



Federated States of Micronesia INFRASTRUCTURE DEVELOPMENT PLAN FY2016-FY2025

Volume 6:

Yap State Infrastructure Development Plan FY2016-FY2025



This Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025 comprises the following parts:

Introduction

Volume 1 Plan Outline

Annexes

Volume 2 National Infrastructure Development Plan

Volume 3 Chuuk State Infrastructure Development Plan

Volume 4 Kosrae State Infrastructure Development Plan

Volume 5 Pohnpei State Infrastructure Development Plan

Volume 6 Yap State Infrastructure Development Plan

The following Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025 documents are available:

Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025 (all parts)

FSM Infrastructure Development Plan FY2016-FY2025 Outline (Introduction, Volume 1 & Annexes)

National Infrastructure Development Plan FY2016-FY2025 (Volume 2)

Chuuk State Infrastructure Development Plan FY2016-FY2025 (Volume 3)

Kosrae State Infrastructure Development Plan FY2016-FY2025 (Volume 4)

Pohnpei State Infrastructure Development Plan FY2016-FY2025 (Volume 5)

Yap State Infrastructure Development Plan FY2016-FY2025 (Volume 6)

FSM Infrastructure Development Plan FY2016-FY2025 Summary (abbreviated outline and listings of projects)

Volume 6 Yap State Infrastructure Development Plan

Foreword by the Governor

I am pleased to present to you an update of Yap State Infrastructure Development Plan for the period FY2016 – FY2025. This Plan is important and significant in our efforts to develop our island economies and cope with global and environmental changes that are affecting our islands and our nation.

The Yap Plan presents priority infrastructure investments for the next 10 years which have been identified by government and community stakeholders. It presents a truly collaborative approach to infrastructure development for our state which sets out the case for developing infrastructure for our island state and provides a direct connection to communities and their needs.

I particularly welcome the inclusion of projects directly linked to climate change adaptation – these are important first steps to a mainstream infrastructure adaptation program in future Plans. Our citizens can also look forward to schools, hospitals, roads and other facilities that are kept in better condition as we improve the way we manage our infrastructure over its life.

Included in the Plan is a realistic level of funding which represents 55 percent of Yap's infrastructure needs over 10 years. This sets the challenge for our island state, our national government, and our development partners to work together to close the funding gap.

Finally I recognize the considerable effort that has gone into the Plan from State Infrastructure Planning and Implementation Committee and the State Executives. The assistance of the FSM National Government and the Asian Development Bank is also acknowledged for providing the technical assistance team that supported the Plan development.

I commend this Infrastructure Development Plan and look forward to the support of our development partners as we work towards our vision of better facilities and improved infrastructure development in our state.


Honorable Tony Ganngiyan
Governor

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Part 1 Introduction

This Volume 6 of the IDP is known as the **Yap State Infrastructure Development Plan FY2016 to FY2025** (the Yap IDP).

1.1 Overview

Yap State is the westernmost state of the FSM. To the east, in order of distance are Chuuk State (850nm), Pohnpei State (1220nm) and Kosrae State (1523nm). It covers 100,000 square miles of Western Pacific Ocean, between latitude 7 to 10 degrees North and longitude 137 to 140 degrees East. Yap State includes Yap Islands, consisting of four main islands of Yap Island, Tomil-Gagil, Maap and Rumung and eight smaller islets sharing a common coral reef; and 134 outer atolls. All together Yap has a combined land area of 45.6 square miles. Yap Islands, with 38.7 square miles of land, which accounts for 84 percent of the state's total landmass, is home to two-thirds of Yap State's population of 12,055 (FSM 2010 Census). Colonia, the capital of Yap state, is located on the east coast of Yap Island. The 134 outer islands, most of them low-lying atolls, with total land area of about 7 square miles, lie up to 1,200 kilometers eastwards from Colonia and have a total population of about 4,000.

1.2 Climate and the Challenges of Change

The significance of climate change to the State of Yap is set out in the Joint State Action Plan³⁵.

As the westernmost state of FSM, Yap is exposed to a range of threats that create significant vulnerabilities for the state. Yap is located in 'Typhoon Alley', is likely to be disturbed by earthquakes and tsunamis, and suffers droughts due to the impact of El Niño Southern Oscillation (ENSO). ENSO is also the cause of both excessive and below average rainfall.

Yap state is regularly hit by typhoons (especially in June – December), with between three and five typhoons hitting the state each year.

Yap is drier than the other states of FSM, and is highly susceptible to drought. While Yap Proper possesses adequate ground water sources, during prolonged droughts such as the 1997/1998 El Niño these water sources have been known to dry up. The lack of adequate water storage capacity on the outlying islands increases the inhabitant's vulnerability to the impacts of drought.

Yap state, being located near the Yap Trench and the Mariana Trench, is vulnerable to earthquakes, with four significant earthquakes recorded in recent times. Yap also has a high probabilistic tsunami hazard; however no recorded instances of significant tsunami damage have occurred. In the event of a tsunami, Yap state would likely suffer a great deal of damage due to it being largely low-lying.

The distances between islands makes it difficult to get much-needed food, water and medical supplies to residents after a disaster, meaning Yap is more vulnerable to health and other secondary impacts of disasters than the other FSM states.

Yap is very vulnerable to flooding during typhoons and storm surges. The state does not regularly receive large amounts of rain and thus the damage from extreme surge and rainfall events is usually much more intense.

The main island of Yap has also experienced wildfires in years with dry periods such as that of 1997/1998.

The Action Plan identifies a range of broad requirements for infrastructure climate-proofing, and these have been included as a single project in the IDP project list (Project ID CC/1).

³⁵ (GoYS, 2015) - Yap Joint State Action Plan for Disaster Risk Management and Climate Change, Draft

Other projects included in the IDP which contribute to climate change adaptation and mitigation are:

- Renewable energy projects
- Upgrading of roads
- Development of new water wells

1.3 Plan Development

The Yap IDP presents the State's priority infrastructure investments for the next 10 years identified by the Yap IPIC and government and community stakeholders. The projects have been prioritized according to three periods; Period 1: FY2016 to FY2019 (during which the Amended Compact arrears are intended to be fully appropriated), Period 2: FY2020 to FY2022, and Period 3: FY2023 to FY2025.

The IPIC-led group assessed the contribution of each priority project to the IDP strategic objectives (Volume 1, section 2.2.2) to provide a Strategic Rating out of 10. Although strategic ratings are not comparable between projects and sectors due to variations in the scope of projects and inherent sector factors (and cannot be used to prioritize projects), the rating process has nonetheless confirmed that the priority projects each make a strong contribution to relevant strategic objectives.

The development process provided valuable input into the management and implementation arrangements (section 2.2) and with the sector managers provided information for the priority projects outlines incorporated into the Yap IDP (Part 4).

Part 2 Plan Outline

2.1 Investment Strategy

2.1.1 Available Funding

Details of the funding available from FSM's development partners and the National Government can be found in Volume 1, Part 3 of the IDP.

Yap receives Amended Compact funds according to the formula set by the FSM Congress (currently 17.55 percent). The underpinning nature of infrastructure warrants a more even distribution of infrastructure funding so funds associated with bilateral donors, multilateral banks and climate change are not allocated on a formula-basis. An amount equal to 20 percent of these funds is included in the Yap IDP, however Yap may receive a greater or lesser amount on a program or project basis.

The funding available to Yap State is 17 percent of total available IDP infrastructure funding. Table Y 1 shows the allocation over the 10 years of the IDP; \$111.4 million for development and \$16.3 million for maintenance.

Table Y 1 – Total Available Yap IDP Funding

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Yap										
Development	12,916,235	13,033,774	11,980,249	11,975,659	10,519,753	10,973,035	10,965,252	10,956,405	9,017,711	9,053,451
Maintenance	1,959,782	1,959,523	1,843,402	1,842,918	1,525,940	1,525,233	1,524,413	1,523,482	1,319,409	1,323,171
TOTAL	14,876,016	14,993,296	13,823,650	13,818,577	12,045,693	12,498,267	12,489,665	12,479,887	10,337,120	10,376,622

2.1.2 Priority Projects

The Yap IDP includes priority projects estimated at \$162.4 million across 9 of the 10 infrastructure sectors. The breakdown of project estimates by sector is shown in Figure Y 1 and the listing of priority projects is included in Table Y 2.

