ADRI-Sustineo Policy Brief

Supporting Development in the Pacific: The ADRI-Sustineo Pacific Index

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Background

The Pacific Index is a joint initiative of ADRI and Sustineo Pty Ltd. Background research leading to the ADRI-Sustineo Pacific Index was supported by the Australian Research Council (ARC) through its Industry Linkage Grant Scheme (grant number LP110200746).

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Introduction

Pacific Island countries provide many benefits to their citizens, but face a number of profound development challenges. For decades they have recorded the lowest and most volatile rates of per capita economic growth of any region in the world, the ease of doing business has in almost all Pacific Island countries declined relative to other countries over recent years, progress towards the Millennium Development Goal (MDG) of halving income poverty is the worst of all regions in the world with only two countries (Cook Islands and Niue) on track to achieve this goal, and there are widespread concerns for the control of diseases (including HIV/AIDS) within the region.1 These facts are striking in their own right. They are even more striking given that foreign development aid to the region has doubled since 2002, with many Pacific Island countries having received some of the highest amounts of this aid relative to GDP and population in the world.[2]

Two points emerge from the preceding facts. The first is that rich countries need to do far more for the Pacific Islands (above and beyond what these countries do for themselves) to address the development challenges they face. They need to take actions in key policy areas that are crucial to growth and development in the Pacific. It is their own self-interests to do so, but also consistent with the very principles on which efforts such as the MDGs are based. The second is that these efforts need to go well beyond foreign development aid. They must extend to other known drivers of growth and development

The ADRI-Sustineo Pacific Index is built on both recognitions. An adaptation of the Center for Global Development's well-known and influential Commitment to Development Index (CDI), the Pacific Index is an empirical device that identifies and gives due credit to those rich donor countries that display the greatest commitment to development in the Pacific based on their actions in seven key policy areas, including aid. Conversely it also shows which countries are doing the least, highlighting the policy areas in which they do particularly poorly relative to others.[3] This information is shown primarily in the form of a league table, which ranks rich countries in terms of their efforts to support development in Pacific Island countries. This information is not merely of analytical interest, but provides a basis for policy advocacy, holding rich countries to account for their often repeated public commitments to support development in poor countries, in this case in the Pacific.

The Pacific Index ranks rich countries on the basis of their efforts in supporting development in the following fourteen sovereign nation states in the Pacific: Cook Islands, Fiji, Kiribati, the Marshall Islands, the Federated States of Micronesia, Palau, Nauru, Niue, Tuvalu, Samoa, Tonga, Papua New Guinea, the Solomon Islands and Vanuatu. The 'rich' countries in question are the 27 members of the OECD Development Assistance Committee. These countries are identified in Figure 1 below. A major omission from our investigation is China, which is a major player in the region. This is unfortunate, but unavoidable owing to a lack of requisite data. Such is the lack of data it is not even possible to provide an estimate of the Pacific Index, or of any of its components, for China.

1 M. McGillivray S. Santos-Paulino and W. Naude, "Vulnerability, Financial Flows and State Failure in Small Island Developing States", *Journal of Development Studies*, 46(5): 979-990, 2010; World Bank, *Doing Business*, Washington DC: World Bank, various years; United Nations, *The Millennium Development Goals Report 2013*, New York: United Nations, 2013, and; Pacific Islands Forum Secretariat, *2013 Pacific Regional MDG Tracking Report*, Suva: Pacific Islands Forum Secretariat, 2013.

2 Pacific Islands Forum Secretariat, *Ibid.* and World Bank, *World Development Indicators*, Washington DC: World Bank, 2014.

3 The CDI rates rich countries for their global support for development. It is applied to regions, but not specifically to the Pacific, nor is it tailored to specific developing country groups. Details of the CDI can be found in D. Roodman, *The Commitment to Development Index: 2013 Edition*, Washington DC: Center for Global Development, 2013.

