

2 Executive Summary

This discussion document is aimed at encouraging debate about the role infrastructure plays in growth and development in Pacific countries. It identifies opportunities and obstacles to improved infrastructure performance.

We began by examining infrastructure performance in Pacific and comparator countries¹ on indicators for service coverage, quality, cost and economic viability. This allowed us to establish whether sector performance is relatively good or relatively poor in each country. We reviewed performance in the following infrastructure sectors: telecommunications, electricity, water and sanitation, roads, airports and aviation, and ports and shipping.

We observe that although some utilities perform well, and infrastructure access is adequate in some (mainly urban) areas, Pacific countries do not perform as well as comparator countries on most key performance indicators. In addition, levels of infrastructure access, quality and efficiency vary between countries of a similar size and income level within the Pacific region itself.

2.1 Why the Difference in Performance?

Pacific nations are relatively poor. While most Pacific countries enjoy relative macroeconomic stability, their fiscal situation tends to be weak, reflecting reliance on foreign aid. Clearly, poor economic performance makes it harder to achieve good infrastructure outcomes. However, the macroeconomic picture does not explain the Pacific infrastructure challenge. The real challenge is that Pacific countries demonstrate worse infrastructure performance than could be expected for their level of GDP.

An obvious possible explanation is that the costs of providing infrastructure services are naturally high in the Pacific. Small scale, dispersed populations, remoteness, and Pacific countries' susceptibility to natural disasters mean they don't benefit from the economies of scale infrastructure naturally offers, services are often more costly to produce and maintain, and it is expensive to increase access to rural areas.

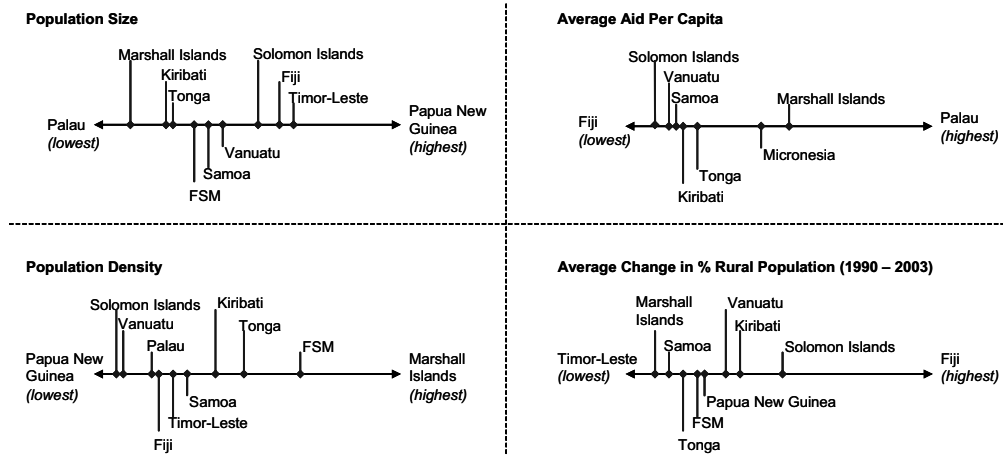
However, we notice that in some Pacific countries infrastructure performance is worse than in comparator countries (such as Caribbean islands) with similar levels of income, and which share some 'disadvantages', such as small scale or vulnerability to natural disaster. Even within the Pacific region, some countries with greater inherent challenges demonstrate better performance in certain infrastructure sectors. This suggests that the inherent disadvantages of scale and topography alone cannot explain poor performance in infrastructure, and that some underperformance is due to poor institutional performance.

Poor institutional performance is generally likely to be the result of poor policy, but Pacific countries also share some characteristics that make it more difficult to build strong institutions. These include dependence on aid, small population size and low population density, ethnic diversity, low levels of rural to urban migration, small pools of skilled labor and youthful populations.

¹ The Pacific countries reviewed were Fiji, Federated States of Micronesia (FSM), Kiribati, Marshall Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga and Vanuatu. Comparator countries included: Jamaica, St Lucia, St Kitts & Nevis, Grenada, Dominica, Barbados, Mauritius, New Zealand, and the Philippines

Pacific countries face each challenge to a different degree, as Figure 2.1 demonstrates. This means that the overall challenge differs from country to country. Because of this, it is difficult to group Pacific countries by type of challenge. Policies need to be modulated to respond to the specific needs of each country.

Figure 2.1: Comparison of Defining Features



Source: Castalia, based on World Development Indicator Data. Note: Not drawn exactly to scale

However, these challenges also do not completely explain infrastructure underperformance. Some Pacific countries that face greater challenges some areas, demonstrate better infrastructure performance than countries that are naturally more ‘advantaged’. For example, Vanuatu has a relatively dispersed population, high degree of ethnic diversity, and a moderately small population size and high dependence on aid, and yet it is one of the most efficient providers of water and electricity services in the region.

We conclude that better policies, institutions and management can help to improve the overall level of infrastructure performance in Pacific countries.

2.2 Barriers to Growth and Development in the Pacific

There are three principle infrastructure barriers to growth and poverty reduction in the Pacific:

- Low levels of access to infrastructure in rural areas
- Inefficient service provision
- Inappropriate infrastructure pricing.