Figure Y 1 – Yap IDP Breakdown by Sector

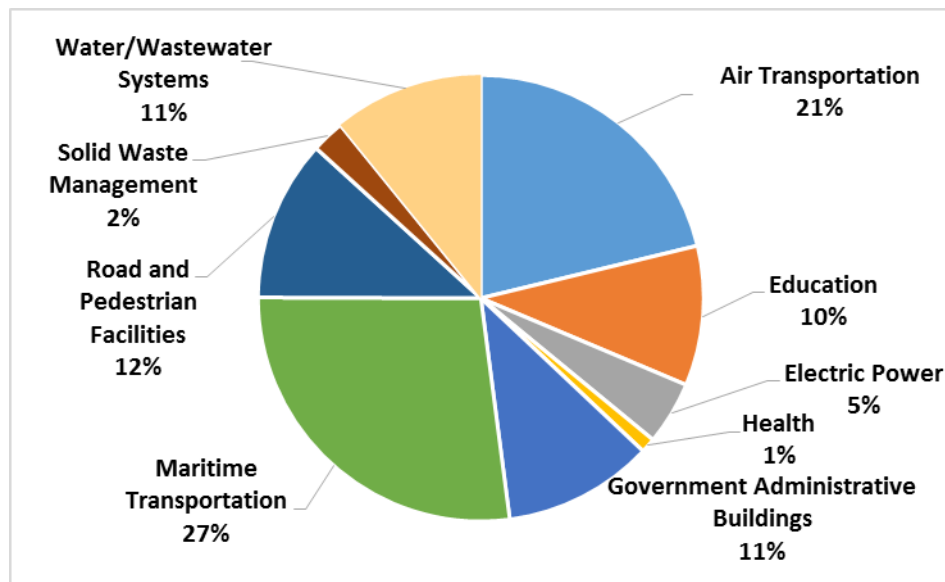


Table Y 2 – Yap IDP Priority Projects

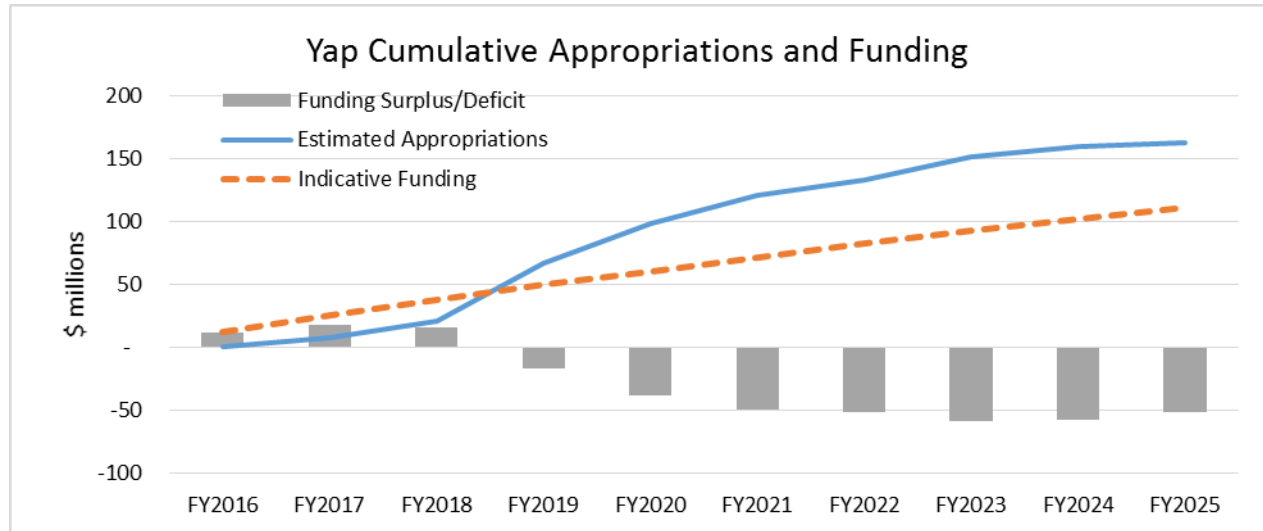
ID	Project Title	Required Funding (\$)	Target Period	Strategic Rating
PM/1	Yap State PMO	4,000,000	All	N/A
CC/1	Upgrade critical infrastructure for Climate Change Resilience	3,990,000	2	N/A
EP/1	Renewable Energy Extension - Phase 2	1,980,000	2	8.2
EP/2	Renewable Energy Extension - Phase 3	3,780,000	2/3	8.2
EP/3	Electric Power Network Improvements	160,000	1	7.8
EP/4	Electric Power Distribution Improvements	675,000	1	8.2
EP/5	Outer Island Micro Grid Expansion	500,000	3	7.3
WW/1	Central Water - Refurbish Water Storage Tanks	1,500,000	1	9.6
WW/2	Central Water - Replace Water Treatment Plant	1,800,000	1	9.6
WW/3	Central Water - Water Main Rehabilitation Phase 1	500,000	1/2	9.6
WW/4	Central Water - Water Main Rehabilitation Phase 2	500,000	2/3	9.6
WW/5	Central Water - Water Well Renewal & Replacement	200,000	1	9.6
WW/6	Southern Water - Treatment Plant/Distribution Improvements	450,000	1	9.6
WW/7	Southern Water - Well Rehabilitation	870,000	1	9.6
WW/8	Southern Water - Water Storage	300,000	1	9.6
WW/9	Southern Water - Office & Storage Improvements	250,000	1	7.6
WW/10	Central Wastewater - Sewer Main Rehabilitation Phase 1	450,000	1/2	9.6
WW/11	Central Wastewater - Sewer Main Rehabilitation Phase 2	450,000	2/3	9.6
WW/12	Central Wastewater - Renew Treatment Plant Outfall	3,000,000	1	9.6
WW/13	Yap Septic Tank Program	6,500,000	3	9.6
SW/1	Solid Waste Management Improvements - Short Term	700,000	1	8.9
SW/2	Solid Waste Management Improvements - Long Term	3,000,000	2/3	8.9
RD/1	Replacement Bridges - Tagreng, Ganir, Donoch, Tagaaniyal	6,600,000	1	8.9
RD/2	Gagil-Tomil Road Improvements	5,500,000	1	8.7
RD/3	Maap Road Improvements	1,200,000	2	8.7
RD/4	Colonia Road Improvements	2,760,000	1/2	8.7
RD/5	Yap Loop Road Rehabilitation	500,000	3	8.7
RD/6	Establish Asphalt Plant & Core Equipment	1,500,000	1	8.4
AT/1	Yap International Airport Runway Extension	17,500,000	2	8.7
AT/2	Yap International Airport New Terminal	11,000,000	1	9.1
AT/3	Yap International Airport Perimeter Road	3,000,000	1	5.1
AT/4	Fais Airstrip Improvements	1,235,000	2	7.8
AT/5	Ulithi Airstrip Improvements	35,000	2	7.8
MT/1	Colonia Commercial Port Improvements	15,000,000	2/3	8.4

ID	Project Title	Required Funding (\$)	Target Period	Strategic Rating
MT/2	Colonia Port Channel & Anchorage Improvements	26,000,000	1/2	8.7
MT/3	Colonia Port Berthing Facilities Improvements	400,000	1	8.7
MT/4	Yap State Multi-Role Vessel	500,000	1	9.1
ED/1	Woleai High School - New buildings and Renovations	1,800,000	1	7.8
ED/2	Yap High School - Phase 2 Improvements	4,320,000	2	7.8
ED/3	Colonia Middle School Improvements - Phase 1	2,400,000	1	7.8
ED/4	Colonia Middle School Improvements - Phase 2	1,300,000	3	7.8
ED/5	Yap School Improvements	1,950,000	3	7.8
ED/6	Outer Island Early Childhood Education Improvements	2,174,000	1	7.8
ED/7	DOE Curriculum Building	1,430,000	1	6.9
ED/8	Outer Island School Toilet Facilities	180,000	1	7.8
ED/9	Euripik Community School Reconstruction	100,000	1	7.8
HE/1	Yap State Hospital - Rehabilitation & Nurses Facilities	800,000	1	8.0
HE/2	Yap State Hospital - General Improvements	855,000	1/2	8.0
GB/1	Yap Government Administration Complex	15,000,000	1	6.2
GB/2	Yap State Museum Extension	250,000	2/3	4.9
GB/3	Establish Central Market	100,000	2	8.0
GB/4	Colonia Small Business Center Renovation	500,000	1	7.3
GB/5	Colonia Community Center Renovation	500,000	1	6.0
GB/6	Yap Women's Association Multi-Purpose Building	500,000	1	8.7
Total Funding Required		162,444,000		
MTCE	Infrastructure Maintenance	16,350,000		

2.1.3 Project Funding Requirements

Based on the project priorities identified during development of the Yap IDP, a funding appropriation profile covering the 10 year period has been estimated. In summary, as shown in Figure Y 2, the Yap IDP priority projects exceed available funding by more than 45 percent.

As a result of the March 2012 JEMCO decision the gap in Amended Compact funding leads to a period of low demand for funds with planning and design the dominant activities. Appropriations for construction will be significant by FY2019. From this point on appropriations will likely exceed funding identified in the IDP. This implies additional funding needs to be identified and/or priorities reassessed. The planned review of the Yap IDP in FY2019 will provide the opportunity to undertake this reassessment.

Figure Y 2 – Yap IDP Available Funding and Estimated Appropriations

2.1.4 Infrastructure Maintenance

Yap State has a total of \$16.35 million of maintenance funding available from FY2016 to FY2025. This includes \$2.53 million required to match the available Amended Compact IMF funding.

2.2 Management and Implementation

2.2.1 State Governance

An effective State IPIC will provide the basis for strong governance of infrastructure delivery at the State program and project level once the coordinated control processes have been established.

Most importantly the intended upgraded role of the IPIC and establishment of the implementation framework outlined below will devolve the planning and implementation responsibilities to the States without compromising control, integrity and governance.

2.2.2 Implementation model

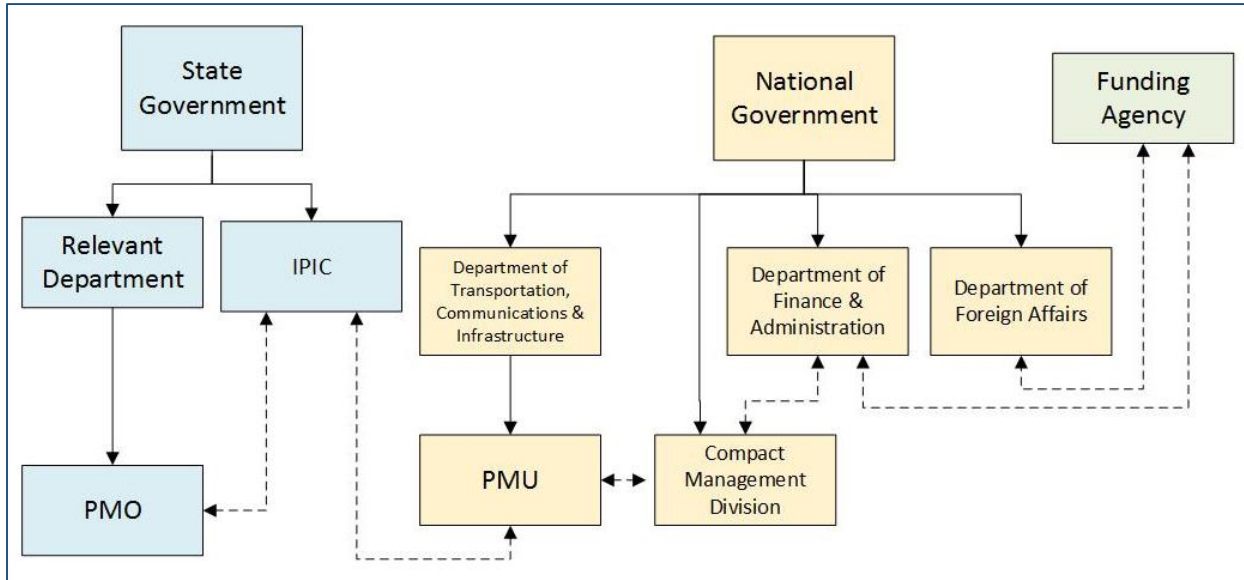
National program management

The implementation model retains the PMU within DTCl but restructures the unit to focus on **Program Management**. The PMU will provide ongoing support to the State to ensure standards are developed and shared, subsequent design and construction contracts are consistent with appropriate risk management and will provide peer review expertise as required.

State delivery accountabilities

The State will be accountable for **Project Management**, from initial planning, through design to construction completion. The State will form a Project Management Office (PMO). The PMO will undertake all the project management activities from initial design through to construction and completion.

The general structure of the implementation model is shown on Figure Y 3.

Figure Y 3 – Organization Chart of Infrastructure Delivery

The PMO will initially contract with the private sector (external party) to ensure project delivery capability is in place by Q3 2016. The contracted external party will be used across all four States within FSM to provide consistency of project management approaches, processes and methodologies.

State Project Management Offices

The State PMO will have the following resources:

- Project Manager(s)
- Contracting Officer(s)
- Resident Engineers and Inspectors
- Technical Specialists as required

General Considerations

The cost of the PMO is estimated to be between 5 and 7 percent of the State infrastructure development program which is within international benchmarks and internationally recognized as a legitimate program cost.

The IDP includes provision for the required funds for the PMO as part of the Amended Compact component of the State's infrastructure development program (noting that Amended Compact PMO funding is dedicated to the delivery of Amended Compact projects).

The external party providing the PMO services will be excluded from participating in any further contract for the design, construction or supervision on an IDP project for which it has project management responsibilities to ensure probity is maintained.

The external party will be contractually bound to build local project management capacity in the State and will have its capacity building plans and performance regularly reviewed by IPIC.

The roles and responsibilities for each party involved in planning, implementation and management of the IDP's Amended Compact component are documented in Annex A of the IDP.

2.2.3 Process enhancements

All infrastructure projects require defined project management processes from scope definition through funds release, design and construction to successful completion. Best practice processes incorporate key steps, hold points, client reviews and concise and complete documentation to support such processes.

