

Clear Horizon

Nauru Infrastructure Review Report

Prepared for the Australian High Commission, Nauru

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Design. Evaluate. Evolve.

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Contents

Executive Summary	1
1 Background	4
1.1 Context	4
1.2 Overview of DFAT Nauru's Infrastructure Investments	5
2 Objectives	7
2.1 Purpose	7
2.2 Methodology	7
2.3 Review Limitations	8
3 Review Findings	9
3.1 Overall Findings	9
3.2 Relevance	9
3.3 Effectiveness	10
3.4 Efficiency	12
3.5 Monitoring and Evaluation	14
3.6 Cross cutting issues	15
4 Lessons Learned and Considerations	17
4.1 Lessons Learned	17
5 Recommendations for a future Infrastructure strategy	18
Annex A – Key Review Questions	20
Annex B – Evidence Matrix	21
Annex C – List of People Interviewed	40
Annex D – Work plan and Timeframe	42
Annex D – Draft Interview Guide	43
Annex E – Strength of Evidence Rubric & Rating Scale	45
Annex F – KRQs and Performance Rubric	46

List of figures

Figure 1 – DFAT Nauru's Infrastructure Expenditure by Financial Year.....	5
Figure 2 – DFAT Nauru Infrastructure Expenditure by Sector (FY 2013-14 to 2018-19).....	6
Figure 3 – List of Recommendations.....	19

List of tables

Table 1 – Summary of Findings by Project.....	2
Table 2 – DFAT's Contributions to Infrastructure Investments in the review period.....	6
Table 3 – Rating Scale	7

Acronyms

ADB	Asian Development Bank
AIP	Aid Investment Plan
APPR	Aid Program Performance Report
AQC	Aid Quality Check
APA	Aid Partnership Arrangement
CIE	Department of Commerce Industry and Environment
DAC	Development Assistance Committee (OECD)
GoA	Government of Australia
GoN	Government of Nauru
KRQ	Key Review Question
M&E	Monitoring and Evaluation
MELF	Monitoring Evaluation Learning Framework
DHMS	Department of Health and Medical Services
DID	Department of Infrastructure and Development
DOF	Department of Finance
NEISIP	Nauru Economic Infrastructure Strategy and Investment Plan
NSDS	Nauru Sustainable Development Strategy
NUC	Nauru Utilities Corporation
ODA	Overseas Development Assistance
OECD	Organisation for Economic Co-operation and Development
PAD	Ministry of Finance- Planning Aid Division
PAF	Performance Assessment Framework
PACTAM	Pacific Technical Assistance Mechanism
PIAC	Pacific Infrastructure Advisory Centre
PMAG	Program Monitoring and Advisory Group (GoN and GoA)
RoN	Republic of Nauru
TVET	Technical and Vocational Education and Training
USP	University of the South Pacific

Executive Summary

Introduction

Australia's development cooperation program in Nauru supports the objectives of a socially stable and economically resilient Nauru that invests in nation-building infrastructure, quality education and health services and an effective and accountable public sector. Australia is Nauru's major development partner, and the Department of Foreign Affairs and Trade (DFAT) provides support in key priority areas of infrastructure and essential services. Between 2013-14 to 2017-18, DFAT provided Overseas Development Assistance (ODA) to Nauru for infrastructure totalling \$43.8 million, ranging between approximately \$7 - \$10.5 million per financial year.

A strategic end-of-term review of the DFAT-funded Nauru Infrastructure and Services investment was undertaken between March-June 2018 to support DFAT's improved performance and strategic planning of the infrastructure sector within the Nauru Aid Program.

Background

Infrastructure plays a key role in underpinning development in the economic and social sectors of Nauru. In particular, transport, reliability of power, access to clean water and the development of information and communications technology is critical to sustaining economic growth and the provision of social services. The National Sustainable Development Strategy (NSDS 2005-2025) of Nauru identifies priorities areas for Nauru's future growth. During the review period a draft revised NSDS for 2018-2030 has been produced, based on a stakeholder consultation process.

The objectives of this review were to undertake an in-house end-of-term review of the DFAT-funded Nauru Infrastructure and Services investment to help guide future programming decisions. The review was limited to investments since 2014.

Overview of DFAT's infrastructure investments

This review follows on from the most recent independent review completed in 2014 and covers infrastructure investments that were ongoing or started since 2014. DFAT's infrastructure investments in Nauru consist of a composite of different projects, rather than an approach to strengthen GoN's overall infrastructure sector. As such, the assessment in this review is based on the sectors and individual projects selected, rather than an overarching infrastructure strategy. DFAT's infrastructure investments since 2014 by implementation phase are:

- **Completed** – TVET Centre, USP Learning Centre, Hospital (Stage 1 and 2), Wellness Clinics, Electricity Supply and Sustainability Project
- **Ongoing / Construction** – Household Water Tanks, Sports Complex
- **Planning / Design** – Port Redevelopment, Port Institutional Reform
- **Operations & Maintenance** – Technical Assistance support to the Nauru Utilities Corporation (NUC)

Overall Findings

The review assessed DFAT's infrastructure investments in Nauru against an agreed set of key review questions, structured around DFAT's aid quality check (AQC) and the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) criteria including (i) relevance, (ii) effectiveness, (iii) efficiency, (iv) monitoring and evaluation and (v) cross-cutting issues. *Table 1* provides an overview of the findings for each project, with a weighted average for each criteria based on the size of DFAT's contribution to each project. The overall result indicates the performance of each project.

Project	Overall	Relevance	Effectiveness	Efficiency	M&E	Cross-cutting
NUC Technical Assistance	5.8	6	6	6	5	6
Electricity Supply and Sustainability Project	5.4	6	6	6	N/D	5
Port Redevelopment	5.4	6	6	N/D	5	5
Port Institutional Reform	5.4	6	6	N/D	5	5
USP Learning Centre	5.4	6	5	6	5	5
Sports Complex	5.2	4	5	6	5	6
TVET Centre	5.0	6	5	N/D	5	4
Hospital (Stage 1 and 2)	4.2	6	4	4	N/D	3
Wellness Clinics	2.8	4	2	2	N/D	N/D
Household Water Tanks	2.8	4	2	2	2	4
Weighted Average	5.0	5	4	4	4	4
<i>Overall Result</i>	<i>Good</i>	<i>Good</i>	<i>Adequate</i>	<i>Adequate</i>	<i>Adequate</i>	<i>Adequate</i>
<i>N/D – Not Determined</i>						

Table 1 – Summary of Findings by Project

Relevance – Overall Rating – Good (5/6)

Findings from the review indicate that overall the projects supported by DFAT in this review period were highly relevant to GoN's objectives. Recommendation from the review team to base the selection of any future infrastructure investments to the GoN's infrastructure investment framework currently being developed in collaboration with the Pacific Regional Infrastructure Facility (PRIF) would ensure that the relevance of DFAT assistance continues to be high.

Effectiveness – Overall Rating – Adequate (4/6)

The results for effectiveness of DFAT investments over the review period were mixed, however the majority of the projects considered to be effective or likely to be effective on completion, particularly more recent projects. Projects that were considered to be potentially effective with key follow-on interventions include the hospital and wellness clinics. The hospital process involved modular components intended for an alternate site were repurposed, with some resultant compromises to the process and design. The design of the three wellness clinics funded by DFAT have not considered suitable materials for sites proximal to the ocean, ongoing maintenance and access to toilets, which have contributed one of the clinics funded being disused. The third clinic was damaged during shipping and is yet to be operational. The water tank project appears unlikely to be effective, given reduction in scope from an intended 200 tanks for approximately 106, as well as the lack of an ongoing maintenance strategy.

Efficiency – Overall Rating – Adequate (4/6)

The review findings suggest that overall DFAT's contributions (time and resources) were adequately used by GoN to achieve desired outcomes. The NUC CEO is a particularly strong example of efficient use of DFAT funding, given the level of achievements in improvements to the reliability of the power supply, institutional and staff capacity and attracting donor funding (ADB, DFAT and EU) in capital investments. Other examples include larger projects, such as the Indoor Sports Facility and the Learning Centre, where a project management unit (PMU) was established and procurement was outsourced have demonstrated efficient delivery, with reasonable allowances given the context. The water tank project was low efficiency, as it encountered many challenges. However, DFAT responded to and applied lessons to subsequent projects. The wellness clinics are also quite low efficiency, given the high number of clinics not in use a short time after project completion. There was good donor harmonisation on the sea port, where DFAT contributions were leveraged for co-financing. The review team notes that there are further opportunities for harmonisation and coordination with development partners, through PRIF and PAD.

Monitoring and Evaluation – Overall Rating – Adequate (4/6)

Current M&E arrangements for individual investments, such as the Indoor Sports Facility, Nauru Port Reform and Redevelopment, Technical Assistance to the NUC, are adequate and satisfy most of DFAT standards. However, the absence of an overarching strategy for the DFAT infrastructure portfolio may be limiting DFAT's ability to make evidence-based decisions and to ascertain how individual investments are contributing to its overall objectives in infrastructure in Nauru. The review team recommends that DFAT develop an overarching infrastructure strategy. This new strategy would need to be aligned to the Aid Investment Plan (AIP) and the Performance Assessment Framework (PAF). Further, individual investment monitoring and reporting systems, such as for the Sports Facility, or the NUC, would subsequently need to be linked to the PAF with their own set of performance expectations which would help demonstrate contribution towards overarching goals set out in an infrastructure strategy.

Cross-cutting Issues – Overall Rating – Adequate (4/6)

Gender considerations appear to be systematically considered in project approvals, and DFAT's engagement of a gender advisor will further strengthen performance in this area. Disability inclusiveness appears to be less consistently considered during planning. There is strong evidence of climate change mitigation being considered in project design in some of the recent projects, and on other projects no evidence available regarding the application of climate change mitigation assessment.

Recommendations for a future infrastructure strategy for DFAT

There are a number of specific recommendations based around two core objectives for DFAT's future support to infrastructure and essential services in Nauru, namely:

Objective 1: Supporting the Government of Nauru to embed and implement a robust and strategic infrastructure framework for prioritisation and selection of investments;

Short Term:

- a DFAT to engage with PRIF to request an independent quality peer review of NIAMF, NIIMS and associated documents to ensure robust analysis;
- b Coordinate and harmonize with development partners;

Within 1-3 years:

- c Develop an Infrastructure Strategy for DFAT Nauru that considers the NIAMF and NIIMS; and
- d Develop the capacity of GoN to periodically update the NIAMF, NIIMS and associated documents to inform infrastructure project prioritization over time.

Objective 2: Retaining the value for money proposition of existing investments over time through selected interventions.

Short Term:

- a Continuation of the NUC CEO. Significant gains have been made through the NUC in stabilising the electricity supply and improvements in water delivery, however gains will likely be lost if ongoing support to the NUC is not continued;
- b Consider innovative approaches to maintaining and cleaning privately owned water tanks through NUC.

Within 2-3 Years:

- c DFAT to focus on asset maintenance. The cost of assets provided by Australia degrading and needing to be replaced prematurely is a reputational risk contributes to an ongoing need from GoN for external funding and reduces the value for money proposition of each investment. In addition, the RON hospital needs further assessment; and
- d DFAT's Strengths and Capacity. Additional resourcing within DFAT is needed for infrastructure and DFAT should focus on a smaller number of larger investments.

1 Background

1.1 Context

Nauru is one of the world's smallest and most remote countries, consisting of a single island of 21 square kilometres. It has a population of approximately 13,000 (in 2017) most of whom live on the perimeter strip of coastal land. Infrastructure plays a key role in underpinning development in the economic and social sectors of Nauru. The NSDS identifies priorities areas for Nauru's future, and underscores the importance of improving electricity, water and transport to promote wellbeing and economic development. Due to a lack of maintenance and investment in physical infrastructure during the financial crisis, Nauru has experienced a high level of dilapidated infrastructure to the point of collapse in some instances¹. The physical environment in Nauru, particularly proximity of most infrastructure to the corrosive marine environment, is a contributor to relatively high maintenance requirements and costs.

Collectively between Australian agencies and other development partners, there has been a significant investment in infrastructure in recent years. Institutional arrangements within GoN have been in flux, including the establishment of the new Department of Infrastructure and Development (DoID) in early 2018. As a new department DoID is currently establishing processes, personnel and their mandate.

Australia's Aid Investment Plan (AIP) 2015-16 to 2018-19 and the Australia Nauru Aid Partnership Arrangement (APA) aim to assist the GoN in nation building infrastructure through the construction and maintenance of economic, health and education infrastructure to support human development and foster commerce and trade. Between 2013 and 18, Australia's ODA to Nauru for infrastructure totalled \$43.8 million, ranging from between \$7 - 10.5 million per financial year. DFAT has committed a further \$12 million for the 2018-19 and 2019-20 financial years for the redevelopment of Nauru's seaport. DFAT has allocated a further indicative amount of \$300,000 per year to the continuation of the NUC CEO. No additional major infrastructure investments are expected for the duration of the seaport construction.

Other active development partners in Nauru include the Asian Development Bank (ADB), who is investing approximately USD 43.8 million between 2017-19 on infrastructure including the seaport, subregional undersea internet cable, solar power and urban development². The European Union funded € 2.7 million for solar power and technical assistance projects³. The Government of Taiwan are active in Nauru but are not involved in the delivery of infrastructure. New Zealand's Ministry of Foreign Affairs and Trade (NZMFAT) do not routinely invest in infrastructure, but on an exceptional basis diverted funding to solar power. Nauru recently re-joined as a member of the World Bank in 2016, indicating a potential increase in World Bank investments. The Green Climate Fund (GCF) have supported Nauru's seaport (USD 26.91 million) and ADB may seek GCF co-financing for an upcoming solar project, pending securing additional co-financing.

The Pacific Regional Infrastructure Facility (PRIF) established in 2008 by ADB, DFAT, NZMFAT and the World Bank Group to facilitate collaboration between development partners and recipients of development assistance for infrastructure in the Pacific region. The European Commission (EC), European Investment Bank (EIB) and Japan International Cooperation Agency (JICA) have subsequently become members. The Pacific Infrastructure Advisory Centre (PIAC) was absorbed into PRIF in 2013.

¹ National Sustainable Development Strategy 2005-2025 (GoN, 2009)

² ADB Nauru Country Operations Business Plan 2017-2019 (ADB, 2016)

³ GoN European Community Country Strategy Paper and National Indicative Programming 2008 - 2013 (EU, 2007)

1.2 Overview of DFAT Nauru's Infrastructure Investments

This review covers DFAT's infrastructure investments since 2014, following on from the most recent independent review. DFAT's infrastructure investments in Nauru consist of a composite of different projects, rather than an approach to strengthen GoN's overall infrastructure sector. As such, the assessment in this review is based on the sectors and individual projects selected, rather than an overarching infrastructure strategy.

During the review period, DFAT has supported GoN to provide essential infrastructure and services, such as power and water, and to help the Government reform its utilities sector through technical support to the Nauru Utilities Corporation (NUC). DFAT has also helped procure two new 2.8MW diesel generators in collaboration with ADB and the EU. DFAT has contributed to education infrastructure through the construction of the Nauru Learning Village, the Technical and Vocational Education and Training (TVET) centre (phase 2) and University of the South Pacific (USP) campus (phase 3). Further, DFAT has supported a household water tanks project, a sports complex and has provided funding contributions to the ADB for the sea port redevelopment and institutional reform projects. Health infrastructure has included the redevelopment of the hospital (stages 1 and 2), wellness clinics, a review of the hospital masterplan and design of nurses' quarters. Figure 1 below summarises DFAT's infrastructure expenditure in Nauru by financial year since 2013-14, and shows the shift in funding between sectors over the period.

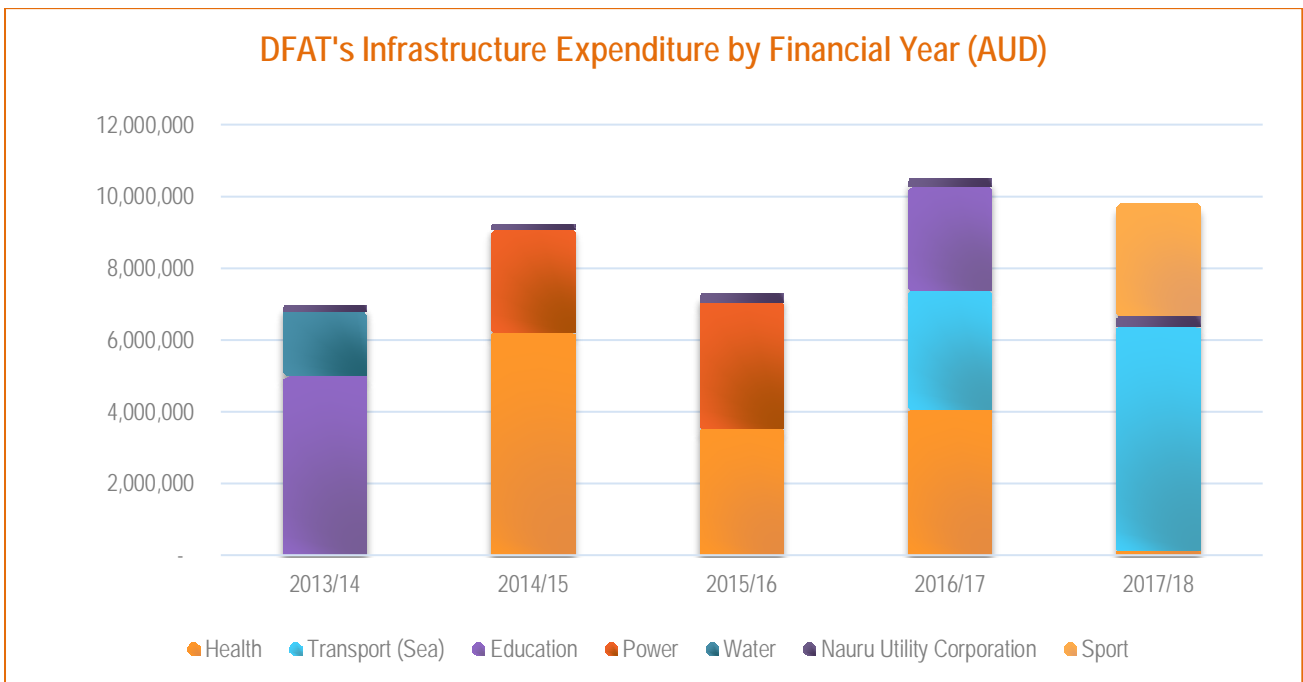


Figure 1 – DFAT Nauru's Infrastructure Expenditure by Financial Year

Table 2 outlines DFAT's expenditure on each project between FY 2013/14 to FY 2017/18 in millions of dollars (AUD). DFAT's investments since 2014 by financing arrangement are:

- **Co-financed** - Nauru Electricity Supply and Sustainability Project (ADB and EU), Port redevelopment and Port Institutional Strengthening (ADB, GoN and GCF)
- **DFAT Implemented** - NUC CEO (through PACTAM), RON Hospital - stage 1 and 2
- **Financed through GoN systems** - TVET Centre, USP Learning Centre, Wellness clinics, Household water tanks, Sports complex.

DFAT's infrastructure investments since 2014 by implementation phase are as outlined in *Table 2* below.

Implementation Phase	Project Name	DFAT Contribution (AUD million)	DFAT Contribution (Percentage)	Project Total (AUD)
Completed	TVET Centre (Phase 2)	5.0	11%	
	USP Learning Centre (Phase 3)	2.9	7%	6.7
	Hospital (Stage 1 and 2)	11.9	27%	28.4
	Wellness Clinics	2.0	5%	
	Electricity Supply and Sustainability Project	6.4	15%	12.7
Ongoing / Construction	Household Water Tanks	1.8	4%	
	Sports Complex	3.1	7%	4.5
Planning / Design	Port Redevelopment	6.0	14%	80
	Port Institutional Reform	3.3	8%	
O&M	TA to NUC CEO/GM	1.1	2%	0
	Total	43.8	100%	TBC

Table 2 – DFAT’s Contributions to Infrastructure Investments in the review period

DFAT Nauru’s infrastructure expenditure during the review period by sector is as per *Figure 2* below.

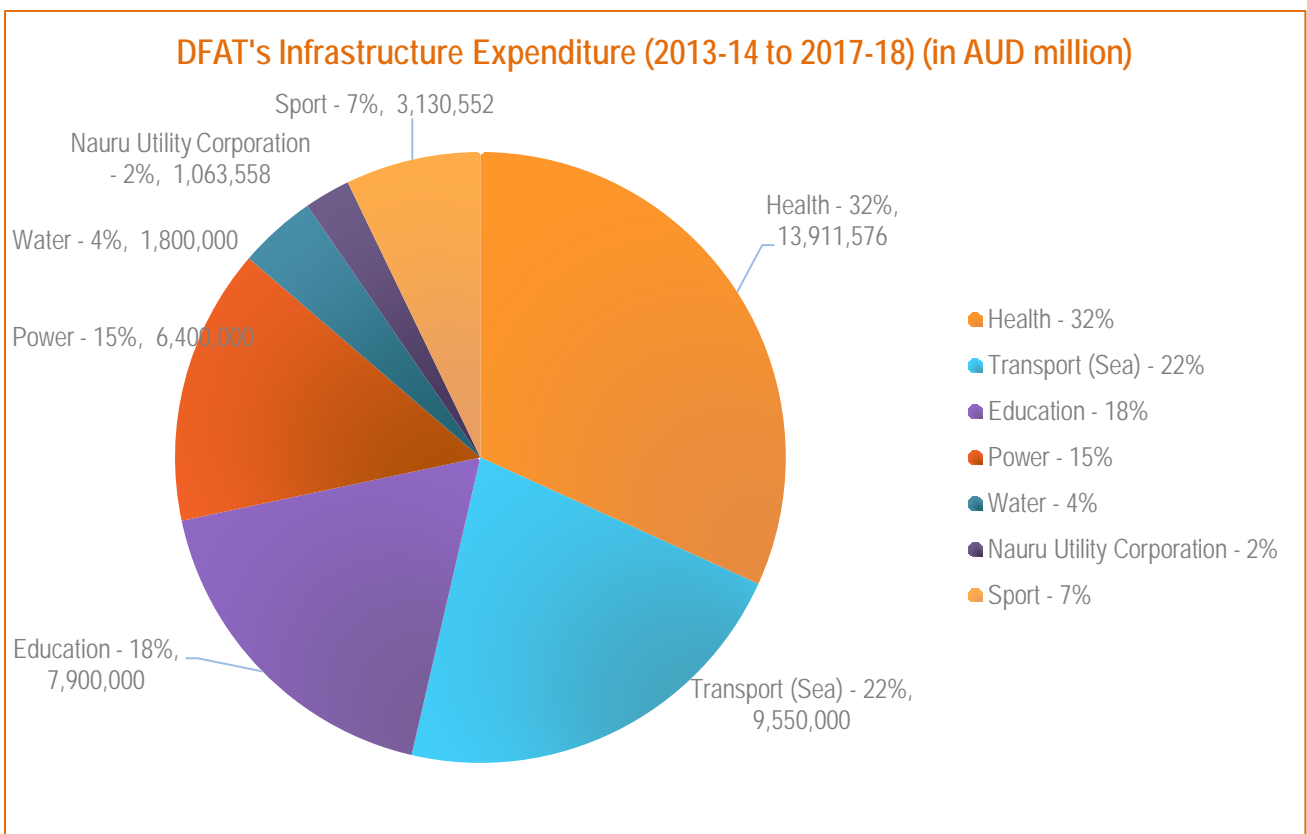


Figure 2 – DFAT Nauru Infrastructure Expenditure by Sector (FY 2013-14 to 2018-19)

2 Objectives

2.1 Purpose

The objectives of this review were to undertake an in-house end-of-term review of the DFAT-funded Nauru Infrastructure and Services investment to help guide future programming decisions. The review was limited to investments since 2014, and the purpose was threefold : (i) prove - to assess the effectiveness of the Australian government’s current approaches to infrastructure and essential services programming in Nauru; (ii) improve - to recommend future strategic investment approaches and priorities for the infrastructure and services portfolio (iii) knowledge generation - to identify the key strengths, challenges, and opportunities in the infrastructure and essential services sector in Nauru, for the GoN to support human development and foster trade and commerce. The review is expected to address the following criteria: relevance, effectiveness, efficiency, monitoring and evaluation and cross-cutting issues (gender, disability and climate change).

