

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Airport Authority		513,000	513,000	0	0	0	513,000
Improving Pacific Air Safety TA	EIB	513,000	513,000	0	0	0	513,000
Cook Islands Investment Corporation		5,400,000	10,715,000	11,115,000	5,410,000	0	27,240,000
Apii Nikao Construction	China	5,000,000	4,765,000	4,765,000	5,410,000	0	14,940,000
Chinese Building Repairs	China	400,000	200,000	600,000	0	0	800,000
Tereora Reconstruction Phase One	NZ	0	5,750,000	5,750,000	0	0	11,500,000
Ministry of Agriculture		1,081,200	0	0	0	0	0
Agriculture Revitalisation Project (Equipment and Supplies)	China	1,081,200	0	0	0	0	0
Infrastructure Cook Islands		3,550,000	6,900,000	5,500,000	3,900,000	0	16,300,000
Atiu Airport Upgrade	China	0	0	0	3,900,000	0	3,900,000
Outer Island Heavy Machinery Stage 2	China	0	0	3,400,000	0	0	3,400,000
Sanitation Upgrade Programme	NZ	3,550,000	6,900,000	2,100,000	0	0	9,000,000
Cook Islands Police		295,000	1,100,000	100,000	1,100,000	100,000	2,400,000
Te Kukupa TA, operations	ADF	295,000	1,100,000	100,000	1,100,000	100,000	2,400,000
Marine Resources		0	155,108	92,600	0	0	247,708
Water Quality Monitoring Sanitation Upgrade Program	EU	0	92,600	92,600	0	0	185,200
Certification of the MMR Laboratory	UNDP	0	62,508	0	0	0	62,508
Ministry of Finance and Economic Management		4,845,605	7,807,692	250,000	0	0	8,057,692
Korean Grant for Service Vehicles	Korea	407,605	307,692	0	0	0	307,692
Non-Project Grant Aid	Japan	1,000,000	0	0	0	0	0
Te Mato Vai	NZ	3,438,000	7,500,000	250,000	0	0	7,750,000
Office Of Prime Minister		13,469,181	17,386,955	2,393,779	0	0	19,780,734
Northern Water Project Phase 2	EU-GDC	0	210,000	420,000	0	0	630,000
PV Mini Grids	Japan-PEC	4,408,150	558,922	0	0	0	558,922
Renewable Energy Grant (Southern Group)	EU	7,508,031	8,983,051	0	0	0	8,983,051
Renewable Energy Project Support (Southern Group)	GEF	183,000	5,517,000	0	0	0	5,517,000
Strengthening Resilience of Island Communities	UNAF	1,370,000	2,117,982	1,973,779	0	0	4,091,761
TOTAL		29,153,986	44,577,755	19,451,379	10,410,000	100,000	74,539,134

4 Capital Programme

4.1 Te Mato Vai – Rarotonga Water Upgrades

PROJECT/ PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Te Mato Vai - Stage 1 & 2	CIG	0	750,000	0	0	0	750,000
Te Mato Vai Titikaveka backroad ringmain pipeline	CIG	322,450	127,000	0	0	0	127,000
Te Mato Vai	NZ	3,438,000	7,500,000	250,000	0	0	7,750,000
Rarotonga Water Upgrade, incl China loan	CIG	365,000	6,307,728	20,299,190	1,903,335	1,903,335	30,413,588
TOTAL		14,125,450	14,684,728	20,549,190	1,903,335	1,903,335	53,166,038

The Cook Islands Government embarked on a multimillion dollar upgrade of the water supply system on Rarotonga, with the goal of “delivering potable water, reliably, to all properties connected to the existing water supply network, originally by 2015”. In order to achieve its target, the Cook Islands Government formed “Te Mato Vai” – the Cook Islands Water Partnership with the Governments of the People’s Republic of China and New Zealand. Funding for the Water Supply Upgrade has been provided through a combination of Cook Islands budget funding, a Chinese Government loan and grant assistance from New Zealand Government.

The project is divided into two stages – Stage 1 being the replacement of the ring main; Stage 2 being the refurbishment of intakes and provision of storage, filtration and trunk mains.

To date, the China Civil Engineering Construction Corporation (CCECC) has constructed 94 per cent of the required ring main construction (Stage 1). Since the related land issues are expected to be resolved in May 2016, the ring main construction will therefore be resumed in June 2016.

For Stage 2, a preferred contractor has been identified to prepare detailed designs for intakes, pipelines, treatment works and reservoirs. A contract with the preferred contractor will be signed as soon as the land issues that affect Stage 1 have been resolved. This is expected to happen in June 2016.

In the meantime, the Government is in the process of establishing a Water Supply Utility (WSU) State-owned Enterprise (SOE), initially in Rarotonga to manage the substantial existing water supply and monitoring.

4.2 Land acquisition for water intakes

PROJECT/ PROGRAMME	Funding source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Land acquisition	CIG	0	750,000	0	0	0	750,000
TOTAL		0	750,000	0	0	0	750,000

Government has approved the payment of compensation to the landowners for land required for the ten (10) intakes, including filtration, treatment, and storage units. The amount of the compensation would be subject to a court decision based on a valuation study being undertaken by a New Zealand registered valuer with previous experience on Rarotonga. The budgeted amount is based on the valuers recommendations and government has positioned itself in anticipation should the courts agree.

4.3 Project City Stage 3 – Retention Fund

PROJECT/PROGRAMME	FUNDING SOURCE	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Project City Stage 3 - Retention fund	CIG	0	205,746	0	0	0	205,746
TOTAL		0	205,746	0	0	0	205,746

Project City is co-financed by the Cook Islands and Asian Development Bank Economic Recovery Support Programme (ADB ERSP), and involves the upgrading of the water and road network through the Avarua Township; from the Islander Hotel in Panama to the Tupapa meeting house.

The water supply network was completed in 2014 subsequently followed by the reconstruction of the main, back and inner roads July 2015. A Project Management Unit (PMU) consisting of contracted engineers and project supervisors was established under Infrastructure Cook Islands to implement the project on behalf of Government. Funding in the 2016/17 will bring closure to this project.

