

Assessment of Kiribati Public Asset Management



Forward

This report assesses the current state of asset management within Kiribati. It draws on interviews with the major planning and executing agencies in Kiribati, as well as the in-country experience of the consultant (James Webb) and a desktop review of material provided by the Government of Kiribati.

Thanks goes to all the parties interviewed. Without exception, all parties were open and honest with their contributions, saw the need for improved practices, and were supportive of the program going ahead. Special thanks go to Koin Uriam from the National Economic and Planning Office for her logistical support.

The views represented here are those of the author and do not necessarily represent the views of the Government of Kiribati or its agencies, nor the Government of New Zealand, who funded this review.

All dollar values in this report are in Australian dollars, unless stated otherwise.

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Abbreviations

ADB	The Asian Development Bank
AKL	Air Kiribati Limited
AM	Asset management
CSO	Community Service Obligations
IMF	International Monetary Fund
ISM	International Safety Management
KAIP	The Kiribati Aviation Investment Program
KDP	Kiribati Development Plan
KEIP	The Kiribati Education Improvement Program
KFSU	The Kiribati Fiduciary Services Unit
KHC	The Kiribati Housing Commission
KNSL	Kiribati National Shipping Limited
KPA	The Kiribati Port Authority
KRRP	The Kiribati Road Rehabilitation Project
KV20	Kiribati Vision 20
LC	Landing Craft
MFED	The Ministry of Finance and Economic Development The Ministry of Information Communications, Tourism, and Transport
MICTTD	Development
MISE	The Ministry of Infrastructure and Sustainable Energy
NEPO	The National Economic and Planning Office
PEFA	Public Expenditure and Financial Accountability assessment
PFM	Public financial management
PIMA	Public Investment Management Assessment
PRIF	Pacific Regional Infrastructure Fund
PUB	The Public Utilities Board
PVU	The Public Vehicles Unit
SOE	State Owned Enterprise
SOE MAU	The State Owned Enterprise Monitoring and Advice Unit
SOP	Standard Operating Procedures
SPC	The Secretariat to the Pacific Community
SSM	Safe Ship Management
TACL	Te Atinimarawa Corporation Limited
WASH	Water and sanitation for health

1 Introduction

It is well understood that public capital can be a key determinant of economic growth and prosperity. In most instances, public capital assets are central to the delivery of public services ranging from healthcare and education through to utilities and transport. When public assets are not sufficient to meet the needs of the economy or the population, this can create market failures that negatively affect private investment, economic growth, and poverty reduction.

As a small remote economy, Kiribati suffers from a significant infrastructure and capital gap in a number of key sectors. Increases in Government revenues since 2014 and the scale-up of development partner programs have opened up new opportunities to bridge some of these gaps through large and sustained increases in public investment. Notable examples include the completion of the South Tarawa road network, energy reticulation and generation upgrades, airport and harbour construction, new schools, and expansion of Government-owned movable capital (such as vessels and aircraft).

The Government recognises the important role that infrastructure plays, with Pillar 3 of the Kiribati Vision 20 (KV20) dedicated solely to infrastructure development. The Infrastructure Pillar seeks to improve transport and ICT infrastructure, as well as access to utility and social infrastructure. The KV20 makes explicit reference to the cross-cutting role of infrastructure in providing basic services and creating an enabling environment for the development of the fisheries and tourism (the key target sectors of the KV20).

It is clear that previous investments have not fulfilled their design potential, with serviceability and utilisation rates well below what would be considered prudent. In particular, a lack of preventative maintenance and minor repair has led to the significant degradation of capital, with a large portion of older infrastructure investments unserviceable well before the end of their design life. Indeed, many of the new investments over the past 5 years have simply restored the functionality of ageing or degraded capital rather than expanding the capital stock and broadening the delivery of services to the public.

This carries a significant opportunity cost to development efforts as regular maintenance is ultimately more cost effective than reconstruction and the new funds could have instead been used to expand the productive base of the economy. The widely quoted De Sitter's Law of Fives estimates that for concrete structures (which dominate the major assets of the Kiribati Government), "every dollar of routine maintenance that is deferred will end up costing \$5 in repairs, or ultimately \$25 in rehabilitation or replacement as the asset declines overtime".¹ In Kiribati, the reconstruction of key infrastructure – particularly transport and energy infrastructure – has meant that other infrastructure improvements (such as hospitals and clinics) have not had the financial resources to go ahead.

With larger and sustained capital investments on the horizon (such as reticulated water on South Tarawa), asset management will need to take on a core role in ensuring that the new investments are effectively expanding the capital base of the economy and enriching the lives of the Kiribati people as envisioned in the KV20. This will require the introduction of a robust and embedded system for asset management in Kiribati that supports a culture of maintaining new and existing capital.

Inadequate infrastructure maintenance has long been recognised as a challenge for governments in all jurisdictions. The failure to maintain physical infrastructure has led to its premature deterioration

¹ De Sitter, W.R. 1984. Costs for service life optimization: the law of fives. *CEB-RILEM Workshop Durability of Concrete Structures*. Copenhagen.

around the world, and particularly in small island developing states (SIDS) in the Pacific. This is sometimes termed the ‘build-neglect-rebuild’ (BNR) cycle, given that deteriorated infrastructure assets are commonly rebuilt when they become unusable at great expense to the governments and development partners in the region.²

2 Asset management in Kiribati

2.1 Central systems

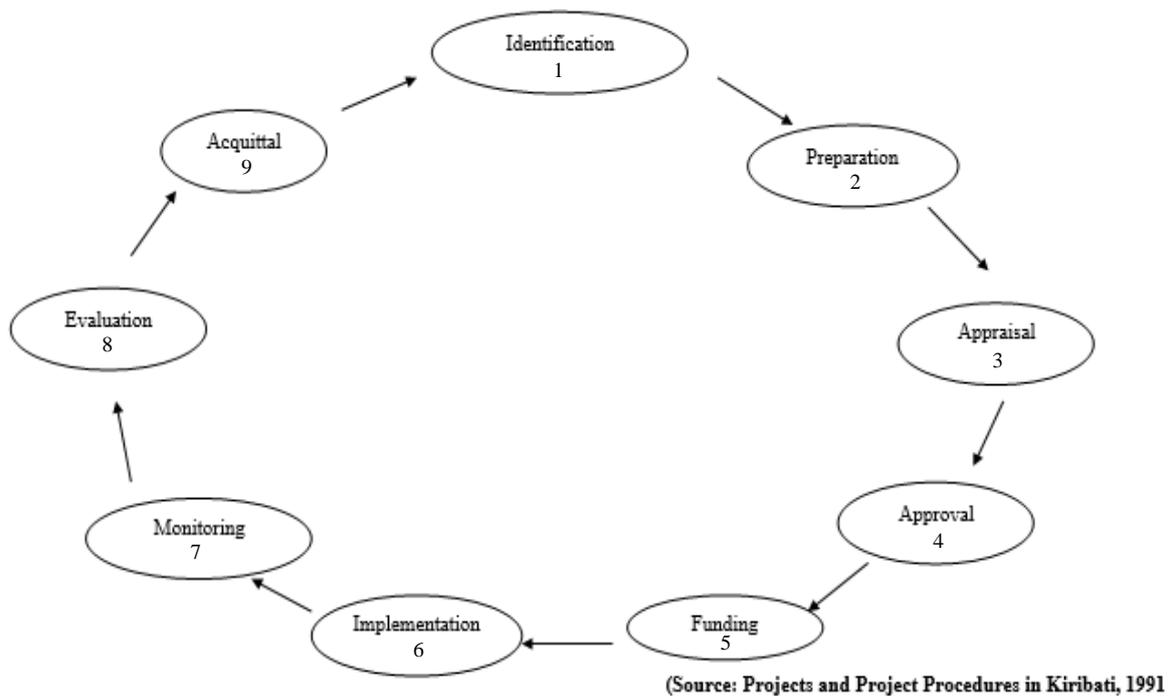
While there is no definition within the Kiribati context, Asset Management (AM) could be considered to cover all stages asset formation, utilisation, and disposal/renewal. For example, some jurisdictions divide the AM cycle into four distinct parts: planning and feasibility; acquisition and financing; operations and monitoring; and disposal/replacement/renewal. Additional cross-sectional elements may include leaderships and governance, risk management, performance management, or service delivery.

Key reforms are already underway in Kiribati the areas of procurement, financial management IT systems, audit and SOE reform. These reforms could be considered part of overall public financial management reforms, but have significant crossover for AM improvements. Notably, some initial frameworks for Asset Management Plans have already been outlined for Kiritimati Island, and could form the basis of more widespread adoption of AM practices. Some major infrastructure investments, like the Betio Causeway, also come with detailed guides on servicing and operational needs over their lifecycle.

In terms of centrally embedded systems, the closest facsimile of formal AM in Kiribati would be the Project Management Cycle, which has a greater focus on those aspects most relevant for MFED to consider: selection, funding, implementation, and acquittal. While issues such as maintenance and risk management could arguably be included under one or more headings (e.g. the implementation and monitoring stages), these aspects are not routinely included at any stage and will not prohibit a particular project from going ahead. In-country interviews confirmed that priority is given to steps 2-6 (appraisal through to implementation), with other stages receiving much less attention. This is best evidenced by one of the later steps: project acquittals, which are several years behind schedule for the Development Fund overall, and are only performed on an ad hoc basis when/if requested by donor partners. In the case of acquittals, this deficiency comes from the lack of a unified accounting system, poor record keeping, and limited staff capacity to acquit the large volume of projects undertaken each year.

² Alejandrino-Yap, M. C., M. Dornan, M., & K. McGovern, K. (2013). *Infrastructure Maintenance in the Pacific: Challenging the Build-Neglect-Rebuild Paradigm*. Sydney: Pacific Region Infrastructure Facility.

Figure 1 Kiribati Project Management Cycle



A recent Public Investment Management Assessment (PIMA) performed by the IMF identified that, on balance, the institutional strength for managing investments in Kiribati lags its regional peers. The Kiribati PIM institutional strength was assessed as being better than low-income developing countries (LIDCs) in three areas: coordination between entities, budgeting for investment, and availability of funding. Kiribati was comparable to LIDCs in three areas: fiscal targets and rules, multi-year budgeting, and project management. In other areas, however, Kiribati’s institutions are weaker than LIDCs, notably national and sectoral planning, project selection, procurement, and monitoring of assets.

The PIMA also noted that existing legal and regulatory frameworks were not being effectively implemented. This was especially the case in relation to the coordination between entities and, to a lesser extent, budget comprehensiveness and unity, and project selection.

Of particular concern, the PIMA highlighted the lack of formal processes or frameworks where ineffective practices were observed. In particular: national and sectoral planning, maintenance, and monitoring of assets. This is consistent with the common understanding that maintenance issues are not given priority when compared to acquisition. This also aligns with the experience of the National Economic and Planning Office (NEPO) within MFED and the engineering section of MISE, which report that they do not currently have the capacity to perform follow-up inspections once construction/acquisition is complete.

These challenges were also raised in the Pacific Regional Infrastructure Facility (PRIF) report³ and subsequent Roadmap. The report identifies lessons learned from coordination assistance provided to the Republic of Kiribati to monitor and manage a large international infrastructure development program under the Kiribati Infrastructure Development Program (KIDP), with many identified elements still being relevant to the present discussion. In particular, PRIF identified reporting and

³ Kiribati Infrastructure Sector Coordination Support: Lessons learned, PRIF, 2015

monitoring issues, poor communication within and between agencies, strained internal capacity, and a lack of overall infrastructure planning and scheduling.

The project reporting templates and program that was attempted under the PRIF Roadmap appear to have only partially been retained. The 2016-19 KDP did not have the regular 6-month or reporting of government and development partner projects envisioned under the reforms, but project-level briefing has been maintained for most projects (regardless of funding source) despite the substance and regularity of the project-level reporting varying greatly. Most projects were required to submit their project report at least once a year as part of the regular project warranting process. The overall quality of the project documentation, and lack of NEPO staff capacity, did not enable effective consolidated reporting.

The Public Finance Act clearly articulates the mandate of the Auditor General to examine and comment on the custody of assets, which could be interpreted as including where those assets have poor governance or lack of maintenance. Section 30 of the Act allows the Auditor General to inspect the accounts and regulations pertaining to government stores, which are defined broadly under the Act and Regulations as including property, infrastructure, and heavy plant. This is further supported by Section 41, where the Auditor General can report to the Accountant General where “any irregularities have occurred in the receipt, custody, issue or expenditure of public moneys or in the receipt, custody, issue, sale, transfer or delivery of any stamps, securities, stores or other property”.

Section 47(1)(c) of the Act also outlines that financial misconduct includes “negligence or misconduct in connection with the destruction, damage, or loss of any public moneys, stamps, securities, stores, or other Government property”. This would provide the Auditor General and the Accountant General adequate scope to include mis-management of public non-financial assets as financial misconduct under the Act, where such behaviour has led to the damage or loss of said asset. However, apportioning responsibility for long-lived asset classes (like infrastructure) may be difficult in the absence of significant and discrete instances of misconduct.