The key institutional and policy failures which are responsible for these barriers are poor policy coordination and lack of accountability.

Good coordination involves all aspects of government policy pulling in the same direction to ensure effective and efficient provision of infrastructure services. Some examples of poor coordination in Pacific countries include:

- Infrastructure is complex, capital intensive and lasts a long time. It is therefore important to plan for the long term, when embarking on infrastructure projects. However, in the Pacific, governments have often focused on building new infrastructure, rather than investing in operations and maintenance. This has contributed to poor performance later on

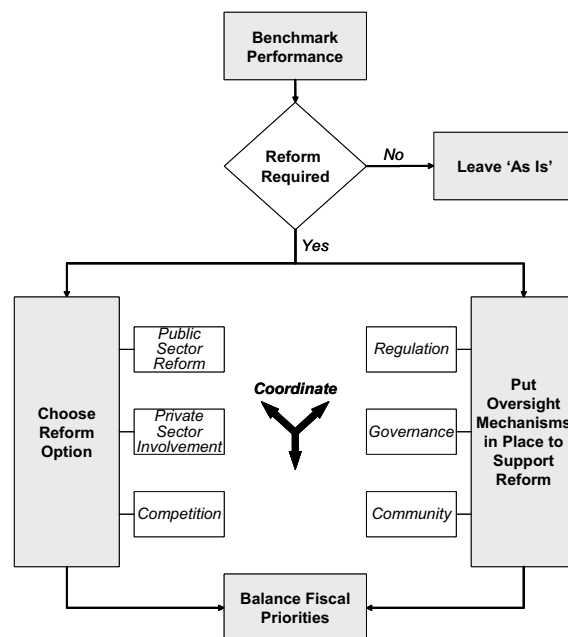
- Fiscal, regulatory and policy decisions are often not aligned, and are sometimes contradictory. For example, a corporatization strategy requires consistency between governance, tax treatment, accounting rules, corporate objectives and fiscal support for corporatized entities. Lack of coordination means that reforms intended to improve performance in the Pacific have often failed to achieve the desired results
- Although some Pacific countries develop infrastructure master plans, anecdotal evidence suggests implementation of infrastructure development, upgrades and maintenance often lack coordination between sectors. For example, it would make sense to try to coordinate maintenance or upgrades to water pipes and telecommunications lines, which are buried along the same stretches of road.

Pacific countries have few institutional arrangements or governance processes in place which traditionally encourage accountability. There is very little competition for services, and few effective oversight mechanisms in place to ensure monopoly providers operate efficiently and price effectively. In fact, in many Pacific countries, infrastructure services are provided and sanctioned by the same entity, the government. This model has failed to provide incentives for good performance.

2.3 Is it Possible to overcome these Barriers?

Appropriate infrastructure development will only be achieved and sustained in the long term with institutional arrangements and governance structures that offer incentives for good performance and provide for coordination. In the figure below, we propose a framework for infrastructure reform which attempts to address barriers to coordination and accountability:

- 1) Benchmark performance to identify if reforms are necessary, and if so, what sector-specific challenges must be overcome. Where performance is acceptable, no reform is needed
- 2) Select the appropriate mix of reforms. These may include public sector reforms, introducing private sector involvement, introducing competition, or a mixture of these solutions
- 3) Regardless of the reform option selected, governments need to put in place sufficient oversight mechanisms to encourage good performance and discourage poor performance
- 4) The government needs to give infrastructure development appropriate priority in budget allocation, both to ensure an efficient mix of investment and maintenance, and to provide subsidies which achieve the “biggest bang for the buck” in terms of infrastructure outcomes



- 5) All relevant policies, plans and implementation mechanisms must be fully coordinated to ensure results.

Some of these reforms have been tried before in Pacific countries, with mixed success.

Regional benchmarking has been initiated in the electricity and water sectors. These programs have faced some challenges. Many utilities lack the human resources capacity to undertake the required data gathering, and utilities do not adopt a common approach to measuring performance for each indicator, therefore comparisons are not always accurate. In addition, electricity benchmarking results are not made public. This has caused an added capacity burden for utilities, as consultants or donors must contact them directly for data each time a review is undertaken. Keeping the results confidential does not help to create the incentives for improved efficiency one could expect from such a program.

Most Pacific governments have initiated *public sector reforms* to address poor infrastructure sector performance. Corporatization has been successfully implemented for Papua New Guinea's Water Board, the Fiji Electricity Authority and the Samoa Ports Authority. However, it has been less successful in other cases. Many technical assistance programs have been implemented to strengthen public sector capacity to enable public sector reforms. These have also had mixed success.