4.4 Establishing new water galleries

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Establishing new water galleries	CIG	0	478,440	381,340	0	0	859,780
TOTAL		0	478,440	381,340	0	0	859,780

The recent drought that impacted Aitutaki in 2013 made the Island Government of Aitutaki re-think its position with regard to the water security of its residences. The strategy involves the establishment of new galleries to take the pressure off existing 6 galleries by developing and adding two new galleries to its water assets and re-developing an existing one. This allows better water access for the wider public including the island commercial growers. To facilitate this Aitutaki Island Government intends to establish new water galleries for Vaipeka, Tautu and Vaipae.

4.5 National Renewable Energy Development Programme

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Land Acquisition	CIG	1,000,000	50,000	0	0	0	50,000
Atiu Power Distribution	CIG	99,558	395,000	0	0	0	395,000
PV Mini Grids	Japan-PEC	4,408,150	558,922	0	0	0	558,922
Renewable Energy Grant (Southern Group)	EU	7,508,031	8,983,051	0	0	0	8,983,051
Renewable Energy Project Support (Southern Group)	GEF	183,000	5,517,000	0	0	0	5,517,000
Renewable Energy-ADB loan drawdown Project (Southern Group)	CIG	700,000	11,784,000	0	0	0	11,784,000
Renewable Management Project Management and Support	CIG	100,000	200,000	196,000	0	0	396,000
TOTAL		13,998,739	27,487,973	196,000	0	0	27,683,973

Energy needs throughout the Cook Islands have been primarily reliant on fossil fuels for the generation of electricity. Government acknowledges that the country needs to de-couple itself from the use of fossil fuels to supply electricity and has set ambitious targets of 50 per cent of islands converted to renewable energy sources by 2015 and 100 per cent by 2020. Progress towards this target has been slow, but gained significant momentum in the 2013/14 year with the support of development partners.

The goal of the Renewable Energy Programme Support is to establish a solid foundation for renewable energy sector development and operations in the Cook Islands.

New Zealand funding has been used for the construction of renewable energy infrastructure on Rarotonga and islands of the Northern Group and involves the installation of following renewable energy generation infrastructure. This project is now completed.

The focus now moves to the Southern Group. As part of the Renewable Energy Roadmap, a grant of EUR 5.3 million (USD 7.26 million) has been pledged to the Cook Islands from the European Union. The Japan PEC Fund is contributing \$5.231 million of product to the Southern Energy project. The project, estimated at around \$29 million, has a loan component of \$12.98 million and will be administered by the Asian Development Bank (ADB) to complete the transformation of electricity generation from diesel to solar power for the Southern Cook Islands and selected projects on Rarotonga. GEF is contributing \$5.517 million to be spent in 2016/17 to implement the project of battery storage at the Rarotonga airport to facilitate grid stabilisation.

4.6 Sanitation Upgrade Programme (SUP)

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
SUP	CIG	1,410,000	1,780,000	2,420,000	1,740,000	0	5,940,000
SUP	NZ	3,550,000	6,900,000	2,100,000	0	0	9,000,000
Water Quality Monitoring	EU	0	92,600	92,600	0	0	185,200
TOTAL		4,960,000	8,772,600	4,612,600	1,740,000	0	15,125,200

The Sanitation Upgrade Programme (SUP), which commenced following completion of the WMI, was designed to install up to a further 1000 on-site systems on Rarotonga and Aitutaki. The SUP grant arrangement between the Governments of New Zealand and the Cook Islands was signed in June 2014, and the programme was expected to end on 30 June 2018. This \$18 million programme includes funding from New Zealand (\$10 million), the European Union (\$4 million), and the Cook Islands Government (\$4 million).

In late 2015, an unusual and prolonged outbreak of seaweed and algae in the Muri lagoon highlighted the human impacts on lagoon water quality and the need for effluent disposal and treatment above and beyond on-site site secondary treatment systems that had been installed under the pilot WMI and continued under the SUP.

A reticulation system for Muri / Avana was envisaged to be built in order to connect to the existing (and future) on-site treatment systems. The estimated cost for this component was approximately \$14 million, although considerable further design work and analysis is required to firm up the existing cost as well as assess the appropriateness of the design concept.

In March 2016, the Cook Islands Government agreed to the recommendations in the Calibre report and asked the New Zealand Government to consider supporting a reticulated wastewater disposal and treatment system for Rarotonga, with the immediate focus being on the Muri / Avana area. On-site treatment should continue, as long as risks and issues identified can be appropriately addressed. At present, Aitutaki is still included in the SUP.

Based on these recent events, New Zealand's MFAT is now using this assignment to engage a Technical Specialist to assist WATSAN to revise the SUP activity and deliver a new suite of wastewater components, including the design and construction of a reticulation system in Muri / Avana.

5 Capital Projects

5.1 Rarotonga Road Sealing Programme

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Rarotonga Road Sealing Programme	CIG	0	2,000,000	2,000,000	2,000,000	2,000,000	8,000,000
TOTAL		0	2,000,000	2,000,000	2,000,000	2,000,000	8,000,000

Project City has provided a quality road network to service the needs of the business community and public in the Avarua township from Panama to Tupapa. The success of this project has set a precedence for roading standards on Rarotonga. To this end, government intends to roll out on an annual basis the Rarotongan Road Sealing programme for the main ringroad around Rarotonga. On an annual basis, sections of the main ringroads will undergo a road sealing programme towards providing a safe and quality road network. The higher road standards will realise economic returns in decreased maintenance costs, decreased costs in vehicle damage due to road standards and increased transport times and volume between business sector and customers. The programme will be managed by Infrastructure Cook Islands in close collaboration with key local stakeholders and private contractors.