2.2 Methodology

The review team, from Clear Horizon, comprised two specialists - Infrastructure Specialist and a Monitoring and Evaluation (M&E) Specialist. The review methodology included (i) a desktop review of background documents; (ii) semi-structured key informant interviews; (iii) site visits; (iv) an in-country mission to Nauru; (v) a preliminary findings briefing delivered at the end of the in-country mission; and (vi) a summit workshop planned for June 2018 to present, discuss and finalise the review findings.

The desktop review was undertaken to inform the review plan and to develop key review questions (KRQs). The review provided a strong foundation for the evidence that reinforced in-country consultations. Semi-structured key informant interviews were undertaken with a range of stakeholders, allowing respondents the flexibility to discuss other relevant issues. The full list of people interviewed is outlined in *Annex C – List of People Interviewed*. Interviews were undertaken in person in Nauru as well as via phone and email before and after the review mission.

A two-week in-country mission was undertaken in April-May 2018 to conduct interviews with key stakeholders and visit selected infrastructure sites. Data was examined using qualitative analysis for key criteria, as listed above, and categorised by Key Review Questions (KRQs) and sub-KRQs (see *Annex A- Key Review Questions*). The evidence collected was used to evaluate each investment against the review criteria based on the rating scale as outlined in *Table 3* below. Further detail of how each investment was evaluated against the review criteria is outlined in *Annex E – Strength of Evidence Rubric & Rating Scale*.

Rating	Score
Very Good	6
Good	5
Adequate	4
Less than Adequate	3
Poor	2
Very Poor	1

Table 3 – Rating Scale

At the end of the in-country mission, the team conducted a preliminary findings briefing with DFAT and DoI to present the evidence and to validate and co-develop preliminary findings. A summit workshop was held with Clear Horizon, GoN representatives and DFAT in June 2018 and will be informed by the Infrastructure Review Report (this report). At the Summit Workshop, Clear Horizon worked with DFAT to finalise the key findings and recommendations from the review.

2.3 Review Limitations

- The hospital masterplan (including nurses' quarters) has not been included as it has been recently evaluated as part of a separate health review for DFAT.
- The wellness clinics have also been reviewed by the health review and time limitations for data collection has resulted in only partial information being included in this review.
- Construction of the TVET Centre was completed in early 2014 (the start of the review period), and as such only limited information for this has been available as most of the planning and implementation falls outside the review period.
- The USP Learning Centre has relied upon interviews and information from the parallel education review.
- DFAT Funding allocated for a Reverse Osmosis Plant Shed in FY 2012/13 which has been reallocated to an NUC water testing shed has not been part of this review.

3 Review Findings

3.1 Overall Findings

The review assessed DFAT's infrastructure investments in Nauru against an agreed set of key review questions, structured around DFAT's aid quality check (AQC) and the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) criteria including (i) relevance, (ii) effectiveness, (iii) efficiency, (iv) monitoring and evaluation and (v) cross-cutting issues.

3.2 Relevance

Strength of Evidence:	Strong	Overall Rating:	Good (5/6)
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Key Review Question 1 (KRQ): Given the objectives of DFAT and the GoN in the infrastructure and essential services sector, to what extent are existing initiatives relevant?

a To what extent does Australia's contribution support GoN's objectives in infrastructure and essential services?

Nauru's objectives in infrastructure and essential services are based on Nauru's National Strategic Development Strategy (NSDS) for 2005-2025 (GoN, 2009). The revised NSDS 2018-2030 is a draft document that will be a key reference for future recommendations, rather than indicate the relevance of past investments. In 2011, a Nauru Economic Infrastructure Strategy and Investment Plan (NEISIP) was prepared for GoN by the Pacific Infrastructure Advisory Centre (PIAC), and revised in the Infrastructure Sector Review (ISR) (PRIF-PIAC, 2013). The NSDS (GoN, 2009) and ISR (PRIF-PIAC, 2013) are the key baseline to ascertain the relevance of DFAT's investments to GoN's objectives.

DFAT's infrastructure investments in the review period have focused on essential, social and economic infrastructure in the key sectors of (i) transport (sea), (ii) power, (iii) water, (iv) health, (v) education and (vi) sport. Infrastructure investments include key assets in each sector, including the sea port, diesel generators, water tanks, the hospital, community wellness clinics, learning village buildings (TVET and USP), sports complex and rehabilitation of sports facilities.

All of the areas of investment by DFAT during the review period have been relevant to the GoN's objectives in infrastructure and essential services, as outlined in the NSDS for 2005-2025. Further, during interviews with the Ministry of Finance Planning and Aid Division (PAD) representatives expressed the opinion that DFAT's investments were closely aligned and relevant to Nauru's strategic development plan⁴.

Investments that were identified in the ISR and subsequently supported by DFAT include: maritime (feasibility for port redevelopment, operational plan for the port and corporate strategy and performance improvement plan for PAN), power (performance improvement plan for NUC) and government buildings (new hospital, learning village).

Based on the benchmark documents cited above, the projects that were least relevant to the ISR were the Household Water Tanks, Wellness Clinics and Sports Complex. The household water tanks is partially relevant to NEISIP recommendations and the project was initiated by GoN applying for funding through an Australian funded Climate Change Initiative. The wellness clinics project has not been assessed in detail as part of this infrastructure review (a recent health review was completed). The sports complex was supported by DFAT to deliver health and social inclusion outcomes.

b How is investing in infrastructure and essential services in Nauru in Australia's national interest?

When allocating development assistance, GoA is guided by the four tests in its 2017 Foreign Policy White Paper⁵. Two of those four key criteria include assessing whether the assistance is in Australia's national interest, and whether it will promote inclusive growth and reduce poverty in the recipient country. Further, the Aid Investment Plan for Nauru notes that Australia's aid in Nauru forms part of 'our broader economic and diplomacy efforts to promote prosperity and security in the Pacific region and we pursue an integrated set of foreign, trade and development policies to advance our interests in Nauru'. Although there are no specific statistics, funding provided to the hospital phase I and II (health), TVET Centre and the Learning Centre (education), sports complex (social and health), port redevelopment and NUC through the NUC CEO (essential services) can be deemed to be contributing to inclusive growth and reducing poverty in Nauru and promoting prosperity and security in the Pacific region.

3.3 Effectiveness

Strength of Evidence:	Moderate	Overall Rating:	Adequate (4/6)
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Key Review Question 3 (KRQ): To what extent has DFAT's support been effective at providing essential infrastructure and reform of the utilities sector?

- a To what extent have DFAT's investments delivered physical infrastructure that is fit for purpose over time in a changing climate?*
- b To what extent have DFAT's investments ensured that infrastructure assets and utilities are sustainably operated, managed and maintained?*

The results for effectiveness of DFAT investments over the review period were mixed, however the majority of the projects considered to be effective or likely to be effective on completion, particularly more recent projects. Projects that were considered to be potentially effective with key follow-on interventions include the hospital and wellness clinics. The hospital process was in response to unique circumstances, whereby modular components intended for another site were repurposed, with some resultant compromises to the process and design. The design of the three wellness clinics funded by DFAT have not considered suitable materials for sites proximal to the ocean, ongoing maintenance and access to toilets, which have contributed one of the clinics funded being disused. The third clinic sustained damage during shipping and is yet to be operational. The water tank project appears unlikely to be effective, given reduction in scope from an intended 200 tanks for approximately 106, as well as the lack of an ongoing maintenance strategy.

Based on the findings from the review, the following projects are assessed as **effective** or **likely to be effective** upon completion⁶:

- *Electricity Supply and Sustainability Project* – According to the NUC CEO 2.6–3.0MW diesel generators contributed by DFAT were deemed suitable in terms of capacity and quality and are contributing to the improved level of energy service in Nauru. The project has been assessed as effective due to the role the generators play in securing baseload⁷, paving the way for introducing more solar capacity into Nauru's energy mix.
- *Sports Complex* – Whilst this facility is currently under construction, the information available indicates that the Department of Sports (DoS) expect the sports complex to meet their needs, indicating it will likely be fit for purpose (within expectations of phase 1) upon completion. Sports Federations were also consulted during the design phase. DoS and Planning Aid Division (PAD) are

⁵ <https://www.fpwhitepaper.gov.au/foreign-policy-white-paper>

⁶ The effectiveness of the projects over time is subject to the recommendations being actioned to ensure that gains are sustained. This includes (i) systemic support for asset maintenance across GoN's infrastructure; (ii) suitable resourcing within DFAT, and (iii) continuation of the NUC CEO.

⁷ Independent Review Report, Program Monitoring and Advisory Group (PMAG), 2014

concerned that long term the efficiency will reduce by lack of prioritization for Phase 2. The Concept Design⁸ includes a design response to future climate conditions, indicating that the facility will continue to be effective into the future. Ongoing management and operations support will be addressed through a parallel sports TA, the timeliness of which will be important to attain effective outcomes.

- *Port Redevelopment* – the Port Redevelopment project is still in the planning stage, with construction expected to commence in 2019. Significant due diligence has been completed by ADB to ensure that the design is climate resilient and fit for purpose. The effectiveness of the project cannot be ascertained at the planning stage, however, the feasibility assessment, options analysis, technical design and associated quality assurance have been robust to setup the project for effective outcomes, including a future funding model. Notwithstanding, there remain some outstanding issues to be resolved related to the technical design. The processes put in place jointly by DFAT and ADB appear to be adequate to resolve these issues.
- *Technical Assistance support to the Nauru Utilities Corporation (NUC)* – has been highly effective to date. Since 2012, institutional reform has been improved through a PACTAM advisor as the CEO Nauru Utilities Corporation (NUC), guided by the NUC Strategic Plan 2014-20. The NUC CEO has delivered substantial operational savings whilst improving stability of the power supply, evidenced by the reduction in the frequency and duration of power outages⁹. In addition, the CEO has built capacity of staff, delivered contingency planning, strategically retired, maintained and replaced key assets and improved the reliability of water delivery. NUC's Financial Reports and Department of Treasury confirm that operating subsidies to the NUC have reduced from \$6.4m in 2015 to \$1.8m (forecast) for 2018, with projections that NUC will deliver a surplus by 2020 that would enable a capital works fund. This represents a cost saving of \$4.6 million for the current financial year alone, with savings expected to increase. Electricity losses have dropped from nearly half in 2014 to approaching the Pacific standard of less than 10%. Household level safety inspections have taken place, preventing electrical fires and reducing “hot” connections. The CEO has also been successful in securing investments from the ADB, DFAT, EU, NZMFAT and UAE for capital investments in diesel generators, solar power and associated infrastructure (housing, distribution lines, etc.). These impressive and critical gains at NUC are at risk when the incumbent departs, as despite efforts no suitable replacements have been identified to commence training. An achievable and sustainable transition strategy is needed to ensure gains are retained beyond the tenure of the incumbent. Given the constraints of a small -state, this may be challenging and require ongoing support.
- *Learning Centre* – The building construction has recently been completed and therefore premature for this review to assess the suitability of the design. No direct stakeholder interviews were conducted, but the parallel education review indicated that the building is largely fit for purpose.

Review findings indicate that these two projects have the **potential to be effective**, with some **key additional interventions**:

- *Hospital (Stage 1 and 2)* – During in country interviews, Department of Health and Medical Services (DHMS) representatives noted that largely the new hospital has been a “significant improvement” on the existing facilities. Modular hospital components originally intended for another site were repurposed, this resulted in some design compromises when adapted to the new site. The most notable of these was operating theatre access to manage infection control and patient flow through the hospital. Interviews with hospital and DHMS representatives indicate opportunities for improvements during construction may have been missed. DHMS identified issues with the training and handover process for maintenance issues. DHMS raised concerns with their ability to handle ongoing maintenance. The hospital effectiveness could be improved with an independent evaluation undertaken to confirm any required upgrades to facilities and materials that may

⁸ Concept Design Report (A&L, 2017)

⁹ NUC Presentation (Abraham Simpson, 2018) and further anecdotally confirmed by informal survey.

potentially extend the life of the modular structure, and support capacity development for ongoing routine and emergency maintenance.

- *Wellness Clinics* – Medical staff at the Republic of Nauru (RoN) hospital indicated that the community wellness clinics are crucially needed to improve access to health services and reduce hospital patient load, and that the concept of the wellness clinics to deliver outreach services such as dental and mental health services is important. There appear to be several issues associated with the design of the clinics that are impacting the effectiveness of this investment, such as suitable materials for their proximity to the ocean and access to toilets for staff and patients. Of the three clinics funded by DFAT, one is currently in use and DMHS indicated that this clinic has been effective at reducing patient load at the hospital by providing service with short wait times to a large number of patients (quantity was unable to be confirmed). DMHS further indicated that one clinic is no longer in use due to a combination of lack of maintenance and rust from sea breeze and is expected to receive “superficial fixes” to the roof and air-conditioning to make it operational again. DFAT indicated that lack of bathroom facilities for clinic staff had contributed to its lack of use. DFAT and DHMS further indicated that the third clinic had sustained approximately \$44,000 of damage during shipping or handling and has been sent back to New Zealand for repairs. As such, further actions are needed to ensure the clinics have appropriate facilities and maintenance. Treatment to materials to withstand marine conditions may be necessary. There is also a lack of evidence of ongoing maintenance planning.

These projects were found to be **unlikely to be effective**:

- *Household Water Tanks* – asset maintenance will be unlikely to be achievable on this project due to ownership of tanks by individual households. The effectiveness of the project has been compromised due to a number of implementation issues (detailed under section 3.4 *Efficiency*), resulting in the number of water tanks that the project delivered by the project reducing from the original 200 to approximately 106.

3.4 Efficiency

Strength of Evidence:	Moderate	Overall Rating:	Adequate (4/6)
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Key Review Question 4 (KRQ): To what extent has the investment efficiently used Australia’s contributions in terms of time and resources to achieve the desired outcomes?

- To what extent has DFAT selected infrastructure projects that efficiently deliver the agreed outcomes, after considering suitable alternatives?*
- To what extent were DFAT’s investments managed to ensure delivery on time and within budget, considering mixed modality of delivery?*
- How have DFAT’s infrastructure investments harmonised with other donors, regional organizations and aligned with partner government systems?*

The review findings suggest that overall DFAT’s contributions (time and resources) were adequately used by GoN to achieve desired outcomes. The NUC CEO is a particularly strong example of efficient use of DFAT funding, given the level of achievements in improvements to the reliability of the power supply, institutional and staff capacity and attracting donor funding (ADB, DFAT and EU) in capital investments. Other examples include larger projects, such as the Indoor Sports Facility and the Learning Centre, where a project management unit (PMU) was established and procurement was outsourced have demonstrated efficient delivery, with reasonable allowances given the context. The water tank project was low efficiency, as it encountered many challenges. However, DFAT responded to and applied lessons to subsequent projects. The wellness clinics are also quite low efficiency, given the high number of clinics not in use within a short time after project completion. There was good donor harmonisation on the seaport, where DFAT

contributions were leveraged for co-financing. The review team notes that there are further opportunities for harmonisation and coordination with development partners, through PRIF and PAD.

Based on the review findings, the following projects have been assessed as being **highly efficient**:

- *Technical Assistance support to the Nauru Utilities Corporation (NUC)* – This has been a highly efficient use of funds, delivering significant gains ahead of schedule in terms of stability of the electricity supply, the development of local capacity for ongoing maintenance of assets, reduced subsidies for utility operating costs and attracting development partner support for capital investments to improve electricity and clean water security on the island. The investment of \$1.1 million over a five year period (average of \$212K per annum) is delivering savings in operational subsidies of \$4.6 million in the current financial year alone, and expected to increase. Overall the CEO is managing a \$28 million annual budget (as of the 2018/19 financial year), with an overhead cost of only 1.1%. Work remains to secure the noteworthy gains to the utility beyond the engagement of the highly effective incumbent CEO.
- *Sports Complex* - An options analysis with concept designs¹⁰ was completed and GoN concurred with the recommendation from A&L on the most cost-effective design to deliver key requirements. Despite fixed constraints around the delivery timeframe (due to the planned Pacific Leaders Forum in September 2018), this project is currently on track to being delivered very close to the schedule, which is remarkably efficient given difficulties encountered.
- *Electricity Supply and Sustainability Project* - consideration of options to supply cost effective baseload power and plan for asset maintenance appears to be appropriate. Project delays that were encountered due to logistical issues were within expected bounds given the context.
- *USP Learning Centre* - the indication so far based on the education review is that there is broad buy in from stakeholders on the recommended option and it is considered likely to be fit for purpose. DFAT confirmed that there were some project delays and associated costs overruns that were considered reasonable, with a justifiable basis relating to logistical issues.

These projects have been **moderately efficient**:

- *Hospital (Stage 1 and 2)* – the context surrounding the hospital redevelopment didn't follow usual good practice for infrastructure planning, including stakeholder consultations and options analysis, given the modular structure was already on island. DFAT contributed funding to, but did not lead the process. The overall efficiency of this investment is reduced by needing follow up assistance to address issues that have arisen from this process, such as the operating theatre and roofing materials, as further detailed under *Section 3.3 - Effectiveness*.

These projects are **low efficiency**:

- *Wellness Clinics* – One of the clinics delivered by Australia is already a disused frame, as further detailed under *Section 3.3 - Effectiveness*. The options analysis does not appear to be adequate to have ascertained efficient delivery of the objectives. Delays in the project implementation have incurred because of damage caused during shipping. The efficiency is further reduced as addressing the issues will ultimately cost a higher amount overall to deliver the results.
- *Household Water Tanks* – the concept was developed by the Department of Commerce, Industry and Environment (CIE) in response to immediate needs and proposed for Australian funding, delivered through GoN systems. It is unclear if options analysis or sustainability were considered in the design; in some cases water tanks will be delivered to replace existing broken tanks, indicating that ability to maintain the tanks may be lacking. This project has encountered significant issues during procurement and construction of the concrete slabs, resulting in suspension of the project and significant delays. The project has recently been resumed. Despite the low efficiency

¹⁰ Concept Design Report for Nauru Sports Complex (A&L, 2017)

of this project, DFAT's handling of the issues has been appropriate and lessons learned have been demonstrably applied to subsequent projects.

The efficiency of these projects has **not been ascertained** due to their current stage (e.g. planning or design, or largely implemented prior to the review period):

- *TVET Centre* - The development of viable options for stakeholder consideration and selection was undertaken and the proposed solution fits within the broader concept of the Learning Centre Complex developed by the Nauru Department of Education.
- *Port Redevelopment and Institutional Reform* – These projects are due for implementation in 2018/19. The first step of the institutional reform project was commencing during the review period with the selection of a potential new CEO being undertaken. Collaboration between ADB, DFAT and GON was instrumental in securing 33.81% of funding from the GCF for the seaport project, enabling the project to proceed with a budget for the recommended design. This is a good example of Australian funds being leveraged, demonstrating good efficiency of resources.

Other points of note include:

- DFAT indicated that funds were provided to GoN for a water treatment project in 2012, but the funding has yet to be executed and the project is currently re-engaging. The efficiency of this approach is low.

3.5 Monitoring and Evaluation

Strength of Evidence:	Strong	Overall Rating:	Adequate (4/6)
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Key Review Question 5a: To what extent are current reporting and M&E arrangements suitable considering DFAT standards, particularly for the indoor sports complex, and Nauru port reform and redevelopment?

Current M&E arrangements for individual projects, such as the Indoor Sports Facility, Nauru Port Reform and Redevelopment, NUC and PACTAM, are adequate and satisfy most of DFAT standards. Reporting arrangements against these discrete projects are reasonable and provides DFAT and GoN with information on progress against project milestones, budget and timeline. Some highlights include the M&E on the Indoor Sports Facility, Nauru Port Reform program and the NUC. For example, for the Sports Complex, regular project site visits and technical working group meetings are held between DFAT, GoN and the construction (Craig Construction) and project management companies (A&L) which allow DFAT to discuss and address issues as they come up.

The absence of an overarching strategy, however, for the infrastructure portfolio may be limiting DFAT's ability to make evidence-based decisions and to ascertain how individual investments are contributing to DFAT's priorities in infrastructure in Nauru. The review team recommends that DFAT develop an overarching infrastructure strategy (see KRQ 5b below and Chapter 5 of this report for more information). A new strategy would need to be aligned to the AIP and the PAF. Further, individual investment monitoring and reporting systems, such as for the Sports Facility, or the NUC, would subsequently need to be linked to the PAF with its own set of performance expectations which could help demonstrate contribution towards the overarching goals set out in an infrastructure strategy.