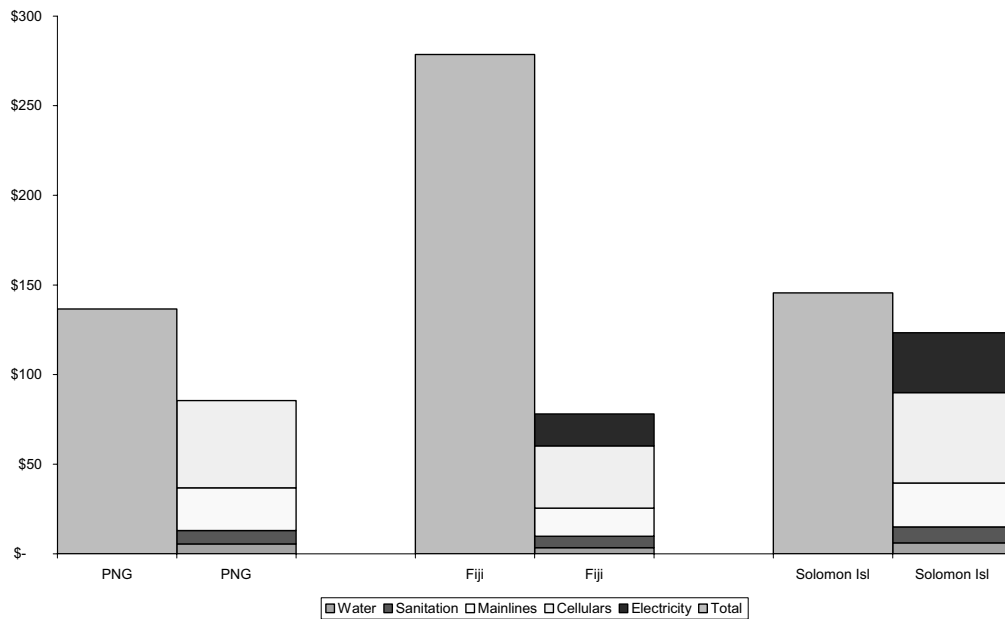
There are few examples of *private sector participation* in the Pacific but experience in comparator countries has shown it can help to improve performance. Fiji has had some success in outsourcing electricity generation, Vanuatu's decision to engage a private operator to deliver water and electricity services under a concession contract has resulted in some of the most efficient services in the region. Ports in Samoa have benefited from adopting a 'landlord' model, in which port services are provided by private companies. However, poorly planned PSP arrangements have resulted in additional challenges for infrastructure performance in the Pacific and elsewhere.

Competition is limited in the Pacific, but where it has been introduced, it has been effective in achieving performance improvements in certain sectors, despite small scale.

2.4 What's the Size of the Challenge?

Improving access to and the quality of infrastructure in the Pacific will require considerable investment. We were unable to obtain comprehensive data with which to calculate investment needs for each infrastructure sector, in each Pacific country. However, Figure 2.2 provides a useful snapshot. It shows that if total investment levels were to be maintained at their current levels, a significant re-allocation of resources would be required. For example, Fiji, which has enjoyed relatively high levels of total investment due to its strong tourism and manufacturing sectors, would need to devote about 25 percent of those investments to the infrastructure sectors. At the other extreme, Solomon Islands would need to allocate almost their entire current investment spending to infrastructure.

Figure 2.2: Estimated Annual Investment Requirements for Infrastructure Sectors compared to Total Investment in 2003



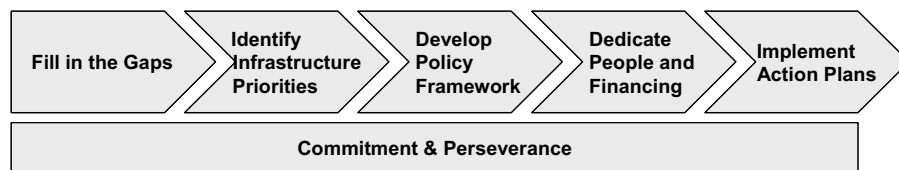
Source: *International Financial Statistics (IMF)*

Many Pacific countries have relied heavily on aid to fund major infrastructure projects in the past. Meeting future investment requirements will require a change to fiscal priorities, improved functioning of the financial sectors, and mobilizing domestic and international private savings.

2.5 How do we meet the Challenge?

There will not be a ‘one size fits all’ solution to infrastructure challenges in the Pacific. Figure 2.3 illustrates an approach to meeting the infrastructure challenge in the Pacific.

Figure 2.3: An Approach to Meeting the Challenge



Source: *Castalia*

The first step is to ‘fill in the gaps’, and to verify the data presented, and to test whether the analysis rings true for Pacific country leaders. Leaders and policy makers must then decide how big a priority infrastructure is for their country. They must also determine the infrastructure priorities, as not all sectors will require the same level of investment or focus.

Having identified the priorities, it will be necessary to put in place a policy framework that will enable and support the reform initiatives selected. People and finance must be dedicated to projects and program implementation. This process will take time. It will also take commitment and perseverance.

Based on our preliminary analysis, we propose a set of discussion topics for debate, to initiate the first step of 'filling in the gaps':

1. Will benchmarking help to provide a better picture of infrastructure performance?
2. What public sector reforms will benefit Pacific countries?
3. Can private sector involvement be encouraged?
4. How extensive are the opportunities for competition in the Pacific region?
5. How effective are the oversight mechanisms in the Pacific?
6. How can the public sector be strengthened to deal with barriers to good infrastructure performance?
7. How will the reforms and improvements be financed?