5.2 Apii Nikao Rebuild

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Construction	China	5,000,000	4,765,000	4,765,000	5,410,000	0	14,940,000
Design, demolition, construction supervision and quality assurance	CIG	250,000	384,000	0	0	0	384,000
TOTAL		5,250,000	5,149,000	4,765,000	5,410,000	0	15,324,000

The new Apii Nikao has been designed as modern learning environments. The learning spaces do not look like single classrooms but are larger open areas where teachers can work with students across different levels and subject areas. These “learning communities” have smaller break out areas that can be used for smaller groups or specific activities. The school will cater for early childhood to Year 8 students.

The new school will accommodate 500 students and draw on the cultural heritage of the local area while providing quality, comfortable and flexible learning environments. Three new buildings are proposed; ECE centre; Administration/Junior-Intermediate Primary; and Senior Primary Centre.

In October 2015 the People’s Republic of China (PRC) confirmed their support for the construction of the new Apii Nikao. The PRC government has commenced its tender process for construction. The new school will be built by a company from China with construction and quality jointly administered by CIIC and a PRC consulting firm.

In May 2016 high-level timelines for construction of the new school was confirmed between officials of the Cook Islands and PRC governments. Construction is scheduled to commence in the 3rd quarter of 2016/17 (January to March 2017). Construction is expected to be completed within 18 months.

The Cook Islands contribution to this project focuses on site preparation and external works, and technical expertise.

5.3 Atiu Airport Runway Stabilisation

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Atiu Airport Runway Stabilisation	CIG	88,056	762,160	0	0	0	762,160
Atiu Airport Upgrade	China	0	0	0	3,900,000	0	3,900,000
TOTAL		88,056	762,160	0	3,900,000	0	4,662,160

The island of Atiu has developed and shown strong tourism growth over the past few years. This growth has reached a stage where many economic gains could be delivered through larger aircraft operation into Atiu.

The concept is to upgrade and seal the runway and provide a better terminal area along with airfield fencing to control and restrict animal movements. The benefits of a sealed runway will include reduced maintenance / runway upkeep, better passenger service to Atiu, and increased aircraft size will enable outward freighting of agricultural products. As the lead agency, ICI will work closely with the local Atiu Island Government in delivering a successful project.

The Peoples Republic of China has been identified as the financier for this project, although negotiations for grant funding assistance is still ongoing.

5.4 Atiu Water distribution mains

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Atiu water distribution mains	CIG	115,000	280,000	0	0	0	280,000
TOTAL		115,000	280,000	0	0	0	280,000

Onsite water tanks are the main source of water for the Atiu community. Reticulation of bored water similar to Mauke has been proposed for many years. In 2016/17 a budget of \$280,000 will support the laying of the water mains in the village areas. The water mains will be laid alongside the power distribution cables with road sealing project to follow thereafter. Further design studies will be conducted in the future to eventually connect a new water source to the properties.

5.5 Bridges and Drainage

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Bridges & Drainage	CIG	50,436	1,348,650	750,000	0	0	2,098,650
TOTAL		50,436	1,348,650	750,000	0	0	2,098,650

A number of structural and stability issues on bridges around Rarotonga were identified in 2013. These structures are critical to maintaining and improving the road network for tourist and the population in general. Increasing peak and river flows during heavy rainfall have damaged and undermined abutments and shown waterways to be inadequate, putting the structures at risk of failure.

In 2013/14 Government made a commitment to rectify the issues and approved a budget of \$2.5 million. Stabilisation and embankment improvements have since been completed on the smaller bridges in Betela and Matavera, and storm water drains at Ngatipa and Takuvaine Valley. No work was carried out in 2014/15 due to reprioritisation of funding to complete the Project City road reconstruction work. Work will resume on bridges and drainage in 2016/17 starting with structural repairs and improvements to the Avatiu Valley Bridge and embankment. Infrastructure Cook Islands will continue assessing the remaining bridges and drainages around Rarotonga to confirm work to be undertaken in the following years.

5.6 Avatiu Valley Stream embankment

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Avatiu Valley Stream embankment	CIG	0	360,000	36,000	0	0	396,000
TOTAL		0	360,000	36,000	0	0	396,000

Severe erosion by flood waters have continually eroded the Avatiu Valley stream embankment posing possible failure to the access road at the top of the embankment. This is a priority section of road required for the on-going

operation and maintenance of the Avatiu water intake and government is committed to strengthening this infrastructure to mitigate existing and any future risk to the road users and surrounding community.

5.7 Central Laboratory

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Central Laboratory	CIG	0	500,000	0	0	0	500,000
TOTAL		0	500,000	0	0	0	500,000

In 2014 the World Health Organisation commissioned a capacity review of laboratories in the Cook Islands, with a particular focus on testing and analysis of drinking water. The mission concluded that while there were three government departments that currently undertake water sampling, Ministry of Health (Hospital laboratory), Infrastructure Cook Islands (own lab with equipment but no reagents or staff) and to a lesser extent Ministry of Marine Reserves (mainly sea water but do bore water), the testing and analysis were insufficient for drinking water purposes.

Government intends to improve its capacity for testing in a range of areas by combining where appropriate the existing laboratory capacity. A central laboratory is being considered as a means to reduce costs through efficiencies and economies of scale, and to eliminate duplication between separate laboratories. It will also allow for a more resilient operation with regard to staffing, capability development and efficient use of funding sources.

5.8 Chinese Public Building Upgrades

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Chinese Building Repairs	China	400,000	200,000	600,000	0	0	800,000
TOTAL		400,000	200,000	600,000	0	0	800,000

The Courthouse, National Police Headquarters and Telecom Sports Arena were constructed in 2004, 2006 and 2009 respectively, by way of grant and concessional loans from the People's Republic of China. These buildings allowed for much needed improvements in service delivery to the Cook Islands community. These buildings have been occupied and in full use since their respective handover dates and will continue to serve their intended purposes.

Whilst they are extremely valuable assets, over time the buildings have required various repairs and improvements, some of which have been addressed by the Cook Islands government and the China Civil Engineering Construction Corporation. A proposal was submitted to the People's Republic of China for grant assistance to address the remaining requirements for repairs and improvements. Implementation was initially planned for commencement in 2014/15 but will now be on hold until ongoing negotiations are finalized and an agreement reached.