The Pacific Index: Design

The Pacific Index is a composite measure that is formed by taking the arithmetic mean of seven (equally weighted) components.[4] The components measure rich country support for the Pacific Island countries in the following policy areas, each of which are crucial for growth and development:

1. aid
2. trade
3. finance
4. migration
5. the environment
6. security
7. technology.[5]

AID

Good quality foreign aid can be an important driver of economic growth elated development achievements, such as higher levels of health and education and lower levels of poverty. The *foreign aid component* takes into account the quantity and quality of official development assistance (ODA) provided by donors.[6] The quantity of aid is measured relative to donor county GNI, reflecting effort or commitment. Debt forgiveness relating to previous non-concessional office lending is excluded. The aid component rewards rich countries for the level of ODA to the Pacific measured as a ratio of donor GNI and the share of donor aid going to countries with high governance levels relative to their income per capita, and penalises them for the extent of aid tying (to the purchase of donor goods and services) and the extent of project proliferation relative to the governance levels of the recipient countries in question.

TRADE

Providing developing countries with fair and open access to markets in developed countries is crucial if the former are to sustain higher rates of economic growth. The *trade component* is based on the recognition that the taxing of imports and subsidisation of domestic producers is harmful to developing country exporters. It is an increasing function of rich country openness to developing country imports of foods and textiles and of the level of its imports from Pacific countries as a share of its GDP, weighted by the income per capita of the exporting country.

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4 It has also been computed using different weighting schemes, including weights obtained from the statistical procedure Principal Components Analysis, plausible weights that reflect intuition regarding the relative importance of the seven policy areas to growth and development in the Pacific, and weights that are purely randomly determined with the range of zero to unity. These weighting schemes yield Pacific Index results that were generally speaking no different to those presented below. The countries at the very top and bottom of the rich country league table, and their rankings with these ranges, are largely the same. In this sense the league table rankings are reasonably robust with respect to the chosen weights. We note in passing that the CDI uses equal weights, implicitly invoking Occam's razor.

5 The aid, trade and migration components are adapted from the CDI, being tailored specifically support for Pacific Island countries. The finance, environment, security and technology components are taken directly from the CDI and are not therefore specific to the Pacific, but reflecting the global public good orientation of actions in these policy areas.

6 It is occasionally claimed that foreign is not a solution, partial or otherwise, to Pacific challenges but part of the problem, actually retarding development in the region. There can be no doubt that many aid activities have not worked well in the Pacific. As such there is a ring of truth to these claims, that they are in part correct. But in looking at the totality of official development aid efforts there is considerable evidence to suggest that on average the development situation of the Pacific would be worse in the absence of aid, judging from its impact on per capita economic growth. See, for example, V. Pavlov and C. Sugden, "Aid and Growth in the Pacific Islands", *Asia Pacific Economic Literature*, Vol. 20, No. 2, pp. 38–55, 2006 and S. Feeny and M. McGillivray, "Aid and Growth in Small Island Developing States", *Journal of Development Studies*, Vol. 46, No. 5, pp. 897-917, 2010. Both studies find that growth in the Pacific would over recent decades been lower in the absence of aid.

FINANCE

It is widely acknowledged that investment, under certain conditions, is an important driver of development.[7] The *finance component* rewards rich country policies that are likely to lead to productive investment, including whether they offer political risk insurance to investors, tax policies that prevent investors from being taxed both at home and in the host country, and whether they support international agreements to control corruption (such as the Extractive Industries Transparency Initiative). It penalises countries for financial secrecy, recognising that allowing foreign persons to engage in secret financial transactions facilitates a host of harmful activities including tax avoidance and evasion, corruption and the trafficking of guns, drugs and people.

MIGRATION

Migration is crucial to growth and development in the Pacific. It provides immigrants with greater access to employment opportunities and higher wages. Allowing people to move for work enables them to send money (remittances) back to families and friends in their home country. Migrants sometimes return home with skills gained abroad, outweighing drain effects. The *migration component* rewards rich countries for the inflow of migrants from Pacific countries relative to the GDP of the former and for openness to their students and asylum seekers from them.

ENVIRONMENT

The Pacific is highly vulnerable to the impacts of climate change, threatening land, food security, and water supplies. The *environment component* of the Pacific Index penalises countries for their greenhouse gas emissions, consumption of ozone depleting substances, fishing subsidies and tropical timber imports per capita and rewards them for Kyoto protocol ratification, UN Fisheries Agreement ratification and biodiversity treaties participation.

