



Report and Recommendation of the President to the Board of Directors

Project Number: 50110-001
November 2017

Proposed Loan Cook Islands: Improving Internet Connectivity for the South Pacific Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 19 October 2017)

| | | |
|---------------|---|---------------------------|
| Currency unit | – | New Zealand dollar (NZ\$) |
| NZ\$1.00 | = | \$0.69093 |
| \$1.00 | = | NZ\$1.447487 |

ABBREVIATIONS

| | | |
|------|---|---|
| ADB | – | Asian Development Bank |
| ARPU | – | annual revenue per user |
| CMA | – | construction and maintenance agreement |
| ESMP | – | environmental and social management plan |
| GDP | – | gross domestic product |
| MCS | – | Manatua cable system |
| O3B | – | Other Three Billion |
| OPT | – | Office des Postes et Télécommunication (mail and telecommunications office) |
| PAM | – | project administration manual |
| PMU | – | project management unit |
| PSG | – | Project Steering Group |
| SSCC | – | Samoa Submarine Cable Company |
| TCI | – | Telecom Cook Islands |

NOTES

- (i) The fiscal year (FY) of the Government of the Cook Islands and its agencies ends on 30 June. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2016 ends on 30 June 2016.
- (ii) In this report, “\$” refers to United States dollars, unless otherwise stated.

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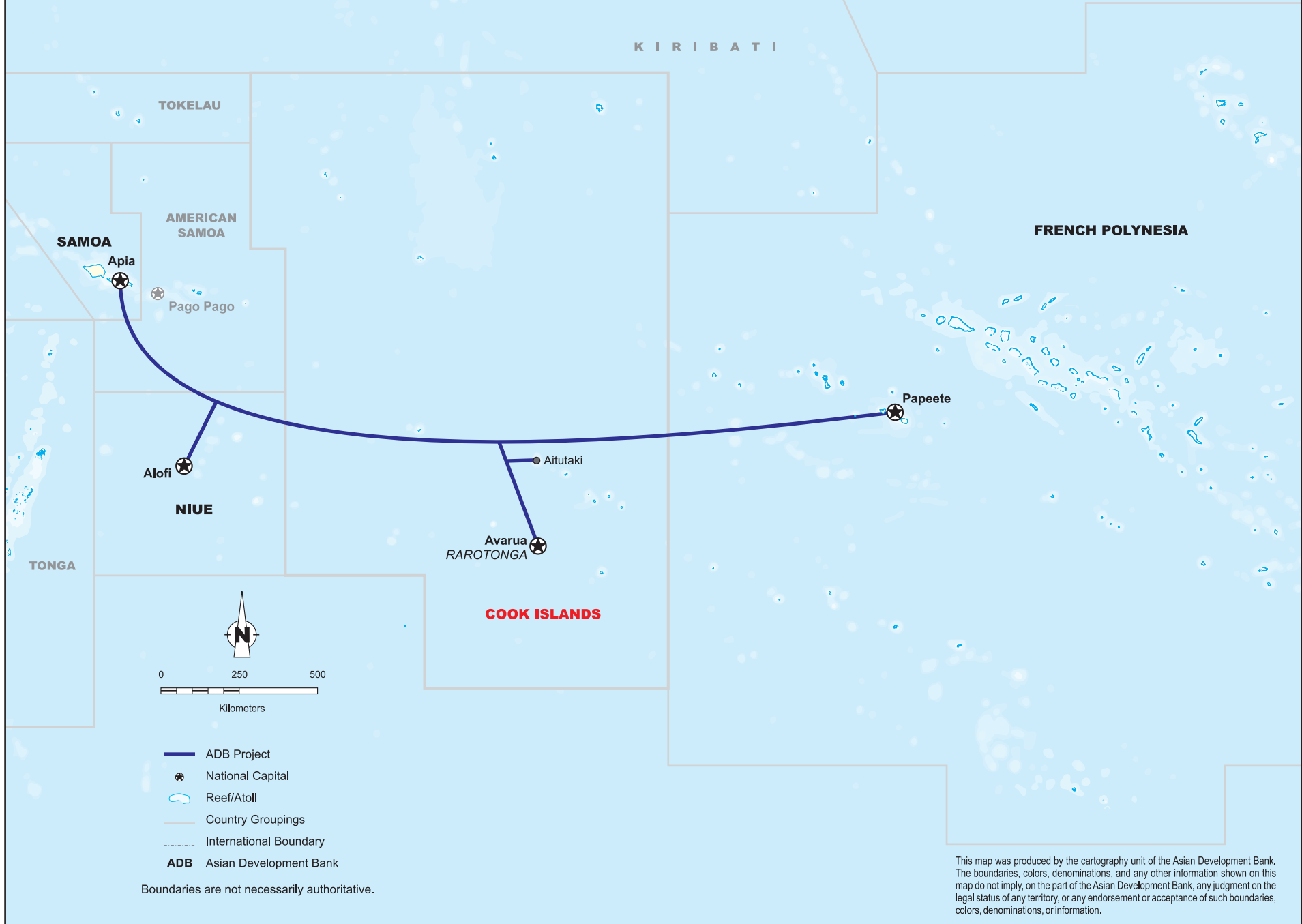
CONTENTS