Key Review Question 5b: What would the preferred structure of the program, performance expectations and monitoring and evaluation look like?

Government of Nauru has established a Nauru Infrastructure & Asset Management Steering Committee to develop a Nauru Infrastructure Asset Management Framework (NIAMF) and the National Infrastructure Investment and Management Strategy to set the direction for infrastructure investments and asset management for the next 5 to 10 years. PRIF, of which DFAT is a partner and co-funder, is supporting this activity. Given the critical importance of gains in this area, it is recommended that DFAT develop an infrastructure strategy that is aligned to GoN's strategy, NIAMF, and informed by its own Aid Investment Plan. The existing PAF may need to be updated based on the new strategy and would support ongoing monitoring, evaluation and reporting for the DFAT infrastructure program.

3.6 Cross cutting issues

Strength of Evidence:	Strong	Overall Rating:	Adequate (4/6)
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Key Review Question 6 (KRQ): To what extent have DFAT's investments in infrastructure managed environmental and social impacts and identified opportunities for improvements in gender equality, disability inclusive development and climate change mitigation?

The opportunities for infrastructure projects to contribute to improvements in the areas of gender, disability inclusiveness and climate change mitigation have been clearly considered and applied in recent projects. In some cases, evidence has not been available to demonstrate that analysis was undertaken, especially with regards to disability inclusiveness. DFAT's project approvals process requires that cross-cutting considerations are considered, including that they are addressed in project concept designs.

a To what extent have opportunities to improve gender equality been identified and appropriately managed with gender sensitive approaches integrated into design?

Nauru undertook a detailed review of the infrastructure investment in 2017, with a gender action plan devised (AQC, 2018). DFAT have invested resources into an independent gender advisor to review the infrastructure program and provide recommendations, which will serve to deepen the value of gender-based initiatives integrated into the infrastructure program. Gender considerations are systemically considered as part of DFAT project approvals, which require gender considerations to be evaluated and addressed as part of concept designs. This is demonstrated in that gender considerations have been applied to the most recently implemented projects, as outlined below:

- *Port Redevelopment and Institutional Reform* – A Poverty, Social and Gender Assessment (ADB, 2017) and Gender Action Plan (ADB, 2017) were prepared for the Port Redevelopment. These documents assess the benefits and risks to women of the port project, and propose mitigation strategies to be implemented, including that a social safeguards officer is engaged and supervised by an International Social and Gender Specialist.
- *Sports Complex* – Interviews with the Department of Sports (DoS) and Planning and Aid Division (PAD) indicated that DFAT's project approval was conditional on the concept design reflecting gender considerations, including that the types of sports catered for were broadened and a children's playground was included at the facility.

No evidence regarding the application of gender considerations has been available as part of this review for the (i) Hospital (Stage 1 and 2); (ii) Wellness Clinics and (iii) Water tanks projects.

b To what extent are opportunities to improve life for people living with disabilities been identified and appropriately managed as part of designs?

From the evidence sighted, it appears that disability considerations are less consistently applied as part of DFAT project approvals. Whilst some projects have clearly included accessibility principles at the design stage (such as the USP Learning Centre and Sports Complex). Accessibility considerations have been well applied in the design phase of the USP Learning Centre, where the design allowed for shaded access ramps and accessible toilets. Similarly, the sports complex design followed universal accessibility principles to make the complex accessible for those with disabilities, temporary injuries, pregnant women, the elderly, children and others. Programming of the sports complex in terms of disabled-friendly sports is to be determined. There are concerns with the application of accessibility principles in these projects:

- *Port Redevelopment* – Evidence of the evaluation of accessibility considerations for the port was requested from ADB but was not provided during the review period.
- *Hospital (Stage 1 and 2)* – The hospital planning process was significantly varied from the masterplan to make use of the modular components that were repurposed following a fire. Interviews with hospital and Department of Health (DoH) staff indicated that accessibility had not been well considered, with doorways and other areas that are too narrow for wheelchair access.
- *TVET Centre* – The site visit to the TVET Centre and interview with the Department of Education (DoE) Asset Manager indicated concerns with accessibility of the TVET Centre and Nauru Secondary School (which shares accessible toilets with TVET and was funded by DFAT prior to the review period). Wheelchair access to and between buildings, including the accessible toilet, over gravel is problematic. A proposal is being put forward for paved, undercover pathways.

Disability considerations are less relevant to the (i) NUC Technical Assistance and (ii) Electricity Supply and Sustainability Projects. No evidence was available regarding disability considerations for (i) Wellness Clinics, (ii) Household Water Tanks; (iii) Port Redevelopment and Institutional Reform.

c To what extent have investments in infrastructure identified opportunities to contribute to climate change mitigation?

This question has focused on the mitigation aspects of climate change, as adaptation considerations are addressed under the effectiveness criteria (KRQ 3a). Climate change mitigation has demonstrably been a key consideration in the project selection and design of the following projects:

- *Port Redevelopment and Institutional Reform* – the Final Feasibility Report (Cardno, 2017) for the port project quantified expected greenhouse gas (GHG) emissions reductions as an estimated \$8.6 million climate change benefit. ADB indicated that climate change mitigation was a key basis for the Green Climate Fund to co-finance the project. The value of reduced emissions was based on estimated fuel use by pusher barges and berthed container and fuel vessels.
- *Electricity Supply and Sustainability Project* - Interviews with the NUC and ADB indicated that the provision of the new diesel generators would reduce carbon emissions as compared to continuing to run the existing, less efficient generators. The generators selected were medium speed, providing good fuel efficiency and a longer asset life span than more fuel intensive high-speed generators. This approach also represented a cost saving in fuel and oil use and was confirmed by PMAG as a necessary pre-condition for solar energy to be introduced into the energy mix¹¹.

The review has not seen evidence that climate change mitigation strategies have been considered for the (i) TVET Centre, (ii) Hospital; (iii) Household Water Tanks; and (iv) wellness clinics projects. The evidence demonstrates that on other projects, climate change mitigation options were applied where relevant.

¹¹ Independent Review Report, Program Monitoring and Advisory Group (PMAG), 2014

4 Lessons Learned and Considerations

4.1 Lessons Learned

Sector Wide:

1. The use of Government of Nauru systems for infrastructure investments has caused some clear inefficiencies, such as on the water tank project and also on the wellness clinics. There are strong reasons to encourage use of government systems, given the overarching goal of strengthening government capacity. This trade-off has resulted in impediments and DFAT has identified solutions to mitigate these issues, which are key lessons to be captured and possibly shared. The key lesson is the importance of high quality process for the outsourcing of design, consultations, procurement and project supervision. Project supervision through a Project Management Unit that report to a steering committee to facilitate project delivery is necessary to ensure effective project delivery.
2. The cost of assets provided by Australia degrading and needing to be replaced prematurely is a reputational risk, contributes to an ongoing need for external funding and reduces the value for money proposition of each investment. It is important for DFAT to evaluate GON's capacity to deliver on co-contributions in the form of ongoing asset maintenance as part of project consideration.
3. In the delivery of major GoN infrastructure investments with Australian funding, DFAT should be the lead implementation agency for the Australian government (irrespective of budget contributions) to ensure effective development outcomes build on long term relationships with governments and protect Australia's reputation. This is particularly important during feasibility analysis, concept design, construction and handover to establish local ownership. DFAT focuses on delivering sustainable development in our region, and they have substantial experience and processes in place to deliver this objective in line with international good practice and representing Australia in long-term relationships with recipient governments. PMU and other mechanisms to deliver are suitable and DFAT do not need to lead each project, but they should be the lead agency representing the Government of Australia.
4. Contracts for maintenance should include service level agreements for response times, allowing for reasonable difficulties in obtaining parts and limited expertise. Other recommendations as outlined in the RONH Review Report V2 should be actioned.
5. The mechanism for maintenance of assets could potentially be supported through a central stockpile of spare parts for routine maintenance, available for all buildings (e.g. education, health, public buildings, utility, etc.).

Project Specific:

6. The NUC CEO has come up with an innovative approach to addressing "hot" connections to the electricity supply, by providing a service to each household whereby their electricity connections are checked for safety to prevent house fires. Whilst conducting safety inspections, issues of irregular connections and metering arrangements were able to be identified. This approach of providing a service that benefits households, increases cooperation and access to resolve a potentially challenging compliance issue, and is a useful approach with potential for broader application.
7. Needs for people living with disabilities have not been considered in the TVET or NSS designs. DFAT could consider supporting improvements in these areas, if not funded by GoN or others.
8. The Common Approach (developed through PRIF) for environmental and social safeguards would be a useful tool to simplify the application of DFAT and ADB's safeguards requirements to the port project.

5 Recommendations for a future Infrastructure strategy

Based on the evidence collected (through extensive in-country consultations and document reviews), the review team makes the following recommendations for the future infrastructure strategy for DFAT in Nauru to support the Government of Nauru's and DFAT's objectives in infrastructure. Detailed information on the evidence against the KRQ is in Annex B: Evidence Matrix.

The recommendations are focused on two main objectives:

1. Supporting the Government of Nauru to embed and implement a robust and **strategic infrastructure framework** for prioritisation and selection of investments; and
2. **Retaining the value for money proposition of existing investments** over time through selected interventions.

A new infrastructure strategy would need to be informed by DFAT's Aid Investment Plan and reflected in the PAF. Further, existing and new infrastructure project monitoring and reporting systems would subsequently need to be linked to the PAF with their own set of performance expectations which could help demonstrate contribution towards overarching goals set out in an infrastructure strategy.

As per objective 1, the process for selection of infrastructure investments is recommended to be based on the revised NSDS (2018-2030), the GON strategic framework for infrastructure and DFAT's new infrastructure strategy, with project selection based on a multi-criteria analysis. The below list is indicative of currently foreseeable need for priority infrastructure investment (by GoN or development partners) in Nauru going forward:

- Renewable energy;
- Water and sanitation;
- Drainage and roads;
- Health (community health clinics and stage 3 of the hospital, including nurses quarters);
- Information and Communications Technology, including access for educational purposes;
- Education (additional TVET facilities for staff and students, classrooms at primary and secondary levels if attendance rates increase);
- Waste management; and
- Land rehabilitation and associated infrastructure (including water catchments and land use planning).

The recommendations to achieve each of these objectives are as outlined in *Figure 3* below.

Objective 1 – Government of Nauru to embed and implement a robust and strategic infrastructure framework for prioritisation and selection of investments.

The GoN has established the Nauru Infrastructure & Asset Management Steering Committee (NIAMSC) to develop a Nauru Infrastructure Asset Management Framework (NIAMF) and National Infrastructure Investment and Management Strategy (NIIMS) to set the direction for infrastructure investments and asset management for the next 5 to 10 years. The Pacific Regional Infrastructure Facility (PRIF), of which DFAT is a partner and co-funder, are supporting this activity. Given the critical importance of gains in this area, it would be in DFAT's interests to support the program to enhance effectiveness of outcomes. It is recommended that DFAT support GoN to:

SHORT TERM:

- a DFAT to engage with PRIF to request **an independent quality peer review** of NIAMF, NIIMS and associated documents is undertaken to ensure robust analysis.
- b **Coordinate and harmonize** with development partners as a key part of the process of selecting infrastructure investments to ensure that the highest priority projects are supported and opportunities to leverage the strategic advantages of each development partner are identified, as well as opportunities to co-fund or otherwise collaborate to leverage available funds. The PRIF mechanism could be a platform to facilitate coordination across Nauru's infrastructure investments.

WITHIN 1-3 YEARS:

- c Develop an **Infrastructure Strategy for DFAT** Nauru that supports Australia's strategic interests in Nauru and considers the recommended priority infrastructure needs identified in the NIAMF, NIIMS and NSDS;
- d Support NIAMF and NIIMS as the platform to inform infrastructure investments through GoN budget allocations and requests for funding from DFAT and other development partners.
- e **Develop the capacity of DoID** to periodically update the NIAMF, NIIMS and associated documents to inform infrastructure project prioritization over time (such as through a long-term embedded PACTAM advisor with budget available in 2019-20).

Objective 2 – Retain the value for money proposition of existing investments.

SHORT TERM:

- a **Continuation of the NUC CEO.** Significant gains have been made through the NUC in stabilising the electricity supply and improvements in water delivery, of which DFAT contributed not only the PACTAM Advisor (NUC CEO) but also contributed to the capital costs of two diesel generators and associated infrastructure. The value of this investment is not yet secured, as gains will likely be lost if ongoing support to the NUC is not continued until a long-term sustainability strategy can be implemented. It is recommended that a sustainability strategy, with clear time frames articulated, would be a key deliverable for the NUC CEO.
- b Consider innovative approaches to maintaining and cleaning privately owned **water tanks**. Potential options include perhaps similar to the approach taken to electrical safety at the household level.

WITHIN 2-3 YEARS:

- c **Asset Maintenance.** The cost of assets provided by Australia degrading and needing to be replaced prematurely is a reputational risk, contributes to an ongoing need from GoN for external funding and reduces the value for money proposition of each investment. In addition, the RON hospital needs an assessment to determine if interventions are needed to address current limitations and extend the life of the modular structure situated close to corrosive marine environment. Support for short term hospital maintenance may be necessary in the interim.
- d **DFAT's Strengths and Capacity.** DFAT is better placed to support on larger projects, instead of a number of smaller projects, to utilise government systems whilst best delivering project outcomes. Additional resourcing within DFAT to manage the infrastructure portfolio may also needed to ensure suitable oversight can be provided to existing commitments (in particular the new port), as well as to support follow through on these recommendations.

Figure 3 – List of Recommendations

Annex A – Key Review Questions

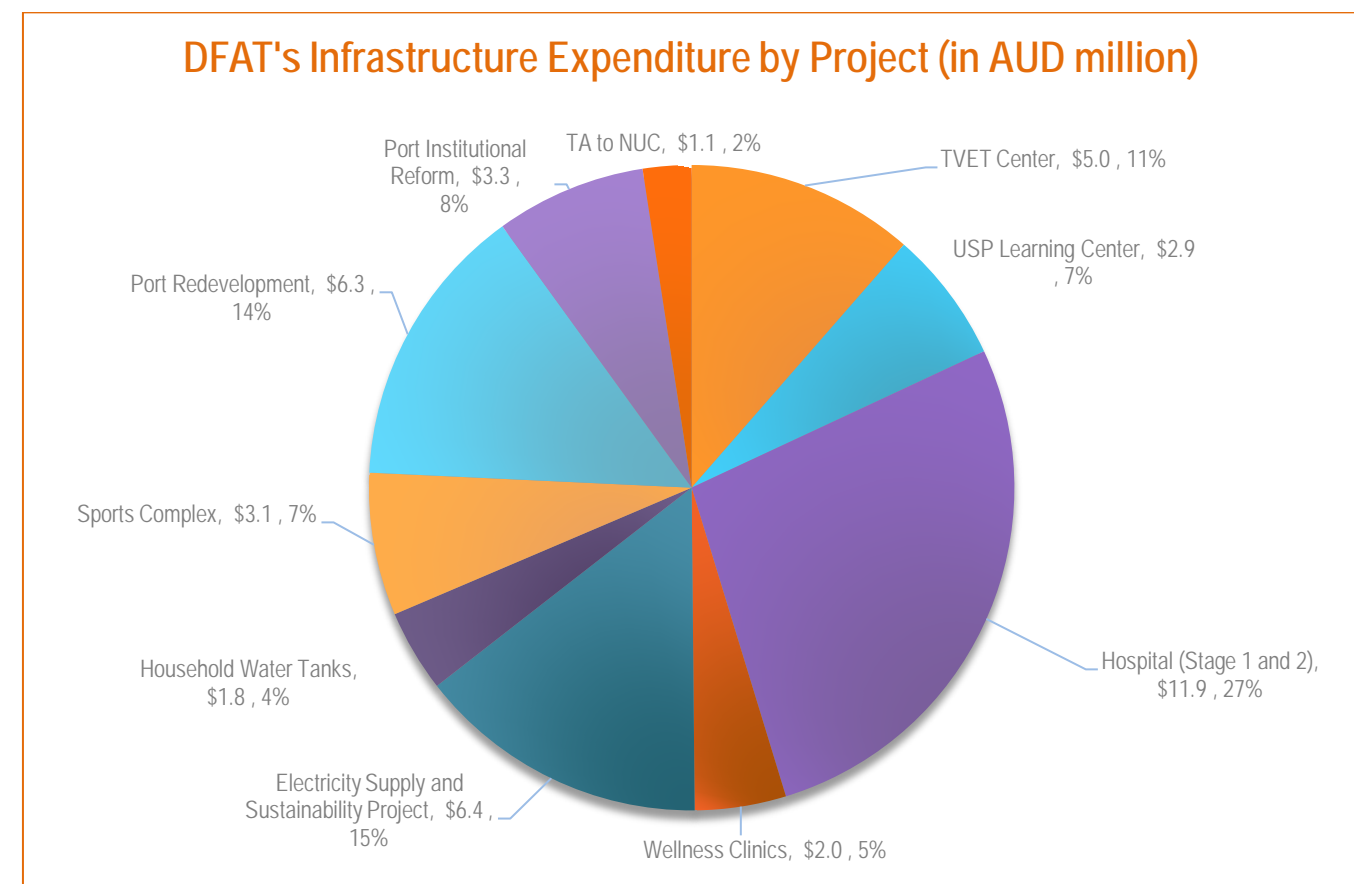
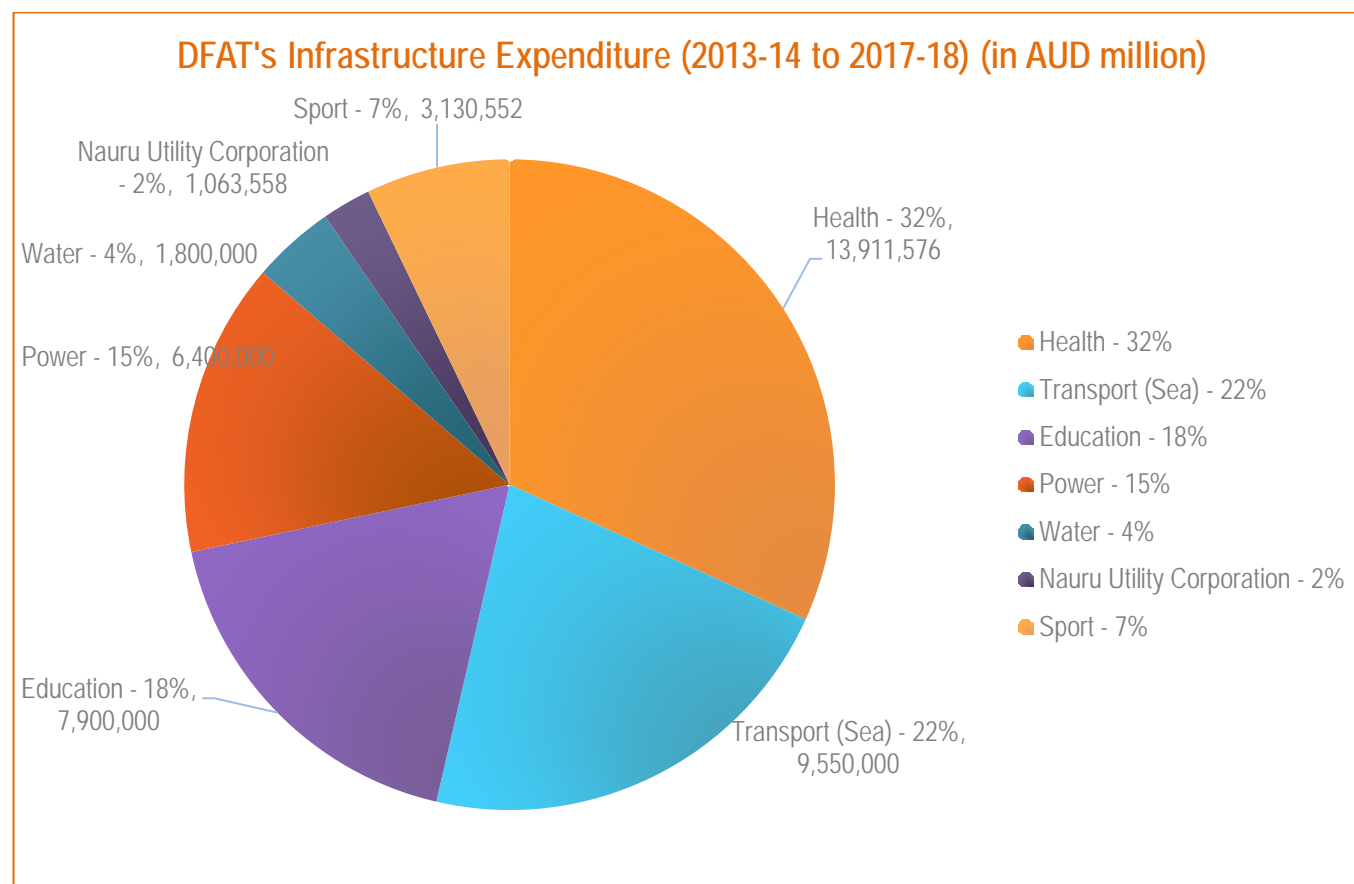
Criteria	Key Review Questions
Relevance	<ol style="list-style-type: none"> 1 Given the objectives of DFAT and the GoN in the infrastructure and essential services sector, to what extent are existing initiatives relevant? <ol style="list-style-type: none"> a To what extent does Australia’s contribution support GoN’s objectives in infrastructure and essential services? b How is investing in infrastructure and essential services in Nauru in Australia’s national interest? 2 What areas of infrastructure/services would be most strategic for DFAT to support and why?
Effectiveness	<ol style="list-style-type: none"> 3 To what extent has DFAT’s support been effective at providing essential infrastructure and reform of the utilities sector? <ol style="list-style-type: none"> a To what extent have DFAT’s investments delivered physical infrastructure that is fit for purpose over time in a changing climate? b To what extent have DFAT’s investments ensured that infrastructure assets and utilities are sustainably operated, managed and maintained?
Efficiency	<ol style="list-style-type: none"> 4 To what extent has the investment efficiently used Australia’s contributions in terms of time and resources to achieve the desired outcomes? <ol style="list-style-type: none"> a To what extent has DFAT selected infrastructure projects that efficiently deliver the agreed outcomes, after considering suitable alternatives? b To what extent were DFAT’s investments managed to ensure delivery on time and within budget, considering mixed modality of delivery? c How have DFAT’s infrastructure investments harmonised with other donors, regional organizations and aligned with partner government systems?
Monitoring and Evaluation	<ol style="list-style-type: none"> 5 What would the preferred structure of the program, performance expectations and monitoring and evaluation look like? <ol style="list-style-type: none"> a To what extent are the current reporting and M&E arrangements suitable considering DFAT standards, particularly for the indoor sports complex, and Nauru port reform and redevelopment? b What would the recommended Theory of Change and M&E Framework include for ongoing and future DFAT infrastructure investments?
Cross Cutting Issues	<ol style="list-style-type: none"> 6 To what extent have DFAT’s investments in infrastructure managed environmental and social impacts and identified opportunities for improvements in gender equality, disability inclusive development and climate change mitigation? <ol style="list-style-type: none"> a To what extent have opportunities to improve gender equality been identified and appropriately managed with gender sensitive approaches integrated into design? b To what extent are opportunities to improve life for people living with disabilities been identified and appropriately managed as part of designs? c To what extent have investments in infrastructure identified opportunities to contribute to climate change mitigation?