In terms of reporting however, Section 39 of the Act does not require the Accountant General to report on current store values or condition beyond a simple inventory and record of transactions (acquisition or disposal). Section 39(a) of the Act only requires that “Stores accounts shall be kept in all cases where, in the opinion of the Accountant General, the receipt, expenditure, sale, transfer or delivery of... stores... is of sufficient amount or character to require the keeping of such accounts”. This means that while the Auditor General can inspect such accounts and regulations as per Section 30, these will not pertain to asset valuations, depreciation, condition, or management.

More generally, even if the Auditor General was to provide broader commentary, the Auditor General does not report regular management responses to audit reports – suggesting that the review cycle is not feeding back into management and planning decisions. For example, the Ministry of Education (a major holder of public assets) has not provided any management response for the previous five audit reports, despite working on improvements to several areas of financial management. The recent reform program at the Audit Office aims to broaden the current audit practice to include a performance (rather than purely financial) auditing, but it is unclear how this will improve practices within agencies if they are not providing management responses and not required to provide more detail by the Accountant General.

The current Stores Regulations (under Section 19 of the Public Finance Act) define stores broadly as being any property of government (Regulations Section 1.11), and that accounting officers ensure “adequate arrangements exist for the safe-keeping” (Sections 2.3 and 2.7) of public assets to “the

same degree of care over them as he would over his own property” (Section 2.1). This mandates a clear responsibility of accounting officers to look after the assets in their agency’s possession. Sections 2.6, 2.8 and 2.11 also require that stores be used correctly and maintained in a way that minimises deterioration.

Proper financial provision for maintenance is mandated under the Stores Regulations, Section 6. However, “If sufficient funds are not available for such maintenance, repair or replacement, the Accountable Officer shall make appropriate requests for funding as part of the budgetary process” (Section 6.4). This suggests that while Accounting Officers are required to provision for maintenance, they have the ability to defer any maintenance needs to the central budgeting process. Upon reviewing the official budgets for agencies however, maintenance line items are mostly zero, indicating that most maintenance needs are funded without prior planning or not at all.

The requirements enforced by the Accountant General, as they relate to assets, could be strengthened through regulation and financial instruction, and may not require legislative changes. As the Public Finance Act broadly defines ‘stores’ as including all Government assets, the current legislation provides a pathway for MFED to require improvements in asset management practices and reporting via a direct instruction from the Accountant General and Minister of Finance.

In terms of organisational structure, no unit is responsible for inspecting assets or enforcing asset management practices. No agency currently has the mandate to oversee asset management. The closest approximation would be the Internal Audit Unit at MFED, which is tasked with collating and verifying asset registers (which only include office equipment and vehicles). Internal audit at MFED do not currently carry out audits of financial statements or procurement. Technical staff at MISE were aware of many of the issues with existing infrastructure but did not have sufficient personnel to carry out any regular inspections – all of their existing capacity was directed to projects under construction.

Similarly, there is currently no system or requirement to manage the risks associated with planned, new, or existing assets. While a section of the project proposal documentation submitted to NEPO pertains to anticipated risks, this section of the documentation does not form part of the evaluation, is not independently assessed, nor is it evaluated for mitigation measures or residual risks. Once a project is approved, a poor understanding of project and asset lifecycle risks does not enable effective mitigation strategies or design variation (such as planning for regular coastal inundation or adapting designs to better suit the capacity to maintain/repair).

MISE reports that project documentation was not generally handed over in a meaningful way to local staff upon completion of donor-funded (or even government funded) projects, resulting in a lack of local knowledge on the design specifications and required maintenance tasks. It was generally felt that a maintenance and operational transition period/transition program would help alleviate this possible bottleneck. However, due to poor records management, it is unclear how this would lead to a sustainable AM system without significant investments in MISE systems (people systems and ICT).

MISE staff also highlighted a complete lack of documented processes or guidance notes on the evaluation and design of structures and fixed assets (like water or power infrastructure). There are also no documentation archiving/file management systems, resulting in poor retention of the initial design parameters of existing assets. Ultimately, the pressure was on the current personnel to have the skills and capacity to address issues as they arose, with little context beyond what other staff around them may know.

Outside of MoE, MHMS, and the road network, SOEs hold almost all the remaining fixed assets of Government. This includes the international airports and seaports, the electricity and water

infrastructure, aviation equipment, shipping, the soon-to-be-completed deepsea cable, and public housing.

The Act to Improve the Efficiency and Effectiveness of State Owned Enterprises (referred to as the SOE Act) lays out SOE reporting and planning requirements in relation to financial management and investments. Sections 19 and 20 specifically outline the information required in the Statement of Intent (SOI; Section 19) and the Annual Reports (Section 20), with financial statements featuring prominently in the list of requirements. Notably, while ‘accounting policies’ is one of the required inclusions in the SOIs, reporting on AM practice or policies, or asset conditions are not. The mandated accounting requirement for SOEs in Kiribati are the IPSAS standards, which require the submission of asset registers alongside the financial statements but do not require a condition report of major asset holdings.

2.2 Road networks

Under the Public Highway and Protection Act 2018 the Highway Authority has sole custody over the main road in South Tarawa, but it is currently only staffed to carry out the licencing functions under the Act. Section 8(c) of the Act explicitly states that the Highway Authority “ensure that all public highways are continually maintained throughout”, but the current structure of the organisation only addresses the licencing mandate. The Highway Authority currently sits within MICTTD and there is the intention to split off the agency and expand its resourcing to cover the other areas of the Act, although the feeder roads and the outer islands would still be beyond the intended scope of the agency.

No agency currently carries out regular survey or inspection of roads infrastructure in South Tarawa. MISE, MICTTD, and the Highway Authority do not have any staff that officially perform routine checks of the road network or related infrastructure. The Highway Committee, the secretariat for which sits within MICTTD, responds to notifications of issues and complaints from the public regarding the road condition and decides on the appropriate course of action. The Committee is made up of representatives from MISE, MICTTD, BTC, TUC, and the Highway Authority.

Upon receiving notifications, the Highway Committee decides on the course of action for roadworks and tasks MISE to carry out the works using MISE equipment and the maintenance funding pool. This consolidated maintenance funding pool was budgeted at \$2 million in the 2019 Budget, with \$551,000 allocated to road cleaning and routine maintenance contracting, \$47,383 for roading maintenance materials for MISE, and \$64,107 for the feeder roads to go to the South Tarawa urban councils (BTC and TUC).

The current priority of the Highway Committee is road safety, rather than longer term structural risks. Consultations with both MISE and MICTTD suggested that potholes and road signs tended to receive attention ahead of other priorities such as drainage and erosion of the road base. While this may be consistent with the Highway Authority Act, there will likely be longer term implications for the integrity of the road surface if structural elements are not addressed.

The funding available to roads maintenance will fall far short if the appropriate program of work is fully carried out. The routine contracting refers primarily to the regular cleaning of the road surface and clearing of drainage, and does not include any civil works for minor repairs that may be required. While the routine cleaning of the roads and drains will limit degradation of the road surface, MISE and MFED both acknowledge that the budget available to MISE to undertake repairs or put in place preventative tidal protection is unlikely to be sufficient. This is especially true once the regular

maintenance needs of the road increase over time and/or the outer island roads are taken into account.

No agency has the mandate to assess and manage the risks faced by the road and drainage network. MISE has undertaken some preventative works in areas susceptible to inundation, but there is no documented record of the incumbent risks for the road network, nor an evaluation of mitigation success or emerging risks. More generally, there is no design guidance for MISE on the appropriate techniques to apply when attempting to undertake remedial or preventative works.

As such, the division of agency responsibilities may overcomplicate the governance arrangements and reduce preventative measures. The current 'complaints driven' structure of the Highway Committee does not allow for the inclusion of preventative measures to be considered for funding alongside remedial works. The Highway Authority has the mandate for the main road in South Tarawa, the urban councils are responsible for the feeder roads, and the Island Councils are responsible for the roads on their island, but MICTTD hosts the Highway Committee and MISE is the agency with the Budget, equipment and technical staff to carry out the works. With dispersed responsibility, no agency has the mandate to anticipate the future maintenance needs of the network as a whole and put in place preventative measures if/where necessary.

Design and construction issues have likely resulted in an increased maintenance burden. The defects-liability period for the South Tarawa main road included some major repair work. The original construction company undertook the remedial work, but a large proportion of the funding needed to be met by Government following a dispute resolution process. With the conclusion of the defects-liability period in 2018, these works will be the sole responsibility of the Kiribati Government to design, procure, fund and implement. The road is clearly exposed to inundation risks, poor drainage in numerous areas, the undermining of the substrate, and surfacing issues, and these will likely increase the maintenance burden over time.

The poor maintenance of heavy plant and equipment will jeopardise the ability of MISE to carry out repairs and rehabilitation on the current and future road networks. As outlined in later sections, the functional life of major plant and machinery used for road maintenance has been shown to be well below expectations. As MISE is the sole provider of major road works, the ability of MISE to maintain their equipment has a substantive impact on the service life of Kiribati roads. Conversely, if MISE continues to receive the procure heavy equipment without addressing asset management practices, there will be a continued strain on Government resources to keep the road and its capacity to service it at an appropriate standard. Privatisation of maintenance and construction tasks may mitigate this risk, but local industry capability does not currently exist as it cannot compete with the public agencies.

Potential continuation in the private sector engagement elements of the (South Tarawa) Road Rehabilitation Project (KRRP) represent an opportunity to create a local industry to meet road servicing needs. There was a substantial lag in the maintenance contracting with the private sector between the construction phase (managed by the project) and after handover (managed by the Government). While contracting has now been completed, the gap in regular servicing and cleaning was quickly evident on the main South Tarawa road with sand build-up in drains, at the kerbside, and on causeways. The renewed contracting arrangements should be able to quickly rectify this. Moreover, an opportunity exists for private sector development in larger maintenance and repair works for South Tarawa and more broadly; this could limit the burden on MISE for future servicing needs as the road network expands and ages.

The bridges, Betio causeway, and outer island roads do not currently have formal governance arrangements in place. During the course of the interviews it was suggested that the bridges and Betio Causeway were the responsibility of MISE, as they did not fall under the mandate of the Highway Authority or local councils. However, MISE is not resourced to undertake this mandate and does not currently carry out any regular survey work on causeways or bridges. Additionally, MISE could not recall having ever completed remedial, repair or maintenance work in the outer islands, and that there was no official channel for outer island governments to lodge work orders – a potentially major issue if the roads in the outer islands are upgraded (sealed) and will need regular servicing to remain functional. There was significant debate on whether the island councils were responsible for the roads and airstrips on the outer islands.

MISE reports that they are aware of multiple bridges that are likely unsafe and are not of the appropriate design, but they do not have a formal system for closely monitoring the risk. It is likely that this is due to a combination of staff capacity at MISE to monitor its large asset portfolio and the lack of resources to intervene in a timely fashion. The Budget cycle appears to be the main channel MISE has historically utilised to secure funding for emergency works, although emergency provisions (contingency warrant) and reallocations from other projects are also possible channels for funding.

The main channel for maintenance and repair work for these assets appears to be reconstruction via major capital works, which will limit the opportunity for local private sector development. There are numerous examples of large road rehabilitation projects in the current and previous Development Budgets, with these requests being lodged through the Budget process or being reallocations from other projects. These projects typically include major resurfacing or reconditioning of roads and bridges, and tend to be isolated projects (rather than a program of works) carried out by international contractors or MISE. Due to the size and scope of these projects, no local firms have the necessary equipment to compete with international bids for projects, and this limits the ability of local firms to accumulate the financial and technical depth needed to participate in these kinds of projects.

The government owned aggregates company, TAFL, appears capable of providing some (but not all) of the required aggregates for construction, but most notably: sand. This means that there is some local capacity to provide inputs to concreting for construction and roads, but the provision of metal aggregates remains a key area where imports are required. TAFL has documented operations and maintenance procedures for key plant and equipment.

2.3 Airports and Harbours

The main ports of entry to Kiribati have all received major capital investment over the past 5 years. The exception to this is the harbour in Kiritimati Island, which is due for renovation or relocation. The major investments were undertaken largely by development partners, with additional finance sourced from the Government of Kiribati for the airport renovations. In terms of ongoing management, all of these assets reside with SOEs: the Airport Authority and the Kiribati Ports Authority.

Both international airports (Bonriki and Cassidy) have been recently resealed, with terminals currently under construction. As these investments are still relatively new, there is an expectation that regular maintenance and inspection would not be significant. While some issues with cracking of the landing surface in Bonriki have been identified, they are not yet affecting airport operations and are well known to the Airport Authority, MICTTD and MISE.

The Airport Authority has a dedicated source of funding for maintaining facilities (landing fees) that goes to a special fund which facilitates financing. The authorisation of funds is prepared by MICTTD

and reviewed by NEPO to be signed off by the Minister of Finance. The special fund is divided between the Aviation Division (MICTTD) and the Airport Authority.

The airport facilities are regularly inspected to ICAO standards, which are subject to audit. Given the importance of safety standards to allow for international air traffic, any substantive issues are likely to be addressed in a timely manner. It is also unlikely that international carriers like Fiji Airways, Solomon Airways, or Air Nauru would continue to land at an unsafe facility on an ongoing basis. These audits do not extend to non-aviation related assets like office buildings or non-core parts of the terminal facility.