5.9 Mangaia Road Sealing

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Mangaia Road Sealing	CIG	0	250,000	0	0	0	250,000
TOTAL		0	250,000	0	0	0	250,000

The people of Mangaia, even prior to formal discussions on sealing the main stretch of road in the town centre of Oneroa began in 2013, have for some years identified this area as an infrastructure priority to provide ease of access between other key infrastructure such as the airport and the Mangaia harbour nearby. Infrastructure Cook Islands with the Mangaia Island Government will deliver this project in a systematic approach recognizing that heavy duty and technology-specific road sealing machinery will be shared across other similar projects throughout other pa enua during 2016/17 and onwards.

5.10 Orongo Development Master Plan and Centre reconstruction

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Orongo Development Master Plan and Centre reconstruction (Ports Authority)	CIG	300,000	250,000	250,000	250,000	0	750,000
TOTAL		300,000	250,000	250,000	250,000	0	750,000

In 2010 the central community and administration facilities on Aitutaki, known as the Orongo centre, were destroyed by Tropical Cyclone Pam. In 2013 the Aitutaki Island Government and Ports Authority developed a concept plan to redevelop the Orongo centre and marina, including:

- replacement of the central community buildings and administration buildings;
- deepening of the port access channel to enable larger yachts and island trading vessels to access dock side facilities;
- improve enlarge on land harbour storage area; and
- create a marina to facilitate greater number of visits by cruising yachts.

The above improvements will increase economic activity; provide opportunities to host more visiting yachts, while offering an attractive market environment. Easier access to an inner harbour will reduce shipping costs and flow through to cheaper commodity costs.

Research suggests that up to 1000 yacht visits a season could be possible given the movement from French Polynesian through the Cook Islands to Tonga. These yachts track close by Aitutaki and only very few stop over although research suggests this would change dramatically if facilities and easier port access were available.

In 2015/16 work began on dredging and sheet piling on the northern side of the marina. This work is expected to continue into 2016/17 and see this stage of the project come to completion.

5.11 Pa Enea Machinery Shelters

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Pa Enea Machinery Shelters	CIG	500,000	0	0	0	0	0
TOTAL		500,000	0	0	0	0	0

Government and development partners have invested heavily in new machinery and equipment for the Pa Enea, including the recent supply of heavy machinery from PRC. We must therefore ensure these valuable assets are well protected and remain in service for many years.

A number of islands have machinery shelters and workshops that sufficiently caters for their new and existing machinery. There are also a number of islands without machinery shelter and consequently these machines are exposed to the elements further degrading their value and purpose.

The isolated and scattered pa enua of the Cook Islands with limited land within them provides an opportunity to become innovative in delivering infrastructure that serves both government operations and community needs. A multi-purpose building that services our communities will invite economic efficiencies and more importantly, effecting the purpose for which it was constructed. Rarotonga based agencies will work closely with local island government administration in identifying suitable crown land for the implementation of this project in tandem with other project proposals.

Tender proposals have been considered to construct or improve the shelters/workshops on the islands of Mauke, Manihiki, Rakahanga, Penrhyn and Pukapuka in 2015/16 with implementation to take place during 2016/17.

5.12 Pukapuka Hospital Reconstruction

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Pukapuka Hospital Reconstruction	CIG	200,000	300,000	0	0	0	300,000
TOTAL		200,000	300,000	0	0	0	300,000

The existing Pukapuka hospital was constructed some 60 years ago from limestone and concrete. The building is structurally unsound and requires significant refurbishment and remodelling to make it fit for health care services. Due to the isolated nature and state of the hospital, many patients are referred to Rarotonga for treatment. The new hospital will be purpose built to enable provision of services that are currently lacking in the existing hospital. Scope of works is expected to be finalized at the end of 2015/16 and implemented in 2016/17.

5.13 Pukapuka Government Representative (GR) House Rebuild

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Government House	CIG	0	26,000	0	0	0	26,000
TOTAL		0	26,000	0	0	0	26,000

The GRs residence in Pukapuka has not received refurbishment work except by way of minor repairs provided by the Pukapuka Island government. Small maintenance work done in prior years, even as recent as 2015 is insufficient to meet standards for occupancy. In 2016/17 Rarotonga-based agencies will work closely with the Pukapuka Island government in the rebuild program to have a fit for purpose structure for the GR and visiting dignitaries to the island of Pukapuka.

5.14 Rutaki Foreshore Rock Revetment Feasibility Study

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Rutaki Foreshore Rock Revetment	CIG	80,000	120,000	0	0	0	120,000
TOTAL		80,000	120,000	0	0	0	120,000

The coastal area around Rutaki leading up to Vaimaanga Sheraton is prone to inundation from high seas because of low lying depressions. Experience over the past years has shown ongoing foreshore scouring causing continuous erosion due to high seas and increased wave activities threatening infrastructure such as roads, water pipeline and public and private properties. The total area affected is approximately 1.8 kilometers.

A feasibility study for the construction of a rock revetment to reduce risk and protect the area from high seas, storm surges, further degradation and cyclonic events is proposed. Infrastructure Cook Islands will lead the study which will inform requests for funding assistance.

5.15 Vaikapuangi Office Redevelopment and new National Archives Facility

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Vaikapuangi Government Building - construction	CIG	0	1,920,000	2,467,000	0	0	4,387,000
Vaikapuangi Government Building - design	CIG	0	180,000	0	0	0	180,000
TOTAL		0	2,100,000	2,467,000	0	0	4,567,000

The Vaikapuangi office redevelopment proposal seeks to improve public access to government services and to

address the increasing cost of accommodating government agencies at staggered locations. The proposal involves the reconstruction of the former Ministry of Justice building / Kia Orana Foods factory and the refurbishment of the MFEM Building to accommodate in total fourteen (14) Ministries/Agencies. The project takes a long-term approach in maximising use of limited resources, and allowing flexibility in design so the property is able to meet current requirements and adapt to future needs. Key features of the design include open plan office spaces, shared meeting rooms and maximum use of natural lighting and air flows. The most frequented services will be located on the ground floor for easy access by the public.