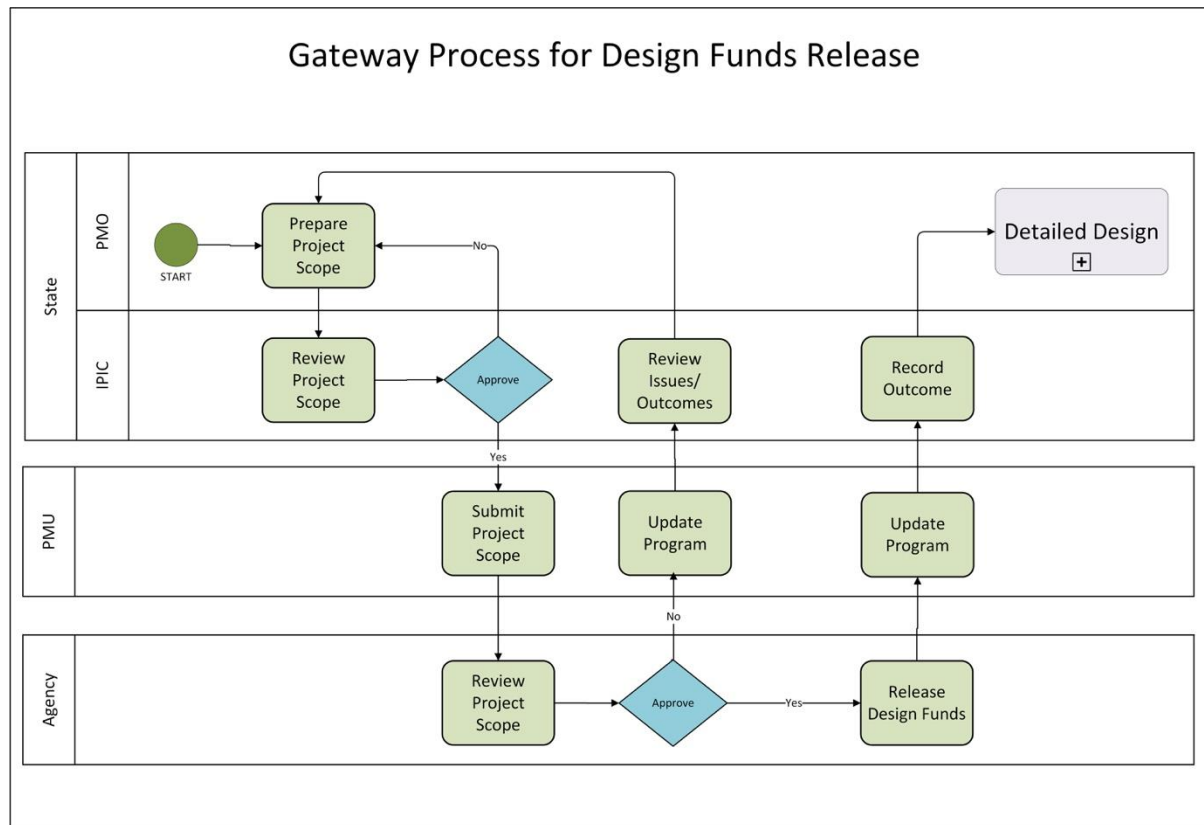
It is also good practice to release funds at two stages; initially to release funds to enable the full project design to be undertaken and then, prior to the construction procurement process commencing, the funding required for construction. This approach facilitates the orderly progress of the project while ensuring that after design there is a review of the project scope, time and cost and any changes are formally signed off before committing funds for construction.

Pre-Design and initial funds release

The PMO will fully document the project scope and formally agree this information with the IPIC.

The project will be submitted for the release of initial (generally design) funds once endorsed by the IPIC. For Amended Compact funded projects this submission is to the PMU and then onward to OIA. Figure Y 4 shows the process for this stage as an example of the processes that will be operated by the PMO and other bodies.

Figure Y 4 – Example Process Diagram



Once the initial funds have been appropriated, the PMO will conduct (if required) a competitive procurement process in accordance with the prevailing procurement process and regulations to identify and contract the design consultant.

Design and construction funds release

The PMO will formally review each project with the IPIC twice during design. The PMO will also hold regular client meetings with sector representatives.

The IPIC reviews will be held when the design is 30 percent complete and when it is 100 percent complete (but still subject to review). The 30 percent design review will ensure that designs remain on an agreed path before significant design costs are incurred.

Following a design being accepted as complete a second submission will be made to the funding agency for the appropriation of construction funds. For Amended Compact funded projects this submission is to the PMU and then onward to the OIA.

Construction procurement

Once construction funds have been appropriated, the PMO will conduct a competitive procurement process in accordance with the prevailing procurement process and regulations to identify and contract the construction contractor (and any required supervision consultant).

Variations

The PMO will process variations generally as follows:

- variations in scope require IPIC approval to ensure project outcomes remain fully agreed
- variations in scope or cost that require additional funding will be endorsed by IPIC before submission to Government and/or OIA (as required) for approval
- change orders to a contract will be processed in accordance with the PMU's planned contract management manual

Completion

The PMO will prepare a Project Completion Report for endorsement by the IPIC. This report will include analysis of the project on a time, cost and quality basis. PMU will prepare summary KPIs to compare performance for the four State PMOs and identify areas for improvement.

2.3 Institutional Projects

The IDP (Volume 1, section 6.4) contains a number of institutional projects that will have an impact on Yap State infrastructure:

- asset management policy, strategy and capacity in all States
- a FSM Building Code
- maritime and aviation safety and security capacity

Part 3 Infrastructure Development

3.1 Infrastructure Development to Date

The estimated Yap State infrastructure development funding in the period FY2004 to FY2015 is shown in Table Y 3 against the funding planned in the IDP 2004 over its whole 20 year period.

Table Y 3 – Planned and Estimated Infrastructure Development Funding

Sector	IDP 2004 Total Funds FY2004-FY2025 (\$)	Estimated Development Funding FY2004-FY2015 (\$)¹		
		Amended Compact Grants	Estimated Other Funding	Estimated Total Funding
Electric Power	6,658,000	1,431,000	13,953,000	15,384,000
Water/Wastewater Systems	11,515,000	2,470,000	2,271,000	4,741,000
Solid Waste Management	10,171,000	165,000	99,000	264,000
Roads and Pedestrian Facilities	15,071,000		5,104,000	5,104,000
Maritime Transportation	22,236,000		5,000,000	5,000,000
Air Transportation	16,211,000	815,000	36,244,000	37,059,000
Telecommunications				
Education	17,491,000	14,900,000		14,900,000
Health	4,724,000	8,449,000		8,449,000
Government Administrative Buildings	5,474,000	14,000		14,000
Total \$:	109,551,000	28,244,000	62,671,000	90,915,000

Notes: 1. Estimated funding does not include maintenance and some project management and design costs

3.2 Sector Outlines and Priority Projects

3.2.1 Electric Power

Electric power is provided by Yap State Public Service Corporation (YSPSC) with a focus on the main Yap island group although support is also provided to outer island electric power facilities.

A high percentage of customers have a metered supply and O&M costs are largely covered from tariff revenue. Improvements to and/or rehabilitation of generation and distribution assets and major network extensions, as well as the integration of renewable energy sources into the grid, are dependent on external financing.

Yap has a determined program to increase the proportion of electric power sourced from renewable sources as well as undertaking energy efficiency programs at a number of levels, all of which is contributing to a declining reliance on imported fuel oils for electric power generation.

The projects in the Yap IDP continue the program to develop renewable energy sources and extend the availability of electric power to outer island communities, as well as improve the reliability, sustainability and efficiency of the distribution network.

The electric power projects in the Yap IDP are listed in Table Y 4 and support the sector Goal to develop electric power infrastructure to ensure that all areas of the country are provided with electric power in an efficient and effective manner in accordance with demand such that:

1. households are provided with power for basic livelihood purposes
2. local manpower can realize production opportunities and potential
3. power is available for basic services such as schools, hospitals, water and wastewater systems
4. national targets for renewable energy are achieved

The priority projects are also aligned with the major 2020 targets in the National Energy Policy for renewable energy sources to be at least 30 percent of total energy production and for a 50 percent increase in electric power efficiency.

Further information on each project can be found in the Project Outlines in Part 4.

Table Y 4 –Electric Power Priority Projects

ID	Project Title	Required Funding (\$)	Target Period	Strategic Rating
EP/1	Renewable Energy Extension - Phase 2	1,980,000	2	8.2
EP/2	Renewable Energy Extension - Phase 3	3,780,000	2/3	8.2
EP/3	Electric Power Network Improvements	160,000	1	7.8
EP/4	Electric Power Distribution Improvements	675,000	1	8.2
EP/5	Outer Island Micro Grid Expansion	500,000	3	7.3
Total Funding Required		7,095,000		

3.2.2 Water/Wastewater Systems

Water and wastewater systems around Colonia are also the responsibility of YSPSC, with the Southern Yap Water Authority and Gagil-Tomil Water Authority supplying water to other parts of the main Yap islands. Each has a mandate to deliver utility services on a self-funding basis. Similar to electric power, commercial operations are centered on the main Yap islands where there is broad metering of water supply and effective O&M of water and wastewater systems.

The projects included in the Yap IDP focus on improvements to existing water and wastewater facilities to improve their reliability, capacity and sustainability. Water projects will improve collection, treatment, storage and distribution in all utility areas. The current wastewater system in Colonia will be improved and the outfall reconstructed to improve the safe and effective discharge of effluent from the treatment plant. A community-based approach to wastewater collection outside of the current Colonia scheme will establish individual and community septic tank systems supported by a collection service and disposal at the Colonia wastewater treatment plant.

The water/wastewater projects in the Yap IDP listed in Table Y 5 support elements of the sector goal to provide water and wastewater infrastructure that:

1. meets the demand for water supply and wastewater infrastructure in an effective and efficient manner
2. improves existing water abstraction, treatment and distribution systems
3. evaluates and institutes technologically appropriate liquid waste management systems
4. improves and initiates wastewater facilities to increase coverage and contribute towards improvements in public health and environmental conditions

5. contributes towards the prevention of water borne diseases through the provision of potable water supplies

Further information on each project can be found in the Project Outlines in Part 4.

Table Y 5 – Water/Wastewater System Priority Projects

ID	Project Title	Required Funding (\$)	Target Period	Strategic Rating
WW/1	Central Water - Refurbish Water Storage Tanks	1,500,000	1	9.6
WW/2	Central Water - Replace Water Treatment Plant	1,800,000	1	9.6
WW/3	Central Water - Water Main Rehabilitation Phase 1	500,000	1/2	9.6
WW/4	Central Water - Water Main Rehabilitation Phase 2	500,000	2/3	9.6
WW/5	Central Water - Water Well Renewal & Replacement	200,000	1	9.6
WW/6	Southern Water - Treatment Plant/Distribution Improvements	450,000	1	9.6
WW/7	Southern Water - Well Rehabilitation	870,000	1	9.6
WW/8	Southern Water - Water Storage	300,000	1	9.6
WW/9	Southern Water - Office & Storage Improvements	250,000	1	7.6
WW/10	Central Wastewater - Sewer Main Rehabilitation Phase 1	450,000	1/2	9.6
WW/11	Central Wastewater - Sewer Main Rehabilitation Phase 2	450,000	2/3	9.6
WW/12	Central Wastewater - Renew Treatment Plant Outfall	3,000,000	1	9.6
WW/13	Yap Septic Tank Program	6,500,000	3	9.6
Total Funding Required		16,770,000		

3.2.3 Solid Waste Management

Solid waste management at the central landfill site is the responsibility of the Department of Transportation and Public Works with the private sector involved in the collection and transport of solid waste. The site is licensed by Yap Environment Protection Agency and employs the Fukuoka Method common across the Pacific as an appropriate and cost-effective method for disposal and processing of solid waste. The landfill site has recently been refurbished but has limited capacity and improvements to the separation and storage of recyclable wastes are still required.

With the current landfill site only having capacity for the next few years, the EPA will undertake the planning and regulatory processes needed to secure the replacement site and begin its development in due course.

The solid waste management projects in the Yap IDP are listed in Table Y 6 and support the sector goal to provide solid waste management infrastructure that:

1. meets the demand for solid waste infrastructure in an effective and efficient manner
2. evaluates and institutes technologically appropriate solid waste management systems
3. reduces volume of solid waste for disposal by maximizing recycling and separation opportunities thereby minimizing the land area required
4. prevents solid waste having adverse effects on the terrestrial and marine environments

Further information on each project can be found in the Project Outlines in Part 4.

Table Y 6 – Solid Waste Management Priority Project

ID	Project Title	Required Funding (\$)	Target Period	Strategic Rating
SW/1	Solid Waste Management Improvements - Short Term	700,000	1	8.9
SW/2	Solid Waste Management Improvements - Long Term	3,000,000	2/3	8.9
Total Funding Required		3,700,000		

3.2.4 Roads and Pedestrian Facilities

Road infrastructure in Yap is the responsibility of the Department of Transportation and Public Works and is really only developed on the main Yap islands where the primary roads are sealed, as are some of the secondary roads.

The projects included in the Yap IDP target road rehabilitation and proactive periodic resurfacing to preserve road condition and particularly to address the condition of four key bridges. Other road projects include the sealing of roads in Gagil and Tomil and around Colonia, including the roads to the High School and COM and Colonia Middle School and Early Childhood Education Center.