SECURITY

Links between security and development are well established: development is hard to achieve in insecure environments. The *security component* of the Pacific Index rewards countries for their financial contributions to UN and NATO peacekeeping operations and humanitarian interventions, spending on the protection of sea lanes, participation in international security regimes that promote non-proliferation, disarmament and the international rule of law (such as the Comprehensive Test Ban Treaty, the Ottawa Convention on land mines and the International Criminal Court) and penalises them for the value of arms exports to undemocratic nations.

TECHNOLOGY

Technological improvements such as the internet, mobile phones, vaccines, high yielding grains were all invented in rich countries and have been of great benefit to those in developing countries, including those in the Pacific. Mobile telephones have had many benefits throughout the region. Some are of less benefit such as the motor car leading to pollution and congestion. The *technology component* of the Pacific Index rewards rich countries for R&D expenditure (discounted according to its sector) and tax incentives for private R&D, but penalises them for patent coverage on plant and animal species and software innovations and lack of limitations on patent rights and on intellectual property rights extensions.

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7 Recent research finds that a 10 per cent increase in FDI in Pacific Island countries is associated with a 0.1-0.4 per cent increase in their GDP growth. See S. Feeny, S. Iamsiraroj and M McGillivray, “Growth and Foreign Direct Investment in the Pacific Island Countries”, *Economic Modelling*, Vol. 37, pp. 332-339, 2014.

Interpreting the Pacific Index

We need to be very clear as to how the Pacific Index is interpreted. It indicates rich country ***efforts*** in supporting development in the Pacific. Put differently, it indicates rich country commitment to development in the Pacific. It is for this reason that in the aid, trade and migration components, flows relative to rich country GDP are used in the index design. Larger economies have a greater capacity to provide aid and to absorb imports and migrants. Effort is an increasing function of the ratios of these flows to GDP. It is assumed that efforts with respect to the other variables on which the Pacific Index is based are largely independent of GDP.

The Pacific Index 2014

The aid, trade and migration components of the 2014 Pacific Index have been calculated using the most recent statistical information available in December 2013. This is the year 2012 for most indicators. The remaining components are taken from the 2013 CDI, which was released in early 2014.

Which countries are currently displaying the greatest commitment to development in the Pacific and which do the least? Figure 1 provides the answers to these questions. New Zealand heads the Pacific Index 2014 league table, and by a large margin. New Zealand's index score is approaching twice that of the country displaying the second largest commitment, Australia. Proximity to the Pacific Island countries does not go hand in hand with relatively high commitment to their development as Japan and South Korea are at the opposite end of the league table, being ranked third last and last, respectively.