A new archives and central storage facility is also proposed as Government lacks appropriate facilities for safe-keeping of public records and items of historical significance. The present National Archives facility in Takuvaine is inadequately sized, termite-infested, and is a fire hazard. Ministries/Agencies are required to maintain records for at least 10-years. Such records are stored in several places including office areas, empty rooms and in the case of the MFEM building in the old cool rooms.

The proposed new facility will increase capacity for storage across government, and incorporate fire resistance, climate control and security measures. A modern and modular storage facility that can be extended if needed is proposed.

Funding sources for the Vaikapuangi office redevelopment and new archives will be a combination of proceeds of sale of New Zealand property assets and lending serviced by existing cash-flows from rentals presently paid by Departments for their current premises. The cost of construction is estimated at \$4.6 million.

5.16 Tereora College Redevelopment Project – Stage 1

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Tereora Reconstruction Phase One	NZ	0	5,750,000	5,750,000	0	0	11,500,000
TOTAL		0	5,750,000	5,750,000	0	0	11,500,000

In April 2016 Government adopted the Tereora College Redevelopment Plan as a guide to infrastructure investment at the College over the next 10 to 15 years. The redevelopment goal is to provide the infrastructure required to support the delivery of the Education Master Plan and Tereora College Learning Charter.

Redevelopment of Tereora College responds to the demands for modern, innovative and flexible learning environments that supports student-centred learning. Substantial and costly remodelling and refitting would be required to make the existing buildings suitable for modern learning. The redevelopment provides the opportunity to address the issues created by the terraced positioning of buildings that create functional and accessibility barriers particularly for those with disabilities.

Buildings will be designed and furnished to allow flexible use of all spaces, and encourage student-centered learning—environments that are comfortable for open student learning but can be also formally structured for assessments. Free flow through spaces is a main feature, with soft and hard furnishing, and accessible resources.

The redeveloped school will cater for 750 students. The buildings are being designed to adapt to change at any time to suit the style of teaching. Stage 4 allows for further expansion should the school roll increase beyond Stage 3 capacity, or if the college extends its programme offerings.

New Zealand is providing \$11.5 million to complete stage 1, which includes a Technology Centre and a Research/Academic Library/Student Services/Administration Centre. Government is exploring funding opportunities for stages 2 (Academic Learning Centre) and stage 3 (Performing Arts Centre).

The Request for Tenders for Stage 1 physical works will be issued in June 2016. Civil and construction work will commence in December 2016. The new buildings will be opened for the 2018 school year.

5.17 Cyclone Shelter Program

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Cyclone Centre Program	CIG	0	400,000	800,000	0	0	1,200,000
TOTAL		0	400,000	800,000	0	0	1,200,000

Government recognises the need to add to the resilience of our pa enua against the effects of climate change and the threat of cyclones. Government proposes to construct a cyclone shelter for Palmerston Island in 2016/17 subsequently followed by Nassau and Rakahanga in 2017/18. Rarotonga-based agencies will work closely with the respective island administrations to ensure the delivery of a multi-purpose structure to service the needs of our pa enua communities.

5.18 Mangaia Central Water Project

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Central water project	CIG	0	125,000	0	0	0	125,000
TOTAL		0	125,000	0	0	0	125,000

The two inland water intakes feeding Tamarua settlement, Veitatei intake and the Ivirua settlement, Karanga intake are seriously being depleted of stream flow. This now adds pressure on the residents to start using stored water supplies for cleaning and sanitation purposes. To alleviate this situation there is a need to develop an alternative option of supply including the reticulation of brackish water to the two settlements from Oneroa's Vairoronga spring. This will require additional PE pipeline and pump to deliver water to the highest point on the island for reticulation by gravity to the two outer lying villages on the island.

5.19 Manihiki Airport Terminal Upgrade

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Airport Terminal - construction	CIG	0	60,000	0	0	0	60,000
TOTAL		0	60,000	0	0	0	60,000

Manihiki does not have an existing Airport Terminal building. Passengers check-in under a small overhang of a private house during flight days and with family and friends, wait out in the open under the shade of nearby coconut trees for flight arrival and departure. The traveling public to and from Manihiki will soon enjoy better facilities during their journey to Manihiki and beyond.

5.20 Mitiaro Water Upgrade

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Water Upgrade	CIG	0	80,000	247,000	0	0	327,000
TOTAL		0	80,000	247,000	0	0	327,000

The existing gallery is in urgent need of attention. The stand and platform on which the tank rests is heavily corroded and is in dire need of replacement. The risk of collapse is high and poses a risk to the passing public. The replacement of the platform and stand will ensure the safe and continuous supply of water to the community of Mitiaro. Thereafter government intends to explore new water galleries to provide fresh clean potable water to the community of Mitiaro.

5.21 Omoka Harbour Upgrade

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Omoka Harbour Upgrade	CIG	0	250,000	0	0	0	250,000
TOTAL		0	250,000	0	0	0	250,000

At present the harbour facility including the quay areas has deteriorated significantly due to corrosion, wave action and ship impact. Rehabilitation is urgently needed to prevent collapse of the sheet pile quay walls. This is essential to support continued inter-island shipping service and protect the patrol boat fuel facility. The upgrading works includes the following;

- Replacement of the sheet piling with concrete wall anchored by geotextile mesh.
- Construct gabion walls to protect harbour walls north and south of the main quays.
- Repair or replace quay pavements. Replace bollards and install new fenders.

5.22 Pukapuka Airport Terminal Upgrade

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Upgrade Airport terminal	CIG	0	20,000	0	0	0	20,000
TOTAL		0	20,000	0	0	0	20,000

The airport terminal located on Motu Ko is in need of refurbishment. The existing structure has over many years and without continuous maintenance has been subjected to the deteriorating effects of the natural elements. The upgrade of the airport terminal will see to a fit-for-purpose facility for the travelling public and island residents.