The road and pedestrian facilities projects included in the Yap IDP are listed in Table Y 7 and support the sector goal to provide road and pedestrian facilities infrastructure that:

1. enables transportation facilities to be adequate in terms of condition, capacity, reliability and safety to enable market opportunities to be realized for all areas of the country, including labor market opportunities, and to enhance the level of integration of state economies and the national economy
2. meets the demand for road and pedestrian infrastructure in an effective and efficient manner, including concrete/asphalt paving of all primary road systems
3. incorporates pedestrian walkways in the design and construction of roads
4. extends cross-island and inner roads to facilitate agricultural and other development
5. is resilient to the impacts of climate change

A key component of the priority program is the establishment of an asphalt plant with asphalt laying equipment to support the road improvement program and later maintenance activities to improve the sustainability of road infrastructure.

Further information on each project can be found in the Project Outlines in Part 4.

Table Y 7 – Road and Pedestrian Facilities Priority Projects

ID	Project Title	Required Funding (\$)	Target Period	Strategic Rating
RD/1	Replacement Bridges - Tagreng, Ganir, Donoch, Tagaaniyal	6,600,000	1	8.9
RD/2	Gagil-Tomil Road Improvements	5,500,000	1	8.7
RD/3	Maap Road Improvements	1,200,000	2	8.7
RD/4	Colonia Road Improvements	2,760,000	1/2	8.7
RD/5	Yap Loop Road Resurfacing	500,000	3	8.7
RD/6	Establish Asphalt Plant & Core Equipment	1,500,000	1	8.4
Total Funding Required		18,060,000		

3.2.5 Maritime Transportation

Yap's maritime transportation infrastructure is managed by the Department of Transportation and Public Works. The State port in Colonia is utilized by both international shipping and local boats typically transferring passengers and goods to and from the outer islands.

The projects in the Yap IDP focus on the main port that will see improvements in the access channel, berthing, cargo handling and storage and safety and security. A multi-role vessel will also be provided to support government services and programs, including the shipment of equipment and materials for infrastructure projects on the outer islands, and provide a key disaster response and recovery resource.

The maritime transportation projects in the Yap IDP are listed in Table Y 8 and support elements of the sector goal to provide maritime transportation infrastructure that:

1. enables market opportunities to be realized for all areas of the country, including labor market opportunities, and to enhance the level of integration of state economies and the national economy
2. provides improved dock facilities to meet both fisheries and commercial shipping needs
3. facilitates modern, safe and efficient inter-state and inter-island passenger and cargo vessels
4. coordinates and facilitates the improvement of aids to navigation

Further information on each project can be found in the Project Outlines in Part 4.

Table Y 8 – Maritime Transportation Priority Projects

ID	Project Title	Required Funding (\$)	Target Period	Strategic Rating
MT/1	Colonia Commercial Port Improvements	15,000,000	2/3	8.4
MT/2	Colonia Port Channel & Anchorage Improvements	26,000,000	1/2	8.7
MT/3	Colonia Port Berthing Facilities Improvements	400,000	1	8.7
MT/4	Yap State Multi-Role Vessel	500,000	1	9.1
Total Funding Required		41,900,000		

3.2.6 Air Transportation

Yap International Airport is managed by the Department of Transportation and Public Works and there is an Airport Master Plan³⁶. The airport improvement included in the Yap IDP will improve operational safety and security and address passenger accommodation and handling issues with the provision of a new terminal building.

Projects to improve safety and operations at the outer island airstrips on Fais and Ulithi are part of the overall program jointly prepared by DTCL the Department of Transportation and Public Works Work to bring the Woleai airstrip back into operation have already been funded by the FSM Congress.

The air transportation projects in the Yap IDP are listed Table Y 9 and support the sector goal to provide air transportation infrastructure that:

1. provides adequate air transportation facilities and services in terms of condition, frequency, capacity, reliability and safety to enable market opportunities to be realized for all areas of the country
2. enables air carrier airports to improve safety and eliminate payload restrictions

³⁶ (Leo A Daly, 2012c; Leo A Daly, 2012y) - Yap International Airport Final Master Plan

3. improves all domestic airports to the required standards of safety

Further information on each project can be found in the Project Outlines in Part 4.

Table Y 9 – Air Transportation Priority Projects

ID	Project Title	Required Funding (\$)	Target Period	Strategic Rating
AT/1	Yap International Airport Runway Extension	17,500,000	2	8.7
AT/2	Yap International Airport New Terminal	11,000,000	1	9.1
AT/3	Yap International Airport Perimeter Road	3,000,000	1	5.1
AT/4	Fais Airstrip Improvements	1,235,000	2	7.8
AT/5	Ulithi Airstrip Improvements	35,000	2	7.8
Total Funding Required		32,770,000		

3.2.7 Education

The Department of Education is responsible for Yap's public education infrastructure, excluding the College of Micronesia. The priority projects in the Yap IDP have been selected based on the Yap State School Facility Repair and Construction Master Plan³⁷, and include implementation of consolidation recommendations in the Master Plan. The projects focus on the Elementary, Middle and High Schools on the main Yap islands and Early Childhood Education Centers on the outer islands. Other projects involve Department facilities and sanitary facilities required for ongoing accreditation.

The education projects in the Yap IDP are listed in Table Y 10 and support elements of the sector goal to provide education infrastructure that:

1. ensures that the learning experience is enhanced and diversified
2. improves student and faculty interest and morale, and thereby improves the effectiveness of education and significantly increases the student retention rates through graduation from elementary or secondary schools
3. removes constraints on the availability of high school education for all graduates of elementary school, and to provide an array of post-secondary education opportunities for all high school graduates who seek further education
4. continues to assist and strengthen private educational institutions to the nation
5. is supported by facilities improvement programs that address the need for maintenance, renovation and construction of new facilities to support quality student instruction
6. is supported by equipment maintenance guidelines
7. is resilient to potential natural disasters and the impacts of climate change

Further information on each project can be found in the Project Outlines in Part 4.

³⁷ (Aloterre Consulting, 2012y) - Yap State School Facility Repair and Construction Master Plan

Table Y 10 – Education Priority Projects

ID	Project Title	Required Funding (\$)	Target Period	Strategic Rating
ED/1	Woleai High School - New buildings and Renovations	1,800,000	1	7.8
ED/2	Yap High School - Phase 2 Improvements	4,320,000	2	7.8
ED/3	Colonia Middle School Improvements - Phase 1	2,400,000	1	7.8
ED/4	Colonia Middle School Improvements - Phase 2	1,300,000	3	7.8
ED/5	Yap School Improvements	1,950,000	3	7.8
ED/6	Outer Island Early Childhood Education Improvements	2,174,000	1	7.8
ED/7	DOE Curriculum Building	1,430,000	1	6.9
ED/8	Outer Island School Toilet Facilities	180,000	1	7.8
ED/9	Euripik Community School Reconstruction	100,000	1	7.8
Total Funding Required		15,654,000		

3.2.8 Health

Facilities at the Department of Health's principal resource, the Yap State Hospital, will continue to be improved and the full 52 bed capacity reinstated.

The health projects in the Yap IDP are listed in Table Y 11 and support elements of the sector goal to provide health infrastructure that:

1. provides modern and efficient hospital facilities to meet the health needs of the nation
2. facilitates an upgraded the curative health system to minimize the needs for referrals to foreign medical facilities
3. provides health care facilities within reasonable access of all citizens
4. has facilities improvement programs that address the need for maintenance, renovation and construction of new facilities
5. has adequate funds for maintenance to prevent rapid deterioration of facilities
6. is resilient to potential natural disasters and the impacts of climate change

Further information on each project can be found in the Project Outlines in Part 4.

Table Y 11 – Health Priority Projects

ID	Project Title	Required Funding (\$)	Target Period	Strategic Rating
HE/1	Yap State Hospital - Rehabilitation & Nurses Facilities	800,000	1	8.0
HE/2	Yap State Hospital - General Improvements	855,000	1/2	8.0
Total Funding Required		1,655,000		

3.2.9 Government Administrative Buildings

The Department of Transportation and Public Works will undertake a program to improve Yap's government administrative buildings in Colonia.

The Yap IDP includes a new Government Administrative Complex to consolidate. Other projects are targeted specifically at supporting private sector, agricultural, cultural and community causes.

The government administrative buildings projects in the Yap IDP are listed in Table Y 12 and support elements of the sector goal to provide government administrative building infrastructure that:

1. provides modern and efficient facilities required for government personnel to effectively undertake their functions
2. provides an environment that enables equipment used by government personnel to be adequately maintained
3. encourages a high morale and work ethic amongst government employees by providing a suitable work environment
4. provides elected officials with suitable office space and chambers in which to conduct their responsibilities

Further information on each project can be found in the Project Outlines in Part 4.

Table Y 12 – Government Administrative Buildings Priority Project

ID	Project Title	Required Funding (\$)	Target Period	Strategic Rating
GB/1	Yap Government Administration Complex	15,000,000	1	6.2
GB/2	Yap State Museum Extension	250,000	2/3	4.9
GB/3	Establish Central Market	100,000	2	8.0
GB/4	Colonia Small Business Center Renovation	500,000	1	7.3
GB/5	Colonia Community Center Renovation	500,000	1	6.0
GB/6	Yap Women's Association Multi-Purpose Building	500,000	1	8.7
Total Funding Required		16,850,000		

3.3 Whole of Life Costs

The costs associated with new infrastructure do not end with purchase or construction. It is one step in the life cycle of an asset that begins with the initial identification of needs through to the disposal of the asset at the end of its useful life. When all these costs are combined, the total may be more than double the cost of the initial purchase/construction price.

The provision of adequate funding for preventative maintenance as part of a whole of life approach to asset management is a key institutional issue for FSM, like other Pacific Island countries.

Estimates of the Yap IDP priority project maintenance costs by sector over a 20 year period are included in Table Y 13. Although some assets have a life other than 20 years, this period has been chosen to provide an indication of the maintenance funding required on an annual basis.

The annual percentage maintenance cost and the asset life factors can be found in Table 14 in Volume 1, Part 6, section 6.2 of the IDP.

Table Y 13 – Yap IDP 20 Year Maintenance Costs

Sector	20 Year Costs (\$)		B / A	Annual Maintenance Cost (\$)
	Construction (A)	Maintenance (B)		
Electric Power	6,757,000	3,975,000	59%	199,000
Water/Wastewater Systems	15,593,000	7,103,000	46%	355,000
Solid Waste Management	2,974,000	1,190,000	40%	60,000
Road and Pedestrian Facilities	17,000,000	16,250,000	96%	813,000
Maritime Transportation	39,290,000	25,274,000	64%	1,264,000
Air Transportation	30,036,000	50,944,000	170%	2,547,000
Education	14,422,000	7,341,000	51%	367,000
Health	1,542,000	1,233,000	80%	62,000
Government Administrative Buildings	15,377,000	9,226,000	60%	461,000
Total	142,991,000	122,536,000	86%	6,128,000

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4.1 Climate Change Adaptation

Project Y 1 – Upgrade Critical Infrastructure for Climate Change Resilience (CC/1)

Project Title:	Upgrade Critical Infrastructure for Climate Change Resilience					Sector:	Cross-sector		
Project Description/Scope:	Upgrade critical infrastructure including roads, water, utilities, telecom and government buildings, to withstand disasters and climate change								
						Design	Construction		
	Assess and upgrade critical infrastructure (roads, water, utilities, telecom) to withstand disasters and climate change					19,292	2,526,127		
	Consider options for relocation of infrastructure, utilities and improvement of access roads etc.								Unpriced. Assume included in general roads upgrading works budgets
	Ensure schools and other structures identified as shelters are certified and upgraded as needed (for typhoon)					39,076	503,150		
	Develop and implement an Operation and Maintenance Plan for Yap State public infrastructure								\$15,462 in JNAP for "Develop O&M Plan going forward": not included
	Retrofit existing public infrastructure and housing to be disaster and climate risk-proof					40,184	500,200		
	Total					98,552	3,529,477		
	Contingencies 10% as Table 10 of JSAP					9,855	352,948		
	Grand Total					108,000	3,882,000		
Agencies Responsible:	Office of Environment and Emergency Management in conjunction with Yap sector agencies								
Project Objectives/Outcomes:	Reduce the risk to communities from climate related impacts on infrastructure								
Project Justification:	In accordance with Joint State Action Plan for Disaster Risk Management and Climate Change, 2015, Objective 6.3								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve natural disaster and climate change resilience	Improve access to/delivery of education	Improve capacity of government infrastructure agencies	Improve environmental outcomes/conditions	Improve financial sustainability of infrastructure	Total Rating (out of 10)
									N/A
Project Status:	Concept								
Inclusions:	See project description								
Exclusions:	Relocation, and upgrading of access roads								
Risks & Dependencies:	To be assessed as part of scope definition Climate adaptation and DRM need to be mainstreamed into the IDP projects								
Estimated Planning & Design Costs \$:	108,000				Estimated Construction Costs \$:		3,882,000		