Annex B – Evidence Matrix

List of projects DFAT have been involved in the following physical infrastructure in Nauru during the review period (since 2014) - by project status and sector.				
Sector	Completed	Ongoing / Construction	Planning / Design	Operations and Maintenance
Education	TVET Centre USP Learning Centre			
Health	Hospital (stage 1 and 2) Wellness clinics			
Power	Nauru Electricity Supply and Sustainability Project			Support to the NUC (CEO through PACTAM) including TA support for rehabilitation and maintenance of assets.
Water		Household water tanks		
Sports		Sports complex		
Transport (sea)			Seaport (including TA and redevelopment)	

Limitations of this review:

- The hospital masterplan (including nurses quarters) has not been included as it has been recently evaluated as part of a separate health review for DFAT.
- The wellness clinics have also been reviewed by the health review and time limitations for data collection has resulted in only partial information being included in this review.
- Construction of the TVET Centre was completed in early 2014 (the start of the review period), and as such only limited information for this has been available as a lot of planning and implementation falls outside the review period.
- The USP Learning Centre has relied upon interviews and information from the parallel education review.
- DFAT Funding allocated for a Reverse Osmosis Plant Shed in FY 2012/13 which has been reallocated to an NUC water testing shed has not been part of this review.



EVIDENCE MATRIX – NAURU – Infrastructure Sector Review		
Key question	Overall finding:	
1. Given the objectives of DFAT and the GoN in the infrastructure and essential services sector, to what extent are existing initiatives relevant?	<p>DFAT's infrastructure investments in the review period have focused on essential, social and economic infrastructure the key sectors of (i) transport (sea), (ii) power, (iii) water, (iv) health and (v) education. In addition, DFAT have provided sport infrastructure. Infrastructure investments include key assets in each sector, including the port, diesel generators, water tanks, the hospital, community wellness clinics, learning village buildings (TVET and USP), sports complex and rehabilitation of sports facilities.</p> <p>All of the areas of investment by DFAT during the review period have been relevant to the GoN's objectives in infrastructure and essential services, as outlined in Nauru's National Strategic Development Strategy (NSDS) for 2005-2025. From stakeholder consultations held to establish priorities for the NSDS 2018-2030 (being drafted at the time of this review), the areas of focus appear to be shifting as needs have been addressed. The revised priorities should inform the selection of any future investments in infrastructure assets going forward, whilst balancing asset rehabilitation and maintenance needs with investments in new assets.</p>	
Sub-question	Evidence	Findings
a. To what extent does Australia's contribution support GoN's objectives in infrastructure and essential services?	<p>Strength of Evidence Rating: Strong. <i>(Based on government documents and primary interviews)</i></p> <ul style="list-style-type: none"> [EVIDENCE 1] – NSDS 2005-2025 (Original and 2009 Revision). The National Sustainable Development Strategy (NSDS) was prepared in 2004 for the period 2005-2025 and revised in October 2009. In December 2017 stakeholder consultations for a revised NSDS from 2018-2030 had been undertaken, as a preliminary step in drafting a revised version of the NSDS. At the time of the review, the revised NSDS 2018-2030 is still being drafted by the Planning and Aid Division (PAD) of the Ministry of Finance (MoF). The NSDS included a high-level snapshot of progress towards the Millennium Development Goals, to which the areas identified as NSDS priorities broadly underpin. For the revised 2018-2030 NSDS, the Sustainable Development Goals are now relevant. The original NSDS (2005-2025) identified these priority sectors and focus areas: (i) Energy (including renewable sources); (ii) Institutional capacity to plan, deliver, maintain and operate infrastructure and community engagement; (iii) Water and Sanitation; (iv) Waste management; (v) Transport (air, sea and land); (vi) Sports; (vii) Social infrastructure - health and education; and (viii) Asset maintenance. These were largely unchanged in the 2009 version of the NSDS. [EVIDENCE 2] – NSDS 2018-2030 Stakeholder Consultation Dec 2017. The NSDS 2018-2030 Stakeholder Consultation Report (December 2017) identifies the following objectives: (i) Land rehabilitation; (ii) Port development; (iii) Roads and drainage; and (iv) Water, sanitation and solid waste. [EVIDENCE 3] – Nauru Economic Infrastructure Strategy and Investment Plan (NEISIP) (PRIF, 2011). During 2010 and 2011 the Government of Nauru has engaged with PRIF (PIAC) to develop the Nauru Economic Infrastructure Strategy and Investment Plan (NEISIP), which represented a 5 to 10-year prioritized investment plan for economic infrastructure. The plan identified needs and priorities for investments in economic infrastructure (including government buildings) and assessed the financial resources to support implementation. The assessment from the NEISIP authors indicates that the NSDS is consistent with the Millennium Development Goals (MDGs), the Pacific Plan and the Paris Declaration on climate change. The priorities identified by NEISIP include (i) Development of a new quay wall and Anibare Mooring; (ii) Resurfacing and fencing of the runway; (iii) Road rehabilitation (contingent on runway resurfacing); (iv) Preparation of a masterplan for water and sanitation (including solid waste); (v) Sludge “alternative disposal options” project; (vi) Procurement of additional water tankers for water supply; (vii) Preparation of a strategy for renewable energy (with an emphasis on solar); (viii) Establishment of an O&M spare parts store and workshop for NUA; (ix) Development of a new hospital; (x) Rebuilding of Aiwo School; and (xi) Implementation of the Learning Village Project. [EVIDENCE 4] – Infrastructure Sector Review (ISR) (PRIF-PIAC, 2013). The Infrastructure Sector Review by PIAC evaluated and revised the NEISIP prepared in 2010/11. The review confirmed the NEISIP recommendations, with some revisions over time and identified a number of key actions to achieve the strategic objectives and realize NEISIP priority investments. Investments that were identified in the review and subsequently supported by DFAT include in maritime (feasibility for port redevelopment, operational plan for the port and corporate strategy and performance improvement plan for PAN), power (performance improvement plan for NUC) and government buildings (new hospital, learning village). The Infrastructure Sector Review also identified a number of other objectives, some of which have been supported by GoN and other development partners. [EVIDENCE 5] – Aid Partnership Arrangement (DFAT & GON 2017) – The APA identifies one of three priority areas is “to invest in nation building infrastructure consistent with Australia's strategic interests, which include growth through enhanced trade facilitation”. This includes “construction and maintenance of economic infrastructure to support human development and foster commerce and trade”. The report also notes that a Program Monitoring and Advisory Group (PMAG) was established by GoN and GoA to help enhance program outcomes for the Partnership for Development. [EVIDENCE 6] – Independent Review Report (PMAG, 2014) – The independent review states: “Improving the reliability of power supplies remains a key concern, and ADB will be assisting in buying a new generator, repairing the power station roof, preparing an asset management plan, reviewing the corporate structure, improving accounting and HR systems, and conducting a tariff study. An Energy Road Map for Nauru, setting the basis for the shift to renewable energy, has been prepared. However, the mission is of the clear view that a reliable base load is a pre-requisite and remains the first priority.” [EVIDENCE 7] – Nauru Water and Sanitation Masterplan (GoN, 2017) – “The proposed water supply system is a traditional water supply system with pumping to key reservoir locations and then making maximum use of gravity to supply a ring main which extends around the island. The water supply options have considered and accommodated the use of conjunctive water sources to reduce Nauru's reliance on desalination although this remains the primary bulk water production source. Improvements in rainwater harvesting at a household level are possible and are actively encouraged.” [EVIDENCE 8] – Concept Design Report (A&L, 2017) – The report identifies two major sport complexes on Nauru. The first is Centennial Hall in Aiwo district, an open-sided, steel roof structure with an elevated stage, open area for changing and a painted concrete floor, electric lighting and seating for 1500 people. Centennial Hall is used for a wide range of government, community and sporting events and is the current home of weightlifting and power lifting in Nauru but is too low and small for basketball or volleyball. The second is Nauru Secondary School in Yaren district, which is used for school sports activities and events, with room for basketball, volley ball, badminton, gymnastics and general gymnasium activities. Community activities are also staged. The report further states that eighty-five percent of the population lives on the narrow coastal strip, with the rest living around the Buada lagoon. [EVIDENCE 9] – Representatives from the Ministry of Finance Planning and Aid Division (PAD) [INTERVIEW 8] expressed the opinion that DFAT's investments were closely aligned and relevant to Nauru's strategic development plan. 	<p>Rating: Good (5/6)</p> <p>The areas of investment by DFAT during the review period have been relevant to the GoN's objectives in infrastructure and essential services as articulated at a high level in the NSDS 2005-2025.</p> <p>NEISIP (2011) identifies a range of priority infrastructure investments. DFAT's investments align partially with the recommendations, including delivery of a new hospital and the learning village. Some activities have been delivered by other development partners. Whilst DFAT's investments did not align fully with the recommendations, the projects identified as priority actions (including the runway resurfacing and road rehabilitation) were not clearly the most important use of limited funds and were dropped from the revised priority list in 2013. Other recommendations included development of long-term strategies and masterplans, including for water, sanitation and renewable energy, which have been delivered by GoN through other development partners.</p> <p>Infrastructure projects delivered by DFAT that do not align with the ISR (2013) include the water tanks project, provision of additional diesel generators (through ADB) and the sports complex. Both the water tanks project and diesel generators were in response to fulfilling an immediate need, rather than aligned with strategic long-term investments.</p> <p>The diesel generators were essential to provide a reliable base load as a pre-requisite for future solar (and other renewables) and was considered the first priority by PMAG.</p> <p>The household water tanks approach aligns with the recent masterplan for water and sanitation, which actively encourages rainwater harvesting at a household level. This project was also initiated by GoN applying for funding through an Australian funded Climate Change initiative.</p> <p>The sports complex was supported by DFAT to deliver health and social inclusion outcomes. Although sports are part of the NSDS, this project is the least relevant in terms of prioritisation of infrastructure investments, as per the NEISIP and ISR.</p>

	<ul style="list-style-type: none"> • [EVIDENCE 10] – CIE stated [INTERVIEW 7] that the Water Tanks Project was requested by GoN through an Australian funded climate change adaptation initiative that was in place at that time to provide water storage at the household level in the case of increased periods of drought. The focus of the program was on meeting the immediate needs of vulnerable households. • [EVIDENCE 1.1] – DFAT indicated [INTERVIEW 1] that the sports complex was a priority outlined in the NSDS and there had been a number of requests from GON for the complex (including at the Senior Officials Talks) in 2016. AusAid had also undertaken a study on constructing a sports complex in 2007. Due to delays in the Port Project and expenditure issues in health, the sports complex priority was able to moved forward. • [EVIDENCE 12]– The Ministry of Infrastructure Development indicated [INTERVIEW 4] that whilst they have sought funding for the runway resurfacing in the AOP for a number of years now, advice received from three different consultants was contradictory. They indicated that the runway was five years “overdue” to be resurfaced, however due to a small number of flights per week (1 per week normally, increased to 11 per week as a result of the RPCs since 2013), there was less wear and tear on the runway and it continues to meet international standards (ICAO). The main ring road also cannot be patched beyond a certain size of pothole, but needs to be totally resurfaced due to the cost of bringing in the necessary equipment from overseas (likely New Zealand), and is also not a priority at this stage. 	
<p>b. How is investing in infrastructure and essential services in Nauru in Australia’s national interest?</p>	<p>Strength of Evidence Rating: Weak. <i>(Based on GOA documents and interviews)</i></p> <ul style="list-style-type: none"> • [EVIDENCE 1] – White Paper - Four Aid Tests <p>“We ensure that our investments deliver results by using a comprehensive performance system. We report publicly on our effectiveness through the annual Performance of Australian Aid report. When allocating development assistance, we apply four tests:</p> <ul style="list-style-type: none"> ○ is this in our national interest? “Australia’s aid in Nauru forms part of our broader economic and diplomacy efforts to promote prosperity and security in the Pacific region and we pursue an integrated set of foreign, trade and development policies to advance our interests in Nauru.” [Aid Investment Plan] ○ will this promote inclusive growth and reduce poverty?- Although there are no specific statistics, funding provided to the hospital phase I and II (health), TVET Centre and the Learning Centre (education), sports complex (social and health), port redevelopment and NUC through the NUC CEO (essential services) can be deemed to be contributing to inclusive growth and reducing poverty in Nauru. ○ does Australia’s contribution add value and leverage partner funding? Australia is one Nauru’s key partners supporting infrastructure and essential services. Australia’s contribution is adding value in both physical and social infrastructure of Nauru. Australia is also leveraging funding from other partners such as the ADB, Green Climate Fund and others. ○ will this deliver results and value for money?”- the following DFAT investments are assessed to be effective or likely to be effective after completion (see section on effectiveness for more information): <ul style="list-style-type: none"> ▪ TVET Centre ▪ Electricity Supply and Sustainability Project ▪ USP Learning Centre ▪ Sports Complex ▪ Port Redevelopment ▪ Technical Assistance support to the Nauru Utilities Corporation (NUC) • [EVIDENCE 2] – Aid Investment Plan – Nauru (2015-16 to 2018-19) <p>“It is in Australia’s interest to support a stable and economically sound and resilient Nauru that has the capacity to effectively manage its resources and deliver on key human development needs, and to enable Nauru’s community to benefit from economic and labor mobility opportunities. Australia’s aid in Nauru forms part of our broader economic and labor mobility opportunities. Australia’s aid in Nauru forms part of our broader economic and diplomacy efforts to promote prosperity and security in the Pacific region and we pursue an integrated set of foreign, trade and development policies to advance our interests in Nauru.”</p>	<p>Rating: Good (5/6)</p> <p>Physical infrastructure that is fit for purpose, maintained and operated over time is essential in the delivery of an economically sound and resilient Nauru. Institutional capacity to effectively manage resources such as infrastructure assets is key to delivering on key human development needs, including social infrastructure associated with health and education.</p> <p>It is evident that the investments within the review period fit with the three strategic priorities of the Aid Investment Plan 2015-16 to 2018-19, namely:</p> <ul style="list-style-type: none"> • Promoting more effective public-sector management • Investing in nation building infrastructure • Supporting human development

Key question	Overall finding:
<p>2. What areas of infrastructure/service s would be most strategic for DFAT to support and why?</p>	<p>[OBJECTIVE 1] – Government of Nauru to embed and implement a robust and strategic infrastructure framework for prioritisation and selection of investments. The GoN has established the Nauru Infrastructure & Asset Management Steering Committee (NIAMSC) to develop a Nauru Infrastructure Asset Management Framework (NIAMF) and National Infrastructure Investment and Management Strategy (NIIMS) to set the direction for infrastructure investments and asset management for the next 5 to 10 years. The Pacific Regional Infrastructure Facility (PRIF), of which DFAT is a partner and co-funder, are supporting this activity. Given the critical importance of gains in this area, it would be in DFAT’s interests to support the program to enhance effectiveness of outcomes. It is recommended that DFAT support GoN to:</p> <ul style="list-style-type: none"> i Develop an Infrastructure Strategy for DFAT Nauru that align with the NIAMF and NIIMS, and support them as the platform to inform infrastructure investments through GoN budget allocations and requests for funding from DFAT and other development partners; ii Analyse lessons learned from the 2011 NEISIP activity delivered by PRIF, which was revised in 2013, to determine if any adjustments to the approach are needed and support a quality peer review of NIAMF, NIIMS and associated documents is undertaken (through PRIF, independently and including DFAT feedback) to ensure robust analysis; iii Develop the capacity of GoN to periodically update the NIAMF, NIIMS and associated documents to inform infrastructure project prioritization over time (such as through a long-term embedded PACTAM advisor); and iv Coordinate and harmonize with development partners as a key part of the process of selecting infrastructure investments to ensure that the highest priority projects are supported and opportunities to leverage the strategic advantages of each development partner are identified, as well as opportunities to co-fund or otherwise collaborate to leverage available funds. The PRIF mechanism could be a platform to facilitate coordination across Nauru’s infrastructure investments. <p>[OBJECTIVE 2] – To retain the value for money proposition of investments made to date, DFAT to focus on these key areas going forward:</p> <ul style="list-style-type: none"> i Asset Maintenance. Ensuring GoN has the ability to maintain assets sustainably over the asset lifecycle. The cost of assets provided by Australia degrading and needing to be replaced prematurely is a reputational risk, contributes to an ongoing need for external funding and reduces the value for money proposition of each investment. ii Continuation of the NUC CEO. Significant gains have been made through the NUC in stabilising the electricity supply and improvements in water delivery, of which DFAT contributed not only the PACTAM Advisor (NUC CEO) but also contributed to the capital costs of two diesel generators and associated infrastructure. The value of this investment is not yet secured, as gains will likely be lost if ongoing support to the NUC CEO is not continued until a long-term sustainability strategy can be implemented. It is recommended that a sustainability strategy, with clear time frames articulated, would be a key deliverable for the NUC CEO. iii RON Hospital. Within the next two years, the RON hospital needs further assessment interventions to enhance current facilities and extend the life of the modular structure situated close to corrosive marine environment. Support for short term maintenance may be necessary in the interim. iv DFAT’s Strengths and Capacity. DFAT is better placed to support on larger projects, instead of a number of smaller projects, to utilise government systems whilst best delivering project outcomes. Additional resourcing within DFAT to manage the infrastructure portfolio may also needed to ensure suitable oversight can be provided to existing commitments (in particular the new port), as well as to support recommendations 2 and 3. <p>Realistic expectations would be needed regarding the longevity of engagement and level of support needed to deliver sustained capacity, considering constraints such as the political economy and likely long-term lack of human resources typical of a micro-state. The recently established Ministry of Infrastructure Development would likely need embedded support to establish their role and ability to deliver necessary results.</p>

Evidence	Findings
<p>Strength of Evidence Rating: Moderate. (Based on government documents and primary interviews)</p> <p>[EVIDENCE 1] – It is commonly accepted that following recommended maintenance schedules for assets is necessary to ensure the asset is functional for its expected life span, and that by not undertaking suitable maintenance the return on investment of an asset is likely reduced.</p> <p>[EVIDENCE 2] – The NUC CEO [INTERVIEW 11] presented evidence of the strategic plan set in place in 2014, and the achievements delivered since that date. Anecdotal evidence from a number of others interviewed also supported that the electricity supply had become more secure in that timeframe, and to a lesser extent, also the reliability and speed of water delivery services. However, the NUC CEO outlined that attempts to identify a suitable person to take over the position at the end of the PACTAM funding had not been successful, and it was the opinion of the NUC CEO that there were no members of the current team were not suitably skilled to step into the position. The General Manager is also Fijian and indicated that he would also depart when the CEO left, leaving a significant gap in leadership at the NUC.</p> <p>[EVIDENCE 3] - Interviews with A&L [INTERVIEWS 22] A&L had undertaken a review of the hospital during construction of Phase 2, however noted that they are not building certifiers. A&L stated that “we believe that an independent inspection of the current roofing should be carried out by a reliable roofing contractor to determine its overall condition and expected life and to suggest / develop a roof maintenance program for RONH”.</p> <p>[EVIDENCE 4] – Based on observations from the review team and DFAT’s comments [INTERVIEW 1], it appears that DFAT Nauru are under-resourced in terms of their ability to provide support to infrastructure projects. In order to deliver on the recommendations, particularly to strengthen GoN’s asset maintenance capabilities and to support DFAT’s interests in implementation of the Port, DFAT appears to need a dedicated resource for the infrastructure portfolio.</p> <p>[EVIDENCE 5] - Nauru Economic Infrastructure Strategy and Investment Plan (NEISIP) (PRIF, 2011). NEISIP represents planning in the infrastructure sector, with high level support from GoN (it was endorsed by Parliament in 2011). PRIF are continuing to support this and the newly formed Department of Infrastructure Development have also agreed with the approaches outlined and are actively engaged with this as a planning approach for the infrastructure sector.</p>	<p>Rating: N/A</p> <p>There are some asset maintenance strategies in place, as outlined in response to Key Review Question 3b, however the adequacy of these is in question and the infrastructure delivered may not deliver expected return on investment unless asset maintenance is strengthened systemically by GoN across assets irrespective of funding source.</p> <p>The NUC is unlikely to sustain gains delivered if the NUC CEO and General Manager simultaneously depart. Suitable candidates (more than one) need to be identified well prior to the incumbent’s departure to avoid losing the gains made through the investment to date.</p> <p>Concerns regarding the roof, floor and walls of the RONH hospital were raised by contractors A&L also supported that and independent assessment of the structure was necessary, and was not their role in completing a previous review of the hospital.</p> <p>DFAT Nauru currently have a staff member with responsibility for the health and infrastructure portfolios, both of which are significant portfolios. DFAT may need to assess the suitability of this and potentially create a dedicated infrastructure position internally to provide suitable oversight of infrastructure commitments.</p> <p>Given significant existing investment by DFAT and other donors through PRIF in the NEISIP and associated documents for asset management and infrastructure prioritization and planning, it is recommended that DFAT support this process where possible and engage with this as the mechanism going forward to strategic infrastructure programming. Steps that would support this would include ensuring the quality of the document is suitable (through peer review), assess the lessons’ learned as to why the traction since 2011 appears to have been limited such that the current iteration may be strengthened, and working with GoN (such as through PRIF or PACTAM) to ensure that they have the capacity to take ownership of the documents going forward.</p>