5.23 Yato Cargo Shed Upgrade

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Yato Cargo Shed Upgrade	CIG	0	8,000	0	0	0	8,000
TOTAL		0	8,000	0	0	0	8,000

The Pukapuka Island Council currently manages a shed in Yato village near the islands cargo offloading site. The existing facility is used for cargo storage during and between intermittent shipping schedules. The shed is in much need of an upgrade to ensure the security and integrity of the goods supplied to the island community of Pukapuka.

5.24 RSA Cemetery Rock Wall

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
RSA Cemetery Rock Wall	CIG	142,000	0	0	0	0	0
TOTAL		142,000	0	0	0	0	0

In the 1970s many foreigners travelled to the Cook Islands in the hope that a resident could cure the cancer which riddled their bodies. Those who lost their battle were buried next to the RSA in Nikao. The cemetery is more commonly referred to as Brychard cemetery. The shore bank that protects the cemetery is exposed to sea erosion and has fallen away taking with it some gravesites. Government intends to allocate funds towards this project to further protect the degradation of the area.

6 Capital Purchases

6.1 Heavy Machinery

a. Central procurement for HV Transport Trailer

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
HV Transport Trailer	CIG	0	180,000	0	0	0	180,000
TOTAL		0	180,000	0	0	0	180,000

The islands of Mangaia, Atiu and Mauke have requested on occasion the provision of a HV transport trailer to assist with the services of cargo shipment and the transportation of other heavy machinery on their respective islands. The central procurement programme will be facilitated by Infrastructure Cook Islands in close collaboration with the relevant local island government administrations in an effort to better streamline bulk purchasing methods and to procure fit-for-purpose machinery across the communities.

b. Mauke Enea Medium Genset

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Medium Genset (42kVA)	CIG	0	20,000	0	0	0	20,000
TOTAL		0	20,000	0	0	0	20,000

The existing generator in Mauke is over 30 years old and requires urgent replacement. The increasing demand for electricity on the island of Mauke to assist with business, trade and private consumption is taking its toll on a well maintained but overdue for replacement asset. The new genset will add value to the livelihoods of the people of Mauke and can meet the community's electricity needs until the National Renewable Energy project for the southern pa enua is completed.

c. Outboard Motor Replacement Program

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Outboard Motor replacement program	CIG	0	70,000	0	0	0	70,000
TOTAL		0	70,000	0	0	0	70,000

The islands of Palmerston, Atiu and Mauke will each receive much needed outboard motors to support existing large boats/barge services for their respective communities. Palmerston Island, in conjunction with the cargo repair program, along with Mauke will receive an outboard motor each. For their newly refurbished cargo barge, Atiu will receive two to replace the existing machines purchased 9 years prior. Procurement will be facilitated through Infrastructure Cook Islands in close collaboration with the relevant Pa Enea Island Administrations.

d. Rakahanga Large Boat & Outboard Motor

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Large boat & outboard motor	CIG	0	100,000	0	0	0	100,000
TOTAL		0	100,000	0	0	0	100,000

This boat will assist the island administration in its delivery of services to the island community by providing a safe and reliable means of transportation between Rakahanga and Manihiki, greater capacity for stevedoring services and improved marine resource management.

e. Mangaia HIAB truck

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
HIAB (includes man cage & fork)	CIG	0	150,000	0	0	0	150,000
TOTAL		0	150,000	0	0	0	150,000

A new HIAB truck will be purchased for the island of Mangaia to assist with cargo loading/offloading, delivery of fuel tanks to the power station and help maintain street lights and government buildings renovation work. The existing HIAB acquired in 1981 is inefficient due to age and depreciation and can only lift light cargo. The addition of the HIAB truck will see efficient services provided to the community of Mangaia.

f. Penrhyn Slasher

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Slasher	CIG	0	4,000	0	0	0	4,000
TOTAL		0	4,000	0	0	0	4,000

A slasher will be purchased by Infrastructure Cook Islands in conjunction with and on behalf the Penrhyn Island Government. It is intended the slasher will provide much assistance for community projects in Penrhyn suited to land preparation by cutting and clearing vegetation where required.

6.2 Plant and Equipment

a. National Incinerator Feasibility Study

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
National Incinerator Feasibility Study	CIG	29,705	120,000	0	0	0	120,000
TOTAL		29,705	120,000	0	0	0	120,000

A national waste incinerator is proposed as part of the Cook Islands Solid Waste Management strategy to combat the waste issues across the nation. The proposal seeks to eliminate the need for landfills on Rarotonga and the Outer Islands and to utilise the energy generated as a power source. Infrastructure Cook Islands will be building on the feasibility study undertaken by Te Aponga Uira in 2013 (waste-to-energy) to include waste streams from the outer islands, and the ongoing operating and management framework. Government will consider implementation of the proposed project once the feasibility study is complete.

b. Island Cargo Barge Repair Programme

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Cargo barge repair program	CIG	0	100,000	0	0	0	100,000
TOTAL		0	100,000	0	0	0	100,000

The islands of Palmerston and Mangaia currently operate marine boats/barge to assist with cargo loading/offloading and on a smaller scale, the transportation of travelling passengers. This programme will be facilitated through Rarotonga-based agencies on behalf of and in conjunction with the relevant island administrations to repair or

improve existing marine modes of transport.

c. Health Technical Equipment

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Fund to be Prioritised by Health for Technical Equipment	CIG	275,000	275,000	275,000	275,000	275,000	1,100,000
Haematology Instrument	CIG	110,035	0	0	0	0	0
Ultrasound Machine	CIG	0	160,000	0	0	0	160,000
Medical Service Bed End Panels	CIG	0	309,500	309,500	0	0	619,000
Theatre bed	CIG	228,412	0	0	0	0	0
TOTAL		613,447	744,500	584,500	275,000	275,000	1,879,000

The Ministry of Health (MOH) receives an ongoing capital budget to purchase or replace specialised medical equipment for hospitals and community health clinics in Rarotonga and the Pa Enua. The MOH receives an annual budget of \$275,000 to prioritise against their renewal programme. Last financial year Government purchased a haematology instrument and a theatre bed to add value to the services provided by MOH. In 2016/17 the public will expect to receive a new ultrasound machine that can perform scans on obese patients, a limitation on existing technology, as well as make provision for cardiac scans, a new service that can be provided at the Rarotonga Hospital. The procurement of new bed end service panels with the ability to administer oxygen and medication to patients directly will prove more efficient and will no longer require the need for large equipment such as oxygen tanks and noisy pump machines that also clutter bed sides and wards.