4.2 Electric Power Projects

Project Y 2– Renewable Energy Extension - Phase 2 (EP/1)

Project Title:		Renewable Energy Extension - Phase 2				Sector:	Electric Power		
Project Description/Scope:		Increase the contribution of renewable energy to Yap’s electric power needs by developing two additional wind turbines (2 x 275kW - 550kW total)							
Agencies Responsible:		Yap State Public Service Corporation							
Project Objectives/ Outcomes:		Reduce Yap’s reliance on imported fuel for electric power generation							
Project Justification:		Yap Energy Master Plan target of 75 percent electric power from renewable sources by 2020 (currently 17 percent)							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	4	4	4	4	5	2	4	5	8.2
Project Status:		Concept							
Inclusions:		Wind turbine installation and connection to the Yap grid							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition Suitable sites for locating wind turbine installations							
Estimated Planning & Design Costs \$:		100,000			Estimated Construction Costs \$:		1,880,000		

Project Y 3– Renewable Energy Extension - Phase 3 (EP/2)

Project Title:		Renewable Energy Extension - Phase 3					Sector:	Electric Power		
Project Description/Scope:		Increase the contribution of renewable energy to Yap’s electric power needs by developing solar photo-voltaic electric power generation and associated storage (500kW total)								
Agencies Responsible:		Yap State Public Service Corporation								
Project Objectives/ Outcomes:		Reduce Yap’s reliance on imported fuel for electric power generation								
Project Justification:		Yap Energy Master Plan target of 75 percent electric power from renewable sources by 2020 (currently 17 percent)								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	4	4	4	4	5	2	4	5	8.2	
Project Status:		Concept								
Inclusions:		Solar PV generation with energy storage and connection to the Yap grid								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition Suitable sites for locating Solar PV installations								
Estimated Planning & Design Costs \$:		100,000			Estimated Construction Costs \$:		3,680,000			

Project Y 4– Electric Power Network Improvements (EP/3)

Project Title:	Electric Power Network Improvements						Sector:	Electric Power	
Project Description/Scope:	Improve Yap’s electric power network reliability, security and efficiency by improving substation condition and efficiency								
Agencies Responsible:	Yap State Public Service Corporation								
Project Objectives/ Outcomes:	Improve the reliability, security and cost-effectiveness of electric power in Yap								
Project Justification:	Current electric power needs to be more reliable, secure and cost-effective								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	4	4	4	4	2	4	4	4	7.8
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		60,000 (consultant study)			Estimated Construction Costs \$:		100,000 (equipment upgrades)		

Project Y 5– Electric Power Distribution Improvements (EP/4)

Project Title:		Electric Power Distribution Improvements					Sector:	Electric Power		
Project Description/Scope:		Improve Yap’s electric power distribution reliability, security and efficiency by: <ul style="list-style-type: none">• Replacing current transformers that are over-sized and inefficient• Replacing poles and cross-arms that have deteriorated and threaten the reliability of the distribution network• Replacing all high pressure sodium (HPS) streetlights with efficient light emitting diode (LED) lights								
Agencies Responsible:		Yap State Public Service Corporation								
Project Objectives/ Outcomes:		Improve the reliability, security and cost-effectiveness of electric power in Yap								
Project Justification:		Current electric power needs to be more reliable, secure and cost-effective								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	4	4	4	4	4	4	4	4	8.2	
Project Status:		Concept								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		675,000			

Project Y 6– Outer Island Micro Grid Expansion (EP/5)

Project Title:		Outer Island Micro Grid Expansion					Sector:	Electric Power		
Project Description/Scope:		Make electric power available to communities on outer islands by establishing micro grids that utilize a combination of solar PV and fuel-powered generation								
Agencies Responsible:		Yap State Public Service Corporation								
Project Objectives/ Outcomes:		To provide electric power to outer island communities								
Project Justification:		Outer island communities do not have access to electric power								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
4	4	5	3	4	3	4	4	2	7.3	
Project Status:		Concept								
Inclusions:		Electric power generation facility and connection to community, business and private premises								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition Community does not take responsibility for micro grid operation and/or receives no technical support								
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		500,000			

4.3 Water/Wastewater System Projects

Project Y 7– Central Water - Refurbish Water Storage Tanks (WW/1)

Project Title:		Central Water - Refurbish Water Storage Tanks					Sector:	Water/Wastewater Systems		
Project Description/Scope:		Refurbish Central Water System water storage tanks (2 x 1 million gallon, 1 x 40,000 gallon) as recommended by recent engineering assessment								
Agencies Responsible:		Yap State Public Service Corporation								
Project Objectives/ Outcomes:		Provide safe and reliable water storage to meet the needs of the Central Water System								
Project Justification:		Current tanks have had a recent engineering assessment recommending that they be refurbished								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	5	5	5	3	5	5	5	5	9.6	
Project Status:		Scoped: Engineering assessment and estimate								
Inclusions:		To be developed in the design stage								
Exclusions:		To be developed in the design stage								
Risks & Dependencies:		To be developed in the design stage								
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		1,500,000			

Project Y 8– Central Water - Replace Water Treatment System (WW/2)

Project Title:		Central Water - Replace Water Treatment System					Sector:	Water/Wastewater Systems		
Project Description/Scope:		Replace the existing water treatment system with a new system of sufficient size and function to meet the needs of the Central Water System								
Agencies Responsible:		Yap State Public Service Corporation								
Project Objectives/ Outcomes:		Provide safe, reliable water supply within the Central Water System								
Project Justification:		Recent engineering assessment that the existing water treatment system needs to be replaced								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	5	5	5	3	5	5	5	5	9.6	
Project Status:		Scoped								
Inclusions:		To be developed in the design stage								
Exclusions:		To be developed in the design stage								
Risks & Dependencies:		To be developed in the design stage								
Estimated Planning & Design Costs \$:		90,000			Estimated Construction Costs \$:		1,710,000			

Project Y 9– Central Water - Water Main Rehabilitation Phase 1 (WW/3)

Project Title:		Central Water - Water Main Rehabilitation Phase 1					Sector:	Water/Wastewater Systems	
Project Description/Scope:		Rehabilitate approximately 25 percent of water mains in the Central Water System based on risk factors of age, type, excessive maintenance, water loss, ground water intrusion and network criticality							
Agencies Responsible:		Yap State Public Service Corporation							
Project Objectives/ Outcomes:		Effectively manage risks associated with the Central Water System water mains to maintain safe and reliable water supply							
Project Justification:		Risk factors associated with the current Central Waster System suggest that approximately 25 percent of the network should be proactively renewed in the short term							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	3	5	5	5	5	9.6
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		500,000		

Project Y 10– Central Water - Water Main Rehabilitation Phase 2 (WW/4)

Project Title:		Central Water - Water Main Rehabilitation Phase 2					Sector:	Water/Wastewater Systems		
Project Description/Scope:		Rehabilitate approximately a further 25 percent of water mains in the Central Water System based on risk factors of age, type, excessive maintenance, water loss, ground water intrusion and network criticality								
Agencies Responsible:		Yap State Public Service Corporation								
Project Objectives/ Outcomes:		Effectively manage risks associated with the Central Water System water mains to maintain safe and reliable water supply								
Project Justification:		Risk factors associated with the current Central Waster System suggest that approximately 25 percent of the network should be proactively renewed in the medium term								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	5	5	5	3	5	5	5	5	9.6	
Project Status:		Concept								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		500,000			

Project Y 11– Central Water - Water Well Renewal & Replacement (WW/5)

Project Title:		Central Water System - Water Well Renewal & Replacement				Sector:	Water/Wastewater Systems		
Project Description/Scope:		Replace existing well that is no longer producing water at the required rate							
Agencies Responsible:		Yap State Public Service Corporation							
Project Objectives/ Outcomes:		Produce sufficient water to meet the needs of the Central Water System							
Project Justification:		Existing well is no long producing water at the required rate, reducing the security and reliability of water supplied by the Central Water System							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	3	5	5	5	5	9.6
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		200,000		

Project Y 12– Southern Water – Treatment Plant/Distribution Improvements (WW/6)

Project Title:		Southern Water– Treatment Plant/Distribution Improvements					Sector:	Water/Wastewater Systems	
Project Description/Scope:		Improve the reliability and quality of water supply by: <ul style="list-style-type: none">Renovating the current water treatment plantReplacing gate valves and other distribution components that are currently limiting the reliability and availability water supplied to customers							
Agencies Responsible:		Southern Yap Water Authority							
Project Objectives/ Outcomes:		Provide reliable and safe water to customers of the Southern Water System							
Project Justification:		Ineffective water treatment and inappropriate valves and other components impact on the quality reliability and availability of water supply							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	3	5	5	5	5	9.6
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		450,000		

Project Y 13– Southern Water - Well Rehabilitation (WW/7)

Project Title:		Southern Water - Well Rehabilitation					Sector:	Water/Wastewater Systems		
Project Description/Scope:		Rehabilitate existing wells to ensure a minimum production of 15 gpm								
Agencies Responsible:		Southern Yap Water Authority								
Project Objectives/ Outcomes:		Produce sufficient water to meet the needs of the Southern Water System								
Project Justification:		8 out of 10 wells are not producing water at the design rate, impacting on the security and reliability of water supply in the Southern Water System								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	5	5	5	3	5	5	5	5	9.6	
Project Status:		Concept								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		870,000			

Project Y 14– Southern Water/ Water Storage (WW/8)

Project Title:		Southern Water/Water Storage					Sector:	Water/Wastewater Systems	
Project Description/Scope:		Increase the storage capacity of the Southern Water System by adding an additional 55,000 gallon storage tank							
Agencies Responsible:		Southern Yap Water Authority							
Project Objectives/ Outcomes:		Provide sufficient water storage capacity to meet the needs of the Southern Water System							
Project Justification:		The existing 100,000 gallons of storage in the Southern Water System is no longer adequate to ensure the security and reliability of water supply							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	3	5	5	5	5	9.6
Project Status:		Scoped							
Inclusions:		To be developed in the design/procurement stage							
Exclusions:		To be developed in the design/procurement stage							
Risks & Dependencies:		To be developed in the design/procurement stage							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		300,000		

Project Y 15– Southern Water - Office and Storage Improvements (WW/9)

Project Title:		Southern Water – Office and Storage Improvements					Sector:	Water/Wastewater Systems		
Project Description/Scope:		Provide improved office and storage facilities (approx. 400 ft²) for use by the Southern Yap Water Authority								
Agencies Responsible:		Southern Yap Water Authority								
Project Objectives/ Outcomes:		Provide adequate and resilient office and storage facilities to support the Southern Water System								
Project Justification:		Existing building does not meet the needs for the Authority’s administration and storage needs and is susceptible to natural disasters, impacting on the security of water supply								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	3	3	4	2	3	4	5	5	7.6	
Project Status:		Concept								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		250,000			

Project Y 16– Central Wastewater - Sewer Main Rehabilitation Phase 1 (WW/10)