| | Page |
|--|-------------|
| PROJECT AT A GLANCE | |
| MAP | |
| I. THE PROPOSAL | 1 |
| II. THE PROJECT | 1 |
| A. Rationale | 1 |
| B. Impact and Outcome | 3 |
| C. Output | 4 |
| D. Summary Cost Estimates and Financing Plan | 4 |
| E. Implementation Arrangements | 5 |
| III. DUE DILIGENCE | 6 |
| A. Technical | 6 |
| B. Economic and Financial | 6 |
| C. Governance | 7 |
| D. Poverty, Social, and Gender | 8 |
| E. Safeguards | 8 |
| F. Summary of Risk Assessment and Risk Management Plan | 9 |
| IV. ASSURANCES AND CONDITIONS | 10 |
| V. RECOMMENDATION | 10 |
| APPENDIXES | |
| 1. Design and Monitoring Framework | 11 |
| 2. List of Linked Documents | 13 |

PROJECT AT A GLANCE

| | | | |
|--|--|--|---|
| 1. Basic Data | | Project Number: 50110-001 | |
| Project Name | Improving Internet Connectivity for the South Pacific Project | Department /Division | PARD/PAUS |
| Country Borrower | Government of Cook Islands | Executing Agency | Ministry of Finance & Economic Management |
| 2. Sector | Subsector(s) | ADB Financing (\$ million) | |
| ✓ Information and communication technology | ICT infrastructure | | 15.00 |
| | | Total | 15.00 |
| 3. Strategic Agenda | Subcomponents | Climate Change Information | |
| Inclusive economic growth (IEG) | Pillar 1: Economic opportunities, including jobs, created and expanded | Climate Change impact on the Project | Medium |
| Regional integration (RCI) | Pillar 1: Cross-border infrastructure Pillar 2: Trade and investment | | |
| 4. Drivers of Change | Components | Gender Equity and Mainstreaming | |
| Governance and capacity development (GCD) | Client relations, network, and partnership development to partnership driver of change | No gender elements (NGE) | ✓ |
| Knowledge solutions (KNS) | Application and use of new knowledge solutions in key operational areas Pilot-testing innovation and learning | | |
| Partnerships (PAR) | Commercial cofinancing Private Sector Regional organizations | | |
| Private sector development (PSD) | Public sector goods and services essential for private sector development | | |
| 5. Poverty and SDG Targeting | | Location Impact | |
| Geographic Targeting | No | Nation-wide | High |
| Household Targeting | No | | |
| SDG Targeting | Yes | | |
| SDG Goals | SDG8, SDG9, SDG17 | | |
| 6. Risk Categorization: | Low | | |
| 7. Safeguard Categorization | Environment: B Involuntary Resettlement: C Indigenous Peoples: C | | |
| 8. Financing | | | |
| Modality and Sources | | Amount (\$ million) | |
| ADB | | 15.00 | |
| Sovereign Project (Regular Loan): Ordinary capital resources | | 15.00 | |
| Cofinancing | | 10.00 | |
| Government of New Zealand - Grant (Not ADB Administered) | | 10.00 | |
| Counterpart | | 2.47 | |
| Government | | 2.47 | |
| Total | | 27.47 | |

COOK ISLANDS IMPROVING INTERNET CONNECTIVITY FOR THE SOUTH PACIFIC PROJECT



Boundaries are not necessarily authoritative.

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I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the Cook Islands for the Improving Internet Connectivity for the South Pacific Project.

2. The Government of the Cook Islands has requested the Asian Development Bank (ADB) to support the Cook Islands' share in the Manatua cable system (MCS), a regional submarine internet cable system that will link Samoa and French Polynesia (non-ADB member), with additional spurs and branching units to link Rarotonga and Aitutaki in the Cook Islands, and Niue (non-ADB member). ADB financing will cover (i) the design and construction of the spurs and branching units for Rarotonga and Aitutaki, and (ii) the Cook Islands' share in the design and construction of the MCS. The Government of New Zealand, represented by the Ministry of Foreign Affairs and Trade, will provide grant cofinancing to the government for the project.