Given these factors, the runway and critical facilities are likely to be maintained at a level that ensures compliance to the international rules. The ‘mission critical’ nature of the core infrastructure would result in a complete closure of the airports into the country, constituting a significant crisis. Given the availability of funding, a dedicated institution to manage operations, and external audit of asset conditions, the new investment in mission-critical infrastructure will likely be maintained to a good standard.

The Kiribati Port Authority (KPA) has the complete mandate for the operations and maintenance of the major harbours in Betio and Kiritimati. The KPA has the ability to collect wharfing fees, pilot fees, and handling charges, and can direct these funds where it sees fit. It owns all dockside equipment required to carry out its task, including small piloting vessels.

Some equipment and pilot vessels are in need of repair, but KPA has not financed these as a priority (this is outlined in their SOI). There is no scheduled maintenance or servicing of these equipment, nor are there any asset management plans in place. The need for the better management of movable capital is understood by the senior managers, but securing funding is a perennial issue. The procurement of a new tugboat for docking and safety was raised by the management team.

The new Betio harbour was constructed in 2015/16 to replace the old Betio jetty which is showing signs of degradation.⁴ The old jetty has evidence of significant surface cracking and warping. Much of this is due to movement in the supporting pilings which have been undermined by erosion of the sand substrate. As this represents a major capital work to correct, the decision was made to construct a new wharf with the development assistance of Japan. This was also used as an opportunity to enable the new wharf to allow direct loading and unloading of containers, thereby reducing the cost of operations and handling by eliminating the need for litters.

Japan surveys the structural elements of the new harbour every year and carries out remedial works if needed. It was unclear how long after the initial construction this service would continue, but it reduces the need for KPA to carry out regular inspections of the structural elements of the new wharf that it otherwise would not be able to remedy (with current organisation capacity).

KPA is still wholly responsible for the older Betio jetty, but has limited capacity to undertake significant works. KPA have attempted to undertake repair work to the jetty surface, but the warping issue is beyond their (or any Kiribati agency’s) ability to repair, as it involves resetting the pylons of the jetty deeper in the substrate of the lagoon. Given the widespread warping and surface damage, it is unlikely that the old jetty will remain functional in years to come. The wharf area adjacent to the jetty will continue operations, but also has several maintenance issues relating to surface cracking and

⁴ While the new and old facilities are both jetties, the term ‘harbour’ has been used here to differentiate the newer construction that is used by KPA to manage the majority of shipping from the older and much smaller ‘jetty’ it replaces. The older jetty was built sometime around 1985.

the need for dredging. KPA have undertaken patching of the surfacing in limited areas, and have also replaced fenders where they have degraded. The KPA charge fees for using the berth (mainly fishing vessels and interisland ferries, with the former getting priority under an agreement with CCP – the Kiribati fisheries development SOE), and these fees go towards the funding of the minor repairs.

The asset register for KPA includes buildings, but not the harbour and jetty itself. The asset register does not contain the major fixed infrastructure of KPA, nor does it mention the condition of other assets. Depreciation is accounted for, and determines the asset valuation (even where the asset is not functioning or is in need of disposal). The asset register for the Airport Authority was not able to be sighted during the review, and no assessment has been made.

KPA does not insure the harbour facilities or buildings. Several quotes were sourced from local and international insurers for only the buildings, but the cost was deemed too high, and no insurance was subsequently taken out. The strong implication was that the Government of Kiribati would pay for any large or critical replacements should an incident occur.

2.4 Fuel and gas

Kiribati Oil Limited (KOIL) is the monopoly provider of fuel, diesel, and LPG. It has a major tank farm in Betio, as well as smaller facilities in Kiritimati Island.

The tank farm in Betio was recently expanded to cater for the larger demand for fuel products and the declining condition of the existing tanks. At least 2 out of the 3 older fuel tanks needed to be fully decommissioned ahead of schedule due to significant structural and functional issues. Given the dangerous nature of the goods handled, the KOIL staff and Board were quick to note the substantial safety hazard in not maintaining the key infrastructure to a high standard.

The new tanks are currently in their ‘honeymoon’ period, with little maintenance required, but regular inspections will need to form a central part of operations. KPA have hired an operations manager to oversee this issue as well as maintain and monitor the fleet of trucks that move fuel, diesel and gas supplies around the island. Documented and auditable processes are not yet in place but have been requested by the Board and are underway with the senior management team. Post-hoc repairs and complaints submission are currently the main mechanism for maintenance requests from line areas.

While progress has been made in South Tarawa, Kiritimati Island remains challenging. Management acknowledged that the standards being applied to new machinery and plant in Betio were driven in large part by the declining state of capital in Kiritimati Island, particularly in relation to fleet management issues. The age and poor state of the equipment in Kiritimati has created a large maintenance burden, and preventative measures there were seen to be largely ineffective in delaying future declines. Management’s view was that as machinery and vehicles in Betio were newer or in better condition, preventative measures and regular maintenance would have more impact on improving longevity.

Heavy vehicles all have log books but there is no regular maintenance schedule (yet) for any vehicles or equipment. While only certain staff are able to use the heavy equipment and are required to use the logbooks, the broader fleet is not (yet) required to adhere to the same record keeping. The new operations manager is attempting to put in place regular vehicle servicing alongside scheduling for other heavy plant, but this is not yet completed.

The tank farms are not insured, but the fleet is. According to the CEO, this was due largely to expense, with the cost of vehicle insurance seen as more palatable than the large insurance premiums of the

fuel tanks. As with other SOEs, the strong implication was that the Government of Kiribati would fund new assets or major repairs if there was an incident.

The asset register for KOIL contains all major asset classes, including fixed assets. While there is no mention of asset conditions, the register includes estimates of depreciation and current book values.

There is an internal audit function that performs checks operational procedures and the asset register. The tanks (including jet fuel) are also externally audited once a year.

The CEO raised the concerns of the management team that local contractors were seen as broadly ineffective at undertaking maintenance and repair work (with a few exceptions). Local contractors were viewed to do a poor job of carrying out the most maintenance tasks, but particularly the specialised maintenance required for fuel infrastructure. The need to have jobs verified was a constant feature. Possible reasons considered by the management team were the recent and rapid expansion of contractors on-island and lack of codified professional standards.

2.5 Electricity and water

The Public Utilities Board (PUB) has the complete mandate for water and electricity infrastructure on South Tarawa. PUB is also taking on responsibility for the upgraded sewerage system on South Tarawa, and the new electricity and water infrastructure on Kiritimati Island (although the services on Kiritimati are not outlined in legislation).

Recent investments by the Government of Kiribati, PUB, and development partners have replaced key infrastructure components and improved organisational capacity. These investments include replacing the energy generation and reticulation systems in Kiritimati, the transformer network on South Tarawa, new vehicles, a partial replacement of gensets, and new photovoltaic (PV) systems. Development partners have also funded capacity development programs, including the funding and contract management for an international CEO.

Service delivery standards on South Tarawa have improved dramatically in the past 3 years, due in large part to these investments and changes in organisational practices. New business planning with a client-orientated focus and the slogan of *“Cleanliness, Safety and Conservation”* have been adopted as the central themes of the service delivery model. Newer equipment and work practices have enabled 24-hour power supply to become the expected norm for South Tarawa. Financial reports and business plans have been submitted on time, and the company now turns a profit on its electricity generation (the water supply is subsidised). Due in large part to these improvements, tariff rates on electricity were able to be lowered for residential households in 2018.

While there is no regulatory oversight body, it was identified that the PUB CEO has numerous points of accountability he needed to satisfy (The general public; The PUB Board; DFAT PACTAM, who manages his contract; and MFAT, who fund his salary and have invested heavily in PUB). The CEO and the PUB team also felt acutely aware of their service delivery mandate, and the importance of keeping the electricity network delivering services.

There are numerous examples of asset planning, and a strong appreciation that pursuing better AM has reduced cost pressures and improved performance. The general sense is that this pressure to improve AM has come from Development Partners, who continue to invest in PUB infrastructure.

There is regular training on operational and maintenance issues by both local and foreign sources. Project handover is focussed on as a key element of project design and readiness, with PUB staff attending the sites and having formal training for the hardware involved. This included the new RO plant, sanitation and water infrastructure, engines and gensets, transformers and grid maintenance.

The CEO highlighted the importance of this in his workplan, and has funded initiatives from PUB's own budget as well as made several approaches for development assistance to provide services in this area. It was noted however, that projects made no provision for spares and training, and that this was often funded ad-hoc, or at PUB expense.

Asset management plans and maintenance schedules exist and are documented, although there is currently no unified AM strategy or framework. Key infrastructure have standard operating procedures and regular maintenance schedules, which are documented and checked. This includes for vehicles and other small capital items, such as tools and safety equipment. While there is no central 'AM plan' or framework, AM forms a key feature of the business plan and organisational structure.

There is a dedicated fleet management function which oversees all vehicle usage and maintenance. The unit responsible has veto power over the use of vehicles and will take a vehicle offline for scheduled maintenance. The Division Managers and Finance Manager have authority to authorise repairs and the budget allocations can be adjusted if needed (3 such adjustments were made in 2018).

A major change in corporate policy was to eliminate the fleet of motorbikes by shifting to a hire-purchase model for staff. As the previous fleet was not well looked after, the decision was made to instead hire the motorbikes used for collecting meter readings. As PUB had access to an existing fleet of bikes, as well as international procurement, PUB staff were able to acquire and own their own bikes via a hire-purchase scheme. The scheme was run through payroll and led to the procurement and ongoing use of new motorbikes for organisational needs. The quality of the motorbikes, combined with better care and maintenance has resulted in a longer service life of the vehicles, and reduced cost to PUB. This program has been credited with reducing the need to replace motorbikes every year, to not having to replace a single motorbike in the three years since the program's inception.

A similar program was adopted in regards to safety gear and hand tools, and has successfully eliminated the problem of declining inventories of these items. PUB procured the required items on the behalf of staff and made deductions against their payroll. Tools and safety equipment is checked before work is carried out, and staff are billed for any replacements they are required to make. Not only has this improved PUB's ability to have fully functional tool and safety sets, but has also improved workmen's ability to use these items outside of work hours, creating a possible source of secondary income for those workers.

PUB have recently started a new unit to expand its ability to maintain and service generators and reverse-osmosis in anticipation of the greater servicing needs from investments in water and energy. The Reverse-Osmosis and Satellite Electrical (ROSE) unit is a technical team tasked with the operation and maintenance of the new RO plant in Betio, as well as servicing the various private generators and electricity connection points in Tarawa. The unit is fully funded from service maintenance contracts and has received direct capacity building (training and on-the-job) and can now do more complex operations and repair work. This team will also be responsible for any repair work needed for the street lighting in Betio – a task recently delegated to PUB from MISE.

PUB financial statements are fully compliant with IPSAS reporting standards. For example, the asset register includes all fixed and movable assets. The condition of major assets is also routinely discussed at the Board level, although is not required in the annual financial statement or Annual Report.

There is no independent inspection of PUB operations, and no one (internal or external) checks their systems and processes (including their maintenance and operational checklists and schedules). The CEO discussed at length about the desire to have a fully functioning internal audit unit, and that the hiring of an operations manager would give him more capacity to address financial, asset, and systems issues that he does not have bandwidth for, as much of his time is absorbed by operational issues

requiring his attention or oversight (in the role of an engineer, rather than CEO). PUB does not have a domestic or international regulatory agency.

2.6 Government buildings and facilities

2.6.1 General government buildings

Almost all Government buildings have significant maintenance and structural issues from an extended history of low or no preventative maintenance. It is common to see buildings with paint coming off walls and ceiling panels, exposed and uninsulated wiring, plants growing out of gutters, damaged tiles and flooring, leaking water systems, or concrete with exposed rebar. In many cases, the design and materials used would not have supported preventative steps without significant refurbishment or replacement. This is not limited to only Government buildings.

MISE has stated that they limit structural inspections because they are aware of the implications of condemning a large volume of Government owned buildings. Government buildings occupy almost all of the office space in South Tarawa, and many are known to be structurally compromised. In addition, if the suspect buildings were condemned, it is unclear if agencies would actually be able to vacate the premises. There are numerous cases where this exact scenario has played out. For example, the main MFMRD building in Bairiki was condemned several years ago due to significant issues with structural elements. Several superficial remedial works were commissioned, but it was common knowledge that the building was still unsafe. While a new building was approved and funded for construction in Ambo, the contract was never delivered upon and the appropriated funding pool was diminished. MFMRD still occupy the condemned building and another round of funding is required to start a new project to construct appropriate office space.

MISE has also stated that many more buildings may have structural issues that cannot be assessed, as design information and blueprints are unavailable. Information management systems at MISE have not been adequate to retain the initial construction information or blueprints of numerous Government buildings – almost all of which pre-date computerisation. This limits the ability of MISE engineers to make assessments, as they need to make judgements on structural elements that may be obscured or patched. MISE engineers suggest that this may result in errors when evaluating critical elements, except for cases where structural damage is obvious.