6.3 Information Communication Technology (ICT)

a. Government IT Network & supplies (Computers & Printers)

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Computers and Printers	CIG	0	50,000	0	0	0	50,000
Government IT Network	CIG	0	40,000	40,000	40,000	40,000	160,000
TOTAL		0	90,000	40,000	40,000	40,000	210,000

Considerable progress has been made towards centralising information communication technology networks across government and improving our disaster risk management capacity. In 2013/14 the Northern Group islands of Manihiki, Penrhyn and Rakahanga were brought onto the cookislands.gov.ck email system, along with all services for the Ministry of Internal Affairs in Tupapa. In 2014/15 the Ministry of Health and Ports Authority were connected with Infrastructure Cook Islands and Internal Affairs coming online during 2015/16. The incentive of reduced IT costs and the opportunity to improve productivity has driven the demand for the service. The budget for 2016/17 will allow for the ongoing implementation and maintenance of the programme.

Individual ministries and agencies over previous years have managed the procurement of computers and printers to deliver services. Government intends to better manage the funding allocation for the bulk purchase of new, replace old and maintain existing computers and programs to provide consistent technology across government in alignment with the Government IT program. The Computers and Printers program is for seed funding to build an inventory for OPM to then on-sell to ministries

b. Banking Payment System

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Banking payments system	CIG	0	600,000	35,000	0	0	635,000
TOTAL		0	600,000	35,000	0	0	635,000

In order for the Cook Islands to achieve its economic and social aspirations, it is critical that a modern, inclusive and digital payment system is implemented to overcome current constraints.

The most efficient and cost effective way for the Cook Islands modernize its payment system is to leverage and integrate with the New Zealand payments system, which is operationally possible given the Cook Islands use of the New Zealand dollar. Government, in partnership with and with significant financial contributions from the banks, is leading this \$2 million plus total investment, in order to streamline and simplify the payments system in the Cook Islands.

This will allow for much easier transfers between accounts located here as well as with accounts located in New Zealand, which will reduce costs for business, which currently face very high transaction costs associated with these transfers. The new system will also remove the need for businesses to utilize multiple EFTPOS machines, as the cost of transferring funds between accounts will no longer be prohibitive.

The main issues around integration with the New Zealand payment system are concerned with the payment rules, operational standards and legislative framework requirements required.

Only once these issues are understood and solved can the technical work required can commence and additional payment related topics be explored, such as the introduction of EFTPOS and removal of card scheme foreign exchange fees.

Cabinet has committed to this initiative and has allocated budgetary support for a project delivery team, as well the regulatory and legal costs associated. This support is being augmented by significant contributions from the commercial banks based in the Cook Islands as well. The project delivery team will report to the Payments steering committee and develop a detailed plan of the business requirements. In addition, the team will provide a detailed technical specification of the CI based technology environment for electronic interchange and settlement across banks. The estimated project duration is 18 months, over which time the regulatory and legislative requirements will be implemented. A CI payments system would be drafted and enacted, while conditions of the CI domestic bank registration process will be amended and appropriate elements of the RBNZ act will be adopted.

At completion of this process, the capital development project will commence. The full benefits of the Payments system project will improve domestic, New Zealand and global connectivity, which will lower costs consumer and business costs and foster investment through improved access to funding.

c. Education Equipment and ICT Upgrades

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Fund to be Prioritised by Education	CIG	360,000	360,000	360,000	110,000	110,000	940,000
ICT upgrades (computers & laptops)	CIG	88,000	88,000	0	0	0	88,000
TOTAL		448,000	448,000	360,000	110,000	110,000	1,028,000

The Ministry of Education receives an annual appropriation of \$110,000 for capital expenditure across all schools. This funding meets the requirements of replacement plans for computers, photocopiers, other multi-media items, desks, chairs and other classroom furniture. The additional \$250,000 in FY15/16 to FY17/18 is the transfer from NZAID higher modality due to it being incorporated into government appropriation.

CAPEX was increased in the 2014/15 budget by an additional \$45,000 and in 2015/16 by \$60,000 (Turkish Funds). This funding was for ICT CAPEX to bring all schools up to a 5:1 user to device ratio. Note the Turkish funds were never received therefore we will need to look for alternative appropriation for IT.

Additional CAPEX funding of \$88,000 in 2015/16 and 2016/17 has been appropriated as support for an ongoing

replacement schedule so that schools can maintain the minimum student: device ratio. It is expected that this value will continue beyond 17/18. The Ministry maintains and delivers on a 5 year forecasted procurement schedule for the replacement of IT devices in schools.

7 Other Capital

7.1 Road & Water Network Maintenance

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Water network maintenance	CIG	500,000	500,000	500,000	500,000	500,000	2,000,000
Road Network Maintenance	CIG	428,691	630,000	630,000	630,000	630,000	2,520,000
TOTAL		928,691	1,130,000	1,130,000	1,130,000	1,130,000	4,520,000

Infrastructure Cook Islands receives an ongoing capital budget for maintenance and renewal work on the Rarotonga road and water network. This fund pays for materials such as aggregate, bitumen, pipes and fittings, along with the hireage of machinery and equipment. The funding for the year 2016/17 and beyond funds a program to ensure the sustainability of existing and new roads, such as those anticipated under the Rarotonga Road sealing programme as well as the maintenance of existing and new water lines on Rarotonga.

7.2 Vaka Maintenance Capital Projects

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Vaka Maintenance Capital Projects	CIG	50,000	50,000	50,000	50,000	50,000	200,000
TOTAL		50,000	50,000	50,000	50,000	50,000	200,000

The Ministry of Internal Affairs is responsible for the maintenance of the road-sides around Rarotonga. The Ministry receives \$50,000 annually for small capital initiatives requested by each Puna relating to the Vaka Maintenance programme.