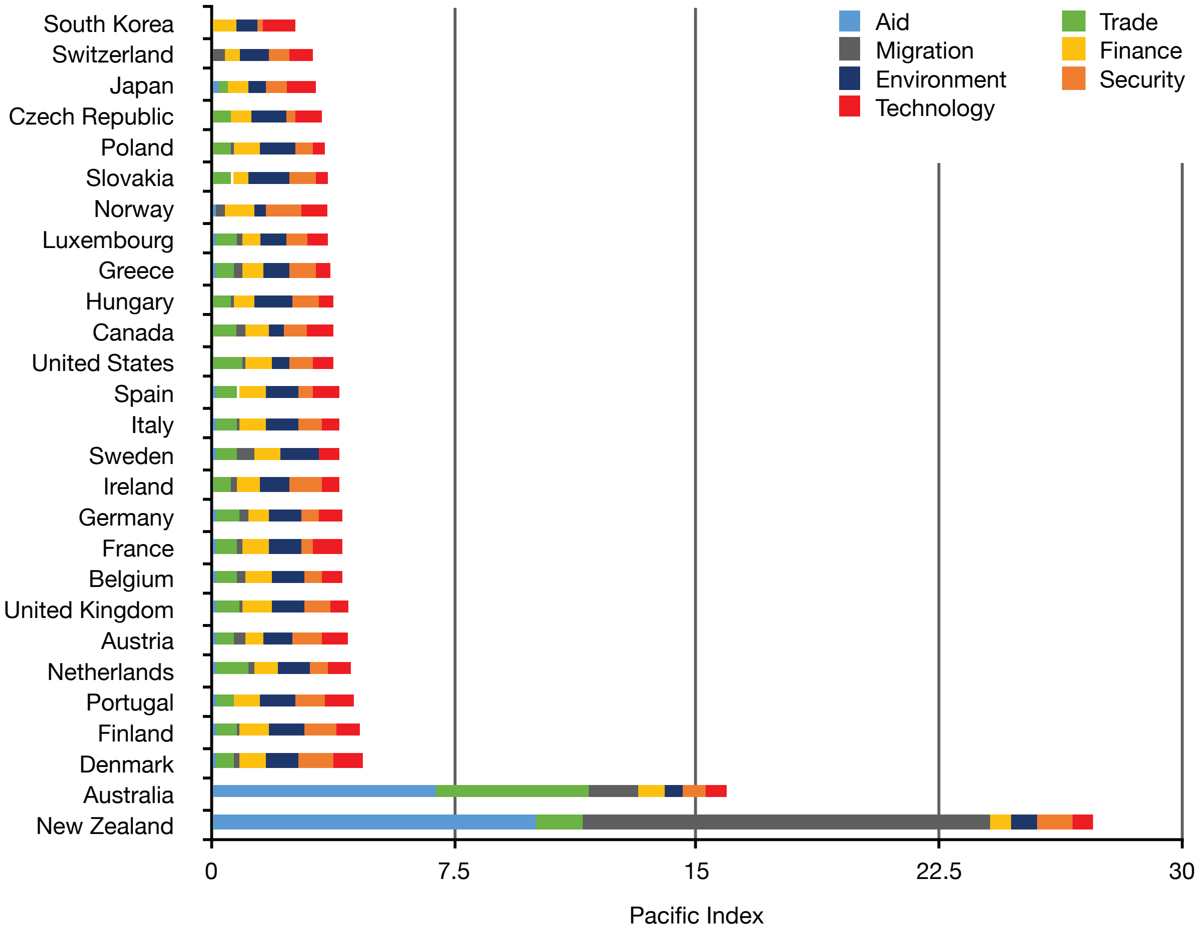
New Zealand's ranking at the head of the league table is primarily due to its performance in the in aid, migration and to the lesser extent, security components. It tops the rankings in the aid and migration components of the index, and is ranked second in the security component. It well and truly outperforms all other countries in migration – New Zealand's score for this component is 8.5 times that of Australia as the second ranked country. Australia tops the rankings in trade, and is ranked second to New Zealand in aid and migration.

South Korea's ranking, at the bottom of the league table, is primarily due to its very low commitment to Pacific development in aid, trade, migration and security. It is ranked last in the migration component and second last in the aid, trade and security components. It is, however, ranked first in the technology component. Japan's very low ranking reflects its low commitment to the environment and in aid and finance. It is ranked third last in the first of these components, and fourth last in the aid and finance components. Japan ranks third in the aid component, although a long way behind Australia and New Zealand.

Recall that scores for the finance, security, environment and technology components of the index are not based on direct support for the Pacific, but instead reward rich countries for support for global public goods from which all developing countries benefit. A number of the rich countries find themselves toward the top of the Pacific Index league table based on their scores in these components. Take, for example, Denmark and Finland – the Pacific Index ranks them third and fourth, respectively. Denmark's ranking is largely due to its performance in technology and security, in which it is ranked second in both. Finland's is largely due to its performance in finance and the environment, in which it is ranked first and fourth, respectively. This is not to say that these countries do poorly in all other areas, just that they do best global public good components.

What would the rich country league table look like if the Pacific Index was based on direct commitment to development, being based only on the aid, trade and migration components? Figure 2 answers this question. New Zealand again dominates, with Australia ranked number two. Japan, Norway, Switzerland and South Korea are at the bottom of the league table.