All Ministries are responsible for the condition and minor renovations of the buildings they occupy, and can call on MISE for support. While those Ministries without dedicated facilities management functions (like those at MoE) did not view building maintenance as a core priority, it was confirmed that it is the Ministry's responsibility to notify MISE of any significant maintenance work that was required.

Ministries notify MISE of significant works and MISE do an assessment and design – The Ministry would then approve the works and look for funds (from the MISE maintenance funding or internally). Ministry Administration would then procure the services and manage the contract, or pay MISE for the works. The Ministry Administration or MISE (in the case of more substantive works) would verify the completion and release final payment, although it is unclear what criteria determines 'substantive works'. The MISE verification and inspection of works was confirmed to be advisory, noting that it was not a requirement for the release of final payments.

Safety concerns have been raised regarding the condition of multiple buildings, but particularly in relation to electrical and fire safety. Many (if not all) the government buildings do not have functional fire safety equipment such as sprinklers or fire extinguishers that have been regularly serviced. This issue rose to prominence following a complete loss of Bairiki marketplace to fire in 2017, with fire and

electrical safety being appropriated funds in the 2018 Budget. There is currently no formal system in place to address the potential hazards.

In other instances, known structural issues have not been remedied, receive temporary patching, or are otherwise not addressed until new construction is approved. This can include major concerns like ignoring exposed rebar, cracked supporting columns, degraded brickwork, or compromised foundations.

These safety concerns, particularly electrical risks, are often ignored or downplayed by line staff. Multiple staff reported that they 'make do' with the facilities they operated in and often did not report the issue to administrative staff or MISE. The facilities management unit at the Ministry of Education cited an example where teachers did not report the frequent shorting of electrical power points in classrooms, and would instead run multi-point powerboards from the remaining (functional) wall sockets. Other examples include the shorting of powerpoints in the Betio Sports Complex due to water damage, and the regular flipping of circuit breakers in the second-level of the MFED building.

The degradation of general government facilities has resulted in fewer services to the public, poor working conditions for staff, and expensive reconstructions. In some cases, reconstruction or major refurbishment is the only option available. An example is the Betio Sports Complex: early preventative steps or repairs to leaking sections of roofing could have avoided the current issues with the rusting support beams, compromised play surface, and likely the issue with electrical outlets near the affected area. MISE has assessed that the building would require major works to correct these issues, and it may be more cost effective to simply reconstruct the building.

The previously allocated \$1.2 million to MISE for Government Buildings Maintenance each year, while deemed inadequate, was never fully utilised. Part of the reason for this was that the funding pool was allocated as an equal vote per ministry, regardless of size. This meant that agencies with larger asset bases received the same amount of funding as smaller agencies. Additionally, some agencies were found to rarely draw on the maintenance funds within a given year. 2017 Budget documents estimate that only \$948,466 of the \$1.2 million was utilised in that year.

Overall, MISE staff were of the view that the maintenance funding is not well utilised, as Ministries do not know how to access it, or their prioritisation of maintenance tasks does not conform with MISE's views of the greatest needs (e.g. electrical safety). As MISE input is only advisory, Ministries have full discretion over what maintenance funds are used for. There were numerous examples of where maintenance and refurbishment funds had been used on other areas such as air-conditioning, housing renovation, or creation of carparking.

The 2018 Budget created separate programs for the maintenance of water infrastructure in the outer islands, and for fire and electrical safety. These two programs were \$100,000 each, and stemmed from separate budget proposals made during the 2018 Budget process.

- The recognition that MISE was being requested to provide assistance to outer island communities regarding the maintenance of water pumps and related infrastructure led to the formation of a dedicated funding stream to alleviate funding gaps.
- The electrical safety program was intended to re-wire the building that housed the Office of the Beretitenti, the Ministry of Foreign Affairs and Immigration, and the Office of the Public Service Commission, as well as create a maintenance program for fire extinguishers across government.

The previous funding for Building Maintenance, Outer Island water infrastructure, and fire and electrical safety programs have been consolidated in the 2019 Budget into a combined \$2 million

maintenance program (and shifted to the Development Budget). The fund is divided between three major Ministries: MISE (\$1.5m), MHMS (\$0.25m) and MoE (\$0.25m). The appropriation is allocated to the Development Fund, which gives the NEPO office within MFED the ability to warrant the funding once the proposed plans have been submitted by the ministries concerned and approved by the Minister of Finance.

While it is accepted that the fund itself is not sufficient to meet all repair and refurbishment requirements, it has created a dialogue with the agencies concerned and increased the transparency of maintenance activities. The detailed warrant itemises the works undertaken and shows a combination of maintenance, refurbishment, expansion and completely new construction works. There is no formal selection process for the prioritisation of items to be included, nor is there any system for evaluation and monitoring.

This initial phase of the consolidated maintenance funding is viewed as a pilot to expand the program to cover more asset and agencies in future budget rounds. This will require the funding to expand in line with the increased coverage of assets and agencies, and may require more active engagement from MFED in terms of managing the growing funding pool. NEPO reports that the Fiscal Policy statement for the 2020 Budget will likely contain an increased financial allocation.

Half of the funding was released by NEPO in the first half of the year, to allow for reprioritisation in the second half. NEPO staff communicated that some cost estimates had shifted, and that agencies were able to reschedule their allocations in the latter half of the year to allow for cost over-runs or emerging needs.

Currently, there is no dedicated staff responsible for the execution of the consolidated maintenance funding or the condition of general government buildings. With the responsibilities devolved to line ministries, there is no central point which consolidates the information on building maintenance needs, nor is there a coordination mechanism that could agglomerate similar maintenance tasks into a larger body of work (e.g. rewiring several ministries). MISE and MFED each carry responsibility for components of the process, but much of the accountability resides within line ministries.

There is no guidance regarding the separation of activities between the consolidated maintenance fund or other projects within the Development Budget. Some of the projects held with the maintenance fund exceed \$50,000 and represent entirely new construction (rather than refurbishment or replacement). This may present an inconsistency with the regular rules governing the Development Fund, where the majority of all projects are defined separately and are subject to specific rules outlined within the Development Fund Rules (within the Public Finance Act). While this may not run counter to the spirit of the Act, or good case practice regarding Public Financial Management, it differs from the reporting elsewhere in the Development Fund.

There are no multi-year activity plans for maintenance programs carried out in the consolidated maintenance fund, nor is there a process for review. Much of the current activity focusses on refurbishment and new construction, rather than preventative maintenance tasks. While this is a symptom of a system with decades of built-up maintenance needs, a regular review process and greater transparency will be needed to guide the use of funds towards the stated purpose of minor repairs and prevention.

MISE expressed a desire to enable the greater outsourcing of maintenance activities. MISE acknowledged that it does not currently have the staff capacity to attend to all maintenance requests, and currently prioritises staff and financial resources towards newer assets that require lower levels of maintenance. MISE management viewed maintenance tasks as being more easily outsourced to local providers than some of the more technical design and implementation that occurs in larger

construction projects. MISE expressed a desire to do this more regularly in order to free up the MISE engineers to focus on other priorities.

2.6.2 Education facilities

MoE has a dedicated facilities management unit (FMU) which oversees all MoE buildings in South Tarawa and the outer islands. There are three permanent staff, as well as three contract workers to manage the entire portfolio. There have been several investments made by development partners in recent years, including the complete rebuilding of schools and classrooms on South Tarawa.

There is no regular scheduled maintenance or servicing, and the focus is on repairs via a complaints' mechanism. The teacher/staff were responsible to report the issue to FMU; FMU investigate and assess. If needed, FMU organise MISE to assess and evaluate. Similar to ministries more broadly, MoE Administration then approve the works and look for funds (from MISE maintenance or internally). FMU then procure the services and manage the contract. FMU verify completion, or MISE if it was a more significant repair (although it is unclear what criteria determines this responsibility).

There are facilities criteria for senior secondary schools to reach (including private religious schools) with these criteria outlined in legislation, but not for junior secondary schools or primary schools, which are all controlled by Government. It is generally felt that the senior school facilities are in much better condition. Secondary schools are required to register, and must meet certain requirements to do so each year. It is unclear whether this includes the condition of facilities or assets, but FMU suggested that the criteria included WASH facilities and numbers of teachers per student.

For Government run schools, there are annual trips to the Outer Islands by MoE, which often includes an FMU staff, but there is no checklist or established template for staff to follow once they are onsite. Recent visits have prompted the closure of one of the senior secondary schools in the Line Group, although this was allegedly driven by complaints of asbestos contamination.

There is an annual survey for school statistics which includes some questions on assets (such as the number of toilets). But there is no requirement for condition reports and there does not appear to be any retention of documentation/record of major works or repairs.

FMU staff felt that the current system was not working well, and post-hoc requests inundate the capacity of the existing team. It was also unclear who was ultimately responsible for the condition of assets, and individuals' performance did not include any mention of asset management. FMU had no engineer or technical construction/inspection staff. Most schools have no caretaker roles or 'cost-less' maintenance plans, but KGV/EBS has a handyman, plumber and electrician suggesting that some schools may be taking this role on themselves.

Modelling by the Kiribati Education Improvement Project (KEIP) showed that the construction of permanent classrooms for primary schools and scheduled maintenance could save \$10.9 million over 27 years and significantly improve the learning environment for students. The modelling shows that the higher upfront costs of permanent kit-set classrooms more than offset the shorter lifespan of using local materials. When combined with regular maintenance (which is far less expensive with modern building techniques), the savings over the entire lifecycle were \$10.9 million.

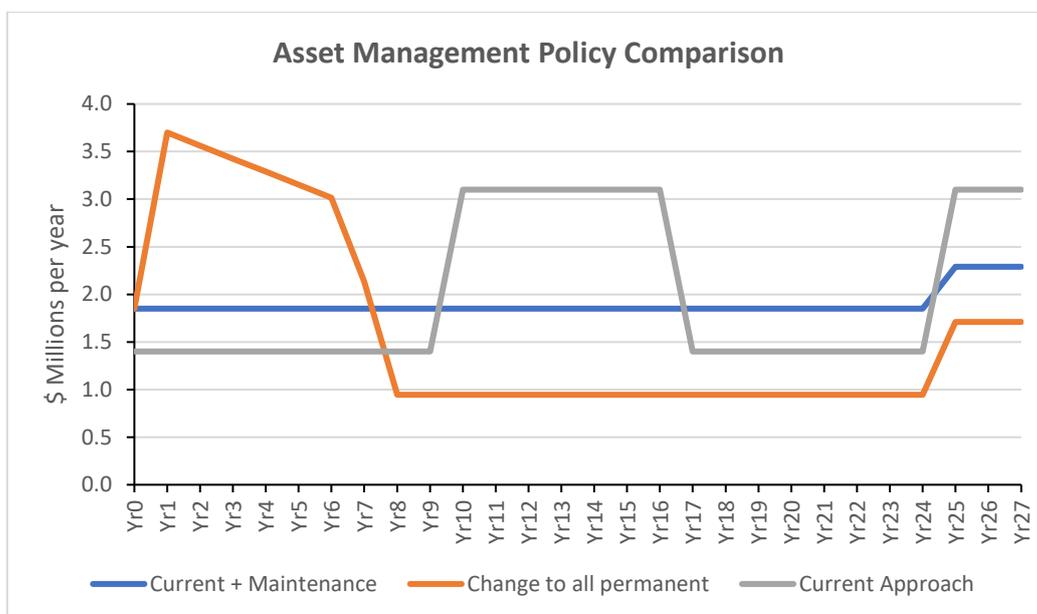
Crucially, the KEIP analysis assumes that all primary schools that are currently made from local materials are replaced with permanent kit-set classrooms. The likely impact on the teaching environment would be profound for the children of Kiribati, and demonstrates the power of financial modelling in illustrating the cost efficiencies.

Box 1: KEIP Asset Management Modelling for Kiribati Primary School Classrooms

This comparison looks at the cost of different approaches to maintaining primary school buildings, with an asset replacement policy that assumes that National Infrastructure Standards are to be met. The analysis makes no assumptions regarding the capacity of existing funds for locally constructed school buildings to meet those standards. This analysis also makes no assumptions regarding the impact on students due to the quality of classrooms.

The approaches considered are:

- (i) Current Policy – no maintenance for existing permanent school buildings, \$1.4 million available for annual cost of rebuilding local structures (reduction of useful life of permanent buildings by 50%)
- (ii) Current construction policy + maintenance – no new construction but permanent buildings are maintained (full 30 years of useful life of permanent buildings)
- (iii) Change all to permanent buildings – using kit-set approach and assuming 10 schools on average able to be constructed a year



Projected costs over twenty-seven-year period (non-inflation adjusted):

- (i) Current + Maintenance - \$53,100,000
- (ii) Change all to Permanent - \$45,300,000
- (iii) Current Approach - \$56,200,000

The projected financial saving over the period for a switch to permanent buildings with a full maintenance programme is **\$10,900,000**.

Credit: Ben Shultz, KEIP

From the KEIP modelling, the current practice of schools being made from local materials in the outer islands may be more expensive in the long run, as well as deliver a poorer educational environment for students and teachers. In this case, a thorough evaluation of life-cycle costs and service delivery standards could result in higher educational outcomes at lower costs, and should be considered by policymakers as a possible win-win scenario.