II. THE PROJECT

A. Rationale

3. **The economy.** The Cook Islands' economy is small and open, and has a narrow base, making it vulnerable to all kinds of shocks, including disasters triggered by natural hazards. The size and dispersion of the islands over a remote and wide area of ocean reduce opportunities to achieve economies of scale.¹ Though the population has one of the highest per capita incomes in the Pacific (\$15,055 in FY2016),² the free movement of people to New Zealand has led to a declining and aging population.

4. Despite these difficulties, the government has maintained macroeconomic stability. Prices have been relatively stable, goods and services trade has large and persistent surpluses, and the financial system is sound. The government has made significant investments in infrastructure. Even so, long-term average growth hovers at about 1% (footnote 2). This manifests itself in limited job creation and slow growth in government revenue, which can inhibit the provision of essential services and the desired level of social support.

5. Tourism accounts for more than 60% of gross domestic product (GDP). But its growth potential is constrained by shortages in accommodation facilities; issues with the current land leasing framework; inadequate water supply, sanitation, and electricity infrastructure; and high telecommunications costs. The tourism and public sectors are the biggest internet users.

6. **Connectivity and growth.** Improved access to more affordable telecommunications, especially high-speed broadband internet, may mitigate isolation and other constraints to economic development in the Cook Islands. Based on a World Bank report, every 10-percentage-point increase in broadband penetration in low- and middle-income countries accelerates economic growth by 1.38 percentage points.³ High-speed internet reduces transaction costs for

¹ The Cook Islands has Tonga to its west, Kiribati to its north, and French Polynesia to its east. It is surrounded by nearly 2 million square kilometers of ocean and has 15 islands with a total land area of 240 square kilometers. There are two main island groups: the north consists of seven atolls and the south consists of eight volcanic islands. The Cook Islands has a population of 19,000, most of whom live on the largest island, Rarotonga. Many of the smaller islands are sparsely populated.

² ADB. 2017. *Asian Development Outlook 2017: Transcending the Middle-Income Challenge*. Manila.

³ World Bank. 2009. *Information and Communications for Development 2009: Extending Reach and Increasing Impact*. Washington, DC.

businesses, governments, and households; opens new business opportunities; and improves public service delivery by harnessing information and communication technology.⁴

7. A submarine cable would provide higher capacity and quality broadband internet at much lower cost to the Cook Islands than is currently the case, making the internet more accessible and affordable to the broader population. This would help Cook Islanders communicate with their relatives residing abroad. Regional integration would also be supported by increasing the frequency and quality of communications among countries in the Pacific region, thus increasing trade in services (tourism and back-office functions) and allowing the region to form a sizable market for digital products and services. It would also strengthen existing regional public goods and encourage the development of new forms of regional cooperation by allowing countries to better share available knowledge and human resources in the Pacific.

8. **Industry structure and governance.** Telecom Cook Islands (TCI), trading as Bluesky Cook Islands (40% government owned and 60% owned by Bluesky Pacific Group),⁵ is the only telecommunications provider in the Cook Islands. TCI provides 100% geographic coverage for telecommunication in the country and 83% of Cook Islanders with access to mobile data services. TCI began using Other Three Billion (O3B) provided service in 2014 to reduce communication costs. Uptake was rapid and capacity is already constrained. Moreover, the service is prone to weather disruption. The retail price, while lower than that for traditional satellite-based connectivity, is still significantly higher than that for services provided via fiber-optic cables.⁶ The high cost of international bandwidth is the principal constraint to higher internet penetration, the introduction of new telecommunications services, and new retail market entrants.

9. The government is finalizing appropriate legislation to regulate telecommunications in parallel with development of the cable, so that necessary regulations and institutional structures are in place before the cable service becomes operational. The legislation will (i) liberalize the telecommunications market, allowing the entry of interested operators through licensing; and (ii) set up an independent regulatory body to manage licensing, tariff setting, service level, resource sharing, and customer complaints. The legislation has gone through wide consultation and is expected to be passed by Parliament in November 2017.

10. **Regional approach to internet connectivity.** The Cook Islands has recognized the need to improve internet connectivity. A 2012 assessment financed by ADB found the cost of building a cable connection to Samoa (the closest internet submarine cable connection point) was too costly to be financially viable for the Cook Islands alone.⁷ Shared cable construction of a submarine cable would have reduced the cost borne by the Cook Islands, but this option did not eventuate given different countries' (Samoa, French Polynesia) priorities.