FIGURE 1: PACIFIC INDEX 2014



The Pacific Index clearly differentiates between the countries making the greatest effort to promote development among the Pacific Island countries and those make the least effort. In other words, it is very good at separating the very best from the very worst. But it does not as clearly differentiate countries that are positioned between these two extremes. This invokes what is known in research circles as the issue of rank robustness. [8] In any indicator like the Pacific Index, there are inevitably design uncertainty issues. Different but still seemingly plausible component weights can be chosen, the components can be combined in various ways, variables can be measured in different ways, there are concerns about measurement error and so on. In short, the science of measures like the Pacific Index is imprecise and one needs to exercise caution over rankings when small differences in index values differentiate countries.

8 See, for example, J. Foster, M. McGillivray and S. Seth "Composite Indices: Rank Robustness, Statistical Association and Redundancy", *Econometric Reviews*, Vol. 32, No. 1, pp. 35-56, 2012.

FIGURE TWO: PACIFIC INDEX 2014 (AID, TRADE AND MIGRATION COMPONENTS)

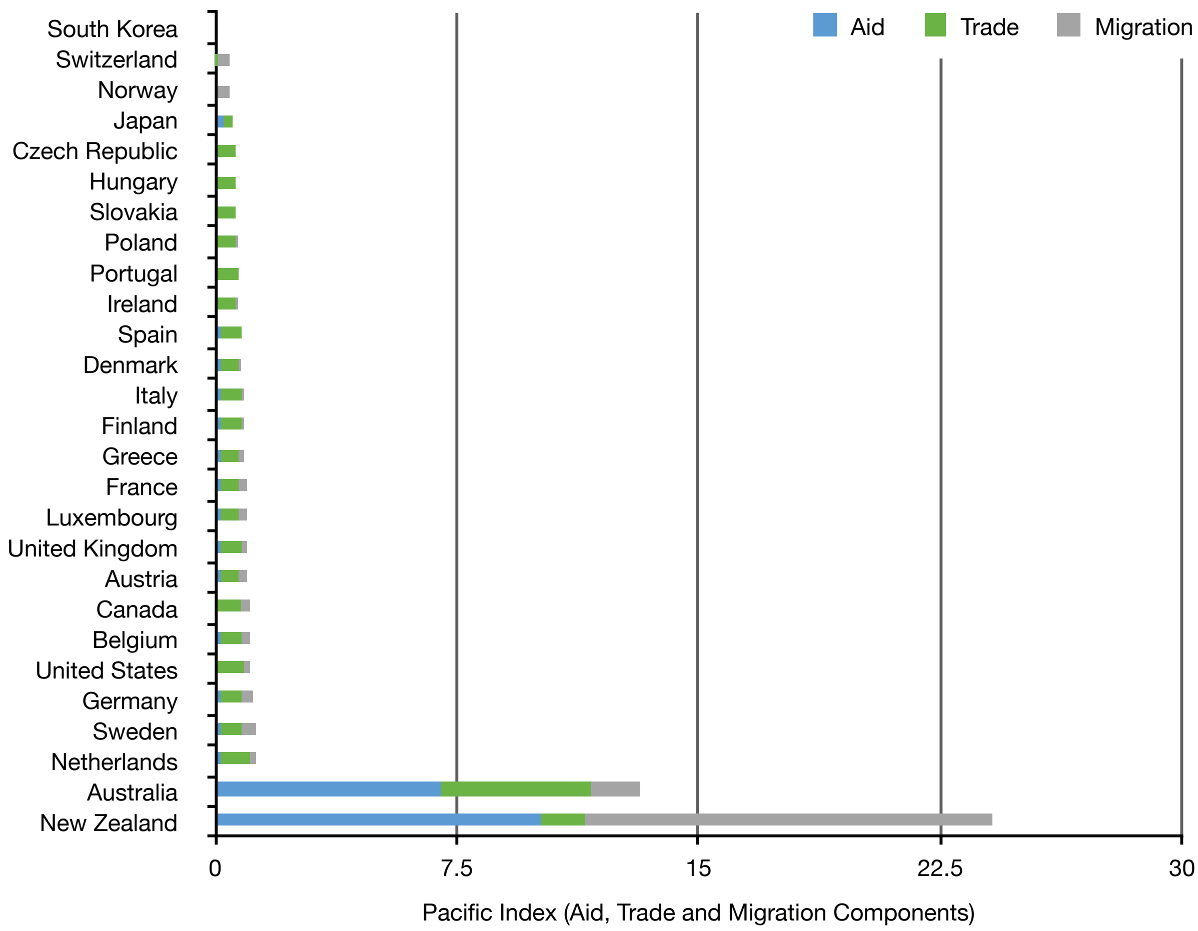


Table 1 addresses this issue. It does not assign a unique ranking to each of the 27 rich countries in question, but groups countries over which there is uncertainty over their precise rankings. New Zealand still ranks above Australia based on the quite large difference in their Pacific Index values. Selecting a different set of plausible weights, for instance, would not alter this pair wise ranking. But the same cannot be said for Denmark and Finland, hence they are given a shared ranking of four. The same applies to Portugal, the Netherlands, Austria and the United Kingdom, which are assigned a shared ranking of eight. This applies to the Pacific Index with all components. The same exercise is undertaken for the restricted index, as is shown in the last column of Table 1. Even allowing for design uncertainty, the Pacific Index clearly indicates which countries display the greatest commitment, and are putting in the greatest effort in helping the Pacific Island countries achieve higher growth and development than would otherwise be the case.

TABLE 1: RICH COUNTRY RANKINGS ALLOWING FOR UNCERTAINTY

Country	Pacific Index		Pacific Index (Aid, Trade and Migration Components)
New Zealand	1	New Zealand	1
Australia	2	Australia	2
Denmark	4	Netherlands	4
Finland	4	Sweden	4
Portugal	8	Germany	5
Netherlands	8	United States	9
Austria	8	Belgium	9
United Kingdom	8	Canada	9
Belgium	16	Austria	9
France	16	United Kingdom	10
Germany	16	Luxembourg	13
Ireland	16	France	13
Sweden	16	Greece	13
Italy	16	Finland	15
Spain	16	Italy	15
Canada	16	Denmark	17
Hungary	24	Spain	17
United States	24	Ireland	18
Greece	24	Portugal	19