Key question	Overall finding:
<p>3. To what extent has DFAT's support been effective at providing essential infrastructure and reform of the utilities sector?</p>	<p>DFAT's infrastructure investments in the review period have focused on essential, social and economic infrastructure in the key sectors of (i) transport (sea), (ii) power, (iii) water, (iv) health and (v) education. In addition, DFAT have provided sport infrastructure. Infrastructure investments include key assets in each sector, including the port, diesel generators, water tanks, the hospital, community wellness clinics, learning village buildings (TVET and USP), sports complex and rehabilitation of sports facilities.</p> <p>DFAT's infrastructure investments since 2014 by implementation phase are:</p> <ul style="list-style-type: none"> • Completed – TVET Centre, Hospital (Stage 1 and 2), Wellness Clinics, Electricity Supply and Sustainability Project • Ongoing / Construction – USP Learning Centre, Household Water Tanks, Sports Complex • Planning / Design – Port Redevelopment, Port Institutional Reform • Operations & Maintenance – Technical Assistance support to the Nauru Utilities Corporation (NUC) – inline CEO position <p>DFAT's investments since 2014 by financing arrangement are:</p> <ul style="list-style-type: none"> • Co-financed - Nauru Electricity Supply and Sustainability Project (ADB and EU), Port redevelopment and Port Institutional Strengthening (ADB, GoN and GCF) • DFAT Implemented - NUC CEO (through PACTAM), RON Hospital - stage 1 and 2 • Financed through GoN systems - TVET Centre, USP Learning Centre, Wellness clinics, Household water tanks, Sports complex <p>These projects have been assessed as effective or likely to be effective upon completion*:</p> <ul style="list-style-type: none"> • TVET Centre • USP Learning Centre • Electricity Supply and Sustainability Project • Sports Complex • Port Redevelopment • Port Institutional Reform • Technical Assistance support to the Nauru Utilities Corporation (NUC) – has been highly effective to date, however this is at risk if the incumbent departs. An achievable and sustainable transition strategy is needed to ensure gains are retained beyond the tenure of the incumbent. Given the constraints of a micro-state, this may be challenging and require ongoing support. <p>These projects have the potential to be effective, with some key additional interventions:</p> <ul style="list-style-type: none"> • Hospital (Stage 1 and 2) – requires additional resources to address key upgrades to materials and facilities to extend the life of the modular structure and meet user needs and support ongoing asset maintenance. • Wellness Clinics – these facilities are clearly necessary, and the operational clinic is potentially effective. Further actions are needed to ensure the clinics have appropriate facilities to be effective. <p>These projects are unlikely to be effective:</p> <ul style="list-style-type: none"> • Household Water Tanks – asset maintenance will be unlikely to be achievable on this project due to ownership of tanks by individual households. <p><i>* The effectiveness of the projects over time is subject to the recommendations being actioned to ensure that gains are sustained. This includes (i) systemic support for asset maintenance across GoN's infrastructure; (ii) suitable resourcing within DFAT, and (iii) continuation of the NUC CEO.</i></p>

Sub-question		
3a To what extent have DFAT's investments delivered physical infrastructure that is fit for purpose over time in a changing climate?		
Project	Evidence	Findings
Strength of Evidence Rating: Moderate. <i>(Based on implementing agency reports and interviews with stakeholders)</i>		Rating: Good (5/6)
COMPLETED PROJECTS		
TVET Centre	Evidence collected in the parallel Education suggests that the TVET Centre at this stage has requirements for additional infrastructure, including classrooms (subject to negotiations with the secondary school regarding existing resources), staff offices and toilet facilities.	The infrastructure review has not analyzed in detail the design process for this project as construction was completed in early 2014. The education review suggests additional infrastructure for TVET may be required.
USP Learning Centre	[EVIDENCE 1] – Nauru Education Review for DFAT (May/June 2018) - Based on the education review conducted in parallel for DFAT, it appears that the design of the Learning Centre is largely fit for its intended purpose. Main areas of feedback from the education review in the design include that it could have been better integrated with TVET (including potentially including a TVET staff office and access ways aside from through the multipurpose room) and a kitchenette on the ground floor. A downstairs classroom would also have been beneficial, noting that the multipurpose space will possibly be utilized as a conference facility for meetings.	The building construction has recently been completed, so it is premature to assess the suitability of the design. No direct stakeholder interviews were conducted, but the education review indicated that the building is largely fit for purpose. The site is in close proximity to other learning facilities, including Nauru Secondary School and the TVET Centre, which collectively make the Learning Village. These existing facilities and availability of leased land have strongly informed site selection, and proximity to the ocean has been addressed in the design through suitable selection of materials.
Hospital (stage 1 and 2)	Interviews [INTERVIEWS 1, 9] suggest that largely the new hospital has been a significant improvement on the existing facilities, part of which burnt down in 2013 after the original hospital masterplan had been prepared. Interviewees from Department of Health and Medical Services (DHMS) were particularly complementary of DFAT's Second Secretary in working with GoN Issues raised [INTERVIEW 9] regarding the design of the hospital were (i) the layout of operating theatre as substandard for managing infection control, (ii) materials selection for the roof (rusting from proximity to the sea) and flooring (has failed in one spot and showing signs of soft spots within 2 years of construction), (iii) confusing flow of patients to access different hospital services including lack of reception areas within the hospital (e.g. at pathology labs), (iv) width of doorways to accommodate beds with medical staff around as they move through emergency areas, (v) wheelchair access, (vi) design of the ambulance access area, which has a pole blocking ambulance swing doors from opening, (vii) a number of concerns regarding the oxygen and other gas delivery and alarm systems which have not worked since delivery, notably in the operating theatre area, (viii) proximity of the septic treatment facilities to the maternity ward and (ix) proximity of the incinerator to the oxygen tanks, with resultant safety concerns meaning some of these facilities cannot be used. DFAT [INTERVIEW 1] indicated that the design of the hospital facilities underwent an independent quality review process after construction was completed. The quality review identified the operating theatre as an area where the design did not adequately meet the needs for infection control. [INTERVIEW 23] indicated that a modular structure for the hospital was already on island, having been designed for an alternate location and to attach to existing structures in that location. Following the 2013 fire at the RON hospital, the decision was made to repurpose the modular structures to rebuild on the existing hospital site. The structure was designed to Australian standards and constructed in Australia, with the explicit expectation that Australian technicians would be undertaking maintenance long-term. A 20-year life span is expected for most materials; however some components have an expected life of 5-10 years. The materials used were not intended to be used in close proximity to the ocean, as has ended up being their current location. The roof material would be expected to last around 4 years at the RON hospital location, assuming that routine (6-monthly) maintenance was taking place to identify and treat rust. Noting the Phase 1 was completed in mid-2016, and Phase 2 in early 2017, however the materials were also stored in Nauru since 2013. Limitations with the Phase 1 of the building, including the flooring, noting that the Phase 2 was designed with a slab foundation to be more robust and maintainable. The floor of the Phase 1 structure needs to be spray insulated underneath to prevent ongoing issues with weak spots caused by the internal temperature dropping below the dew point of 23 degrees. The walls may also have similar issues and recommended that a building inspection be undertaken to assess the roof, flooring and walls.	The process for the RON hospital development evolved following the RON hospital fire in 2013. DFAT contributed funding to the process but did not lead implementation. The process followed was lacking in key areas and has a number of resultant trailing issues in terms of effectiveness. These include (i) lack of stakeholder engagement and consultation; (ii) adapting the existing design to the new site without meeting key needs, such as the operating theatre; (iii) materials that are expected to have a shortened life span in their current location; (iv) maintenance needs (including for plant such as oxygen supply systems) that are difficult to support locally; (v) no defect liability period in the contract; and (vi) poor handover and capacity building for operations and maintenance. Other areas such as the location of the incinerator for hospital waste (placed in proximity to oxygen tanks) was not adequate, despite going through an extensive consultation process. This suggests that the consultations may not have included people with suitable skills and experience (in hospitals and/or infrastructure) to ensure a suitable outcome.
Wellness clinics	Interviews [INTERVIEWS 1, 9] have indicated that there were four community wellness clinics (shipping containers), of which three were funded by DFAT and one by GoN. Of the three funded by DFAT, one is currently in use (located near the police station), one has stopped being used due to lack of facilities for staff and patients (toilets, air-conditioning) and one was damaged in transit to Nauru. The latter is being repaired in New Zealand and will be installed at a later date. The GoN funded clinic is also no longer used, due to the container itself rusting in a short period of time from sea spray and lack of air-conditioning.	The investment in shipping container solutions, whilst potentially cost effective and timely, still requires adequate assessment of supplementary facilities needed to ensure that they are utilized. The clinics cannot be seen to be "fit for purpose" where they are not used due to lack of facilities. The siting of the clinics also needs to be considered, given some evidence that those located close to the ocean have rusted in a short period of time. Other materials or ways to deliver the services could be considered.

	<p>Medical staff at the hospital [INTERVIEW 9] indicated that the community wellness clinics are crucially needed to improve access to health services and reduce hospital patient load.</p>	
<p>Nauru Electricity Supply and Sustainability Project</p>	<p>[EVIDENCE 1] – Independent Review Report (PMAG, 2014) – The independent review states: “Improving the reliability of power supplies remains a key concern, and ADB will be assisting in buying a new generator, repairing the power station roof, preparing an asset management plan, reviewing the corporate structure, improving accounting and HR systems, and conducting a tariff study. An Energy Road Map for Nauru, setting the basis for the shift to renewable energy, has been prepared. However, the mission is of the clear view that a reliable base load is a pre-requisite and remains the first priority.”</p> <p>The broader project by ADB included several components, of which DFAT contributed AUD 6.4m between 2014 to 2016 for the procurement of two diesel generators (Investment Annual Infrastructure Report – DFAT, 2018).</p> <p>As outlined in the ADB Report and Recommendation of the President to the Board of Directors (2014), the overall project included “the delivery and installation of new diesel-fired generation to provide reliable base-load power for the NUC, allowing it to retire older generation assets and perform scheduled refurbishment of existing units to extend their service life. The project also repaired the roof of the existing structure housing the NUC’s generators to shield them from the elements. Addressing reliability and efficiency shortcomings in Nauru’s current diesel generation equipment is of first-order priority to improve service reliability and mitigate the risk of catastrophic failure of the NUC’s power generation. The NUC’s investment priorities include introducing 3.0 MW of new diesel-fired generation under the project to replace existing generation, improve efficiency and reliability, and reduce fuel costs. The NUC estimates that this will result in a 20% improvement in generation efficiency from the existing 3.4 kilowatt-hours (kWh) generated per liter of diesel consumed to 4.1 kWh.”</p> <p>Interview [INTERVIEW 11] with NUC indicated that the selection of diesel generators were suitable in terms of capacity, quality and brand and that NUC’s local staff now have the capability to maintain the generators. The interview indicated an expectation that the new diesel generators are intended to be the last for Nauru, with the expectation that they will be replaced at the end of their life with renewable energy sources.</p>	<p>The diesel generators contributed by DFAT were suitable in terms of capacity and quality and are contributing to the improved level of energy service in Nauru. The solution was suitable as a stepping stone towards renewable energy solutions being incorporated into Nauru’s energy mix.</p>
<p>ONGOING / UNDER CONSTRUCTION PROJECTS</p>		
<p>Household water tanks</p>	<p>Interviews [INTERVIEWS 1, 7] suggest that due to a number of factors, the household water tanks project is yet to be completed and has recently progressed again after being on hold for a number of years. The recent progress includes a tender for water tanks to be procured and delivered to Nauru port. Installation will be tendered as a separate process once the particular water tanks are identified through the tender process. The selection of households appears to have encountered challenges.</p> <p>[EVIDENCE 1] – Climate Risk and Vulnerability Assessment (Cardno, 2017) indicates that “almost all climate models project an increase in long-term average rainfall, with most models predicting increased rainfall for both the dry and wet seasons (BOM and CSIRO, 2014), although it is noted that the current range of interannual variation in rainfall is greater than all but the upper range of projections for the highest emission scenario by 2090. There is medium confidence in these projections. One of the reasons is that the future behavior of ENSO is unclear, and ENSO is a strong influence on rainfall variability from year-to-year.”</p> <p>[EVIDENCE 2] – Nauru Water and Sanitation Masterplan (GoN, 2017) – “The proposed water supply system is a traditional water supply system with pumping to key reservoir locations and then making maximum use of gravity to supply a ring main which extends around the island. The water supply options have considered and accommodated the use of conjunctive water sources to reduce Nauru’s reliance on desalination although this remains the primary bulk water production source. Improvements in rainwater harvesting at a household level are possible and are actively encouraged.”</p>	<p>The design of the project aligns with the water and sanitation masterplan and is fit for purpose.</p> <p>The effectiveness of this project has been low, given implementation issues resulting in reduction in scope from 200 household water tanks to 106, and the delivery of even this quantity remains at risk. There is also a lack of maintenance strategy, and maintenance will be challenging given the ownership of tanks at the household level.</p>
<p>Sports complex</p>	<p>[INTERVIEW 18] the Department of Sports and Infrastructure (DSI) indicated that there had been demand for a sports facility in Nauru since 1994, when the National Olympic Committee was established. The original design, for which steel frames were constructed on the same site, was for three court spaces. The new concept design for a larger facility with two courts is preferable as it allows full sized courts that are up to regional standard. DSI indicated that they were felt the designs were fit for purpose, although expressed some reservation that the project had been delivered in two stages. The concern expressed was that the second phase may never eventuate, and the overall plan may not be delivered given funding for sports is often lower than other priorities. Concerns were also raised about the lack of a strategy and operational plans once the complex opens.</p> <p>[EVIDENCE 1] – Concept Design Report for Nauru Sports Complex (A&L, 2017) indicates that current and future weather and climatic conditions have been factored into the design, including building orientation to provide natural ventilation and shade, increased gutter, downpipe and drain sizes and wind resistance detailing and engineering design that accounts for heavier storms, rainfall events, and wind velocity. Other factors that have been considered include land tenure implications of the site selection, temperature and humidity and extreme sea level events, noting the site is located on the coast at an elevation of 5m above sea level.</p>	<p>Whilst the sports facility is currently under construction, the information available indicates that the sports facility will be fit for purpose now, and for the foreseeable future.</p> <p>The site is close to the sea (at an elevation of 5m) and has been designed with materials appropriate to the location.</p>
<p>PLANNED PROJECTS</p>		

Port Redevelopment	<p>The Nauru Port Redevelopment project is still in the planning stage, with construction expected to commence in 2019. Significant due diligence has been completed by ADB to ensure that the design is climate resilient and fit for purpose.</p> <p>[EVIDENCE 1] - Previous studies have been undertaken to explore options for improving the Port facilities, including by the Asian Development Bank (ADB, 2009), the Japanese International Corporation Agency (JICA, 2014), and the Pacific Regional Infrastructure Facility (PRIF, 2015). ADB performed two additional studies for the project in 2015-2017. Together, these studies explored 21 designs and were considered by ADB to have exhausted virtually every technically feasible option. The selected design has been assessed as being technically feasible, compliant with International Ship and Port Facility Security requirements and ensures climate resilience. It was also the least cost option.</p> <p>[EVIDENCE 2] - Feasibility Study (ADB, 2017) covering due diligence and a review of previous investigations into Port options was undertaken, and was followed by geotechnical investigations, topography and cadastral surveys, necessary clearance for unexploded ordnance and detailed engineering services.</p> <p>[EVIDENCE 3] – Quality Assurance. DFAT’s quality assurance process has involved an Independent Appraisal (DFAT, 2018), Peer Review (DFAT, 2018), and Aid Governance Board (ongoing in 2018). In addition, ADB have commissioned an Independent Review (GHD, ongoing in 2018) to assess the economic and financial viability and fit for purpose. The results of the technical review are the subject of discussions between the reviewer (GHD) and the technical design team (Cardno) at the time of the review, to ensure the comments are reflected in the final design. In addition, the proposed port activity has undergone ADB board approval and Green Climate Fund approval processes.</p> <p>[EVIDENCE 4] – Climate Risk and Vulnerability Assessment (Cardno, 2017). As per ADB’s requirements since 2014 for all investment projects to consider climate risk and incorporate adaptation measures, a Climate Risk and Vulnerability Assessment was undertaken. The assessment considered regional drivers of climate, such as the South Pacific Convergence Zone (SPCZ), El Nino-Southern Oscillation (ENSO) and the West Pacific Monsoon. Existing climate conditions were assessed, as were four climate change projection scenarios (representative concentration pathways (RPC) 2.6, 4.5, 6.0 and 8.5). Factors evaluated include temperature, rainfall, drought, tropical cyclones, mean sea level, ocean currents, wind and wave climate, ocean acidity and tsunamis. The relevant hazards were identified to be increased air temperatures, sea level rise (58cm by 2070 under RPC 8.5), changes in wind and wave climate resulting in potential increases in extreme wave heights, increase in both average annual rainfall and the intensity of extreme rainfall events, and ocean acidity. The risk assessment proposed climate resilient measures to be reflected in the port design, as well as opportunities for improved resilience and sustainability (design and other options, including drainage, materials selection, sustainability, asset management practices, emergency management and improving knowledge and understanding of the local climate).</p>	<p>The effectiveness of the project cannot be ascertained at the current stage of implementation (planning). However, the feasibility assessment, options analysis, technical design and associated quality assurance have been robust to setup the project for effective outcomes. Notwithstanding, there remain some outstanding issues to be resolved. The processes in place jointly by DFAT and ADB appear to be adequate to resolve outstanding issues related to the technical design.</p> <p>The operation of the port under climate change scenarios has been investigated, and peer reviewed for suitability.</p> <p>Significant risks have been identified for the construction and operation stages of the port redevelopment. Whilst mitigation strategies have been proposed, it will be essential that DFAT is adequately resourced to follow up on implementation issues, foreseen and unforeseen, that arise.</p>
OPERATIONS AND MAINTENANCE		
NUC support (CEO – PACTAM)	<i>Not applicable – refer to Q3b. (Diesel Generators already covered above)</i>	<ul style="list-style-type: none"> • N/A

Sub-question		
3b To what extent have DFAT's investments ensured that infrastructure assets and utilities are sustainably operated, managed and maintained?		
Project	Evidence	Findings
	Strength of Evidence Rating: Moderate. <i>(Based on implementing agency reports and interviews with stakeholders)</i>	Rating: Less than Adequate (3)
COMPLETED PROJECTS		
TVET Centre	<p>[INTERVIEW 12] – There is a dedicated resource responsible for maintenance of all education assets, including the TVET Centre, Nauru Secondary School, Nauru College, three primary schools, five infant schools and the “able disabled Centre” for children living with disabilities (11 schools in total). Maintenance challenges for the Centres include the availability of spare parts, such as for fans and light fittings which regularly rust due to sea spray on those schools located in proximity to the ocean (noting that Nauru Primary School located in the elevated “topside” part of Meneng has lower maintenance needs). Annual Operating Plans (AOPs) are submitted each year to cover scheduled maintenance, emergency repairs as well as new project proposals. The interviewee indicated that the budget requested for routine and emergency maintenance is usually allocated in full. Current proposals for TVET include new toilet facilities (not including disabled access toilet due to one existing), covered and paved walkways around the learning village (including main entrance and to toilet facilities) for wheelchair access. In addition, there is a new project proposal to extend the TVET Centre to add a new 2-level multipurpose building. The Nauru Secondary School suffered extensive roof damage from a storm recently, which was repaired under the maintenance agreement. Maintaining air conditioners is a difficult area due to limited contractors with skills and delayed response times.</p> <p>[INTERVIEW 13] – Senior management of the Nauru Secondary School indicated concerns with the maintenance of school buildings, including substantial delays in issue rectification. Issues identified included rust being a major issue, plumbing, sewerage and water supply issues, unsafe doors resulting in people being locked inside rooms. They also queried if routine maintenance was taking place, noting that despite requests no maintenance schedule had been sighted.</p> <p>[SITE VISIT] – Site visit to the Nauru Secondary School, TVET Centre and Nauru Primary School did not reveal apparent major maintenance issues, however it should be noted that the buildings are all relatively newly constructed and the reviewer is not a building inspector and did not visit all parts of the buildings. Items such as roof damage from storms had been repaired. Air conditioners that were not functioning was a recurring problem and appeared to be having an impact on TVET students in particular.</p>	<p>There is a mechanism in place through GoN for maintenance of the TVET Centre. On superficial evaluation this appears to be addressing major items (such as storm damage), however the buildings sighted are all newly constructed and over time the effectiveness of this is unclear. Older school buildings have very apparent maintenance issues, were also built prior to the financial crisis and maintenance may have lapsed during that period.</p> <p>The review team was unable to meet with TVET management, however NSS management (through the same maintenance arrangement) identified concerns with maintenance, including timeliness of issues being addressed and apparent lack of routine maintenance.</p>
USP Learning Centre	<p>[INTERVIEW 1] indicated that discussions with USP are underway regarding responsibility for building maintenance, however this is yet to be concluded.</p> <p><i>Refer to section above on TVET Centre</i></p>	<p>The operation and maintenance of the facility will be outsourced to USP as a service provider. Pending the outcome of discussions with USP on responsibility for maintenance, the maintenance of the building may need to fall under the broader asset maintenance strategy.</p>
Hospital (stage 1 and 2)	<p>[EVIDENCE 1] Redevelopment of the Republic of Nauru Hospital - Review Report Volume 2 (A&L, 2017) – This report states that “The repurposing of existing medical facilities to compliment local models of care required a high level of stakeholders and user engagement which did not occur. The delivery model was unusual, limiting local participation and providing new facilities at a pace that local budgets, management systems and processes were not capable of effectively operating and maintaining.” The report further noted a “noticeable ‘lack of ownership’ demonstrated by some local staff, with potential serious impact on sustainability.”</p> <p>[INTERVIEW 1] – DFAT indicated that it was a minor partner in the delivery of the Republic of Nauru Hospital.</p> <p>[INTERVIEW 9] – Department of Health and Medical Services (DHMS) indicated concerns with the consultation process and their ability to operate key parts of the hospital (including gas systems and warnings, which remain defunct at the time of the review having never operated since construction). Maintenance arrangements are also an ongoing issue, including concerns over split responsibilities between DHMS and the Department of Public Administration and Operations (PAO). The maintenance concerns included the buildings, gas system (requiring specialist assistance), air conditioning and vehicles (ambulances and international medical staff).</p>	<p>The model for delivery of the Republic of Nauru Hospital (RONH) did not follow established good practices in the delivery of infrastructure, including stakeholder engagement, consultations and local ownership, resulting in ongoing usage, operations and maintenance issues that may impact the effectiveness of the asset over its life cycle.</p>
Wellness clinics	<p>Interviews [INTERVIEWS 1, 9] have indicated that there were four community wellness clinics (shipping containers), of which three were funded by DFAT and one by GoN. Of the three funded by DFAT, one is currently in use (located near the police station), one has stopped being used due to lack of facilities for staff and patients (toilets, air-conditioning) and one was damaged in transit to Nauru. The latter is being repaired in New Zealand and will be installed at a later date. The GoN funded clinic is also no longer used, due to the container itself rusting in a short period of time from sea spray and lack of air-conditioning.</p>	<p>There appear to be a number of issues associated with the design of the wellness clinics that are impacting the effectiveness of this investment.</p> <p>There is a lack of evidence regarding planning for maintenance of these facilities, but anecdotally and based on the rapid disuse of two of the facilities, it would appear that the operations and maintenance of these has not been adequate.</p>
Nauru Electricity Supply and Sustainability Project	<i>Refer to section on NUC CEO for ongoing operations and maintenance</i>	<i>Refer to section on NUC CEO for ongoing operations and maintenance</i>
ONGOING / UNDER CONSTRUCTION PROJECTS		