11. Following critical facilitation and support from New Zealand's Ministry of Foreign Affairs and Trade, in April 2017, the government signed an agreement with the governments of French Polynesia, Niue, and Samoa to facilitate the design, construction, and operation and maintenance of the MCS. These governments will share the cost of the cable system, estimated at \$60 million,

⁴ ADB. 2017. *Technical Assistance for the Pacific Information and Communication Technology Investment Planning and Capacity Development Facility (Phase 2)*. Manila. This supports e-government feasibility in the Cook Islands.

⁵ Amalgamated Telecom Holdings, Fiji's main telecommunications holding company, is in the process of acquiring Bluesky Pacific Group, a telecommunications provider in the Pacific.

⁶ Prepaid Wi-Fi services are available at different data volume levels. A 1,250-megabyte prepaid package costs NZ\$50 and a monthly package for 100 gigabytes of data costs NZ\$699 per month. No unlimited data plan is available.

⁷ ADB. 2013. *Report on the Feasibility of an International Submarine Cable System for the Cook Islands*. Consultant's report. Manila (TA 7787-REG).

with ADB and the Government of New Zealand cofinancing for the Cook Islands, the Agence Française de Développement and European Investment Bank cofinancing for French Polynesia, and the Government of New Zealand financing for Niue. Resources of the Samoa Submarine Cable Company (SSCC) will finance Samoa's costs. The Cook Islands' share of the cost is \$20 million. Avaroa Cables, a newly established limited liability company to own and operate the Cook Islands cable system,⁸ has joined the Project Steering Group (PSG)⁹ consortium to implement and operate the MCS. Consortium members will enter into a construction and maintenance agreement (CMA)¹⁰ for the MCS, which will include the financing commitments of the consortium members.¹¹

12. The PSG's technical advisor recommended a submarine cable solution connecting Tahiti in French Polynesia to Samoa. The Cook Islands and Niue will connect to it through their own spurs and branching units. The cable system will provide an additional internet redundancy option for Samoa and French Polynesia. Samoa is currently connected to the system via the American Samoa Hawaii Cable to American Samoa and onward to Hawaii, and the Tui-Samoa Cable to Fiji that is under construction. French Polynesia is currently connected via the Honotua cable owned by the Office des Postes et Télécommunication (OPT). The MCS solution offers the Cook Islands an opportunity to share the cable system's implementation and operating cost. The Cook Islands will have access to the technical and operational expertise of OPT and SSCC to run a cable system.

13. The project is included in ADB's country operations business plan, 2017–2019 for the Cook Islands.¹² It is also consistent with the Cook Islands' National Sustainable Development Plan, 2016–2020, which identified improving broadband connectivity and making broadband internet affordable as key activities under goal 5 (build resilient infrastructure and information and communication technology to improve the standard of living).¹³

14. The proposed project is the fourth ADB funded submarine cable system in the Pacific. Lesson from the previous projects have been considered in designing the technical configurations, institutional arrangements, and developing the operational plan for the cable system. Telecommunications reform undertaken will facilitate the project outcome.

B. Impact and Outcome

15. The project is aligned with the following impact: telecommunications in the Cook Islands improved (footnote 13). The project will have the following outcome: internet service cost reduced and quality improved.¹⁴

⁸ Avaroa Cables' ownership comprises equal shareholding by the Government of the Cook Islands and the Cook Islands Investment Corporation. This ownership arrangement allows for up to 20% of the company to be held by the private sector. The government is seeking to attract private shareholders.

⁹ Other consortium members are the Office des Postes et Télécommunication (OPT) in French Polynesia, SSCC in Samoa, and Telecom Niue in Niue. ADB has completed integrity due diligence on the consortium members and identified no significant integrity risk.

¹⁰ The CMA details the organizational structure, cost-sharing mechanism, roles, and responsibilities of the consortium members for the MCS. The CMA is critical for the cable system and will be signed before consortium members enter into a works contract with the contractor.

¹¹ The Cook Islands will have 40% capacity share.

¹² ADB. 2016. *Country Operations Business Plan: Cook Islands, 2017–2019*. Manila.

¹³ Government of the Cook Islands, Prime Minister's Office, Central Policy and Planning Office. 2016. *Te Kaveinga Nui: National Sustainable Development Plan, 2016–2020*. Rarotonga.

¹⁴ The design and monitoring framework is in Appendix 1.