Slovakia	24	Poland	23
Luxembourg	24	Slovakia	23
Norway	24	Hungary	23
Poland	24	Czech Republic	23
Czech Republic	24	Japan	24
Japan	26	Norway	25
Switzerland	26	Switzerland	26
South Korea	27	South Korea	27

Conclusion

The Pacific Island nations, like all developing countries, face many challenges to improve the living standards of their citizens, to pull people out of income poverty, to reduce infant and child deaths, to ensure that all children complete primary school and, more generally, enable people to exercise their reasoned agency. Yet based on the experience of recent decades, they face even greater challenges in doing this than most other developing countries.

Rich countries have a responsibility to assist Pacific Island countries to achieve higher growth and development. Good international citizenship demands this response.

The Pacific Index has been devised to show which rich countries are making the greatest effort to assist Pacific Island countries achieve higher levels of development, and which are making the least effort.

It shows that of the 27 rich countries in question, New Zealand is making the greatest effort, and by a long margin. The 26 other countries need to look at New Zealand's performance, in particular the areas of policy that have put New Zealand in this position. In essence, New Zealand and to a lesser extent Australia, provide benchmarks for other rich countries to aspire towards. And New Zealand can of course do better. Japan and South Korea, of all rich countries under consideration, need to do far better.

Where to from here for the Pacific Index? It will be used for advocacy in an attempt to get all rich countries to do more for the Pacific Island Countries. This should not be interpreted by rich countries as just providing more aid to the Pacific Island countries. This response has been too heavily relied on in the past, and as noted at the outset of this paper more aid alone clearly is not enough effectively tackle the development challenges faced in the Pacific. It is also about better aid, about providing greater market access for Pacific Island exports, about providing greater access to labour markets for migrants from the Pacific, about more and better finance, about greater security, about better efforts to promote environmental standards and about better efforts to transfer effective technology.

On the Pacific Index itself, it will be further refined, but will still be based on the same policy areas. And it will be released periodically, subject to necessary resources being available. So please stay tuned.

Full technical details of the index will soon be made available in a detailed background paper, to be released on the Sustineo website www.sustineo.com.au

Enquiries regarding the index can be sent to Pacific.Index@sustineo.com.au

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