2.6.3 Health facilities

Visual survey of Nowerewere hospital and other health facilities on South Tarawa reveal an obvious maintenance gap across all areas of facilities management. This ranges from basic maintenance issues (broken windows, functional lights, and ceiling fans) through to structural issues (ceiling panels, holes in walls, degraded electrical infrastructure, water systems, and cracks on stairwells), as well as plant (medical equipment, air-conditioning units, and transformers).

Permanent buildings were viewed to be the responsibility of MISE to assess and repair, while minor carpentry (doors, windows) were handled by the in-house carpentry team (of 3 staff). Consistent with other Ministries, the funding from the MISE maintenance fund was not viewed to be sufficient and, due to the equal split between Ministries, will not come anywhere close to covering MHMS's substantial maintenance and repair needs. Additional funding (\$0.250m) has been allocated in 2019, but this will also not be enough to perform all repair and refurbishment tasks. MHMS has an additional \$85,992 it has allocated from its own resources for buildings and infrastructure, and \$65,000 for equipment.

There is no inspection schedule for buildings or regular service schedule for machinery and vehicles, with immediate repairs and refurbishment taking priority. The only area that has a regular inspection of equipment is the cold chain management for vaccines, which is led by development partners. Almost all of the \$0.250m in maintenance funding in 2019 is programmed to go towards refurbishment and repair. These practices represent a significant operational risk to the delivery of health services.

Repairs are carried out upon complaint/request of the divisional areas, including non-medical requests such as structural or electrical issues. It is not clear whether there are standard reporting templates and processes. It is also unclear how prioritisation is undertaken by Administration or the Divisional areas.

Biomedical machinery works on the same reporting system, and are not regularly calibrated or tested (although this was recognised as a key risk by the biomedical services staff). Biomedical services have serviced the Nowerewere laboratory once in 2019, recognising the need for regular flushing of tubing and equipment to avoid build-up and degradation, but a regular schedule has not been established for the portfolio of equipment at the hospital.

The biomedical team of 3 outlined that almost all their time is dedicated to repair, and their workshop is not a functional space for them to operate in, with numerous pieces of equipment that are beyond repair crowding their workspace. There are no clear procedures for disposal and replacement. Funding is the major constraint to parts sourcing and repairs, with divisions responsible for funding any invoices raised by the biomedical staff. The biomedical team is also responsible for all electrical maintenance and repair issues in the health facilities on South Tarawa. The outer island clinics must rely on the Island Councils for maintenance support, as the biomedical staff only work on issues presented on South Tarawa (including Betio hospital).

All the support services (carpentry, biomedical and electrical) report to the Deputy Secretary, who is also responsible for all the other Ministry administration functions. The responsibility for functional work areas and environments is devolved to the Heads of Divisions. There is a Hospital

Service Director, but they are clinical staff rather than a facilities management or administration. There is no other function or person relating to facilities management.

There is no prescribed reporting with regard to machinery or building repair. This extends to condition reports, documented standards, record of work undertaken, or evaluation of interventions.

Poor AM practices have clearly contributed to reduced service-life and service delivery of fixed and movable assets. Evidence of poor AM was readily available, and a full survey of conditions would significantly contribute to the formation of a baseline assessment of the task required. It should be noted that no assessment was done in relation to fleet management or community clinics, but external observation would support similar conclusions to the conditions experienced at the main hospital.

2.6.4 Public Housing

Public housing in South Tarawa is managed by KHC, and ranges from relatively recent investments with development partners through to ageing stock that are several decades old. KHC has 1,185 houses made up of 294 “economic” houses and 891 “non-economic” houses. The non-economic houses are very old and in poor condition and need to undergo major maintenance to bring them up to economic house standard. Economic houses are in much better condition (for example: the living room and kitchen are partially furnished), however some of them also need major maintenance.

Government uses 36 of the best houses to accommodate Ministers and Secretaries, without compensation to the KHC. These 36 houses are estimated by SOE MAU to generate a potential annual revenue of \$195,000 for KHC to put towards maintenance and repairs.

There is currently no systematic valuation of the capital holdings, with only the new housing stock (in Betio and Bairiki) or newly renovated stock being recorded and valued in the fixed asset register. There are no condition reports. If values were recorded, the asset portfolio for KHC would likely be by one of the largest of the government agencies.

Public housing dominates the residential housing market in South Tarawa, with few houses available for rent outside of government. There is significant scope to integrate market-creating solutions into the management and/or disposal of the public housing stock, with KHC currently controlling almost all parts of the asset management cycle within its own organisational structure.

Despite dominating the market, KHC can still not provide enough houses to reach its mandate that every public servant is entitled to housing. This means that the existing housing stock is ‘rationed’ out to the one-third of public servants who can be housed. There is a Pointing System based on an assessment of marital status, number of children, employed spouse, salary level, period and duration of application, and a police check. The scores determine the ranking order on the waitlist for available houses.

Rents are centrally controlled by Cabinet, and fall well short of what would be considered market rates. There is a tiered system of charges for the various quality of accommodations. Occupants pay 20 percent of the charge, and the employing ministry pays the remainder. Inflation adjustments are not made, and current rents reflect those set in 1994. The estimated increase in rents required to bring KHC in-line with private sector rents was estimated by the ADB SOE reform team to be around 63 percent (on average). There are currently 24 differential rental rates across the housing portfolio on South Tarawa. KHC received \$1.16 million from Government in 2017 for the first time to cover the rent shortfall.

Financial constraints from non-market rents have contributed to reduced ability to carry out systematic maintenance programs, with the once-off 2017 Major Maintenance Program (MMP) nearing its conclusion. The program is limited to only the old housing stock, and once upgraded the renovations are added to the fixed asset registers. The MMP was enough to fund renovations to around 100 homes (out of a total stock of 1200) and was additional to any minor maintenance or repairs. MMP funded the renovation of the old wooden kitchens to concrete design, added water capture from the roof, changed wooden louvres to glass, added a water tank, and converted bare floors to lino.

Ordinary maintenance includes repairing leaks, broken hinges, toilets etc, but nothing structural, and is a largely complaints driven process. There is a 'scan survey' performed on each property every quarter, which is often the opportunity for tenants to lodge complaints and for officers to ensure that tenants are complying with occupancy guidelines. There are currently 9 monitoring officers covering the scan survey on around 1200 houses (2-3 houses per day per officer). The maintenance reports are submitted to the Board of KHC.

The Housing Monitoring Officers (HMO) are also handymen, and often carry out the repair work themselves. Anything beyond 'tool-belt repairs' are required to involve the fabrication unit (which also fabricates furniture for use in KHC premises), and require the signoff from 1 of the 3 Housing Superintendents (depending on the zone). For larger works, the zone Superintendents decide what major works go ahead, with procurement being drawn from a pool of contractors at prices set by KHC. The Superintendent decides on who gets the opportunity. This is not subject to external scrutiny.

Public housing in the outer islands is managed by MIA, with these houses accommodating both Island Council and general government staff (like teachers and nurses). Funding for maintenance is drawing from the Upgrading Social Facilities funding pool drawn from the Taiwan Grant each year. According to the 2019 Development Budget, this will amount to \$1 million each year going forward. The funding was intended to be used for all social facilities and public buildings on each island, but has traditionally only been used for housing.

2.6.5 Kiritimati and the Island Councils

MISE confirmed that Island Councils are responsible for all public infrastructure and government assets within their community (except for classrooms and health clinics). Acknowledging that Island Councils did not generally have the equipment needed to carry out maintenance and repairs, Island Councils were responsible for notifying MISE if assistance was needed. There was some contention regarding roads and airstrips, with MICTTD currently coordinating repairs on airstrips independently of Island Councils.

Outside of the feeder roads on South Tarawa, there is no formalised system of reporting between the Island Councils and MISE. Requests were made on an ad-hoc basis, but MISE can only recall providing assistance on water-related infrastructure, and did not have any staff dedicated to roads, bridges, or other infrastructure.

MIA and BTC officials confirmed that councils owned and were responsible for all their major assets, including fixed assets. The responsibility for the maintenance and sustainability of major assets is with the Councils, despite this focus not always being documented in project proposals or reports. This is sometimes due to specific capability gaps within Councils (for example, maintenance of causeways in the outer islands), or because Island Councils felt that they did not have the financial resources to fund their own maintenance. Replacement of failed assets is generally provided by the central budget.

The urban councils of South Tarawa (BTC and TUC) have a significant advantage in having access to central government services and capacity, but still face significant challenges in AM. For example: the rents BTC-owned tenancies are set by the Council, and are well below-market. These rents can be discounted further if tenants agree to maintenance works in lieu of partial payment, but the condition of the tenancies was considered to be poor, and well below that of private business occupancies. There is an in-house carpenter, who works on a reporting/complaints basis, as there is no regular inspection schedule. Regarding moveable assets (e.g. garbage collection trucks) the chief mechanic checks the vehicles everyday and reports on vehicle condition to the Clerk every Friday as part of a General Report. BTC has 5 trucks, but not all are operational. When issues are identified, they are reported to the mechanic, who then presents the case to the Waste Management Committee to decide what to do. Sometimes they source advice from outside BTC.

No organisational unit within Councils is responsible maintenance or standards, but there are formal financial delegations within Island Councils regarding payment authorisation. The Clerk can approve any maintenance work under \$3,000, with the Council needed for anything above that. However, in the case of BTC, the maintenance and tools budget in 2018 was only \$3,000, which would have greatly constrained the ability of officials to adequately maintain the buildings and vehicles owned by the Council.

The asset register is updated every 12 months and includes fixed assets, although there is no condition reporting, detailed information, or valuations. Land is subleased from central government but the central government makes the lease payments. MELAD Lands Division confirmed that there are significant arrears on sub-lease payments from Island Councils.

New projects are formally handed over, with inspections from Island Development Officers to verify final completion. Handover does not generally include maintenance plans, but may include some design information for larger construction. There is an internal audit function, but it only looks at financial transaction reporting and does not cover procurement, operational, or management decisions.

MIA raised that they were not resourced enough to do regular inspections in the outer islands of existing assets, and only verified new works (MISE confirmed this). They also discussed that they are not performing this function universally, and that prioritisation of projects and islands was post-hoc and opportunistic (when funding was available or they could align with other travel).

MIA has a regular \$1 million maintenance budget funded by Taiwan that it divides equally among the islands. Priorities for funding are determined by the Islands Councils, and may include new construction and major refurbishment works. While notionally tagged for the 'Upgrading of Social Facilities' this funding is generally used for public service housing refurbishments, reconstruction, and upgrading in the outer islands. In recent years, MOE and MHMS have pushed for this funding to also be available for outer island health and educational facilities.

MOE and MHMS have substantial portfolios in the outer islands and, prior to the consolidated maintenance fund, did not budget for maintenance and upkeep. This has led to a substantial maintenance burden on existing social infrastructure. In the initial 2019 phase, MOE has dedicated all of its share of the consolidated maintenance funding to outer islands schools, particularly two schools which are in a state of disrepair.

2.6.6 Sporting and community facilities

The main sporting facilities on South Tarawa are the Betio Sports Complex and the National Stadium (in Bairiki). Both facilities are regularly used by the public and dedicated facilities management functions under MWYSSA.

The spectator stand at the National Stadium was demolished after being condemned by a MISE assessment. There is a project currently being planned to upgrade the stadium and replace the spectator stand, but no work has yet been commenced. The delay between the demolition of the unsafe building and reconstruction has greatly diminished the role of the National Stadium in hosting community and sporting events. It is unclear if or when the new facilities will be completed and services restored.

The Betio Sports Complex has serious maintenance issues, and the playing surface has been severely compromised. Roof leaks at either end of the main hall have resulted in damage to the playing surface, created electrical issues, and may have degraded the structural support beams. According to MISE, the problems may have been avoided if the leaks were addressed earlier, or at the design stage. MYWSSA, MISE, and Cabinet are aware of the issues, but no decision has been made on rehabilitation, repair or reconstruction. There are also several other areas of maintenance issues, including missing tiling in the bathrooms and non-functional plumbing. When surveyed, the bathrooms were closed to the public. Only the central area of the playing service is currently safe for sporting activities.

Maneaba are the responsibility of local communities to maintain, with funding usually being sourced through MIA's Development Budget. There are currently 24 such projects in the 2019 Development Budget at \$43,810 each (just over \$1 million in total), as well as new construction for a further 5 Maneaba and supplementary funding for completing 1 that is under construction.

It is unclear what the expectations of Island Councils and communities are in relation to the management and maintenance of Maneaba. The maintenance works that are funded from central government tend to be for defined reconstruction and refurbishment projects, but it is unclear if there are any regular or scheduled maintenance requirements communities are expected to meet. It is also unclear if there is any source of funding that pertains to general maintenance and cleaning issues. Anecdotally, communities appear to coordinate this work themselves with uneven results.