C. Output

16. The project output will be the construction and commissioning of the Cook Islands' portion of the MCS connecting Samoa and French Polynesia, which includes additional spurs and branching units to connect Aitutaki and Rarotonga in the Cook Islands.¹⁵ It will be achieved through the (i) construction of the MCS (partially financed under the project) and (ii) landing stations in Rarotonga and Aitutaki, efficient and effective operation of Avaroa Cables by the government, and timely negotiation and signing of the CMA among PSG consortium members. The project will be supported by a project management unit (PMU) initially resourced by a team of project implementation consultants.

D. Summary Cost Estimates and Financing Plan

17. The project is estimated to cost \$27.47 million (Table 1).

18. Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).¹⁶ The Project will fund a dedicated PMU to support Avaroa Cables during project implementation. Financing charges during implementation will be capitalized and are included in the project cost estimates.

Table 1: Summary Cost Estimates
(\$ million)

| Item | Amount ^a |
|---|---------------------|
| A. Base Cost^b | |
| 1. Manatua cable supply and installation | 20.00 |
| 2. Cable landing station construction and fit out | 2.00 |
| 3. Project management | 1.00 |
| Subtotal (A) | 23.00 |
| B. Contingencies^c | 1.83 |
| C. Avaroa Cables Costs | 0.47 |
| D. Import Taxes and Duties | 2.00 |
| E. Financial Charges During Implementation^d | 0.17 |
| Total (A+B+C+D+E) | 27.47 |

^a Includes taxes and duties of \$2 million. Such amount does not represent an excessive share of the project cost. The government will exempt taxes and duties.

^b In mid-2017 prices as of 31 October 2017

^c Physical and price contingencies are considered together because of the large turnkey contract, and are computed at 8% for civil works and cable implementation.

^d Includes interest and commitment charges. Interest during construction for the ordinary capital resources loan has been computed at the 5-year United States dollar fixed swap rate plus an effective contractual spread of 0.5% and maturity premium of 0.1%.

Source: Asian Development Bank.

19. The government has requested a regular loan of \$15 million from ADB's ordinary capital resources to help finance the project. The government will contribute \$2 million equivalent in the form of tax and duty exemptions and will meet the cost of operating Avaroa Cables during project implementation that cannot be met by revenues. The Government of New Zealand will provide collaborative joint financing with a NZ\$15 million grant for the project.

¹⁵ The spurs and branching units for Rarotonga and Aitutaki are integral parts of the MCS. Therefore, the entire MCS is referred to under the project output.

¹⁶ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

20. The loan will have a 25-year term, including a grace period of 5 years; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; a commitment charge of 0.15% per year; and such other terms and conditions set forth in the draft loan and project agreements.¹⁷ Based on the government's choice of repayment terms and the straight-line repayment method, the average loan maturity is 15.25 years and the maturity premium payable to ADB is 0.1% per year. The interest and the commitment charges for the loan during project implementation will be capitalized.

21. The summary financing plan is in Table 2. ADB will finance the expenditures in relation to Manatua Cable supply and installation, construction of the landing stations, and cost of setting up the Project Management Unit (PMU).

Table 2: Summary Financing Plan

| Source | Amount (\$ million) | Share of Total (%) |
|---|--------------------------------|-------------------------------|
| Asian Development Bank | | |
| Ordinary capital resources (regular loan) | 15.00 | 54.6 |
| New Zealand's Ministry of Foreign Affairs and Trade (grant) | 10.00 ^a | 36.4 |
| Government ^b | 2.47 | 9.0 |
| Total | 27.47 | 100.0 |

^a Estimated NZ\$15 million equivalent in United States dollars.

^b The Government of the Cook Islands will contribute in the form of tax and duty exemptions and the cost of operating Avaroa Cables during project construction and until revenues can sustain this cost.

Source: Asian Development Bank.

E. Implementation Arrangements

22. The Ministry of Finance and Economic Management will be the executing agency and will facilitate the smooth flow of funds and overall project management. The government has set up Avaroa Cables to be the project's implementing agency and will relend the loan proceeds to Avaroa Cables under the same terms and conditions as the ADB loan.¹⁸ Avaroa Cables will enter into a project agreement with ADB.

23. The implementation arrangements are summarized in Table 3 and described in detail in the PAM (footnote 16).

Table 3: Implementation Arrangements

| Aspects | Arrangements |
|---------------------------------|--|
| Implementation period | January 2018–March 2020 |
| Estimated completion date | 31 March 2020 |
| Estimated loan closing date | 30 September 2020 |
| Management | |
| (i) Oversight body | Project Steering Group Samoa Submarine Cable Company (chair) Avaroa Cables, Telecom Niue, Office des Postes et Télécommunication (members) |
| (ii) Executing agency | Ministry of Finance and Economic Management |
| (iii) Key implementing agencies | Avaroa Cables |

¹⁷ Loan Agreement and Project Agreement (accessible from the list of linked documents in Appendix 2).