Household water tanks	<p>[INTERVIEW 1] indicated that there is no clear maintenance strategy in place and that the water tanks were to be owned and maintained by each recipient household. Further, the interviewees indicated some expectation that the water tanks provided would be re-sold at the completion of the project.</p>	<p>Due to a lack of maintenance strategies in place, the provision of free water tanks to households are unlikely to be maintained over time. Further, it is possible that some of the water tanks provided will be on-sold instead of utilized as intended.</p> <p>The long-term impact of this project is unlikely to be effective in achieving the outcome of delivering water tanks to the most vulnerable households, and in sustainably operating and maintaining them over time.</p>
Sports complex	<p>[INTERVIEW 1] indicated that a parallel sports technical assistance is being planned to support the ongoing operations, management and maintenance of the sports complex. In addition, the architects and supervision contractor (A&L) will be requested to provide maintenance schedules that could be used as a basis for the maintenance to be tendered out.</p> <p>[EVIDENCE 1] - Draft Sports Technical Assistance Terms of Reference - indicates that the parallel sports TA will be responsible for developing an operation, management and maintenance strategy for the new sports complex.</p>	<p>Consideration has been given to support the Department of Sport to develop a strategy considering ongoing operations, management and maintenance needs. Ensuring follow through on the strategy, including allocation of necessary resources, will be important.</p> <p>The maintenance schedules to be provided by A&L may be suitable for outsourcing. This approach for maintenance should be considered in the context of broader asset maintenance strategy for GoN assets, to ensure that value for money is delivered and that the broader approach to sustainable asset management is also delivered.</p>
PLANNED PROJECTS		
Port Redevelopment	<p>[EVIDENCE 1] – Final Port Reform Report (Cardno, 2017). The Port Reform Technical Assistance (TA) Project was established to ensure that the port operations would be operated, managed and maintained over time. This project includes introducing legislative amendments for organizational and port tariff restructuring, create an effective asset management system, establish a revolving fund for operations and maintenance and engage a private sector port operator to ensure long-term sustainability of assets. GoN is expected to implement the reforms from 1 January 2018 to 31 December 2022. DFAT funded the TA project (AUD 3.3m) in 2016/17 (Investment Annual Expenditure Report, DFAT, 2018).</p> <p>[EVIDENCE 2] – Investment Design Summary (DFAT, 2018) stated that the ADB has assessed the project as financially viable with an estimated financial internal rate of return of 2.9%, which is higher than the weighted average cost of capital of 1.3%. This assumes, however, a substantial increase in the port handling tariff, as approved by the government. In November 2017, the government gazetted the law to increase the tariffs. Therefore, the risk of not implementing the tariff increase is moderate. Nevertheless, to mitigate the risks and ensure financial sustainability, the government agreed to set up a dedicated maintenance fund earmarked from its budget from 1 July 2018. This fund will fully cover port operations and maintenance if the project does not generate sufficient revenue. The port reforms will recommend appropriate management of any accumulated funds generated from the port tariffs.</p> <p>[INTERVIEW 20] – Letter of Assurance from ADB. DFAT indicated that ADB have provided a letter of assurance that the economic and financial analysis demonstrating the sustainability of the port was correct.</p> <p>[INTERVIEW 17] – Treasury confirmed that GoN have already made a contribution of (the AUD equivalent of) USD1.5m into the port maintenance revolving fund, with a total of USD4.5m to be contributed by the end of the project.</p>	<p>The ongoing operations and maintenance of the port has been a key part of the analysis of the viability of the port redevelopment, including a separate TA funded by DFAT. Ongoing viability has been assessed, including economic and financial analysis which has been subject to an independent quality review and letter of assurance from ADB to DFAT.</p> <p>There are demonstrable commitments from GON to the ongoing operations and maintenance (including gazetting tariff reforms, establishing a maintenance fund and committing AUD1.5m of initial funding). Further steps are required from GON with regards to the tariff changes which are planned as part of the Port Reform Technical Assistance Project.</p>
OPERATIONS AND MAINTENANCE		
NUC support (CEO – PACTAM)	<p>[EVIDENCE 1] – Presentation on the Nauru Utilities Corporate Strategic Plan (2014-2020). The NUC CEO delivered a presentation and interview, outlining his arrival at the NUC as a General Manager in 2013, and as the CEO since 2014. The first step was to put together the NUC’s strategic plan (2014-2020), which articulated the 2020 goals as (i) being proactive, (ii) reliable and safe power supply, (iii) best efficiencies, (iv) N-2 production capacities, (v) low frequency and duration of outages, (vi) best customer service, (vii) best supply chain and inventory system, (viii) high worker morale and (ix) high skills and knowledge levels. The NUC presentation indicated that they are very close to delivering the 2020 goals, having achieved over 80% so far and forecasting that by the end of 2019 they will have achieved all the goals. Key points are:</p> <ul style="list-style-type: none"> • The situation has significantly progressed from 2013, when the focus was reacting to emergencies and with significantly run-down assets. Now the organisation is focusing on transitioning over the next year into the “maintenance phase”. The CEO indicated his focus on valuing the workers and instilling a work culture change. • The NUC is almost at the point where government subsidies are no longer needed for operational expenses (although they remain necessary for capital costs). Subsidies to the NUC reduced from \$6.4m in 2015 to \$1.8m forecast for 2018 (this forecast amount was able to be independently verified by Treasury, and the other figures correlate to the NUC’s published annual reports). By 2020, NUC should be in surplus, enabling them to build up a capital works fund. • Nearly half of electricity was lost in 2014, and NUC is now targeting less than 10% loss. Main gains were in testing meters, identifying conductors with “hot joins” and rectifying billing issues. A team are inspecting each house for safety (to reduce incidence of fires), and in doing so are also able to identify households that are by-passing their electrical meters. Government departments also now need to pay their electricity bills. • The presentation included graphs that showed significant reductions in both the average electricity interruption duration and frequency, with some way still to go to meet the benchmarks set by the Pacific Power Association, but 	<p>The CEO of NUC has been demonstrably very effective at improving the reliability of electricity supply in Nauru since 2014 and has built up the skills of the NUC team to proactively maintain infrastructure assets, improve operating efficiency and reducing losses. This has been a key success story of the Nauru infrastructure program. However, it appears likely that these gains may not be sustained when the CEO departs. It is therefore recommended that the CEO is retained as long as possible in the current role, and that a key deliverable is to implement a transitioning strategy prior to his departure.</p>

	<p>significant demonstrable progress (which was anecdotally verified by a number of Nauruan’s who indicated noticeable improvements in reliability of electricity supply).</p> <ul style="list-style-type: none"> • NUC is also responsible for water through management of the Reverse Osmosis (RO) water treatment and delivery of potable water via water tankers to government offices, the hospital, the Menan hotel and household water tanks. The water supply “business” is quite weather dependent, as demand increases, and it becomes more profitable during dry periods, and profits are lower when it rains. The Menan hotel also has a backup RO facility on the other side of the island to the NUC. There have been some improvements to the water delivery success ratio. The cost of delivering water during droughts becomes very high as there are not enough tankers, and they need to hire more at high cost during busy periods. As such, NUC are looking to procure 4 additional tankers. The next stage of the strategic plan is to deliver limited piping, commencing with pipes to the hospital. • In terms of sustaining the gains made to date, the NUC CEO is of the opinion that after another year most of the gains will be bedded down and a shift will occur into the “maintenance phase”. However, to date candidates have not been able to be identified to be trained to take over the CEO position or General Manager position (also a Fijian who will likely leave when the CEO leaves), despite efforts to identify someone suitable. <p>[EVIDENCE 2] – Annual Operating Reports 2015, 2016 and 2017 – These reports support the reductions in government subsidies from 2015 to 2017.</p>	
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Key question	Overall finding:
<p>4. To what extent has the investment efficiently used Australia’s contributions in terms of time and resources to achieve the desired outcomes?</p>	<p>DFAT’s infrastructure investments since 2014 by implementation phase are:</p> <ul style="list-style-type: none"> • Completed – TVET Centre, USP Learning Centre, Hospital (Stage 1 and 2), Wellness Clinics, Electricity Supply and Sustainability Project • Ongoing / Construction – Household Water Tanks, Sports Complex • Planning / Design – Port Redevelopment, Port Institutional Reform • Operations & Maintenance – Technical Assistance support to the Nauru Utilities Corporation (NUC) – inline CEO position <p>These projects have been assessed as being highly efficient:</p> <ul style="list-style-type: none"> • Technical Assistance support to the Nauru Utilities Corporation (NUC) • Sports Complex • Electricity Supply and Sustainability Project • USP Learning Centre <p>These projects have been moderately efficient:</p> <ul style="list-style-type: none"> • Hospital (Stage 1 and 2) – the delivery was reasonably fast, however the process was lacking and the overall efficiency of this investment is reduced by needing follow up assistance to address issues that have arisen from this process. <p>These projects are low efficiency:</p> <ul style="list-style-type: none"> • Wellness Clinics – These clinics were similarly quick to deliver, based on modular design from New Zealand, however the efficiency is reduced due to the lack of adequate planning and options analysis, which has impacted the overall delivery of outcomes and will ultimately cost a higher amount overall to deliver the results. • Household Water Tanks – this project is ongoing and has encountered significant delays due to project issues. <p>The efficiency of these projects has not been ascertained due to their current stage (e.g. planning or design, or largely implemented prior to the review period):</p> <ul style="list-style-type: none"> • TVET Centre • Port Redevelopment • Port Institutional Reform <p>Other points of note include:</p> <ul style="list-style-type: none"> • DFAT indicated that funds were provided to GoN for a water treatment project in 2012, but the funding has yet to be executed and the project is currently re-engaging. The efficiency of this approach is low. • The use of Government of Nauru systems for infrastructure investments has caused some clear inefficiencies, such as on the water tank project and also on the wellness clinics. There are strong reasons to encourage use of government systems, given a big picture focus on delivering not only project outcomes but also developing government capacity. However, this trade-off has caused real impediments in some cases and DFAT has identified solutions to assist with mitigating these issues. These include ensuring that a competent company is contracted to assist with design, consultation with GoN and other stakeholders, oversee procurement and project supervision (a Project Management Unit reporting to a steering committee to facilitate project delivery). • Collaboration between ADB, DFAT and GON was instrumental in securing 33.81% of funding from the GCF for the port project, enabling the project to proceed with a budget for the recommended design. In the absence of this collaboration, it is unlikely that the port project would have been able to proceed based on the budget of each agency working in isolation. • DFAT should look to increase opportunities for collaboration with other development partners and regional mechanisms such as the Pacific Regional Infrastructure Facility (PRIF).

Sub-question		
4a To what extent has DFAT selected infrastructure projects that efficiently deliver the agreed outcomes, after considering suitable alternatives?		
Project	Evidence	Findings
	Strength of Evidence Rating: Moderate. <i>(Based on implementing agency reports and interviews with stakeholders)</i>	Rating: Adequate (4)
COMPLETED PROJECTS		
TVET Centre	[EVIDENCE 1] – Nauru Learning Village Concept Design Report (A&L, 2012) – Refer to the section below on the USP USP Learning Centre for overview of the options developed for the overall Learning Centre Complex.	The development of viable options for stakeholder consideration and selection was undertaken and the proposed solution fits within the broader concept of the Learning Centre Complex developed by the Nauru Department of Education.
USP Learning Centre	<p>[EVIDENCE 1] – Nauru Learning Village Concept Design Report (A&L, 2012) – The document provides background of a “Footpath” plan developed by the Nauru Department of Education, for a Nauru Learning Centre Complex incorporating the secondary school, facilities for TVET and the University of the South Pacific (USP), a common library and related services. The site of this complex was intended to be adjacent to the existing secondary school site, which was reconstructed in 2010. The second stage of the development was the TVET Centre, USP Centre, Communal Library and Community Centre (consisting of a audio-visual lecture room with ICT and satellite set-up, connected to the library). The concept design further details the feasibility analysis of the proposed site, options considered with schematic designs developed and the consultation process that was undertaken to determine the recommended option. The recommended option was then further developed into a concept design.</p> <p>[EVIDENCE 2] – Construction of the Nauru Learning Village Phase 2 – Tender Assessment Report of Construction Tenders Received (A&L, 2016). The assessment report identifies that an additional option for the Learning Village was proposed by one of the qualifying tenderers, Canstruct. The Assessment Report notes that Canstruct offered an alternative tender using their Force 10 modular system (used for the processing Centre), which was 11% cheaper than their conforming tender, but notably higher cost than the other two bids received without taking account of the floor planning developed in consultation with stakeholders, disability access requirements and would likely encounter long term maintenance issues.</p> <p>[EVIDENCE 3] – The parallel education review and informal discussions with USP indicated that the siting of the USP learning Centre within the “learning village” area, which also contains Nauru Secondary School and the TVET Centre, was the main basis for the site selection and is generally a good concept for delivery of educational outcomes.</p>	<p>The location of the USP campus within the learning village appears to be well considered and an efficient use of resources. The procurement process also provided an additional option for the construction, which was considered to be less suitable and costlier.</p> <p>The indication so far is that there is broad buy in from stakeholders on the recommended option and it is considered likely to be fit for purpose.</p>
Hospital (stage 1 and 2)	[INTERVIEW 23] indicated that the process for determining the hospital design was based on a decision to repurpose a modular hospital structure that had been designed for an alternative hospital site.	The experience highlights the need for good infrastructure planning, including stakeholder consultations and options analysis.
Wellness clinics	<p>DFAT indicated [INTERVIEW 1] that the Wellness Clinics project was undertaken by GoN through a Direct Funding Agreement (DFA) with the Department of Health, and that they were not aware of any options analysis being undertaken.</p> <p>Interviews [INTERVIEWS 1, 9] have indicated that there were four community wellness clinics (shipping containers), of which three were funded by DFAT and one by GoN. Of the three funded by DFAT, one is currently in use (located near the police station), one has stopped being used due to lack of facilities for staff and patients (toilets, air-conditioning) and one was damaged in transit to Nauru. The latter is being repaired in New Zealand and will be installed at a later date. The GoN funded clinic is also no longer used, due to the container itself rusting in a short period of time from sea spray and lack of air-conditioning.</p>	<p>Given the significant rate of clinics that have become disused within a short time frame (two out of three clinics in-situ are no longer utilised), the options analysis for this project does not appear to be adequate to have determined the most efficient use of resources. Of the three funded by DFAT, one is in use, one is no longer used, and one is yet to be completed.</p> <p>DFAT have now identified options to improve management of the DFA approach, including outsourcing project supervision, design and construction works. This learning also needs to be applied to infrastructure investments delivered through the Departments of Health or Education.</p>
Nauru Electricity Supply and Sustainability Project	<p>The NUC [INTERVIEW 11] indicated that the medium speed diesel generators purchased were considered the optimal solution as they are the most fuel efficient to run and have a longer operating life than high speed generators. In addition, the new generators were considered necessary to be able to take existing older generators offline for maintenance and are expected to bridge the gap in power generators until solar energy can be introduced into the energy mix.</p> <p>ADB [INTERVIEW 2] indicated that the diesel generators were necessary to maintain base load power in Nauru cost effectively at this stage, whilst solar can be introduced to provide additional capacity.</p>	Consideration of options to supply cost effective baseload power and plan for asset maintenance appears to be appropriate.
ONGOING / UNDER CONSTRUCTION PROJECTS		
Household water tanks	CIE indicated [INTERVIEW 7] that the rationale for this project was the provision of water tanks to households due to Nauru’s extended droughts which are expected to worsen under climate change scenarios. Nauru has a reverse osmosis water treatment system in place, and water is delivered to household water tanks using water tankers. A number of houses at the time of the project conception didn’t have a water tank or their water tanks were broken, resulting in them not having access to fresh water. CIE proposed the project to deliver 200 household water tanks to vulnerable households to an Australian-funded Climate Adaptation Initiative. CIE indicated that the project concept was based on addressing the immediate needs of the vulnerable households to have access to fresh water. They indicated that they were not aware of plans for maintaining the tanks over time.	The project concept was developed by CIE in response to immediate needs and proposed for funding. It is unclear if options analysis was considered, however the water tanks approach is in keeping with the subsequently developed Nauru Water and Sanitation Masterplan (GoN, 2017). Alternative solutions such as reticulated water supply were likely outside the budget window and would have been a slower process to deliver country wide, rather than targeting the vulnerable households as this project intended. However, sustainability appears not to have been considered given in some cases water tanks will replace existing broken tanks, indicating that ability to maintain the tanks may have been lacking.
Sports complex	[EVIDENCE 1] – Nauru Sports Complex Concept Design Report (A&L, 2017). The report outlines options for the sports complex, including reuse of the existing steel structure and retaining the design in the original north-south orientation (option 1) or east-west orientation (option 2), or alternative east-west oriented designs using new steel frames (options 3a,	The options analysis was suitable to determine the most cost-effective design to deliver the user needs.

	<p>b, c and d). Option 3d is recommended as the most cost effective, and also meets the required timeframe for the construction.</p> <p>One interview [INTERVIEW 8] raised concerns with the consultation process undertaken regarding the sports complex. They indicated that the concept designs were developed by A&L without engaging a working group or getting feedback from GoN agencies. DFAT indicated that consultation with sport federations were organized through the High Commission and GoN were involved and approved the concept design. All seemed to agree that the final outcome was acceptable.</p> <p>[INTERVIEW 18] with the Department of Sports and PAD indicated that they felt the engagement on the design options was suitable and the recommended option would suit their needs. They expressed disappointment that only stage 1 of the design was funded, as they are concerned stage 2 funding is unlikely to eventuate in the future as sports are often the lowest priority for limited funds.</p>	
PLANNED PROJECTS		
Port Redevelopment	<p>[EVIDENCE 1] - Previous studies have been undertaken to explore options for improving the Port facilities, including by the Asian Development Bank (ADB, 2009), the Japanese International Corporation Agency (JICA, 2014), and the Pacific Regional Infrastructure Facility (PRIF, 2015). ADB performed two additional studies for the project in 2015-2017. Together, these studies explored 21 designs and were considered by ADB to have exhausted virtually every technically feasible option. The selected design has been assessed as being technically feasible, compliant with International Ship and Port Facility Security requirements and ensures climate resilience. It was also the least cost option.</p>	21 options were extensively analyzed against a range of criteria, including technical feasibility, current and future climate conditions, economic and financial viability, environmental and social safeguards considerations, and cost benefit analysis of the proposed solution. The proposed option has been independently peer reviewed.
OPERATIONS AND MAINTENANCE		
NUC support (CEO – PACTAM)	<p><i>Not applicable – the Technical Assistance role has been in place for 5 years and the original options for consideration is prior to the report period.</i></p> <p>DFAT indicated [INTERVIEW 1] that the NUC CEO has been highly efficient in terms of catalysing other investments, including the investments in diesel generators, housing, distribution lines and solar panels through donors including the ADB, DFAT, EU and NZ MFAT.</p>	The TA support has been an efficient use of funds in that the strong gains in this area and engaged, long term advisor has proactively been able to attract support to the sector from a range of donors, all of which has contributed to gains in stability of electricity in Nauru.

Sub-question		
4b To what extent were DFAT's investments managed to ensure delivery on time and within budget?		
Project	Evidence	Findings
	Strength of Evidence Rating: Moderate. <i>(Based on implementing agency reports and interviews with stakeholders)</i>	Rating: Adequate (4)
COMPLETED PROJECTS		
TVET Centre	<i>Not applicable</i>	<i>Construction is out of the review period</i>
USP Learning Centre	[EVIDENCE 1] – Construction Report #7 for the Learning Centre (A&L, March 2017) indicates that the program was delayed by around 7 weeks at that point in time, with the delays largely caused by inclement weather, delays at the port and the desalination plant closure.	Reasonable project delays and associated costs were encountered, due to logistical issues.
Hospital (stage 1 and 2)	[INTERVIEW 23] – components of the hospital that were already in Nauru at the port were re-purposed for the new RON hospital construction. [INTERVIEW 1] – DFAT indicated that this project was “relatively on time”.	The construction was delivered fairly quickly, without following usual processes of stakeholder consultation and site-specific design. This process delivered a hospital in a short period of time, however the process has resulted in ongoing issues that require further assessment and actions.
Wellness clinics	[INTERVIEW 1] – DFAT indicated that the project was implemented by GoN directly. The modular designs were assembled in New Zealand and delivered on site. One unit remains to be put in situ due to damage during shipping.	Delays in the project have incurred, as a result of damage caused during shipping. GoN were primarily responsible for the implementation. This model of delivery has a number of concerns.
Nauru Electricity Supply and Sustainability Project	[INTERVIEW 11] – NUC indicated that the implementation of the project to procure two new diesel generators encountered delays of approximately 4 months, due to logistical challenges and were “not serious”.	Project delays were encountered, due to logistical issues.
ONGOING / UNDER CONSTRUCTION PROJECTS		
Household water tanks	[INTERVIEWS 1, 7] indicated that there were a number of issues on this project, which caused significant delays in implementation, including the project being put on hold for a period of approximately 2 years.	This project is significantly behind schedule, due to significant project implementation issues which have been appropriately addressed by DFAT and GoN.
Sports complex	[INTERVIEW 1] indicated that the project delivery schedule for this is quite remarkable, given the hard deadline for construction to be completed prior to the Pacific Leaders Forum in September 2018. At the moment the project is delayed from the planned schedule by only 2 weeks, and are expecting to be able to make up for some of that time.	This project has been delivered very efficiently, with fixed constraints, and the implementation is remarkably efficient.
PLANNED PROJECTS		
Port Redevelopment	<i>Not applicable – the project is still at the planning stage.</i>	<i>Not applicable – the project is still at the planning stage.</i>
OPERATIONS AND MAINTENANCE		
NUC support (CEO – PACTAM)	[INTERVIEW 11] – The NUC CEO outlined the goals for the NUC in 2014, to be achieved by 2020. At this stage, the expectation is that all of those goals will be delivered by 2019, with 80% of them already in place now.	This project has exceeded expectations in terms of efficiency, with clear goals established to be delivered by 2020 that are currently expected to be delivered by 2019.