2.7 Movable capital items

2.7.1 General ministry transport and fleet management

MISE highlighted that maintenance of machinery was not a priority for staff or management, there is no dedicated staff for maintenance or operations, and there were no systems in place to support or enforce work practices. There are no usage, servicing, or maintenance manuals, user logs, plans or schedules for the use of heavy plant or vehicles. There is also no guidance training or materials on storage of heavy equipment. There is also no regular inspection of machinery and plant, and there is no available staff who are allocated this role. This has led to a poor institutional understanding of what is required to maintain and service the existing capital stock, as well as monitoring what servicing has already been done.

The MISE asset register includes plant and machinery, but does not contain the condition or valuation of assets. MISE meet their regular financial reporting obligations to MFED, but as the Accountant General and Internal Audit do not require condition reports, these are not collected or recorded.

The hire costs of MISE machinery are based only on fuel and labour costs, and did not include any provision for machinery degradation or servicing. The MISE financial model for the usage of

machinery for projects was not sustainable, and did not account for machine maintenance or depreciation. It's notable that even if this was included, financial rules would make it impossible for the Ministry to use these funds directly (although they could appropriate for them in subsequent periods).

There are many examples of where poor AM of machinery and heavy plant have dramatically reduced asset life. An example given was that of a 'new' excavator purchased from McConnell Dowell in 2017, which would require major repairs and refurbishment before being functional again. It was clear that even basic maintenance steps had been missed, resulting in the total loss (within 18 months) of heavy plant that was supposed to have a remaining workable life of 10 years or more. It was highlighted that out of the initial purchase of \$2.9m in heavy plant and vehicles from the KRRP road project, much of the equipment is now unusable and needs to be disposed of or have major components replaced.

Currently, there are two complete sets of heavy plant at MISE that can carry out major roadworks and construction. One set was purchased from the company that completed the South Tarawa road network (McConnell Dowell), and the other set was purchased from the company that completed the Betio Causeway (Dai Nippon). As mentioned above, in the case of the first set, this initially included a much larger complement of plant and vehicles, but around half are non-functional within 2 years of purchase.

PVU is the closest facsimile of centralised vehicle monitoring and maintenance, but is viewed as being expensive in comparison to private alternatives. PVU primary function is to be the sole source for procurement and servicing of heavy equipment and the government fleet, but Ministries have shied away from fully utilising the services now that there are many private companies that can provide the same procurement and servicing needs at lower cost. The annual fees charged by PVU for a Ministry sedan were calculated as meeting the complete vehicle replacement costs within 3 years.

PVU was previously an independent agency, but is now integrated within MISE. It has the mandate to procure, hire-out, lease, and service all government vehicles, and it has its own workshop in order to achieve its role. It also has its own Special Fund that it can use to deposit hire fees and drawn down funding for new purchases or servicing costs. Financially, PVU is not sustainable and has been unable to operate without additional Government investment via capital purchases.

The core mandate behind PVU may need to adjusted in light of significant private sector development and previous mismanagement. Following a sustained reform effort to reduce the role of Government in the direct provision of private services, the functions performed by PVU have largely been taken over by private entities. This may result in PVU's mandate needing to shift away from the procurement and direct servicing elements of the AM cycle to focus on fleet management, scheduled servicing, vehicle standards, and inspection.

2.7.2 Aviation

AKL is the SOE that is currently the dominant player in the domestic aviation sector, with only one private competitor. AKL operate most of their aircraft out of Bonriki airport, with one plane based in Cassidy (Kiritimati Island). Prior to the Dash 8 lease, it had 5 aircraft (3x Harbin Y-12, and 2x DHC6-300 Twin Otters). Most regular routes domestically are run at a profit, except for those routes to more remote islands or within Line Group, which need to be subsidised by Government. This subsidy came from the CSO pool in 2018.

AKL has procured a Dash 8 aircraft and commenced international flights to Tuvalu and RMI, with the intention to further expand the fleet and operations. The Tuvalu service runs at a loss, as does the

subsidised service that is code-shared with Solomon Airways (using a Solomon Airways plane). At \$5.7 million, the Dash 8 currently represents the largest single-item procurement in Kiribati history. The intent is to expand services with the addition of two Embraer 190-E2, which would allow diversified international routes and direct access to Kiritimati Island from South Tarawa. The procurement costs for the Embraer jets are estimated to be as high as \$37 million each, with operational subsidies to be additional.

Major checks and servicing for the Dash 8 are currently performed at Majuro, where there are appropriate facilities. AKL have indicated that a similar arrangement will be put in place for the Embraer 190-E2 aircraft, with the Embraers currently planned to be based out of Auckland.

Given the lack of supporting infrastructure and small scale of the fleet, the off-shoring of major servicing and jet engine maintenance is likely to be an appropriate strategy. AKL indicated that they have had ongoing issues in the sourcing major components for aircraft maintenance, with the Dash 8 already being grounded for several weeks while it waits for critical components. Given the increased financial risks and technical capability required for jet engines, it is appropriate that the Embraers be based closer to technical support, appropriate hanger facilities and mature supply chains.

AKL does not fund its own capital purchase costs, and relies on central government for procurement of major assets. This represents a significant capital-subsidy to AKL operations. AKL are expected to operate and maintain all capital purchases as normal, and records the assets on their financial statements.

Regular maintenance and servicing plans for aircraft exist and these are subject to internal audit and verification. There is a maintenance planning team of 3 for aircraft and they put in place the pre-flight, post-flight, and transit checks. The internal audit function performs spot checks for both aircraft and ground handling equipment, and reports any issues to an internal operations committee.

External checks are performed by CAAK, who often outsource the actual on-site verification to PASO. The external checks occur around 4 times a year. The standards/criteria used are consistent with New Zealand requirements and maintenance scheduling is part of an in-house information management system (aircraft only). The recent external audit identified issues with log books, but noted that systems and procedures were compliant.

Land-based vehicles are serviced annually, rather than on usage, and are generally serviced when something needs to be repaired. For new assets, there is generally a handover of operation and maintenance manuals, but unlike aircraft, these manuals do not become incorporated into general operations and maintenance planning, nor the asset information system.

A maintenance sinking fund did exist up until 2018, wherein a liquidity crisis depleted the reserve. This has meant that some regular servicing has been deferred. Where this has meant missing critical servicing milestones or compromised flight safety, planes have been grounded until funding can be sourced. This has further strained AKL's ability to resolve its cash issues, and it has relied on recent injections of funding from the central government to remain operational.

The asset register includes all movable assets and all fixed plant, but not the buildings or condition of the assets. It was felt that an external audit or other reporting requirement may help in tightening this area of reporting and elevating it to the Board level.

Senior staff raised the concern that the honeymoon period for the new Dash 8 aircraft will soon come to an end, and ongoing servicing will dramatically increase in cost. As per guidelines, the Dash 8 will soon be up for major servicing, which may be significantly more expensive than for the existing

fleet of smaller aircraft. Without continued subsidisation from the Government, it is likely that AKL will go through another liquidity-induced strain on its ability to carry out maintenance.

The lead engineer noted that the standard maintenance schedules were not consistent with high-salt environments like Kiribati. He noted that aircraft were showing signs of corrosion much earlier than the manuals suggest, and that largely unsealed runways added to maintenance burden. The chief engineer suggested that servicing should be carried out on tighter timeframes than recommended.

The upcoming procurement of the Embraer 190-E2 aircraft will add a significant maintenance burden to AKL operations, and represents a significant financial investment from the Government. Initial estimates on the expense to Government are over \$100 million for the first three years of operation, which would comfortably make the purchase the largest procurement in Kiribati Government history – at an estimate of \$92 million, the KRRP for the road network would be second largest, and took almost 8 years to complete. Unlike the road however, the operational and maintenance requirements of the two aircraft are substantially larger and more open to international scrutiny than a construction project, and the expense is entirely funded by the Government of Kiribati (rather than co-financed, as was the case with the road project).

In order to be effective, the two Embraer 190-E2 would need to have an integrated AM plan which would include the regulatory, personnel, and systems investments by both AKL and the Government. This includes IT systems to manage bookings, catering services, international air agreements, staff training, and highly evolved procurement systems for just-in-time inventory and component management (especially as timely provision of parts will become more expensive with the larger aircraft). It is unclear if all of these requirements have been fully articulated to the various government agencies and consolidated into a unified strategy.

2.7.3 Sea transportation

KNSL manages the Government fleet of inter-island shipping vessels, although there is also substantial competition from the private sector. As the public SOE, KNSL focuses on non-commercial routes, and uses government purchased vessels. It had to scuttle LC Butimati in 2017, but was provided two new vessels in 2017 and 2018: the LC Aratoba and LC Linnix. KNSL currently provides for around one-third of total shipping.

KNSL does not receive CSO, but has not paid any contribution towards the two new vessels (or LC Butimari previously). These therefore represent a sizable capital subsidy from the central government. The current of KNSL strategy is to expand operations to cover maintenance costs.

KNSL does not currently have insurance, nor is there any financial risk assessment undertaken. The focus is on increasing cashflow to cover basic costs, but there is little organisational understanding of the lifecycle costs of the vessels in operation (for example: how much it will likely cost for the next major servicing).

The leases on the new vessels are currently not being paid to the Government holding company (Kabiau Holding Company), and there is no provision for future repairs if needed – echoing the financial challenges faced by LC Butimari. Crucially, the servicing of the liferafts on LC Arotoba are overdue, and would cost around \$15,000. Given the extremely short operational life for the LC Butimari (3-4 years), this could signal broader issues to do with the financial capacity and model for KNSL. Due to a lack of funds and the non-functional slipway, the LC Butimari was never drydocked, and major repairs were never carried out, this led to operational difficulties and eventual decommissioning.

The contracts for the leases and deeds of ownership for the new vessels were unable to be located, and is suggestive of record management issues. KNSL signalled that the lease agreement for the LC Butimari had expired, and that the new vessels did not have a lease agreement in place. The SOE unit at MFED was unable to resolve who held the relevant documentation to confirm the ownership and lease arrangements for the new vessels.

Marine division (MICTTD) performs regular inspections on Government vessels, as they do with all maritime vessels. For example, the newly received vessel (LC Arotoba) was reviewed in an initial survey, with a 6-month follow-up survey. Every 2 years the vessels are required to drydock for a full hull inspection. The inspections, however, are only for seaworthiness and will not highlight maintenance issues that may cause a failure at some future point (provided that the current condition is within operational boundaries). It was one such survey that led to the decommissioning of the LC Butimari.

Maintenance schedules and checklists beyond seaworthiness are not required under any regulatory guidance, although internal maintenance schedules do exist. The operational manuals that have come with the new vessels (LC Aratoba and LC Linnix) schedule out when major servicing is required. There is some internal auditing on maintenance and operational schedules/procedures for the new vessels based on regionally agreed Standard Operating Procedures (SOPs), the base standard under International Safety Management (ISM). The intention across the Pacific is to eventually progress to Safe Ship Management (SSM) procedures (the second of the three tiers of compliance). SPC has been invited to provide external auditing of these procedures.

There is no disposal management or planning. LC Butimari was scuttled to form an artificial reef as it was unable to be salvaged or on-sold. Despite the book value being depreciated over a 16-year horizon, the LC Butimari only lasted 4 years before being decommissioned.

The asset register contains all major assets, including fixed assets, but did not include reporting on asset conditions. The asset register valuations are updated annually with the accounts, but there is no condition reporting or records. It is clear that the KNSL building is unsafe and will need to be rebuilt. The WASH facilities are in disrepair, but KNSL does not have sufficient finance to repair them. There are also numerous small/moveable capital issues, and the KNSL yard is strewn with non- or partially-functional machinery and vehicles.

3 Considerations for reform

It is clear that current Asset Management (AM) practices in Kiribati have led to a continuation of the build-neglect-rebuild cycle. This has resulted in significant amounts of government and development partner funding being diverted to reconstruction or procuring replacements, rather than expand the public capital stock and delivery of services.

With a once-in-a-generation opportunity in fiscal capacity to expand public capital, AM practices could determine whether the development trajectory of Kiribati extends beyond the current boom. The growth in fishing revenues, and the associated increase in public capital and recurrent spending has had a dramatic effect on economic development outcomes in recent years. This has been paired with sudden increases in the programs of major development partners. However, as the capital stock and recurrent budgets grow, the maintenance and replacement overhang will apply increasing pressure on the budget. This will likely mean that future periods may not have the fiscal conditions to engage in large capital projects and programmes.

An effective AM framework, which focuses on value for money, service delivery, and effective maintenance and monitoring, could allow for considerable savings in lifecycle replacement costs, thereby enabling larger overall public investment. Through prudent AM practices and planning, the government of Kiribati and its partners could lower the total lifecycle costs of current and future investments. This would enable a higher standard of service delivery across public sector assets, as well as sustain a higher level of overall capital stock.

In light of this, there is a need for a consolidated AM solution that aligns to local ambitions and capabilities. The following section outlines a selection of measures that could be considered by Government to improve AM practices in Kiribati, with a focus on maintenance and monitoring. These should be taken as the initial steps of a longer-term programme of work. The overall AM framework, its aims and objectives, and the underlying AM plans and actions should be regularly adjusted and considered as development evolves.

Other reform efforts in project selection, procurement, IFMIS, fiscal strategy and budgeting, service delivery, SOE reform, and audit should be incorporated into a broad AM and PFM framework. By integrating other reform efforts (many of which focus on public financial management), AM will be considered a core part of government operations. As a core element of any public financial management system, AM should be viewed in broad terms of service delivery and value for money.