Project Title:		Central Wastewater - Sewer Main Rehabilitation Phase 1					Sector:	Water/Wastewater Systems		
Project Description/Scope:		Rehabilitate approximately 4,500’ of sewer mains in the Colonia Sewerage System based on risk factors of age, type, excessive maintenance, water intrusion and network criticality as indicated in the Sewer Master Plan								
Agencies Responsible:		Yap State Public Service Corporation								
Project Objectives/ Outcomes:		Effectively manage risks associated with the Colonia Sewerage System sewer mains to maintain safe and reliable transfer of sewerage								
Project Justification:		Sewer Master Plans proposes that a portion of the current Colonia Sewerage System sewer mains are renewed on an ongoing basis, totally around 4,500’ in the short term (1 – 5 years)								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	5	5	5	3	5	5	5	5	9.6	
Project Status:		Concept: Proposed in Sewer Master Plan								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:					Estimated Construction Costs \$:		450,000			

Project Y 17– Central Wastewater - Sewer Main Rehabilitation Phase 2 (WW/11)

Project Title:		Central Wastewater - Sewer Main Rehabilitation Phase 2					Sector:	Water/Wastewater Systems		
Project Description/Scope:		Rehabilitate approximately 4,500’ of sewer mains in the Colonia Sewerage System based on risk factors of age, type, excessive maintenance, water intrusion and network criticality as indicated in the Sewer Master Plan								
Agencies Responsible:		Yap State Public Service Corporation								
Project Objectives/ Outcomes:		Effectively manage risks associated with the Colonia Sewerage System sewer mains to maintain safe and reliable transfer of sewerage								
Project Justification:		Sewer Master Plans proposes that a portion of the current Colonia Sewerage System sewer mains are renewed on an ongoing basis, totally around 4,500’ in the medium term (6-10 years)								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	5	5	5	3	5	5	5	5	9.6	
Project Status:		Concept: Proposed in Sewer Master Plan								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		450,000			

Project Y 18– Central Wastewater - Renew Treatment Plant Outfall (WW/12)

Project Title:	Central Wastewater - Renew Treatment Plant Outfall					Sector:	Water/Wastewater Systems		
Project Description/Scope:	Replace the 3,000’ sewerage treatment outfall pipe and diffuser system (investigation during the preparation of the Sewer Master Plan failed to find the current diffuser array)								
Agencies Responsible:	Yap State Public Service Corporation								
Project Objectives/ Outcomes:	Provide an effective and reliable outfall and diffuser system for the sewerage treatment plant								
Project Justification:	Investigation during the preparation of the Sewer Master Plan failed to find the current diffuser array, raising concerns for the effective and reliable release of sewerage treatment plant effluent at the designated outfall location								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	3	5	5	5	5	9.6
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		150,000			Estimated Construction Costs \$:		2,850,000		

Project Y 19– Yap Septic Tank Program (WW/13)

Project Title:	Yap Septic Tank Program						Sector:	Water/Wastewater Systems	
Project Description/Scope:	Implement a community/residential/commercial based septic tank program as a cost effective approach to improving the management of effluent in unsewered areas of Yap by: <ul style="list-style-type: none">• Establishing standards and regulations for community/residential/commercial septic tanks• Installing up to 1,500 septic tanks and ensuring that they have suitable access for sewerage disposal vehicles• Providing additional vehicles (2) for a reliable, responsive sewerage disposal service• Disposing all collected sewerage at the existing sewerage treatment plant								
Agencies Responsible:	Yap State Public Service Corporation								
Project Objectives/ Outcomes:	Improve the health and environment of communities, particularly in shoreline and other sensitive areas								
Project Justification:	Only some parts of Colonia are covered by the Colonia Sewerage System and outside of that area there is no standardized or managed approach to the disposal of commercial, community and residential effluent The provision of community/residential/commercial septic tanks and a reliable collection service will achieve many of the benefits of a sewerage system at a fraction of the capital and recurrent cost								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	3	5	5	5	5	9.6
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition Program is not adequately regulated/managed and/or not accepted by the community							
Estimated Planning & Design Costs \$:		160,000			Estimated Construction Costs \$:		6,340,000		

4.4 Solid Waste Management Projects

Project Y 20– Solid Waste Management Improvements – Short Term (SW/1)

Project Title:	Solid Waste Management Improvements – Short Term					Sector:	Solid Waste Management		
Project Description/Scope:	Improve the operation of the current solid waste management center by: <ul style="list-style-type: none">• Providing solid waste management and collection equipment, including a bulldozer and dump trucks• Improving the capacity/operation of the leachate ponds• Providing covered storage areas for recyclables and other separated waste								
Agencies Responsible:	Department of Public Works & Transportation								
Project Objectives/ Outcomes:	Improve the collection, storage and disposal of solid waste Maximize the amount of Yap’s solid waste disposed of at the central site and the separation of recyclables								
Project Justification:	Equipment is needed to improve the operation of the central site and collection system needs to be extended to maximize the utilization of the central site Important facility improvements were excluded from the most recent upgrading works								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
4	5	5	5	3	5	4	5	4	8.9
Project Status:	Concept								
Inclusions:	To be assessed as part of scope definition								
Exclusions:	To be assessed as part of scope definition								
Risks & Dependencies:	To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:	included in construction costs				Estimated Construction Costs \$:	700,000			

Project Y 21– Solid Waste Management Improvements – Long Term (SW/2)

Project Title:		Solid Waste Management Improvements – Long Term					Sector:	Solid Waste Management	
Project Description/Scope:		Develop a new solid waste management center to replace the current site within 5–10 years							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/ Outcomes:		Establish a long term solid waste management center to replace the current center, compliant with relevant standards and regulations and minimizing the solid waste going to landfill							
Project Justification:		The current solid waste management center has a life of between 5–10 years and a long term replacement center is needed							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
4	5	5	5	3	5	4	5	4	8.9
Project Status:		Concept – preferred site on private land has been identified							
Inclusions:		Solid waste management center that is compliant with all environmental regulations & standards and minimizes the amount of solid waste going to landfill							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition Replacement site is not able to be set aside for the long term solid waste management center							
Estimated Planning & Design Costs \$:		300,000			Estimated Construction Costs \$:		2,700,000		

4.5 Road and Pedestrian Facilities Projects

Project Y 22– Replacement Bridges - Tagreng, Ganir, Donoch, Tagaaniyal (RD/1)

Project Title:	Replacement Bridges - Tagreng, Ganir, Donoch, Tagaaniyal					Sector:	Road and Pedestrian Facilities		
Project Description/Scope:	Reconstruct the Tagaaniyal, Ganir and Donoch bridges in Colonia and the Tagreng Bridge linking Colonia with Gagil, Tomil and Maap								
Agencies Responsible:	Department of Public Works & Transportation								
Project Objectives/ Outcomes:	Reconstruct bridges to ensure access to Colonia and key services and facilities particularly for Gagil, Tomil & Maap Improve environmental conditions in Chamorro Bay								
Project Justification:	Assessment of bridges confirms they are in very poor condition and should preferably be closed for safety of the public Tagaaniyal Bridge only operating one-lane and is only access to Colonia and State hospital and high school								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	5	4	2	4	5	8.9
Project Status:	Concept: Initial Engineering Investigation & Planning								
Inclusions:	Bridge reconstruction and approach realignment as appropriate Utility services Improvement of environmental conditions in Chamorro Bay Provision of adequate access for vessels								
Exclusions:	To be assessed as part of scope definition								
Risks & Dependencies:	To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:	600,000				Estimated Construction Costs \$:	6,000,000			

Project Y 23– Gagil – Tomil Road Improvements (RD/2)

Project Title:		Gagil – Tomil Road Improvements					Sector:	Road and Pedestrian Facilities	
Project Description/Scope:		On the roads between Tagaaniyal Bridge and Gagil and Tomil Schools: <ul style="list-style-type: none">Rehabilitate the existing sealed sections of road (approximately 1.5 miles in total)Reconstruct the existing unsealed sections (approximately 4 miles in total)							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/ Outcomes:		Provide an improved sealed road standard road between the Gagil and Tomil areas and the existing road at Tagaaniyal Bridge							
Project Justification:		Sealed section of road is in poor condition and approximately 4 miles is unsealed							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	5	3	2	5	4	8.7
Project Status:		Concept							
Inclusions:		Improve road and associated drainage and facilities to sealed road standard							
Exclusions:		Utility services							
Risks & Dependencies:		To be assessed as part of scope definition Rehabilitation of Tagaaniyal Bridge							
Estimated Planning & Design Costs \$:		500,000			Estimated Construction Costs \$:		5,000,000		

Project Y 24– Maap Road Improvements (RD/3)

Project Title:		Maap Road Improvements					Sector:		Road & Pedestrian Facilities	
Project Description/Scope:		Improve approximately 6 miles of road from the junction leading to Maap and the roads around Maap								
Agencies Responsible:		Department of Public Works & Transportation								
Project Objectives/ Outcomes:		Provide road to and around Maap to current sealed road standard								
Project Justification:		Current roads require resurfacing and improvements to achieve current standard								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	5	5	5	5	3	2	5	4	8.7	
Project Status:		Concept								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		Utility services								
Risks & Dependencies:		To be assessed as part of scope definition Gagil – Tomil Road Improvements to Maap Road junction & Tagaaniyal Bridge replacement								
Estimated Planning & Design Costs \$:						Estimated Construction Costs \$:	1,200,000			

Project Y 25– Colonia Road Improvements (RD/4)

Project Title:		Colonia Road Improvements					Sector:	Road & Pedestrian Facilities		
Project Description/Scope:		Improve the roads around Colonia and to the Yap International Airport by: <ul style="list-style-type: none">Strengthening and resurfacing approximately 5 miles of existing sealed roadsReconstructing approximately 2 miles existing unsealed roads to sealed road standard, including:Roads in the government housing areaAccess roads to COM/YHS, CMS/Central ECE and Gaanelay Community SchoolProviding improved facilities for the safe and accessible use of pedestrians and cyclists								
Agencies Responsible:		Department of Public Works & Transportation								
Project Objectives/Outcomes:		Provide roads in Colonia to sealed road standard with improved strength and surfacing and with safe and accessible pedestrian and cyclist facilities								
Project Justification:		Colonia roads in need of strengthening and resurfacing and construction to sealed standard, and provision of safe and accessible pedestrian and cyclist facilities								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	5	5	5	5	3	2	5	4	8.7	
Project Status:		Concept								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:		160,000			Estimated Construction Costs \$:		2,600,000			

Project Y 26– Yap Loop Road Rehabilitation (RD/5)

Project Title:		Yap Loop Road Rehabilitation					Sector:	Road & Pedestrian Facilities	
Project Description/Scope:		Patch and resurface the West Yap Loop Road (approximately 9 miles)							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/ Outcomes:		Provide improve road conditions on the West Yap Loop Road							
Project Justification:		Road conditions are poor							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	5	3	2	5	4	8.7
Project Status:		Scoped							
Inclusions:		To be developed in the design stage							
Exclusions:		To be developed in the design stage							
Risks & Dependencies:		To be developed in the design stage							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		500,000		

Project Y 27 – Establish Asphalt Plant and Core Equipment (RD/6)

Project Title:	Establish Asphalt Plant and Core Equipment					Sector:	Road and Pedestrian Facilities		
Project Description/Scope:	Establish an asphalt plant appropriate to Yap’s road development and maintenance needs								
Agencies Responsible:	Department of Public Works & Transportation								
Project Objectives/ Outcomes:	Establish a core capability to produce and lay asphalt for road development projects, avoiding the need for contractors to import asphalt plant and equipment or each project, and undertaking road maintenance as and when required								
Project Justification:	Yap’s sealed roads have chip and asphalt surfacing in need of asphalt patching and resurfacing and road development projects require contractors to import asphalt plant and equipment on a project-by-project basis								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	5	2	2	5	4	8.4
Project Status:		Concept							
Inclusions:		Establishment of asphalt plant and asphalt laying equipment, including a stock of spares and consumables, training of local staff and design of standard asphalt mixes appropriate to Yap’s needs and locally available and imported materials							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition Sustainability of local capacity to operate asphalt plant and equipment							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		1,500,000		