Sub-question																			
4c How have DFAT's infrastructure investments harmonised with other donors, regional organizations and aligned with partner government systems?																			
Evidence	Findings																		
<p>Strength of Evidence Rating: Moderate. (Based on implementing agency reports and interviews with stakeholders)</p> <p>An interview with the New Zealand High Commissioner and DFAT [INTERVIEW 14] indicated that there have been previous attempts at collaboration between the two agencies, however this had been somewhat unsuccessful. It was suggested that this may have been partly due to a lack of presence in Nauru by New Zealand which limited communications.</p> <p>The Asian Development Bank [INTERVIEW 2] indicated that the approved funding commitments from DFAT, ADB and GON enabled the application for co-financing from the GCF to proceed for the port project. Australia's involvement in getting the GCF funding through the approval process was instrumental, and it is possible that without high-level (Ministerial) Australian support the application likely would not have been successful. The interviewee also indicated that GCF funding will cap at a maximum of 50% of the total project budget, with the remainder needing to be matched by other development partners, and that a minimum project budget of USD10 million was necessary to justify the overhead of applying for GCF co-financing.</p> <p>DFAT indicated [INTERVIEW 1] that there was a backup alternative donor (Taiwan) identified and engaged in preliminary discussions as a contingency in case funding sought from the GCF did not eventuate for the port redevelopment project.</p> <p>[EVIDENCE 1] – Investment Design Summary (DFAT, 2018) indicates co-financing of the port redevelopment project with development partners as follows:</p> <table border="1"> <thead> <tr> <th>Source</th> <th>Amount (USD million)</th> <th>Share of Total</th> </tr> </thead> <tbody> <tr> <td>Asian Development Bank (Approved)</td> <td>21.30</td> <td>26.76%</td> </tr> <tr> <td>Green Climate Fund (Approved)</td> <td>26.91</td> <td>33.81%</td> </tr> <tr> <td>Government of Nauru (Approved)</td> <td>17.30</td> <td>21.74%</td> </tr> <tr> <td>Government of Australia (Approved)</td> <td>14.08</td> <td>17.69%</td> </tr> <tr> <td>Total</td> <td>79.59</td> <td>100%</td> </tr> </tbody> </table> <p>DFAT [INTERVIEW 1] seemed to be largely unaware of the Pacific Regional Infrastructure Facility (PRIF) as a mechanism for donor coordination related to infrastructure in the Pacific and how they operate and requested that the PRIF representative on mission in Nauru visit the High Commissioner for an introduction and to understand their role in country.</p> <p>[EVIDENCE 2] – GoN Media Release (GoN, January 2018) states that “The Nauru Electricity Supply Security and Sustainability Project, approved in 2014, was initially funded by a \$2 million grant from ADB and a €2 million grant (\$2.4 million) from the EU. It involved the installation of a new, efficient medium-speed 2.6-3 megawatt (MW) diesel generator and repairs to the powerhouse roof. The additional AU\$6.4 million (\$5 million) from the Government of Australia and the AU\$4.1 million from the Government of Nauru helped fund the installation of the second new medium-speed 2.6-3.0 MW diesel generator which improved the efficiency, safety, and capacity of electricity supply in Nauru.”</p>	Source	Amount (USD million)	Share of Total	Asian Development Bank (Approved)	21.30	26.76%	Green Climate Fund (Approved)	26.91	33.81%	Government of Nauru (Approved)	17.30	21.74%	Government of Australia (Approved)	14.08	17.69%	Total	79.59	100%	<p>Rating: Adequate (4)</p> <p>The following projects have been co-financed between DFAT and other development partners, and have been successful examples of collaborations:</p> <ul style="list-style-type: none"> • Nauru Electricity Supply and Sustainability Project (co-financed with the Asian Development Bank and European Union) • Port redevelopment and Port Institutional Strengthening (co-financed with the Asian Development Bank, Government of Nauru and Green Climate Fund) <p>The following projects have been implemented by DFAT directly:</p> <ul style="list-style-type: none"> • Hospital (stage 1 and 2) • NUC CEO (through PACTAM program) <p>The following projects have been delivered using government systems, with mixed results from which lessons have been learned:</p> <ul style="list-style-type: none"> • TVET Centre • USP Learning Centre • Wellness clinics • Household water tanks • Sports complex <p>Opportunities for collaboration through regional platforms such as PRIF are not currently being leveraged.</p> <p>The port is a good example of Australian funds being leveraged by GCF contributions matching (and exceeding) Australia's contributions, demonstrating good efficiency.</p>
Source	Amount (USD million)	Share of Total																	
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Key question	Overall finding:																
<p>5. What would the preferred structure of the program, performance expectations and monitoring and evaluation look like?</p>	<p>Government of Nauru to embed and implement a robust and strategic infrastructure framework for prioritisation and selection of investments. The GoN has established the Nauru Infrastructure & Asset Management Steering Committee (NIAMSC) to develop a Nauru Infrastructure Asset Management Framework (NIAMF) and National Infrastructure Investment and Management Strategy (NIIMS) to set the direction for infrastructure investments and asset management for the next 5 to 10 years. The Pacific Regional Infrastructure Facility (PRIF), of which DFAT is a partner and co-funder, are supporting this activity. Given the critical importance of gains in this area, it would be in DFAT's interest to support the program to enhance effectiveness of outcomes. It is recommended that DFAT support GoN to:</p> <ul style="list-style-type: none"> i Develop an Infrastructure Strategy for DFAT Nauru that aligns with the NIAMF and NIIMS, and support them as the platform to inform infrastructure investments through GoN budget allocations and requests for funding from DFAT and other development partners; ii Analyse lessons learned from the 2011 NEISIP activity delivered by PRIF, which was revised in 2013, to determine if any adjustments to the approach are needed and support a quality peer review of NIAMF, NIIMS and associated documents is undertaken (through PRIF, independently and including DFAT feedback) to ensure robust analysis; iii Develop the capacity of GoN to periodically update the NIAMF, NIIMS and associated documents to inform infrastructure project prioritization over time (such as through a long-term embedded PACTAM advisor); and iv Coordinate and harmonize with development partners as a key part of the process of selecting infrastructure investments to ensure that the highest priority projects are supported and opportunities to leverage the strategic advantages of each development partner are identified, as well as opportunities to co-fund or otherwise collaborate to leverage available funds. The PRIF mechanism could be a platform to facilitate coordination across Nauru's infrastructure investments. <p>Realistic expectations would be needed regarding the longevity of engagement and level of support needed to deliver sustained capacity, considering constraints such as the political economy and likely long-term lack of human resources typical of a micro-state. The recently established Ministry of Infrastructure Development would likely need embedded support to establish their role and ability to deliver necessary results.</p>																
Sub-question	Evidence	Findings															
	<p>Strength of evidence: Moderate (Based on partner/GoN/GoA documents and primary interviews)</p>	<p>Rating: Adequate (4)</p>															
<p>a. To what extent are the current reporting and M&E arrangements suitable considering DFAT standards, particularly for the indoor sports complex, and Nauru port reform and redevelopment?</p>	<ul style="list-style-type: none"> • There is no overarching ToC or M&E framework for the Infrastructure and Essential Services Portfolio. [interview with DFAT] • In July 2017, DFAT-Nauru finalized a Performance Assessment Framework (PAF). The PAF identified the following milestones for the 2016-17 and 2017-18 FY: <table border="1" data-bbox="513 856 2050 1581"> <thead> <tr> <th colspan="3" data-bbox="513 856 2050 909">INVESTMENT IN NATION BUILDING INFRASTRUCTURE</th> </tr> <tr> <th colspan="3" data-bbox="513 909 2050 951">Objective 2.0: Construction and maintenance of economic infrastructure to support human development and foster commerce and trade</th> </tr> <tr> <th data-bbox="513 951 914 993">Outcome 2.1</th> <th data-bbox="914 951 1537 993">Milestones for 2016-17:</th> <th data-bbox="1537 951 2050 993">Milestones for 2017-18:</th> </tr> </thead> <tbody> <tr> <td data-bbox="513 993 914 1308"> <p>Improved reliability and cost effectiveness of power and water services and increased renewable energy</p> </td> <td data-bbox="914 993 1537 1308"> <ul style="list-style-type: none"> • <i>Electricity supply</i> - purchase of 2 new diesel generators in partnership with NUC and ADB • <i>NUC capacity</i> - implementation of system to improve corporate performance, individual performance, values, and leadership • <i>Reporting and accountability</i> - Annual Report for 2016 published </td> <td data-bbox="1537 993 2050 1308"> <ul style="list-style-type: none"> • <i>Electricity supply</i> - delivery, installation and effective operation of 2 generators by NUC • <i>NUC capacity</i> - implementation of system to improve corporate performance, individual performance, values, and leadership • <i>Reporting and accountability</i> - Annual Report for 2017 published </td> </tr> <tr> <td data-bbox="513 1308 914 1581"> <p>Improved economic and social infrastructure for Nauru</p> </td> <td data-bbox="914 1308 1537 1581"> <ul style="list-style-type: none"> • <i>Port construction</i> - draft design produced for the ADB-led design process for the Nauru Port Reform and Redevelopment Project • <i>Indoor Sports Facility</i> - agreement with GoN on site and scope of works </td> <td data-bbox="1537 1308 2050 1581"> <ul style="list-style-type: none"> • <i>Port construction</i> - Nauru Port Reform and Redevelopment Project commenced; and funding proposals submitted to donors such as the Green Climate Fund (GCF) for financing for the 'climate proofing' increment of the project • <i>Indoor Sports Facility</i> - design and construction commenced </td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Three milestones have been completed—purchase and installation of the 2 diesel generators, commence construction of the Indoor Sports Complex and strengthening of NUC capacity. • The final milestone, commencement of the port reform and redevelopment project, is expected to be completed this financial year • Each investment under the Infrastructure Portfolio uses its own progress sharing and reporting mechanism. • There are Project Site Meetings and Technical Working Group (TWGs) meetings for the Sports Complex and the Nauru Port Reform and Redevelopment initiative. • <p>Sports Complex:</p> <ul style="list-style-type: none"> • DFAT, GoN representatives from Sports and PAD, the Program Managers - A&L and Craig Construction conduct monthly site meetings 	INVESTMENT IN NATION BUILDING INFRASTRUCTURE			Objective 2.0: Construction and maintenance of economic infrastructure to support human development and foster commerce and trade			Outcome 2.1	Milestones for 2016-17:	Milestones for 2017-18:	<p>Improved reliability and cost effectiveness of power and water services and increased renewable energy</p>	<ul style="list-style-type: none"> • <i>Electricity supply</i> - purchase of 2 new diesel generators in partnership with NUC and ADB • <i>NUC capacity</i> - implementation of system to improve corporate performance, individual performance, values, and leadership • <i>Reporting and accountability</i> - Annual Report for 2016 published 	<ul style="list-style-type: none"> • <i>Electricity supply</i> - delivery, installation and effective operation of 2 generators by NUC • <i>NUC capacity</i> - implementation of system to improve corporate performance, individual performance, values, and leadership • <i>Reporting and accountability</i> - Annual Report for 2017 published 	<p>Improved economic and social infrastructure for Nauru</p>	<ul style="list-style-type: none"> • <i>Port construction</i> - draft design produced for the ADB-led design process for the Nauru Port Reform and Redevelopment Project • <i>Indoor Sports Facility</i> - agreement with GoN on site and scope of works 	<ul style="list-style-type: none"> • <i>Port construction</i> - Nauru Port Reform and Redevelopment Project commenced; and funding proposals submitted to donors such as the Green Climate Fund (GCF) for financing for the 'climate proofing' increment of the project • <i>Indoor Sports Facility</i> - design and construction commenced 	<p>Individual projects:</p> <p>Current M&E arrangements for individual projects, such as the <u>Indoor Sports Facility, Nauru Port Reform and Redevelopment, NUC and PACTAM</u>, are adequate and satisfy most of DFAT standards. Reporting against these discrete projects is reasonable and provides DFAT and GoN representatives with information on progress against project milestones, budget and timeline. Regular project site visits and meetings allow DFAT and GoN and the construction (Craig Construction) and project management companies (A&L) to discuss and address issues as they come up.</p> <p>Overall DFAT Portfolio:</p> <p>The absence of a strategic framework and an overarching theory of change for the Infrastructure portfolio may be limiting DFAT's ability to make evidence-based decisions and to ascertain how individual investments are contributing to DFAT's priorities and objectives in infrastructure in Nauru. A lack of documented information may affect DFAT's ability to learn from lessons and incorporate that into future investment decisions.</p> <p>The PAF is a move in the right direction and should be linked to a robust strategic investment plan for infrastructure and essential services. Data should be collected against the PAF to analyze and assess progress against the plan.</p> <p>There is a need for a nested M&E structure that includes performance expectations for the overall sector (linked to the PAF as per the APPR process). Individual investments would then be linked to the PAF with their own set of performance expectations. It would not be overly complicated to include higher level outcomes and impacts, as this information can be collected considering the scale of Nauru.</p>
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	<ul style="list-style-type: none"> • Technical Working Group (including all the above participants except A&L) meetings are held once a month, usually right after the site visits. Detailed meetings minutes are kept, and any performance, scheduling delays or budget overruns are discussed during the meetings. Outstanding issues from previous TWG meetings are discussed and settled as appropriate. • A&L provide weekly progress reports to DFAT that include key updates on construction process, progress to program milestones, budget variations, etc. They also submit Construction Reports to DFAT. • The Learning Village employs a similar mechanism to its monitoring and reporting of progress (outputs and outcomes) <p>Nauru Port Reform and Redevelopment:</p> <ul style="list-style-type: none"> • There was a Steering Committee with the relevant GoN, ADB and DFAT stakeholders that was first formed and endorsed by Cabinet for the establishment of the Ports project. • There have been ongoing teleconferences between the ports CEO and email discussions on procurement, probity, construction quality assurance, social and environmental safeguards, and project governance arrangements in relation to alignment with DFAT standards and guidelines. • At the time of the review it was communicated that a new PSC and PMU will be established for the construction phase. <p>NUC:</p> <ul style="list-style-type: none"> • An annual report is published by NUC and six-monthly reports developed against NUC's Annual Operating Plan <p>PACTAM:</p> <ul style="list-style-type: none"> • Scope Global undertake 6-monthly performance reviews of the CEO of the NUC against their individual performance objectives. Adviser performance reports are shared with DFAT 	
<p>b. What would the recommended Theory of Change and M&E Framework include for ongoing and future DFAT infrastructure investments?</p>	<p>For ongoing DFAT infrastructure investments, it is recommended that DFAT continue to actively engage in the TWG and the Site meetings.</p>	

Key question	Overall finding:	
<p>6. To what extent have DFAT's investments in infrastructure managed environmental and social impacts and identified opportunities for improvements in gender equality, disability inclusive development and climate change mitigation?</p>	<p>The opportunities for infrastructure projects to contribute to improvements in the areas of gender, disability inclusiveness and climate change have been clearly considered and applied in some projects.</p> <p>In other cases, it is not as clear that the analysis has been undertaken, especially with regards to disability inclusiveness.</p> <p>Gender considerations do appear to be systemically considered as part of DFAT project approvals, and the additional attention on infrastructure projects of a gender specialist will also assist to ensure that relevant gender considerations are applied going forward.</p>	
Sub-question	Evidence	Findings
<p>a. To what extent have opportunities to improve gender equality been identified and appropriately managed with gender sensitive approaches integrated into design?</p>	<p>Strength of Evidence Rating: Moderate. <i>(Based on government documents and primary interviews)</i></p> <p>[EVIDENCE 1] – Aid Quality Check (AQC) Gender Review for Infrastructure (DFAT, 2018). The review looks at five of DFAT's recent infrastructure investments, namely (i) support to the NUC; (ii) Nauru Learning Village; (iii) Nauru hospital redevelopment; (iv) indoor sporting complex; and (v) Port redevelopment. Of these initiatives, the review notes no information is available for the learning village or hospital redevelopment. The other three projects are assessed and recommendations for gender mainstreaming are outlined for each as well as more broadly for the sector.</p> <p>[EVIDENCE 2] – The Department of Sport [INTERVIEW 18] indicated that the DFAT process ensured that the sports complex design considered inclusiveness for women's sports and an unsupervised playground at the back for children to use while parents were accessing the sports facility.</p> <p>[EVIDENCE 3] – Sports Complex Concept Design Report (A&L, 2017) the report refers to stakeholder consultations, where "sports for all" is a clear message, noting "the opportunity to have an increased impact on the inclusion of all citizens of Nauru irrespective of gender, age, sporting profile or sporting prowess". The report states "The need for gender equity raises issues not faced by general sports athletes i.e. the presence of children and child minding facilities. Non-professional sporting activities such as aerobics, yoga, gymnastics, tug-a-war and kids holiday activities; and the need for social interaction as part of the activity."</p> <p>[EVIDENCE 4] – Alexander & Lloyd Architects [INTERVIEW 22] presented the most recent designs that showed facilities included in the USP Learning Village included gender-segregated and accessible toilets, including baby change tables, on both levels of the USP facility. The library design includes a "kid's corner".</p> <p>[EVIDENCE 5] - Department of Home Affairs (Women's Affairs) [INTERVIEW 10] - Mentioned the need for public toilets at various locations around Nauru, in part to provide women with safe toileting options in public areas. The port area was noted as being of relevance given use by the public of the harbor as a public swimming area.</p> <p>[EVIDENCE 6] – Aid Quality Check (AQC) Gender Review for Infrastructure (DFAT, 2018). The PSGA for the Port states: ... "will provide separate and sanitary toilet facilities for men and women and changing rooms and lockers." The AQC notes that "this was not included on the plan that was submitted". The AQC also outlines the policy for STI/HIV/AIDs training to be undertaken for construction workers and surrounding communities.</p> <p>[EVIDENCE 7] – Poverty, Social and Gender Assessment (PSGA) (ADB, 2017) document prepared as part of the port redevelopment highlights potential impacts of the port development on women, including potential increase in prostitution, teenage pregnancies and HIV/AIDs during construction, and recommends approaches to mitigate these risks, notably a training and awareness raising program implemented before, during and after construction. The assessment also notes the potential benefits to women of the project, including lower consumer prices, reliable access to essential goods, and recruitment opportunities for skilled and unskilled labor with an emphasis on equal pay.</p> <p>[EVIDENCE 8] – Gender Action Plan (ADB, 2017) for the port indicates that "The GAP will be implemented by the International Supervision Consultant, Steering Committee and Project Management Unit. NPA will recruit one social safeguards officer, who will be supervised by one part-time International Social and Gender Specialist from the Steering Committee team. The Social and Gender Specialist will be responsible for incorporating the GAP into project planning and implementation including designing and implementing awareness workshops and establishment of gender-disaggregated indicators for project performance and monitoring. The SC/PMU will include reporting on progress of GAP activities in quarterly progress reports to ADB and the Government. Other training providers, NGOs may be hired to implement different GAP activities under the guidance of the SGS."</p> <p>[EVIDENCE 9] -The Port Authority [INTERVIEW 6] management indicated that they are currently striving to increase participation of women in their work force to 20% (currently 4 women out of 60 workers). Further, they expressed the opinion that there were no real barriers for them to achieve higher women's participation.</p>	<p>Rating: Adequate (4)</p> <p>Gender considerations appear to be routinely assessed as part of the project approvals process for DFAT and have been demonstrably integrated into the sports complex, learning village and port designs (<i>see below for more detail on the port gender assessments</i>).</p> <p>DFAT have invested resources into an independent gender advisor to review the infrastructure program and provide recommendations, which will serve to deepen the value of gender-based initiatives integrated into the infrastructure program.</p>
<p>b. To what extent are opportunities to improve life for people living with disabilities been identified and appropriately managed as part of designs?</p>	<p>Strength of Evidence Rating: Moderate. <i>(Based on implementing agency reports and interviews with stakeholders)</i></p> <p>[EVIDENCE 1] – Safeguards Due Diligence Report (Cardno, 2017) states that "Comprehensive safeguards assessments covering environmental protection, children, vulnerable and disadvantaged groups and health and safety have been undertaken by ADB as part of the project design."</p> <p>[EVIDENCE 2] – Concept Design for the Learning Centre – the USP Learning Centre has disability access ramps and accessible toilets to both levels of the building.</p> <p>[EVIDENCE 3] – Interview with the Department of Education [INTEVIEW 12] indicates that there are some issues relating to disability access at the Nauru Secondary School and TVET site, including lack of paving from the entry to the buildings (accessed over gravel), and also to the toilet facilities (there is one accessible toilet next to the TVET Centre, shared with the Secondary School).</p> <p>[EVIDENCE 4] – Concept Design for the Sports Complex – the sports complex design includes a section on accessibility and inclusiveness development, which notes that the universal accessibility principles apply to the design allow access for those with disabilities, pregnant women, the elderly, children, etc. The report outlines guidelines</p>	<p>Rating: Less than Adequate (3)</p> <p>It appears that disability access has been a consideration in some projects, including the sports complex and USP Learning Centre. However, in other cases, such as the Nauru Secondary School and TVET Centre (which were constructed earlier), the application of this principles has not been applied to the same extent.</p>