7.3 Capital Distribution Fund and Outer Islands Small Capital Fund

PROJECT/PROGRAMME	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Capital Distribution Fund	800,000	239,900	200,000	200,000	200,000	839,900
Small Capital Fund	110,000	110,000	110,000	110,000	110,000	440,000
<i>Aitutaki</i>	16,000	16,000	16,000	16,000	16,000	64,000
<i>Atiu</i>	12,000	12,000	12,000	12,000	12,000	48,000
<i>Mangaia</i>	12,000	12,000	12,000	12,000	12,000	48,000
<i>Manihiki</i>	10,000	10,000	10,000	10,000	10,000	40,000
<i>Mauke</i>	10,000	10,000	10,000	10,000	10,000	40,000
<i>Mitiaro</i>	8,000	8,000	8,000	8,000	8,000	32,000
<i>Palmerston</i>	10,000	10,000	10,000	10,000	10,000	40,000
<i>Penrhyn</i>	12,000	12,000	12,000	12,000	12,000	48,000
<i>Pukapuka-Nassau</i>	12,000	12,000	12,000	12,000	12,000	48,000
<i>Rakahanga</i>	8,000	8,000	8,000	8,000	8,000	32,000
TOTAL	910,000	349,900	310,000	310,000	310,000	1,279,900

The Ministry of Finance and Economic Management (MFEM) administers a Capital Distribution Fund for small capital including vehicles and equipment. This fund is allocated on a priority basis by the Capital Fund Coordinating Committee. A one-off transfer of \$39,900 is provisioned for the purchase of a new van for Cook Islands Tourism Corporation. The Outer Islands Small Capital Fund, also administered by MFEM, is for small capital purchases such as ICT equipment and machinery parts. A set amount is allocated to each island each year.

7.4 Provision for land rent reviews

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Provision for land rent reviews	CIG	0	642,000	642,000	642,000	0	1,926,000
TOTAL		0	642,000	642,000	642,000	0	1,926,000

Previously government made provision in the capital budget of \$1.5 million for payment of rent reviews for land leased by the Crown for public purposes. Court judgments on the amounts to be paid to landowners will be confirmed in 2016/17. Should the decision favour the assessments proposed on behalf of landowners, this capital budget of \$1.926 million is spread over the three year period 2016-2019 to make provisions for the new rental fee based on the court judgments and simultaneously settle rent arrears for prior years.

7.5 MANEA Games Upgrade

PROJECT/PROGRAMME	Funding Source	2015/16 Committed	2016/17 Estimate	2017/18 Projection	2018/19 Projection	2019/20 Projection	4-Year Total Estimate
Manea Games Upgrade	CIG	0	100,000	0	0	100,000	200,000
TOTAL		0	100,000	0	0	100,000	200,000

The MANEA Games is held every three years rotating between the islands of Mangaia, Mitiaro, Atiu, Mauke and Aitutaki to host the communities of those islands in sports and cultural festivities. The MANEA Games 2016 will be held in Mitiaro scheduled for September 2017. Government recognizes the importance of the MANEA Games and from this budget and every three years thereafter, will provide funding to the host island to assist the upgrade in government owned sports facilities

8 Glossary

4-Year cost is the estimated and projected costs of a project or programme over the four year period (2016/17 to 2019/20) of this capital plan. It can be different from 'Total cost'.

Capital Programmes are made up of several individual projects all contributing to a single outcome and funded by a one or more sources.

Construction is the building of a new piece of infrastructure and includes project management costs such as supervision and reporting.

Design means the detailed costing, engineering, designs and procurement planning (e.g. tender documentation) needed to prepare a capital project for the construction phase.

Feasibility means the technical, economic, environmental and social analysis of a proposed capital initiative with the view to assessing the value of its contribution to achieving national sustainable development.

ICT Information and communication technology refers to unified communications and the integration of telecommunications (telephone lines and wireless signals), computers, middleware as well as necessary software, storage- and audio-visual systems, which enable users to create, access, store, transmit, and manipulate information.

Plant and equipment is motor vehicles, furniture, office equipment, fixtures and fittings and plant.

Upgrade can be major renovations and improvements to an existing piece of infrastructure which are over and above the normal repairs and maintenance which should be budgeted in operating costs.

9 Acronyms

ADB	Asian Development Bank
ADB ERSP	Asian Development Bank Economic Recovery Support Programme
ADF	Australia Defence Force
CAPEX	Capital Expenditure funded by Cook Islands Government
CIG	Cook Islands Government
CIIC	Cook Islands Investment Corporation
CI-NIIP	Cook Islands National Infrastructure Investment Plan
EIB	European Investment Bank
EU	European Union
EU GCCA	European Union Global Climate Change Alliance
EU-GDC	European Union German Development Cooperation
EXIM	Export Import Bank of China
GEF	Global Environment Facility
ICI	Ministry of Infrastructure Cook Islands
ICT	Information Communication Technology
IT	Information Technology
IWRM	Integrated Water Resource Management
MFEM	Ministry of Finance and Economic Management
MOH	Ministry of Health
NZ	New Zealand
NZ/A	New Zealand/Australia
ODA	Official Development Assistance
OPM	Office of the Prime Minister
PACC/SPREP	Pacific Adaptation to Climate Change, South Pacific Regional Environment Programme
PEC	Pacific Environment Community, Japan Government
PIGGAREP	Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project
PRC	People's Republic of China
RE	Renewable Energy
REDD	Renewable Energy Development Division, Office of the Prime Minister
RMS	Revenue Management System
SOE	State Owned Enterprises
SPREP	South Pacific Regional Environment Programme
SRIC	Strengthening the Resilience of our Islands and our Communities to Climate Change Cook Islands
TA	Technical Assistance
TAU	Te Aponga Uira o Tumutevarovaro
TMV	Te Mato Vai – Rarotonga Water Partnership
UN	United Nations
UNAF	United Nations Adaptation Fund
UN-FCCC	United Nations Framework Convention on Climate Change
UN-GEF	United Nations-Global Environment Facility