4.6 Maritime Transportation Projects

Project Y 28– Colonia Commercial Port Improvements (MT/1)

Project Title:	Colonia Commercial Port Improvements					Sector:	Maritime Transportation		
Project Description/Scope:	Improve Colonia’s commercial port by: <ul style="list-style-type: none">• Extending the dock space available for visiting vessels from the current commercial dock around to the fisheries dock for a total of 2,500’• Extending and improving the area available for container storage, including demolition of the refrigerated warehouse• Providing facilities for passengers travelling to and from outer islands• Ensuring that the Port Area meets the security IMO security standards								
Agencies Responsible:	Department of Public Works & Transportation								
Project Objectives/ Outcomes:	Provide a port that is adequate for Yap’s needs and is efficient and secure in the processing and transshipment of cargo and passengers								
Project Justification:	Current port is inefficient and has insufficient space/facilities for handling cargo and passengers								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	3	3	3	4	5	5	8.4
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		1,500,000			Estimated Construction Costs \$:		13,500,000		

Project Y 29 – Colonia Port Channel & Anchorage Improvements (MT/2)

Project Title:		Colonia Port Channel & Anchorage Improvements					Sector:	Maritime Transportation		
Project Description/Scope:		Improve the safety and accessibility of Colonia Port for visiting vessels, including: <ul style="list-style-type: none">• Widening the mouth of the channel entrance• Maintaining a minimum depth along the length of the channel• Providing an adequate turning basin• Providing appropriate navigational aids and charts• Clearing the channel and port area of obstructions, derelict vessels, etc.• Stockpile dredged sand/coral material that is suitable for construction materials								
Agencies Responsible:		Department of Public Works & Transportation								
Project Objectives/Outcomes:		Provide a port channel and anchorage that provide appropriate levels of safety and accessibility								
Project Justification:		Port channel and anchorage have limitations that affect safety and accessibility								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	5	5	3	3	4	4	5	5	8.7	
Project Status:		Concept								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition Sustainability of dredging and widening from ongoing sediment buildup								
Estimated Planning & Design Costs \$:		1,300,000			Estimated Construction Costs \$:		24,700,000			

Project Y 30– Colonia Port Berthing Facilities Improvements (MT/3)

Project Title:		Colonia Port Berthing Facilities Improvements					Sector:	Maritime Transportation	
Project Description/Scope:		Replace the dockside buffers							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/ Outcomes:		Protect vessels at Colonia Port from damage when berthing or docked							
Project Justification:		Current dockside buffers are in need of replacement							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	3	3	4	4	5	5	8.7
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		400,000		

Project Y 31– Yap State Multi-Role Vessel (MT/4)

Project Title:		Yap State Multi-Role Vessel					Sector:	Maritime Transportation	
Project Description/Scope:		Provide a suitable vessel that is able to undertake a number of roles including: <ul style="list-style-type: none">• Transporting commercial passengers and goods to, from and between the outer islands• Transporting equipment and machinery to the outer islands in support of government and community development and maintenance projects and disaster recovery• Providing “first response” in the event of a natural disaster or other event impacting on community health or safety• Providing reliable and accessible transport for government agencies to deliver improved services to the outer islands							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/Outcomes:		Reduce the issues associated with communities living on small and widely spread islands and lacking in safe, reliable external transportation							
Project Justification:		Needs of communities and government are not being met by currently available maritime transportation options							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	5	3	5	5	3	9.1
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition State cannot meet the operational costs of the vessel							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		500,000		

4.7 Air Transportation Projects

Project Y 32– Yap International Airport Runway Extension (AT/2)

Project Title:		Yap International Airport Runway Extension					Sector:	Air Transportation	
Project Description/Scope:		Extend the runway 500’ to the west to provide a total length of 6,500’ runway consistent with the Airport Master Plan Increase safety areas to 1,000’ long by 500’ wide to provide FAA/ICAO mandated safety areas again consistent with the Airport Master Plan, given that the airport is not “terrain restricted”							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/ Outcomes:		Increase safety margins and payload flexibility for 737-800 and smaller aircraft Conform with FAA/ICAO runway safety area requirements							
Project Justification:		Safety margins and payload flexibility for the “FSM standard” 737-800 aircraft are limited by current 6,000’ runway length Runway safety areas do not conform to FAA/ICAO requirements							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	5	3	2	5	4	8.7
Project Status:		Scoped: Project layout and estimate included in Airport Master Plan							
Inclusions:		To be developed in the design stage							
Exclusions:		To be developed in the design stage							
Risks & Dependencies:		To be developed in the design stage							
Estimated Planning & Design Costs \$:		1,750,000			Estimated Construction Costs \$:		15,750,000		

Project Y 33– Yap International Airport New Terminal (AT/2)

Project Title:	Yap International Airport New Terminal						Sector:	Air Transportation		
Project Description/Scope:	Construct a new airport terminal with improved passenger, baggage/cargo and airline services and security and quarantine									
Agencies Responsible:	Department of Public Works & Transportation									
Project Objectives/ Outcomes:	Provide a terminal that is efficient in processing passengers and baggage/cargo and provides an improved level of passenger and airline services and security and quarantine									
Project Justification:	Limited options to resolve operational passenger and baggage/cargo processing and security/quarantine problems within the current terminal									
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
5	5	5	5	5	3	4	5	4	9.1	
Project Status:		Concept								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:		1,000,000			Estimated Construction Costs \$:		10,000,000			

Project Y 34– Yap International Airport Perimeter Road (AT/3)

Project Title:		Yap International Airport Perimeter Road					Sector:	Air Transportation	
Project Description/Scope:		Provide road access around the Airport perimeter for improved patrolling, response, inspection and maintenance							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/ Outcomes:		Improve Airport perimeter security							
Project Justification:		Poor accessibility to the Airport perimeter security fencing for patrolling, inspection and maintenance							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
2	3	2	2	2	2	2	4	4	5.1
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition Provision for extension of runway and runway safety areas							
Estimated Planning & Design Costs \$:		150,000			Estimated Construction Costs \$:		2,850,000		

Project Y 35– Fais Airstrip Improvements (AT/4)

Project Title:		Fais Airstrip Improvements					Sector:	Air Transportation	
Project Description/Scope:		Improve condition of airstrip by rehabilitating cracked areas and resurfacing							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/ Outcomes:		Improve the condition of the airstrip to reduce safety risks for visiting aircraft							
Project Justification:		Current condition of airstrip reduces operational safety – chip seal is in poor condition with severe cracks and loose debris							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	3	2	3	3	4	7.8
Project Status:		Scoped							
Inclusions:		To be developed in the design stage							
Exclusions:		To be developed in the design stage							
Risks & Dependencies:		To be developed in the design stage							
Estimated Planning & Design Costs \$:		60,000			Estimated Construction Costs \$:		1,175,000		

Project Y 36– Ulithi Airstrip Improvements (AT/5)

Project Title:		Ulithi Airstrip Improvements					Sector:	Air Transportation	
Project Description/Scope:		Undertake minor improvements to airstrip surfacing							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/ Outcomes:		Remove all defects from airstrip surface							
Project Justification:		Minor defects compromise operational safety							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	3	2	3	3	4	7.8
Project Status:		Scoped							
Inclusions:		To be developed in the design stage							
Exclusions:		To be developed in the design stage							
Risks & Dependencies:		To be developed in the design stage							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		35,000		

4.8 Education Projects

Project Y 37– Woleai High School – New Buildings and Renovation (ED/1)

Project Title:	Woleai High School– New Buildings and Renovation						Sector:	Education		
Project Description/Scope:	Demolish and replace Building 1 (2,600 ft ² , four classrooms) Renovate: <ul style="list-style-type: none">• Building 2 (4,440 ft², two story building with library and computer lab)• Building 3 (2,525 ft², four classrooms)• Building 4 (1,275 ft², two classrooms)• Building 5 (2,700 ft², two story Vocational Education Building)• Construct new toilet facility, with a septic tank and leaching field• Provide a potable water catchment system, solar electrical system and a perimeter fence									
Agencies Responsible:	Department of Education									
Project Objectives/ Outcomes:	Improve facilities and services to a standard appropriate to the effective schooling of students									
Project Justification:	All existing buildings are in need of renovation or replacement and school facilities and services need to be improved									
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
4	4	5	3	5	2	4	4	4	7.8	
Project Status:	Scoped: Detailed assessment in Yap State School Facility Repair and Construction Master Plan									
Inclusions:	To be developed in the design stage									
Exclusions:	To be developed in the design stage									
Risks & Dependencies:	To be developed in the design stage Parallel scheduling with Woleai Airstrip Rehabilitation Project (currently funded and not included in the IDP) to share cost of shipping materials and equipment to Woleai									
Estimated Planning & Design Costs \$:	180,000				Estimated Construction Costs \$:	1,620,000				

Project Y 38– Yap High School – Phase 2 Improvements (ED/2)

Project Title:	Yap High School – Phase 2 Improvements						Sector:	Education	
Project Description/Scope:	Undertake Phase 2 of the Yap High School Master Plan, including: <ul style="list-style-type: none">• Demolition of the Home Economics and Science Buildings• Construction of three additional buildings - replacement Home Economics Building with 2 classrooms upstairs and two classroom buildings• Renovation of Building 1, and Buildings 7 through 17								
Agencies Responsible:	Department of Education								
Project Objectives/ Outcomes:	Provide improved teaching and learning facilities and environment that facilitates improved education outcomes								
Project Justification:	As detailed in Yap High School Master Plan								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
4	4	5	3	5	2	4	4	4	7.8
Project Status:		Scoped: Master Plan							
Inclusions:		To be developed in the design stage							
Exclusions:		To be developed in the design stage							
Risks & Dependencies:		To be developed in the design stage							
Estimated Planning & Design Costs \$:		360,000			Estimated Construction Costs \$:		3,600,000 (construction) 360,000 (furniture/fittings, etc.)		

Project Y 39– Colonia Middle School Improvements – Phase 1 (ED/3)

Project Title:		Colonia Middle School Improvements					Sector:	Education	
Project Description/Scope:		Improve the Colonia Middle School facilities by: <ul style="list-style-type: none">Constructing 2 eight-classroom buildings with built-in toilet facilities, offices and storage roomsDemolishing Buildings 1 and 2 that are no longer adequate or safe							
Agencies Responsible:		Department of Education							
Project Objectives/ Outcomes:		Provide improved teaching and learning facilities and environment that facilitates improved education outcomes							
Project Justification:		Buildings 1 and 2 are no longer safe and require replacement							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
4	4	5	3	5	2	4	4	4	7.8
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition Renovation of Building 3 pending a decision on consolidation of Gaanelay Community School, in which case a new 8 classroom block should be constructed under the next schools project and Building 3 demolished							
Risks & Dependencies:									
Estimated Planning & Design Costs \$:		200,000			Estimated Construction Costs \$:		2,000,000 (construction) 200,000 (furniture/fittings, etc.)		

Project Y 40– Colonia Middle School Improvements – Phase 2 (ED/4)

Project Title:		Colonia Middle School Improvements – Phase 2					Sector:	Education	
Project Description/Scope:		Improve Colonia Middle School facilities by constructing an additional 8 classroom building to accommodate the consolidation of Gaanelay Community School and demolishing Building 3							
Agencies Responsible:		Department of Education							
Project Objectives/ Outcomes:		Provide improved teaching and learning facilities and environment that facilitates improved education outcomes							
Project Justification:		Colonia Middle School requires additional classrooms to accommodate the consolidation of Gaanelay Community School as set out in the Yap Schools Master Plan							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
4	4	5	3	5	2	4	4	4	7.8
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		100,000			Estimated Construction Costs \$:		1,000,000 (construction) 100,000 (demolition, landscaping, etc.) 100,000 (furniture/fittings, etc.)		