	<p>for the design, such as vertical accessibility (ramps and stairs), horizontal accessibility (appropriate circulation space, door widths and operation, hand and grab rails), hazard minimization, visual accessibility and open spaces and recreational areas outside the building (including pathways, furniture, equipment and signage).</p>	<p>The analysis regarding inclusive access to the port has not yet been sighted (it was requested from ADB).</p>
<p>c. To what extent have investments in infrastructure identified opportunities to contribute to climate change mitigation?</p>	<p>Strength of Evidence Rating: Moderate. <i>(Based on implementing agency reports and interviews with stakeholders)</i></p> <p>[EVIDENCE 1] – Final Feasibility Report (Cardno, 2017) – Port Project. The feasibility assessment quantifies the expected green house gas (GHG) emissions reductions from the new port as an estimated \$8.6 million climate change benefit. The value of reduced emissions was assessed based on estimated fuel use by pusher barges and berthed container and fuel vessels.</p> <p>[EVIDENCE 2] – Climate Risk and Vulnerability Assessment (Cardno, 2017) - Port Project. As per ADB’s requirements since 2014 for all investment projects to consider climate risk and incorporate adaptation measures, a Climate Risk and Vulnerability Assessment was undertaken. The assessment considered regional divers of climate, such as the South Pacific Convergence Zone (SPCZ), El Nino-Southern Oscillation (ENSO) and the West Pacific Monsoon. Existing climate conditions were assessed, as were four climate change projection scenarios (representative concentration pathways (RPC) 2.6, 4.5, 6.0 and 8.5). Factors evaluated include temperature, rainfall, drought, tropical cyclones, mean sea level, ocean currents, wind and wave climate, ocean acidity and tsunamis. The relevant hazards were identified to be increased air temperatures, sea level rise (58cm by 2070 under RPC 8.5), changes in wind and wave climate resulting in potential increases in extreme wave heights, increase in both average annual rainfall and the intensity of extreme rainfall events, and ocean acidity. The risk assessment proposed climate resilient measures to be reflected in the port design, as well as opportunities for improved resilience and sustainability (design and other options, including drainage, materials selection, sustainability, asset management practices, emergency management and improving knowledge and understanding of the local climate).</p> <p>[EVIDENCE 3] – Interviews with the NUC and ADB [INTERVIEWS 2, 11] indicated that the provision of the new diesel generators would reduce carbon emissions as compared to continuing to run the existing, less efficient generators. The generators selected were medium speed, providing good fuel efficiency and a longer asset life span than high speed generators (which also burn more fuel). This approach also represented a cost saving in fuel and oil use.</p> <p>[EVIDENCE 4] – Concept Design Report for Nauru Sports Complex (A&L, 2017) indicates that current and future weather and climatic conditions have been factored into the design, including building orientation to provide natural ventilation and shade, increased gutter, downpipe and drain sizes and wind resistance detailing and engineering design that accounts for heavier storms, rainfall events, and wind velocity. Other factors that have been considered include land tenure implications of the site selection, temperature and humidity and extreme sea level events, noting the site is located on the coast at an elevation of 5m above sea level.</p> <p>[EVIDENCE 5] – Concept Design Report for USP Learning Centre – This document includes a section that outline the future climate expectations and how the design has responded to be appropriate to the future conditions.</p> <p>[EVIDENCE 6] – Interviews with CIE [INTERVIEW 7] indicated that the water tanks project was supported as a climate change initiative, given the increased resilience at the household level that was anticipated to be delivered by this project.</p>	<p>Rating: Adequate (4)</p> <p>The following projects have demonstrated climate change as a key consideration in project selection and design:</p> <ul style="list-style-type: none"> • Nauru Electricity Supply and Sustainability Project (co-financed with the Asian Development Bank and European Union) • Port redevelopment and Port Institutional Strengthening (co-financed with the Asian Development Bank, Government of Nauru and Green Climate Fund) • NUC CEO (through PACTAM program) <p>The following projects have ensured climate change adaptation is considered in the design:</p> <ul style="list-style-type: none"> • USP Learning Centre • Sports Complex • Household water tanks <p>It is not clear from evidence received to what extent climate change was considered as a cross-cutting issue relating to these projects:</p> <ul style="list-style-type: none"> • Wellness clinics • TVET Centre • Hospital (stage 1 and 2)

Annex C – List of People Interviewed

	Interviewee	Role	Organisation	Interviewer
1	Abraham Simpson	Chief Executive Officer (CEO)	Nauru Utilities Corporation	Sonya, Rene
2	Alina Amwano	Gender Focal point	Department of Home Affairs	Sonya, Samiha, Rene, Helen
3	Angela Tierney	High Commissioner	Department of Foreign Affairs and Trade	Sonya, Samiha, Rene
4	Angus Hinton	Second Secretary	Department of Foreign Affairs and Trade	Sonya, Samiha, Rene
5	Anton Jimwereiy	CEO (outgoing)	Nauru Port Authority	Sonya, Rene
6	Baydon Johnston	CEO (incoming)	Nauru Port Authority	Sonya, Samiha, Rene
7	Bob Agigo	Schools Infrastructure Manager	Department of Education	Sonya, Rene
8	Branessa Tsiode	Social Sector Planning	Planning and Aid Division, Department of Finance	Sonya, Samiha, Rene
9	Brenda Waidabu	Community Development Officer	Department of Sports	Sonya, Samiha, Rene
10	Bryan Star	Director	Department of Commerce Industry and Environment	Sonya, Samiha, Rene
11	Bunyan Seymour	Site Superintendent	Alexander & Lloyd	Sonya, Rene
12	Camilla Solomon	Development Coordinator	Asian Development Bank	Sonya, Samiha, Rene
13	Cynthia Dekarube	Safe House Counsellor	Department of Home Affairs	Sonya, Samiha, Rene, Helen
14	Darrina Kun	Principal	Nauru Secondary School	Sonya, Samiha, Rene, Helen
15	Douge Daniel	Sports Project Officer	Department of Sports	Sonya, Samiha, Rene
16	Dr Richard Leona	Director for Medical Services	Republic of Nauru Hospital	Sonya, Rene
17	George Plant	Director for Treasury (PACTAM)	Department of Finance	Sonya, Samiha, Rene, Helen
18	Henry Cocker	Deputy Secretary (PACTAM)	Planning and Aid Division, Department of Finance	Sonya, Samiha, Rene
19	Isaac Aremwa	Board Chairman	Nauru Port Authority	Sonya, Rene
20	James Roop	Climate Change Specialist	Asian Development Bank	Sonya
21	Jean Akubor	Youth Affairs	Department of Home Affairs	Sonya, Samiha, Rene, Helen
22	John Tanang	Director for Sports	Department of Sports	Sonya, Samiha, Rene
23	Kathleen Cheong	Associate	Alexander & Lloyd	Sonya
24	Krystalmaine Finch	Family & Community Services	Department of Home Affairs	Sonya, Samiha, Rene, Helen
26	Lesi Olsson	Secretary for Infrastructure	Department of Infrastructure Development	Sonya, Samiha, Rene
27	Liluv Itsimaera	Senior Aid Officer	Planning and Aid Division, Department of Finance	Sonya, Samiha, Rene
28	Lorena Estigarribia	Technical Manager	Pacific Region Infrastructure Facility	Sonya
29	Marita Agigo	DA? / Director for Tourism	Department of Home Affairs	Sonya, Samiha, Rene, Helen

30	Michelangelo Dimapilis	Secretary for Public Admin. and Operation	Office of the Chief Secretary	Sonya, Rene
31	Mohammed Ali	Utilities General Manager	Nauru Utilities Corporation	Sonya, Rene
32	Nicci Simmonds	New Zealand High Commissioner	New Zealand Ministry of Foreign Affairs and Trade	Sonya, Samiha, Rene, Helen
33	Peniasi Nakautonga	Director for Lands and Survey	Department for Lands and Survey	Sonya, Samiha, Rene
34	Peter Jacob	President's Chief of Staff / Chairman	Nauru Rehabilitation Corporation	Sonya, Samiha, Rene
35	Peter Kelly	Infrastructure Advisor	Department of Foreign Affairs and Trade	Sonya
36	Philippe Bergeron	Consultant	Pacific Region Infrastructure Facility	Sonya, Samiha, Rene
37	Rayong Itsimaera	Secretary for Health	Department of Health	Sonya, Rene
38	Reagan Moses	Assistant Secretary	Department of Commerce Industry and Environment	Sonya, Samiha, Rene
39	Rene Dube	Program Manager for Infrastructure and Health	Department of Foreign Affairs and Trade	Sonya, Samiha
40	Rhys Gwilliam	Consultant	Alexander & Lloyd	Sonya
41	Richard Lewis	Vice Principal	Nauru Secondary School	Sonya, Samiha, Rene, Helen
42	Samuel Grundler	Director for Aid	Planning and Aid Division, Department of Finance	Sonya, Samiha, Rene
43	Taani Lasike	TBC	Craig Construction	Sonya, Rene
44	Tara Detogia	Development Officer	Department of Home Affairs	Sonya, Samiha, Rene, Helen
50	Ted Jones	Hospital Operations Manager (PACTAM)	Republic of Nauru Hospital	Sonya, Rene
51	Tim Dobell-Brown	Director	Alexander & Lloyd	Sonya
52	Vaiuli Amoe	Clean & Green Manager	Department of Home Affairs	Sonya, Samiha, Rene, Helen
53	Victoria Scotty	Assistant Counsellor	Department of Home Affairs	Sonya, Samiha, Rene, Helen
54	Wes Tsitsi	Secretary for Lands Management	Department for Lands and Survey	Sonya, Samiha, Rene

Annex D – Work plan and Timeframe

The infrastructure review is planned to commence in mid-May and will be completed by June-July. The table below outlines the various activities to be undertaken as part of the review with tentative dates. The dates will be confirmed with the Infrastructure Sector Specialist.

Activity	Timing- TBC	Byron	Samaha	Sonya
DFAT identify and schedule meetings and interviews with key stakeholders for the Review Team. Undertake preliminary interviews by phone (including development partners and regional organizations).	21 Mar – 21 Apr			2
Desktop Review and finalization of the Review ToR- template for reports, final interview guides, evidence matrix, etc	21 Mar – 21 Apr			6
<ul style="list-style-type: none"> • Infrastructure Mission: • Travel time to Nauru for Sector Specialist • Briefing with DFAT- includes an initiation meeting of the review team and DFAT • Conduct interviews with key stakeholders in Nauru • Site visits to priority infrastructure investment sites • Conduct any follow-up interviews and preliminary analysis of the interview results and data • Internal de-brief with DFAT Post (morning) and Preparation for the Findings Briefing (afternoon) • Conduct Preliminary Findings Briefing with DFAT and GoN to review the evidence and co-develop the findings 	21 Apr – 4 May	1	6	13
Travel from Nauru- M&E and Sector Specialist	4 May		1	2
Further follow-up interviews via telecom (as needed) and Submit Draft Evidence Matrix and Infrastructure Review Report	2 – 25 May	1	1	17
DFAT Feedback on Draft Infrastructure Report	29 May			
Submit Final Infrastructure Review Report	30 May – 1 June	0.25	1	3
Follow-up input into any Theory of Change workshops, meetings, etc	June 2018	1	1	

Annex D – Draft Interview Guide

Interviews are envisioned to be exploratory, covering a number of KRQ sub-questions. All interviews will be semi-structured.

5.1.1.1 Background

The purpose of the interview is to ask you to draw on your experience and perspectives about DFAT’s support to the infrastructure and essential services sector in Nauru. The information you provide will be used to develop a report providing DFAT with a broader understanding of the public sector, appropriateness of its existing assistance and future strategic direction for public sector investments. This report will be shared with the Australian Department of Foreign Affairs and Trade.

While you will not be identified by name in the report, identification may be possible by reason of the small number of interviewees we will be contacting. If there are any comments you would not like to be associated with please let me know so that I can ensure confidentiality. Is it okay if I record the interview? This interview is expected to take about 60 minutes. Are you happy to proceed?

5.1.1.2 Contact Details

Name of interviewee	
Name of organization	
Date	

5.1.1.3 Introduction

1. Please tell me about your role and involvement in the public sector in Nauru, including:
 - your current position
 - the length of your term
 2. To your knowledge, what developments and reforms have occurred in the infrastructure and utilities sector in Nauru since 2014 up until now?
 3. Why are these developments/reforms important for Nauru?
 4. What support did DFAT provide to influence these changes?
 5. Should DFAT continue to support these initiatives? Why?
 6. Should DFAT support any other alternative activities in infrastructure/utilities? Why?
 7. For selected projects, were suitable alternatives considered to achieve the outcomes?
 8. If DFAT didn’t provide assistance through inline personnel (CEO NUC), what would’ve been the impact for NUC in terms of utilities reforms and outcomes?
 9. Were activities completed on time and within budget?
 10. Has the CEO NUC been effective? Did they provide capacity building for NUC employees?
 11. Is DFAT investment generally harmonised with other donors and aligned with GoN systems?
 12. To what extent have DFAT’s investments provided opportunities to promote private sector development and innovation?
-

- Questions 13 – 16 are applicable to this list of projects:
 - i Learning Village
 - ii Household Water Tanks Project
 - iii Nauru Electricity Supply and Sustainability
 - iv Indoor Sports Facility
 - v Port Reform and Institutional Strengthening Project
 - vi RON Hospital Redevelopment
 - vii Hospital Masterplan Review
 - viii Concept designs for Nurses Quarters (Phase 3 prep)

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- 13. Have the designs for these infrastructure projects been “fit for purpose” to achieve their goals?
- 14. Will they continue to do so over time in a changing climate (sea level rise, increased intensity and frequency of storms, changed rainfall patterns, increased temperature ranges)?
- 15. Have ESIA reports been prepared for these projects and suitably reviewed for quality?
- 16. Have these project designs assessed opportunities for improvements in gender equality, disability inclusive development and climate change mitigation?

Questions 17 – 21 is applicable to this list of projects:

- i Learning Village
 - ii Household Water Tanks Project
 - iii Nauru Electricity Supply and Sustainability Project
 - iv Indoor Sports Facility
 - v Basketball Court Refurbishment (Epon Keramen)
 - vi Port Reform and Institutional Strengthening
 - vii RON Hospital Redevelopment
 - viii Hospital Masterplan Review
 - ix PACTAM - NUC CEO / Institutional Reform
 - x Concept designs for Nurses Quarters (Phase 3 prep)
- 17. Has the project design or implemented assessed needed institutional strengthening and capacity building to maintain the asset over time, or identified the project to be worthwhile even if it will not be maintained?
 - 18. Have efforts been made to clearly identify who will manage daily operations of the asset (e.g. cleaning, ensuring utilities are connected, managing bookings of facilities, managing rubbish disposal, etc)?
 - 19. Is it clear whose responsibility (department) it is (or will be) to maintain the asset?
 - 20. Does that department have allocated budget and resources (personnel, vehicles, safety equipment) necessary to be able to inspect and maintain assets?
 - 21. Is there a mechanism in place for defects or maintenance issues to be reported, tracked and resolved?

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- 22. What is the current M&E and review structure for the Nauru Sports Complex and the Nauru Ports Reform Project? Is it the most appropriate mechanism to measure progress?
 - 23. How can progress against the overall Nauru Infrastructure and Services investment by DFAT be measured?

Finally, are there any other closing comments you would like to make?

Annex E – Strength of Evidence Rubric & Rating Scale

Evidence	Definition
Weak	Includes non-validated assertions, personal opinions and anecdotes. Weak evidence is not sufficient to rate an investment criterion satisfactory.
Moderate	Evidence derived from a more limited range of sources such as implementing agency reports, records of monitoring visits or records of discussions with partners and other stakeholders.
Strong	Evidence derived from multiple reliable sources independent reviews/evaluations, quality assured monitoring data, implementing agency reports validated by monitoring trips, and independent research conducted in the sector.

Rating Scale:

Rating	Score
Very Good	6
Good	5
Adequate	4
Less than Adequate	3
Poor	2
Very Poor	1

Annex F – KRQs and Performance Rubric

KRQ	Sub-question	Methods	Data sources	Performance Rubric
Relevance- Given the objectives of DFAT and the GoN in the infrastructure and essential services sector, to what extent are existing initiatives relevant?	To what extent does Australia’s contribution support GoN’s objectives in infrastructure and essential services?	Desktop review and key informant interviews	AIP, APPR, AQC 2015-17, NSDS, other GoN documents; key informants	<p>Good, Very Good (rating: 5-6)- The investment is highly relevant to Australia’s national interests, to the development context and Nauru’s priorities.</p> <ul style="list-style-type: none"> The investment’s outcomes are closely aligned with the objectives of the Nauru Aid Investment Plan and/or the NSDS. The investment has demonstrated a high degree of flexibility in adapting to any changes in the development context in Nauru, Australian Government or partner priorities. <p>Adequate (rating: 4)- The investment is largely relevant to Australia’s national interests, to the development context and partner priorities and does not fail in any major area.</p> <ul style="list-style-type: none"> The investment’s outcomes are generally aligned
	How is investing in infrastructure and essential services in Nauru in Australia’s national interest?	Desktop review and key informant interviews	AIP, APPR, AQC 2015-17, NSDS, other GoN documents; key informants	
	What areas of infrastructure/services would be most strategic for DFAT to support and why?	Desktop review and key informant interviews	AIP, APPR, AQC 2015-17, NSDS, other GoN documents; key informants	

				<p>with the objectives of the Nauru Aid Investment Plan and/or the NSDS.</p> <ul style="list-style-type: none"> • The investment has demonstrated satisfactory flexibility in adapting to any changes in the development context in Nauru, Australian Government or partner priorities. <p>Less than Adequate (rating: 3)- The investment is poorly aligned with Australia’s national interests, and/or the development context and partner priorities.</p> <ul style="list-style-type: none"> • The investment’s outcomes are not aligned with the objectives of the Nauru AIP and/or the NSDS in at least one major area. • The investment has not shown adequate flexibility to adapt to changes in the development context in Nauru, Australian Government or partner priorities.
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				<p>Poor, Very Poor (rating: 1-2)- The investment is not aligned with Australia's national interests, and/or not relevant to the development context and partner priorities.</p> <ul style="list-style-type: none"> • The investment's outcomes are not aligned with the objectives of the Nauru AIP and/or the NSDS in several/all major areas. • The investment is not able to adapt in response to changes in development context in Nauru, Australian Government or partner priorities.
<p>Effectiveness-</p> <p>To what extent has DFAT's support provided essential infrastructure and reform of the utilities sector?</p>	<p>To what extent have DFAT's investments delivered physical infrastructure that is fit for purpose now and over time in a changing climate?</p>	<p>Desktop review and key informant interviews</p>		<p>Good, Very Good (rating: 5-6)- The investment has fully achieved the outputs and targets expected at this point in time and is on track to achieve the expected final outcomes.</p>
	<p>To what extent have DFAT's investments in infrastructure managed environmental and social impacts and identified opportunities for improvements in gender equality, disability inclusive development and climate change mitigation?</p>	<p>Desktop review and key informant interviews</p>		<p>Adequate (rating: 4)- The investment has achieved the major outputs and targets expected at this point in time and is largely on track to achieve the expected final outcomes.</p>
	<p>To what extent have DFAT's investments ensured that infrastructure assets and utilities are sustainably operated, managed and maintained?</p>	<p>Desktop review and key</p>		<p>Less than Adequate (rating: 3)- The investment has not sufficiently achieved the outputs and targets</p>

		informant interviews		<p>expected at this point in time and is not on track to achieve the expected final outcomes.</p> <p>Poor, Very Poor (rating: 1-2)- The investment has not achieved the outputs and targets expected at this point in time and it will not achieve the expected final outcomes.</p>
<p>Efficiency-</p> <p>To what extent has the investment efficiently used Australia's contributions in terms of time and resources to achieve the desired outcomes?</p>	To what extent has DFAT selected infrastructure projects that efficiently deliver the agreed outcomes, after considering suitable alternatives?	Desktop review and key informant interviews		<p>Good, Very Good (rating: 5-6)- The investment maximises outcomes from available time and resources.</p> <ul style="list-style-type: none"> • The investment is within budget and funds are being expended as planned. • The investment is well harmonised with the work of other donors and closely aligned with partner government systems. <p>Adequate (rating: 4)- The investment generally makes appropriate use of time and resources in all major areas.</p> <ul style="list-style-type: none"> • The investment is within budget and funds are being expended as planned. • The investment is well harmonised with the work of
	To what extent were DFAT's investments managed to ensure delivery on time and within budget?	Desktop review and key informant interviews		
	How has DFAT education investments harmonised with other donors and aligned with partner government systems?	Desktop review and key informant interviews		

				<p>other donors and closely aligned with partner government systems.</p> <p>Less than Adequate (rating: 3)- The investment is not making appropriate use of time and resources in at least one major area.</p> <ul style="list-style-type: none"> • The investment has deviated from the budget, planned expenditure or timelines and this is beyond tolerance limits. • Harmonisation with other donors and alignment with partner government systems is weak and creating some notable inefficiencies. <p>Poor, Very Poor (rating: 1-2)- The investment is not making appropriate use of time and resources in several/all major areas.</p> <ul style="list-style-type: none"> • The investment has deviated significantly from the budget, planned expenditure or timelines and this is well beyond tolerance limits.
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				<ul style="list-style-type: none"> The investment is poorly harmonised/aligned with donors and partner government systems and creating some major inefficiencies.
Monitoring and Evaluation- <ul style="list-style-type: none"> What would the preferred structure of the program, performance expectations and monitoring and evaluation look like? 	To what extent are the current reporting and M&E arrangements suitable considering DFAT standards, particularly for the indoor sports complex and Nauru port reform and redevelopment?	Desktop review and key informant interviews		Good, Very Good (rating: 5-6) Adequate (rating: 4) Less than Adequate (rating: 3) Poor, Very Poor (rating: 1-2)
	What would the recommended Theory of Change and M&E Framework include for future DFAT infrastructure investments?	Infrastructure Review Report, desktop review and key informant interviews		