Previous efforts in AM planning and successes in AM practices should be adapted or integrated into any AM framework. This includes the AM plans that were partially completed for Kiritimati Island, the AM analysis done by development partners and KEIP, asset valuations done through PCRAFI, climate adaptation documentation, documentation from major projects, work carried out under the PRIF Roadmap and more.

Any AM planning should be reflected in Ministry Strategic plans, SOE Statement of Intent (SOI), annual reports, and operational documents. The consensus among consulted parties was that AM practices should be as integrated as possible to the core work of Ministries and SOEs. Existing reporting, planning, and accountability processes should be utilised as much as possible to limit possible duplication and fragmentation of administration. Were possible, recommendations should complement existing reform efforts.

4 A way forward for Asset Management

This section outlines several areas where initial decisions will shape the form that an AM Strategy takes in Kiribati. These should be discussed broadly and agreed prior to engaging in more thorough planning of an integrated AM framework, AM guidance materials, and AM plans.

The AM Strategy is to create an overall AM framework, which guides the formation of AM planning, analysis, and materials. This may take several years to become a matured framework, and will likely evolve as implementation hurdles are overcome. This strategy will not address specific asset planning needs or documentation requirements, and should be viewed as the initial stage of a complete framework.

The initial step is to agree on the overarching principles of the AM framework before considering specific actions that will support AM planning and execution. This includes agreeing on the overall vision for what AM intends to deliver to the people of Kiribati, the guiding principles, and steps to improve the enabling environment for AM planning.

4.1 Vision statement

“Ensure the effective lifecycle management of public assets to deliver value for money services to the people of Kiribati”

The Vision Statement outlines the overall aim of the AM Strategy, and sets the tone for the outcomes being sought by Government. Key elements of the proposed vision statement are as follows:

- *“Ensure the effective lifecycle management...”*
 - A shift from procurement-only costs to assessing lifecycle costs
 - The focus on maintaining assets so that they deliver full services across their entire lifecycle
 - Lifecycle management that incorporates risk assessment and mitigation measures to limit potential negative impacts over the entire lifecycle
 - Ensures that any AM framework will include the entire asset and investment cycle, from planning, feasibility and procurement, through to maintenance, evaluation, and disposal
 - The desire to ensure improved monitoring and audit functions to ensure compliance
- *“...of public assets...”*
 - This broadens the scope of any AM strategy to look beyond only the limited class of assets held by central government
 - Intentionally, this covers all government assets, including those held by central government agencies, subsidiaries, Island Councils, and SOEs
- *“...to deliver value for money...”*
 - Denotes a shift from ‘least cost’ approaches to assessing value for money, where the costs of investments are weighed against value for money criteria like the costs of maintenance, lifecycle operation costs, and benefits to the community
 - Suggests more a more analytical approach to investment and asset decision-making and management

- Suggests reforming government systems or policies that have created inefficiency for government, or higher costs to the general public
- *“...services to the people of Kiribati.”*
 - Denotes a shift towards a client-centered model of service delivery, in this case: the Kiribati people
 - Planning includes evaluating all potential methods to meet demands for service delivery
 - All asset management decisions are based on service delivery needs and outcomes, including where demands and needs may grow or diminish over time
 - The performance of an asset is evaluated on their delivery of services to the public

4.2 Guiding principles

Drawing on the key elements of the Vision Statement, the guiding principles provide a practical lens for managers and Accounting Officers to apply to decision-making. These guiding principles should be easy to follow and universally understood by all public servants.

Integrated into planning frameworks

- Asset planning and management are integrated into relevant government policy and planning frameworks, budgetary and evaluation processes, annual reports, and Statements of Intent.
- AM outcomes are aligned with organisational objectives.

A whole of lifecycle approach

- A whole of lifecycle approach, incorporating real options analysis where appropriate, to planning asset investment and management decisions.
- Planning and management take into account all costs incurred throughout the lifecycle of the assets, from acquisition to disposal, and related benefits and risks.

Informed decision making

- Asset management decisions evaluate all potential methods to meet the demands for service delivery, including engaging the private sector, non-asset solutions and demand management strategies.
- Asset management decisions consider meaningful performance measurement of assets, through key performance indicators and monitoring of outcomes.

Responsible and accountable

- Accountability for client-centred service delivery and asset management are mutually dependent.
- Ownership, control, accountability, responsibility and reporting requirements for assets are established, relevant, clearly communicated and implemented, including for outsourced services.
- Asset information management systems and records are maintained at a level that meets organisational and government information, decision making and reporting requirements.
- Asset-related risks are fully integrated into the organisational risk management framework, including an evaluation of mitigation measures and residual risks.

Considerate of government policies and priorities

- All asset management activities are undertaken as part of the Government’s overall resource allocation and management framework.
- Asset management decisions aim to achieve government outcomes for service delivery.

4.3 Specific actions

This section is divided broadly into three categories of action: regulation and oversight, organisational capability and structure, and people development and advocacy. This section also attempts to categorise these actions into short (1 year or less), medium (2-3 years), or long-term (>3 years). Many of these actions stem from the initial assessment, and are framed around the guiding principles outlined above. The actions also draw from other recent work in investment management (the IMF PIMA) and asset management.

The actions focus mostly on the weakest elements of the current AM cycle which do not currently have other reform programs already underway, namely: asset monitoring, maintenance, reporting and risk. The final AM framework should include all elements of the AM cycle, which would include other areas such as selection, feasibility, financing and procurement. Extensive efforts should be made to integrate other reform efforts in procurement, information management, public financial management, project selection and monitoring, and project evaluation.

The initial phase of the reform pathway (the next 6-18 months) focuses mainly on the regulatory environment. Many of the proposed changes enable future legislative and administrative changes to occur, such as the accountability and reporting requirements. The initial phase also seeks to establish specific needs within agencies, and establish the key positions and support measures across government that will support the later reform measures.

Broadly, the second phase of the reform pathway (1-3 years) has a greater focus on building additional capacity and meeting the requirements set out during the initial phase. These actions include the procurement of technical assistance, interfacing with other reform programs, developing reporting and planning processes, and changing administrative systems.

The third phase represents the maturing of these efforts, with practices becoming more broadly applied and embedded. This may involve legislative changes, possible changes to the machinery of Government, broadening requirements on assets and/or agencies, and the embedding of asset management as a core element of public service delivery.

The reform program should be viewed as a ‘living reform’, that can change and adapt as capacity and success (or challenges) allow. With little in the way of existing asset management systems, this report focuses heavily on the initial assessment and enabling actions for future reforms. A key element is the introduction of a full-time asset management specialist for government, who will be central to shaping the reforms moving forward. As asset management needs to be integrated into government operations at all levels, it will take time for changes to take effect, and the reform program should remain adaptive and responsive to the capability and needs of the government and Kiribati people.

4.3.1 Regulation and oversight

4.3.1.1 Short term

Defining what constitutes a ‘major asset’

Prior to 1 July 2019

A threshold should be established for what constitutes a ‘major asset’ in Kiribati. In order to facilitate the iterative development of AM plans, as well as adjust the overall AM framework as needed, a specific financial threshold should be decided that would capture all new and recently complete assets above that threshold. The financial cost could be based on replacement (new for old) or the original project costs, as capacity allows.

This should also include those assets that are assessed as being ‘high risk’. This would include assets that may be less than the financial threshold but would constitute a major disruption to the Government or general public if there was to be a critical asset failure. Examples may include specific medical equipment, fire safety gear, or investments that are known to degrade quickly without preventative maintenance.

This should also include assets that can be sensibly grouped under the same management and technical staff. This would sensibly move smaller assets into one of the other categories of ‘size’ or ‘risk’. Examples may include biomedical equipment of the same type, all heavy machinery used by MISE for construction and maintenance projects, or all new school buildings. These subcategories may also have delineation within the category. For example, ‘heavy plant’ at MISE may be defined as any individual piece that was worth more than \$100,000, or ‘new school buildings’ may only include permanent buildings constructed within the past 5 years.

An example would be to set the financial threshold at \$5 million; set high risk assets as those that may result in the loss of life; and group heavy plant and equipment under one asset class and new school buildings under another. This would mean that new investments such as the South Tarawa Road Network and the Dash 8 would be defined as major assets; fire safety equipment, biomedical equipment, and government owned vessels would be defined as ‘high risk’; and heavy plant and equipment, as well as new school buildings, would be combined categories that are treated as a group.

Defining the time since construction for ‘new’ assets to be included in initial AM planning

Prior to 1 July 2019

This will limit the amount of assets that need to be assessed for inclusion under the financial threshold and risk criteria. For example, ‘new’ assets to be included under the financial threshold could be set at 5 years, with assets prior to that being considered to have already been degraded through poor management or being unlikely to have current design and project records.

This decision should also explicitly outline which assets are exempt from this criterion. Examples are most likely to arise from the ‘high risk’ category of assets, and would include things such as Nowerewere hospital or other critical infrastructure which may have been constructed beyond the timebound criterion or have degraded to the point where no financial assessment could be made.

The overriding principle to this criterion would be to select only a modest number of high-profile assets. In the first instance, this criterion should act to filter out the ageing and otherwise degraded infrastructure from being included in the comprehensive AM planning, as these assets are likely to be either fully or partially replaced in coming years.

Formal direction from Ministers for SOEs to include an evaluation of major assets and AM practices in their SOI and Annual reports from 2020 onwards

Prior to 1 July 2019

The current SOE legislation gives governing Minister the ability to request additional reporting above and beyond what is outlined in legislation. In this instance, SOEs should be requested to include an evaluation of the condition and service delivery of major assets, as well as outline their AM practices and policies.

Those SOEs that have received major subsidies or asset purchases within the time criterion should be included from 2020, with the other SOEs to follow from 2021. This will ensure that those SOEs that are most capable or present the most financial risk are addressed first, prior to the remainder of the SOEs. As a starting point, the 2020 SOEs would likely be PUB (electricity and water infrastructure completed since 2015), AKL (the Dash 8 and the Embraer 190-E2 aircraft), KNSL (LC Linnix and LC Arotoba), KHC (the new housing stock in Bairiki completed in 2016) and KOIL (the new fuel farm, completed in 2018).

Financial instruction from the Accountant General and Minister of Finance that fixed assets are included in the definition of government stores ***Prior to 1 July 2019***

This is already a feature of the Stores Regulations, but there may be an inconsistency with the Public Finance Act regarding what the Accountant General (and hence, Accounting Officers) are required to report. By issuing a financial instruction making this clear, the Accountant General and Internal Audit would now require the recording of fixed assets in the asset registers of Government agencies. This would enable the further reporting of asset values, conditions, and potential transfer to/from other agencies.

Establish criteria for what maintenance projects can be included in the consolidated maintenance funding pool ***Prior to 1 July 2019***

The current consolidated maintenance pool contains a blend of new construction projects, expansions and refurbishments, with no clear criteria. Once the criteria is established, the criteria should be published on the MEFD website and applied to the contents of the funding pool at the next Budget opportunity (likely the 2020 Budget). This would likely move the new construction projects across to the regular Development Budget.

The project list of the consolidated maintenance pool should be made publicly available to ensure a level of transparency similar to that of the Development Fund. Those activities funded could appear as a separate table in the appendices of the 2020 Budget to allow for greater transparency.

This action is consistent with the stated aim of MISE to have a policy in place to manage the consolidated maintenance fund, and the desire of MFED to have a clear demarcation of priorities outlined in the 2020 Budget Circular. In keeping with the principle of complementing existing reform efforts and institutions, MISE and MFED should play a central role in determining the relevant criteria. Initial discussions with all the key agencies confirmed the understanding that new construction projects should be excluded from future funding rounds.

4.3.1.2 Medium term

Require the codification of AM practices within SOEs

prior to 2021

The codification and documentation of AM practices would enable the formation of internal audit functions within SOEs, as well as the eventual external audit of these same processes. This will support the oversight and regulatory functions within government in ensuring that AM practices are maintained over time.

Some SOEs will already be more advanced than others, and should receive support in the first instance. For example, PUB and AKL already have documented maintenance and management processes for critical infrastructure and aircraft (respectively). For this reason, documentation should be achievable earlier for those agencies which already have established processes. Those with processes in place but no documentation will take longer to achieve the same outcome.

PUB should be among the first agencies to document AM practices, with a focus on creating case studies that can be used elsewhere in government. PUB have been successful in implementing line-level changes to AM policies and practices. Examples include the motorbike hire-purchase scheme or the management of tools and safety equipment.

Development partner assistance may be required to complement local capacity. This assistance may be decentralised (agency-specific), centralised (within SOEMAU or some other central body), or both. In any case, the objective should be to form templates that can be used across the whole of Government so that lessons can be shared and monitoring is standardised as much as possible.

Financial statements of general government should include an aggregated account of government assets and detailed schedule of major asset classes **July 2022**

While not required under cash accounting standards, if the eventual aim is to transition to an accrual basis, then asset reporting and valuations will need to be revised every year. This recommendation does not go this far, but attempts the first steps towards the full reporting of assets. It is likely that the first valuations done in the 2020 financial statements will only be partial, as a complete valuation of government assets may take several years.