¹⁸ This will be formalized in a subsidiary loan agreement between the Ministry of Finance and Economic Management and Avaroa Cables with terms and conditions satisfactory to ADB.

| Aspects | Arrangements | | |
|--------------------------|---|------------------|----------------|
| (iv) Implementation unit | Project management unit; Rarotonga, Cook Islands; 3 staff (project manager, technical engineer, and accountant) | | |
| Procurement | International competitive bidding | 2 contracts | \$22.0 million |
| Consulting services | International firm, QCBS | 75 person-months | \$1.0 million |
| Disbursement | The loan proceeds will be disbursed following ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB. | | |

ADB = Asian Development Bank, QCBS = quality-and-cost-based selection.

Source: Asian Development Bank.

24. Pursuant to the CMA, the PSG will implement the MCS, including procurement and contract administration. Avaroa Cables will be responsible for building the landing station facilities in Rarotonga and Aitutaki. Avaroa Cables will set up a PMU to coordinate with other PSG consortium members, vendors, and financiers. The PMU will also help the government and Avaroa Cables meet all technical and safeguard-related project covenants. ADB will sign a memorandum of understanding with other financiers to reflect the cofinancing amount.

III. DUE DILIGENCE

A. Technical

25. Avaroa Cables joined the PSG to connect Rarotonga and Aitutaki in the Cook Islands to the internet network through the MCS. The regional approach will help Avaroa Cables share significant capital and operational costs with other PSG consortium members. Moreover, Avaroa Cables will have the opportunity to get support from experienced consortium members in managing cable operations. The configuration will also provide the flexibility for the Cook Islands to connect via Samoa or French Polynesia.

26. Given its well-established and proven technology, a submarine cable is the preferred, most cost-effective, and most sustainable method for internet connectivity. The indicative locations for cable landing stations are identified and will be finalized after the marine survey operation during implementation. In both Rarotonga and Aitutaki, the landing station will be connected to the existing copper and fiber-optic ring system. Local telecommunications providers will be responsible for bringing internet services to the public, offices, and institutions using their own infrastructure. The technical design considers the possible impacts due to climate change and adopts measure to mitigate it, including through the location of land-based facilities.

27. Avaroa Cables will act as the wholesale internet bandwidth provider and will sell to local telecommunications operators in an equitable and nondiscriminatory manner, following the Cook Islands telecommunications regulatory policy (under development). The independent telecommunications regulatory body will be responsible for maintaining internet price and quality.

B. Economic and Financial

28. **Financial.** In assessing the project's financial viability, ADB conservatively forecasted demand below the region's average adoption rates, at about 45% average growth during the first 5 years after the cable comes into service, and then a steady decline to 2% over the next 15 years, which is sustained thereafter for five years. The average annual growth rate over 25-years is estimated at 24%. Avaroa Cables will generate revenues from the wholesaling of broadband internet capacity. ADB evaluated the project's financial viability by estimating the cash flows from

operations and calculating the financial internal rate of return. The project cost was estimated based on mid-2017 United States dollar prices. Financing charges were excluded for the financial evaluation.

29. The financial internal rate of return was estimated at 11.20% against the weighted average cost of capital of 6.62%. Cash flows are most sensitive to revenue shocks. To support its financial viability, Avaroa Cables must encourage demand growth through fair and open access and attractive, transparent pricing for all retail service providers. Financial viability is also sensitive to a substantial capital cost overrun, but this risk is considered low as cost estimates are benchmarked on similar cable development projects in the Pacific.

30. **Economic.** The analysis used constant 2017 prices and a world price numeraire. ADB adjusted benefits, onshore operating costs, and 60% of costs incurred by domestic retail service providers to economic values using a standard conversion factor of 0.87 and a shadow wage rate factor of 0.95. No conversion factors were applied to tradable capital costs. Price reductions at –60% and a service quality premium at +20% were considered for existing medium earth orbit satellite system internet users. For new customers, willingness to pay corresponds to the entire area under their demand curve.

31. Benefits are proportional to internet users' willingness to pay, which is calculated as the sum of two components: (i) the annual consumer surplus, estimated at about 0.8% of GDP and determined through (a) World Bank estimates of comparable demand curves for mobile telephony in the People's Republic of China, India, and the Philippines; and (b) estimated consumer surplus ratios in those countries; and (ii) the annual revenue per user (ARPU) for retail internet services, which is the product of the mature market ARPU and the projected number of subscribers. The mature market ARPU was estimated at 7% of GDP per capita (\$84 per subscriber per month in 2016) based on a composite normalized demand curve for the same three countries, which flattens out at 7% beyond a 15% penetration rate. Benefits are considered to grow in line with real GDP growth (assumed at 2.1% per year) and capped at 3.5% of GDP.