Project Y 41– Yap Schools Improvements (ED/5)

Project Title:	Yap Schools Improvements					Sector:	Education		
Project Description/Scope:	Improve Yap Schools facilities in accordance with the Yap Schools Master Plan by: <ul style="list-style-type: none">• Dalipebinaw Community School – upgrading the water and electrical systems and installing a perimeter fence – no further works are required to provide for the consolidation of Bael, Fanif and North Fanif Community Schools into the school• Gilman Community School – renovating all 3 buildings and installing a perimeter fence – no further works are required to provide for the consolidation of Kanifay Community School into the school• Maap Community School – renovating Buildings 1 and 2 and demolishing and replacing the nursery and toilet facility– no further works are required to provide for the consolidation of Rumung Community School into the school• Gagil Community School – renovating all 3 buildings and installing a perimeter fence• Tomilang Community School – renovating Buildings 1 and 2 and constructing a new toilet facility with a renovated septic tank and leaching field								
Agencies Responsible:	Department of Education								
Project Objectives/ Outcomes:	Provide improved teaching and learning facilities and environment that facilitates improved education outcomes								
Project Justification:	Improvements as set out in the Yap Schools Master Plan – no additional works required to accommodate students from schools identified for consolidation to these schools								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
4	4	5	3	5	2	4	4	4	7.8
Project Status:		Concept							
Inclusions:		Renovations in accordance with the Yap Schools Master Plan and accommodation for students from other schools – no additional facilities required							
Exclusions:		Furniture, fittings, etc.							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		100,000			Estimated Construction Costs \$:		1,850,000		

Project Y 42– Outer Island Early Childhood Education Center Improvements (ED/6)

Project Title:		Outer Island Early Childhood Education Center Improvements					Sector:	Education		
Project Description/Scope:		Improve the following Early Childhood Education Centers in the Outer Islands by demolishing the current center and constructing a new one with toilet facility, septic tank and leaching field, water catchment and storage system, solar electrical system and perimeter fence: <ul style="list-style-type: none">Fadrai ECE CenterMogmog ECE CenterEuripik ECE CenterPiig ECE CenterWottegai ECE CenterElato ECE Center								
Agencies Responsible:		Department of Education								
Project Objectives/ Outcomes:		Provide improved early childhood teaching and learning facilities and environment that facilitates improved education outcomes								
Project Justification:		The ECE Centers are generally inadequate and unsafe in their present condition (detailed in Yap Schools Master Plan								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
4	4	5	3	5	2	4	4	4	7.8	
Project Status:		Concept: Yap Schools Master Plan								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		Centers are not used due to lack of students or teachers								
Estimated Planning & Design Costs \$:		95,000			Estimated Construction Costs \$:		1,890,000 (construction) 189,000 (furniture, fittings, etc.)			

Project Y 43– DOE Curriculum Building (ED/7)

Project Title:		DOE Curriculum Building					Sector:	Education		
Project Description/Scope:		Replace the current DOE Curriculum Building with a new two-story concrete structure with a built-in toilet facility								
Agencies Responsible:		Department of Education								
Project Objectives/ Outcomes:		Provide a suitable building to facilitate efficient and effective DOE curriculum related functions								
Project Justification:		Building is over 50 years old, structurally inadequate for its current purpose and not safe for occupation								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
3	3	3	2	5	1	4	5	5	6.9	
Project Status:		Concept: Yap Schools Master Plan								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		Furniture, office equipment								
Risks & Dependencies:		To be assessed as part of scope definition DOE moves to new Government Administrative Complex before it gets value from the new building								
Estimated Planning & Design Costs \$:		140,000			Estimated Construction Costs \$:		1,290,000			

Project Y 44– Outer Island School Toilet Facilities (ED/8)

Project Title:		Outer Island School Toilet Facilities					Sector:	Education	
Project Description/Scope:		Provide toilet facilities at 9 Outer Island schools that are currently without such facilities (Satuwal, Lamotrek, Elato, Ifalik, Falalop Woleai, Tagailop, Seliap, and Wattegai community schools and Woleai High schools) comprising 10’ x 11’ building with separate rooms for boys and girls water tank, septic tank and leaching field							
Agencies Responsible:		Department of Education							
Project Objectives/ Outcomes:		Provide safe, sanitary toilet facilities for students and teachers							
Project Justification:		No suitable toilet facilities at these schools							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
3	3	5	5	5	5	3	3	3	7.8
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		180,000		

Project Y 45– Euripik Community School Reconstruction (ED/9)

Project Title:		Euripik Community School Reconstruction					Sector:	Education	
Project Description/Scope:		Rebuild the school building (24’-6” x 73’-6”) after it was destroyed during Typhoon Haiyan							
Agencies Responsible:		Department of Education							
Project Objectives/ Outcomes:		Restore previously destroyed teaching and learning facilities							
Project Justification:		School building destroyed by Typhoon Haiyan							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
4	4	5	3	5	2	4	4	4	7.8
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		100,000		

4.9 Health Projects

Project Y 46– Yap State Hospital - Rehabilitation & Nurses Facilities (HE/1)

Project Title:		Yap State Hospital - Rehabilitation & Nurses Facilities					Sector:	Health	
Project Description/Scope:		Develop a 2,000 square foot building adjacent to the current CHC Office to provide rehabilitation services and a nurses administration and training facility with storage space in a lower level							
Agencies Responsible:		Department of Health							
Project Objectives/ Outcomes:		Return the hospital to the design 52 bed capacity by relocating non-ward facilities Provide rehabilitation services to meet the needs of the Yap community							
Project Justification:		Nurses administration and training facilities occupy space intended for ward use Limited rehabilitation services are currently available							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
3	3	4	5	5	3	5	4	4	8.0
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		70,000			Estimated Construction Costs \$:		730,000		

Project Y 47– Yap State Hospital - General Improvements (HE/2)

Project Title:		Yap State Hospital - General Improvements					Sector:	Health	
Project Description/Scope:		Undertake a number of general improvements to the Yap State hospital, including: <ul style="list-style-type: none">Improving the training center adjacent to the pier (\$150,000)Providing extra storage space for supplies (\$60,000)Moving the incinerator to overcome overheating of plumbing and odors entering adjacent areas of the hospital (\$50,000)Improving Hospital security fencing (\$100,000)Improving the walk way to make the pier accessible by wheel chair patients (\$95,000)Adding a second floor to the dormitory to provide additional accommodation (\$350,000)							
Agencies Responsible:		Department of Health							
Project Objectives/ Outcomes:		Improve the operation, safety and security of the State Hospital to facilitate improved health services and outcomes							
Project Justification:		Each subproject addresses a current operational/safety/security issue							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
3	3	4	5	5	3	5	4	4	8.0
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		50,000			Estimated Construction Costs \$:		805,000		

4.10 Government Administrative Building Projects

Project Y 48– Yap Government Administration Complex (GB/1)

Project Title:	Yap Government Administration Complex						Sector:	Government Administrative Buildings	
Project Description/Scope:	Construct a new complex to house the Government’s legislative, executive, administrative and judicial branches on a new site								
Agencies Responsible:	Department of Public Works & Transportation								
Project Objectives/ Outcomes:	Consolidate and improve the facilities for Yap’s governmental functions								
Project Justification:	Government branches and functions are located in separate facilities that are generally in need of improvement in terms of condition and space, impacting on the efficiency and effectiveness of functions and services								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
3	3	3	2	2	1	4	5	5	6.2
Project Status:	Scoped: Design prepared for a privately owned site – would need to be revised to suit the preferred government-owned site								
Inclusions:	Building fit out with new furniture and fittings								
Exclusions:	To be developed in the design stage								
Risks & Dependencies:	To be developed in the design stage Adequacy of government-owned site								
Estimated Planning & Design Costs \$:	1,000,000				Estimated Construction Costs \$:	14,000,000			

Project Y 49– Yap State Museum Extension (GB/2)

Project Title:		Yap State Museum Extension					Sector:	Government Administrative Buildings	
Project Description/Scope:		Renovate the State Courts Building to extend the capacity of the Museum to document and display Yap history and culture and to establish permanent archives							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/ Outcomes:		Provide the community and visitors with increased knowledge of Yap history and culture							
Project Justification:		Museum does not have a building for archives and permanent displays of Yap history and culture							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
3	3	3	2	2	1	2	3	3	4.9
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition Relocation of the Judicial function to the proposed Government Administration Complex							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		250,000		

Project Y 50– Establish Central Market (GB/3)

Project Title:	Establish Central Market						Sector:	Government Administrative Buildings	
Project Description/Scope:	Refit the planned Micronesian Games Gymnasium building to provide a central market facility for the sale of produce and handicrafts								
Agencies Responsible:	Department of Public Works & Transportation								
Project Objectives/Outcomes:	<div>Provide a facility for:</div> <ul style="list-style-type: none">• Farmers and handicraft artisans to sell their produce/products• Residents to obtain fresh produce• Visitors to purchase local handicrafts and produce								
Project Justification:	Currently no formal market for the sale of fresh produce and limited facilities for sale of handicrafts to visitors								
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	4	5	2	4	2	4	8.0
Project Status:	Concept								
Inclusions:	To be assessed as part of scope definition								
Exclusions:	To be assessed as part of scope definition								
Risks & Dependencies:	To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:	included in construction costs				Estimated Construction Costs \$:	100,000			

Project Y 51– Colonia Small Business Center Renovation (GB/4)

Project Title:		Colonia Small Business Center Renovation					Sector:	Government Administrative Buildings	
Project Description/Scope:		Renovate the Colonia Small Business Center to provide an improved facility for current and intending small businesses to find information, advice and opportunities to network on planning and building their businesses							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/ Outcomes:		Provide a facility that facilitates the planning and development of small businesses							
Project Justification:		Current small business center not properly equipped to meet the needs of current and intending small businesses							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	3	5	2	2	2	4	7.3
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		included in construction costs			Estimated Construction Costs \$:		500,000		

Project Y 52– Colonia Community Center Renovation (GB/5)

Project Title:		Colonia Community Center Renovation					Sector:	Government Administrative Buildings		
Project Description/Scope:		Renovate the Colonia Community Center to provide a safe and supportive activity facility for the community in general and youths in particular								
Agencies Responsible:		Department of Public Works & Transportation								
Project Objectives/ Outcomes:		Provide a safe and support facility for the community and particularly youths to participate in activities and sports								
Project Justification:		Current community center not meeting the needs of the community and youths in particular								
Strategic Alignment										
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)	
3	4	4	4	4	2	2	2	2	6.0	
Project Status:		Concept								
Inclusions:		To be assessed as part of scope definition								
Exclusions:		To be assessed as part of scope definition								
Risks & Dependencies:		To be assessed as part of scope definition								
Estimated Planning & Design Costs \$:		50,000			Estimated Construction Costs \$:		450,000			

Project Y 53– Yap Women’s Association Multi-Purpose Building (GB/6)

Project Title:		Yap Women’s Association Multi-Purpose Building					Sector:	Government Administrative Buildings	
Project Description/Scope:		Establish a multi-purpose facility specific to the needs of Yap’s women, including health and social services and meeting and conference facilities							
Agencies Responsible:		Department of Public Works & Transportation							
Project Objectives/ Outcomes:		Provide facility that provides Yap’s women with a safe and supportive environment in which to engage and further their needs and interests							
Project Justification:		Previous efforts to establish a center for Yap’s women have been unsuccessful							
Strategic Alignment									
Support investment and economic growth	Improve private sector capacity and/or increase employment	Improve living conditions and/or income generation	Improve access to/delivery of public health services	Improve access to/delivery of education	Improve environmental outcomes/ conditions	Improve natural disaster and climate change resilience	Improve capacity of government infrastructure agencies	Improve financial sustainability of infrastructure	Strategic Rating (out of 10)
5	5	5	5	5	3	3	3	5	8.7
Project Status:		Concept							
Inclusions:		To be assessed as part of scope definition							
Exclusions:		To be assessed as part of scope definition							
Risks & Dependencies:		To be assessed as part of scope definition							
Estimated Planning & Design Costs \$:		50,000			Estimated Construction Costs \$:		450,000		