The government should not consider moving to accrual accounting at this time, as many of the foundations of sound financial management and reporting are not yet established. Institutional capacity should instead be focussed on the core areas identified in the 2017 PEFA Self-Assessment as being well below acceptable levels. Examples include improvements to transaction settlements, cash management, and timely financial reporting.

4.3.1.3 Long term

Possible amendments to the Public Finance Act, to make explicit that fixed assets must be reported by the Accountant General ***from 2022***

While Financial Instructions will be sufficient during the scaling-up of AM activities, cementing asset reporting as a core element of financial reporting and record keeping in the Public Finance Act would ensure that this becomes a core part of MFED and the Government's reporting requirements. This would also improve the ability of the Public Accounts Committee and the Office of the Auditor General to investigate the misuse or mismanagement of public fixed assets.

Possible amendments to the SOE Act to legally cement the reporting of AM practices and asset conditions in SOE SOI and Annual Reports ***from 2022***

By requiring the policy direction of Cabinet to form a central part of regular SOE reporting, the Government would be embedding an evaluation of AM practices in SOEs. The deadline of 2022 would also give SOEMAU, the SOEs, and government an opportunity to determine the level and scope of the reporting required in SOIs and Annual Reports.

4.3.2 Organisational capability and structure

4.3.2.1 Short term

The Auditor General to receive additional capability to manage the increased reporting and audit requirements of SOEs ***As part of the 2020 Budget***

Having gone through their own reforms, the Auditor General is currently required to audit these SOE statements based on the reporting requirements of government. The Office of the Auditor General will have an increased burden in undertaking performance audits of expanded SOE reporting, and will likely need additional personnel and ICT infrastructure in order to undertake their role in a timely manner.

SOEMAU or individual SOEs to acquire assistance in completing valuations and the codification of AM practices ***1 December 2020***

The aim is to build a series of codified and documented AM processes that can be audited internally and externally. Whether this is done in-house or collaboratively with SOEMAU and development partners, it is likely that additional resources will be required during the documentation and valuation phases. This is particularly true for asset valuations, which may require the sourcing of external evaluators to establish baseline estimates.

Ensure that the developing FMIS allows for the integration of possible AM modules

1 December 2019

Ultimately, an AMIS would be hugely beneficial for AM operations; integration with any IFMIS would mainstream AM with general public financial management. While the initial scoping of the IFMIS was not to include such modules, any procurement should allow for the integration of an AM system at some future point in time. Ideally, the IFMIS project could be expanded to include an AMIS.

Create asset profile documentation for the major and high-risk assets

1 July 2020

These profiles would serve as the basis for the fields in the AM database (and eventual AMIS), as well as the foundation documentation for AM plans for these assets. The criteria for the selection of major assets will determine whether this is an achievable timeframe, with organisational capacity being a key determinant of how many profiles can be achieved.

FMU and KEIP to establish assessment criterion for all school facilities

1 December 2019

FMU and KEIP already have substantial corporate knowledge on what constitutes an effective school environment, and there are several examples of new schools to serve as case studies. In

creating a codified set of school conditions, assessments can be made against current AM practices and asset life. This would then form the basis of an AM for all school facilities.

MHMS to acquire a dedicated facilities manager, to be based out of Nowerewere 1 July 2020

The new manager would become the new focal point for all facility support services (carpentry, biomedical, electrical), with a dedicated office space and workshop. The manager would also establish regular site inspection of the major health facilities, manage the maintenance and refurbishment operations and budget, and become the key focal point for AM activities at MHMS.

The terms of reference for this position should be restricted in the first instance, before gradually expanding the mandate of the facilities management as capacity and progress allow. It is important that the facilities manager not be inundated with the current workload of the existing staff. This may be assisted by development partners that have shown that capacity supplementation can be successful in delivering reform outcomes (MFED, PUB, KIT, MOE and MISE).

Determine the appropriate course of action regarding the key manager for servicing MISE heavy equipment 1 December 2019

While this is likely to be the creation of an Operations Manager position, it would need to be further discussed as to what form this might look like. The key outcome is that there is an individual or a unit wholly responsible for ensuring that heavy plant and machinery is serviced regularly, stored correctly, and that operators are fully trained in their use. The manager/unit must also have powers to set the work schedules, authorise operators, and ability to fund servicing and repairs.

MISE to establish a template for the maintenance, operation and servicing of heavy machinery, and populate with new machinery purchases 1 July 2020

This responsibility would likely fall to the Operation Manager/unit mentioned above, and lay out clear and consistent guidance on the use and maintenance of heavy plant and equipment. In the first instance, only new machinery would populate the templates. Once the delayed servicing requirements of older equipment was fully understood, they too would populate the agree templates.

4.3.2.2 Medium term

Develop executable AM plans for all major assets (including those at SOEs) 1 July 2021

AM plans would need to be currently-actionable (rather than aspirational), and include risk assessments, operational guidance, servicing/maintenance, disposal, and financial information. The exact composition of the AM Plans would need to be determined, but all major assets (as defined by the agreed criteria) should be covered by July 2021.

Develop a database of major assets, including AM plans and procedures as well as financial, condition, and risk reporting 1 July 2021

The database would be housed at the MFED Asset Management Unit (or similar), and would act as the central point for the collation of all materials pertaining to the major assets. The fields for the database would need to be agreed across all AM plans, preferably through a common template, and financial reporting would need to be standardised to allow for aggregation at the whole-of-government level. This would allow the collation of whole-of-government asset reporting for the 2021 financial accounts.

The formation of an integrated AM plan to ensure effective Embraer E2-190 operations

****subject to the expected timeline for acquisition****

This would likely require the collation of several activities into a consolidated plan, with an assessment of any gaps that may or may not be evident once the exercise is undertaken. With such a significant purchase, it is highly likely that extra capacity will need to be brought online to ensure that this is delivered on prior to the arrival of the acquired aircraft.

Establish a dedicated division within MFED which deals the key components of the AM framework, including the evaluation of risk assessments ***1 January 2021***

It is envisioned that this new division would amalgamate the procurement unit and potentially KFSU with additional capacity and management to address expanded AM responsibilities. These responsibilities would include standardised risk reporting, AM requirements, monitoring and evaluation, AM condition and financial reporting, and any future amendments to the AM framework. The new division would also be responsible for the financial oversight and reporting requirements for the consolidated maintenance fund, based on the earlier established criteria. The division would also have responsibility to model the lifecycle costs of new investments, and liaise closely with NEPO on the funding requirements of existing assets. The Division would also be the new home for the centralised AM database, and the custodian of general government buildings (excluding those managed under MHMS and MoE).

Expand the inspection capabilities of MISE to include regular surveys of major fixed assets

1 January 2021

This could be within current organisational structures (likely Civil Division) but may also form a separate unit that focuses only on inspections and compliance. In either case, the new unit would need to have veto powers over project completion and the ability to publish materials regarding asset inspections. This unit would also be the executor of the consolidated maintenance fund, and collate the maintenance list for MFED consideration/sign-off. It should have some degree of independence, and be largely technical staff such as engineers.

Establish internal audit units in SOEs that have codified AM practices ***1 December 2021***

As capacity allows, SOEs with codified AM practices should have internal audit processes or units that can verify that implementation is occurring. These units or process may be internal to the SOE, or internal to the government, but would not necessarily be published to the public (as would be the

case with external audit). All internal audit reports should be accessible to SOEMAU, NEPO, MISE and the newly formed asset management division at MFED.

Transition the ownership and maintenance responsibilities of all Government buildings to the new MFED division ***1 January 2022***

Once the new division has been established, oversight and financial management for all general government buildings should be transferred. This will enable whole-of-portfolio management to occur, including the scheduling and analysis required to plan the replacement of ageing or degraded facilities.

FMU to commence regular inspections of new school infrastructure using the agreed standards and AM practices for common asset classes

1 January 2021

Once standards are agreed, FMU should establish a regular survey calendar of all schools, including those in the outer islands. The eventual aim should be to encourage compliance with AM practices that are developed over time, as well as provide a baseline assessment of conditions across the system.

Expand heavy machinery AM to include all heavy plant and equipment ***1 January 2021***

Working on the baseline set by new machinery and equipment, older machinery can be gradually included in the AM planning (which would include disposal). By this time, it should become evident which equipment can be provided by the private sector and which should be retained with Government. Disposal, replacement, and refurbishment schedules should be a key feature.

Expand the role of the MHMS facilities manager to include buildings and conditions in the outer islands ***1 January 2022***

18 months after the establishment of the Facilities Manager for Nowerewere, responsibilities of clinics and health centres should also be included. This would enable consolidated portfolio planning for MHMS buildings and facilities.

4.3.2.3 Long term

Integrate an AMIS into general government operations ***from 2022***

In the first instance, the AMIS should cover central government AM, but the ultimate aim would be to include those assets also covered by SOEs. Depending on the progress in other areas, this may be difficult to achieve. The AMIS should cover all regular reporting for all public assets and contain common fields with the IFMIS to make integration possible (if the two systems are not integrated). The AMIS should relate to all stages of the AM cycle.

The Office of the Auditor General to provide full AM audits of SOEs and major assets from 2022

While financial reporting will be in its nascent stages of development, audit reporting from 2022 will ensure that there is an independent view of asset accounts and management policies (as per the current Public Finance Act). The Office of the Auditor General is already authorised under the Act to carry out such inspections but, as AM reporting would be limited prior to 2022, this would be the first likely opportunity for the Auditor General to carry out such an audit. The Office of the Auditor General would likely require technical assistance or other capability development to ensure it is ready to carry out this function.

Complete AM plan for the government stock of general office buildings, including scheduled refurbishments and replacements from 2022

These AM plans would be housed in the new MFEM division, and lay out AM practices and lifecycle costs for all general government (not MoE and MHMS) for the next 30 years. It is important that such plans be anchored on the availability of the local construction capacity, portfolio plans for MHMS and MoE, and ability of the Budget and development partners to fund such investments.

4.3.3 People development and advocacy

4.3.3.1 Short term

All new infrastructure and major procurements need to include operation and maintenance documentation, and consider the compulsory inclusion of training 1 July 2020

Such training is considered good case practice for those staff which will be overseeing the operations and maintenance of the acquired asset. The form and style of this knowledge transfer will vary greatly between projects, but should be compulsory for all projects above a determined threshold. Documentation of knowledge should be a key feature, and could form part of a standardised handover procedure.

The publication of AM analysis for the life cycle costs of major public assets to educate about the cost-efficiency of improved AM practices and investment decisions 1 July 2020

Some work has already been done in this area in relation to MoE investments in primary schools, but a similar approach could be taken more broadly to major asset classes. This could be a separate analytical piece to demonstrate the value of lifecycle analyses, with the aim that such approaches would become a core part of project and investment assessments and evaluation.

4.3.3.2 Medium term

Develop training modules on AM policies and agency-specific procedures 2021 onwards

In order to ensure that AM practices are commonly acknowledged and observed, training modules should be developed for the various staff involved in AM. These modules could range from financial reporting requirements and data entry, through to specific maintenance and servicing requirements, and project evaluation and lifecycle costing. The modules should be able to be delivered by local staff

and should be integrated with other local training initiatives like financial officer training, Secretary training, and induction for new staff.

New infrastructure projects and major procurements to include a period of operations and maintenance in as inclusions in the contracts, where appropriate **2021 onwards**

Government and development partners could consider the standard inclusion of initial operations and maintenance into every new project above a certain financial threshold. This would need to be considered alongside asset type, operation and maintenance requirements, and the ability of existing government organisational capacity to take on the new assets. A project-funded period of operations and maintenance would enable better forward planning of AM budgets, and allow the government a schedule for ensuring adequate capacity is available for the transition to full ownership.

4.4 Currently unaddressed

Below is a list of issues which are currently not addressed in the above actions, but will need to be considered over the course of AM development:

- The form and stages of the asset management cycle for the Kiribati Government
- The integration of other reform efforts currently underway for procurement, financial management, investment and project management and reporting, SOE reforms, and information systems.
- Issues regarding AM practices and systems in the outer islands
- The management, valuation, and accounting for public land holdings
- The role of Principals in managing and being held accountable for school infrastructure issues
- The role of PVU versus decentralised or re-centralised fleet management
- The overall strategic approach to the KHC housing stock, the potential role of private ownership, and the pricing arrangements of rents
- Revisiting the financial model of KNSL, including the prospect of transition into a private company
- Who should be responsible for ensuring AM practices with regards to community buildings like Maneaba
- The role for privatisation and the development of a private sector to provide cleaning, maintenance, and construction services, including the ownership and maintenance of heavy machinery
- The source of funding for maintenance or AM activities, the funding model adopted, or whether the funding is delivered via the development budget, a special fund, or annual appropriation.
- The timeline for AKL to form integrated AM plans and management for the Embraer E2-190 operations

5 Consultation list

The following agencies were interviewed and/or provided inputs and feedback to this report:

AKL
BTC
KHC
KNSL
KOIL
KPA
MELAD
MFED
MHMS
MIA
MICTTD
MISE
MOE
PUB
TACL
The New Zealand High Commission