32. The project's economic internal rate of return under the base case scenario is estimated at 13.6%, above the minimum required economic internal rate of return for ADB investment projects of 9.0%. Sensitivity analysis confirms that economic viability is maintained even with a 20% reduction in projected benefits, a 10% increase in capital expenditure, or a 10% increase in operating expenditures.

C. Governance

33. **Financial management.** The government's public financial management performance has improved in terms of budget credibility, mainly because of better budget execution, monitoring, and reporting.¹⁹ Its national accounting standards are generally consistent with International Public Sector Accounting Standards. The auditing practice is based on international standards, but limited resources constrain timely reporting. The financial management risk is *high* mainly because Avaroa Cables is newly established. During implementation, the PMU will support Avaroa Cables with an experienced finance and accounting specialist to manage its financial accounting and reporting within the first 6 months of the project effectiveness date. ADB has proposed a comprehensive time-bound action plan in the PAM to mitigate the risk.

¹⁹ PEFA. Cook Islands 2015. <https://pefa.org/assessment/ck-aug15-pfmpr-public-en>.

34. **Procurement capacity.** The government has made significant improvements in public procurement since 2012 in terms of legislation, regulation, and documentation.²⁰ Still, lack of integration of functions and limited resources and expertise remain a challenge. The PSG has recruited a consulting firm, funded by its members, to prepare the bidding documents and conduct the bidding process for the MCS. The PSG will work with ADB to ensure compliance with ADB's Procurement Guidelines (2015, as amended time to time). As agreed between PSG consortium members and ADB, ADB will review the bid evaluation report and provide a 'no objection' before PSG consortium members sign a contract with the contractor. For the landing station construction and PMU recruitment, Avaroa Cables will work closely with ADB and will follow ADB's Procurement Guidelines and Guidelines on the Use of Consultants (2013, as amended from time to time). Universal procurement will apply as the ADB loan and New Zealand grant will jointly finance the procurement and the consulting services packages.²¹

35. Avaroa Cables has two directors and a secretary in place who will engage staff, including a chief executive officer, a technical engineer, and an accountant, to run the company's business before the cable becomes operational. The PMU will provide training to the new recruits on the business process and accounting standards. There will be sufficient overlap between Avaroa Cables staff and PMU consultants to maintain uninterrupted business operation.

36. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the Ministry of Finance and Economic Management. The specific policy requirements and supplementary measures are described in the PAM (footnote 16).

D. Poverty, Social, and Gender

37. The project is expected to lower internet costs and make them more affordable to wider segments of the population. It is expected to promote a conducive environment for businesses and private investment, which would create employment and income opportunities.

E. Safeguards

38. In compliance with ADB's Safeguard Policy Statement (2009), the project's safeguard categories are as follows.²²

39. **Environment (category B).** ADB has prepared an initial environmental examination, including an environmental and social management plan (ESMP). The project will affect a corridor that is 3–4 meters wide, including the footprint of the submarine trenching machine on the seafloor in the inner reef zone, and to a depth of 0.75–1.00 meters beneath the sediment. The one-off disturbance associated with cable placement is restricted mainly to a strip of seabed less than 2 meters wide. The cable, 4–7 centimeters in diameter in the nearshore zone, will be buried as it passes the natural channel through the barrier reef into the Rarotonga and Aitutaki nearshore zone. The key environmental interactions are in the nearshore areas where the cable requires burial to avoid potential entanglement with fishing activities and other human activities. Disturbances and impacts caused by cable laying and maintenance should be viewed in the context of the frequency and extent of these activities. The cable route will avoid sensitive habitats such as corals and designated areas. Experienced divers will place the cables following instructions from the Ministry of Marine Resources. These measures will limit any chance that the

²⁰ ADB. 2017. *Country and Sector/Agency Procurement Risk Assessment – Final report*. Manila

²¹ ADB. 2015. *Enhancing Operational Efficiency of the Asian Development Bank*. Manila

²² ADB. Safeguard Categories. <https://www.adb.org/site/safeguards/safeguard-categories>

work will negatively affect the marine environment. Unless a cable fault develops, the seabed will not be disturbed again within the system's design life of about 25 years.

40. Avaroa Cables will update the ESMP based on detailed information from the surveys to be conducted during the project's pre-construction stage. Any existing information gaps in the baseline will be filled at this stage. The PMU will oversee the implementation of all actions defined in the ESMP during the construction stage.

41. **Involuntary resettlement (category C) and indigenous peoples (category C).** Due diligence confirmed that land access for landing sites and cable stations for Rarotonga and Aitutaki will use either vacant Crown land or government-leased land, while the cable route will be buried along the easement of a public road. Avaroa Cables will obtain a permit to gain access to the Crown land or government-leased land. The government will negotiate an easement agreement with the landowners as required by law, and failure to negotiate will not result in compulsory acquisition. The easement process will be validated by a third party acceptable to ADB. The government has consulted key stakeholders, including communities, and has disclosed the findings of the due diligence. An easement agreement will no longer be required if the existing land law is revised before the civil works contract for the landing stations is signed.

F. Summary of Risk Assessment and Risk Management Plan

42. Significant risks and mitigation measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.²³

Table 4: Summary of Risks and Mitigation Measures

| Risks | Mitigation Measures |
|--|---|
| Lack of consortium financing delays implementation of the cable system | AFD, EIB, and the Government of New Zealand are the other cofinanciers for the Manatua cable system. The Government of New Zealand has approved its funds, and AFD and EIB are in the advanced stages of approving funds for the project. The construction and management agreement expected to be signed in Q4 2017 will finalize the financing amount. All cofinanciers will enter into a memorandum of understanding on the financing arrangement. |
| Land for the cable path and landing station is not made available in a timely manner | In any cable project, there is a low land requirement. However, in the Cook Islands, even land used for public services is privately owned and requires permission from the landowners for any further development. The government is preparing a bill to facilitate the use of nongovernment-owned land for public services, which is expected to be adopted and become effective in Q4 2017. There has been widespread public consultation on this proposal and there is broad acceptance of the need for this as per the government. |
| Implementation of telecommunications sector reforms is delayed | ADB has provided technical assistance to help the government finalize new legislation for the telecommunications sector, and wide consultations were undertaken in its development to engender broad-based support. ²⁴ This is expected to be tabled in Parliament in Q4 2017. The project team will closely monitor progress and will provide necessary support. |

²³ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

²⁴ ADB. 2013. *Technical Assistance to Pacific Information and Communication Technology Investment Planning and Capacity Development Facility*. Manila

| Risks | Mitigation Measures |
|---|--|
| An inefficient and ineffective corporate governance process within Avaroa Cables prevents a reduction in the wholesale internet price | Avaroa Cables is a newly established state-owned enterprise, and is still being set up. The project will include an experienced group of consultants to help Avaroa Cables establish its organizational structure and internal processes, including financial management. If necessary, ADB will support Avaroa Cables with technical assistance to help it become more efficient. |

ADB = Asian Development Bank, AFD = Agence Française de Développement, EIB = European Investment Bank, Q = quarter.

Source: Asian Development Bank.

IV. ASSURANCES AND CONDITIONS

43. The government and Avaroa Cables have assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents.

44. The government and Avaroa Cables have agreed with ADB on certain covenants for the project, which are set forth in the draft loan agreement and project agreement.

45. The government and Avaroa Cables have also agreed with ADB on the following conditions for effectiveness: (i) the government has signed a subsidiary loan agreement with Avaroa Cables for the relending arrangements; (ii) Avaroa Cables has signed the CMA with other PSG consortium members (Telecom Niue, OPT, and SSCC); (iii) the PSG consortium members have obtained approval for the financing of their respective share of the CMA, including cofinancing from development partners (if applicable); and (iv) the government has signed a grant agreement with the Government of New Zealand for the cofinancing for the project. No withdrawals will be made from the loan account for the cable landing station until Avaroa Cables has signed (i) the land lease agreement for the landing sites and (ii) the easement agreement, subject to third party validation acceptable to ADB, for the cable route unless legislation has been passed to allow the use of land without further landowners' consent.

V. RECOMMENDATION

46. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$15,000,000 to the Cook Islands for the Improving Internet Connectivity for the South Pacific Project, from ADB's ordinary capital resources, in regular terms, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements presented to the Board.

Takehiko Nakao
President

23 November 2017

DESIGN AND MONITORING FRAMEWORK

| Impact the Project is Aligned with Telecommunications in the Cook Islands improved ^a | | | |
|---|--|---|--|
| Results Chain | Performance Indicators with Targets and Baselines | Data Sources and Reporting Mechanisms | Risks |
| Outcome Internet service cost reduced and quality improved | By 2020: a. Retail price of internet service for 1 Gigabyte's data decreased by at least 20% (2017 baseline: NZ\$50) b. Bandwidth availability increased by at least 20% (2017 baseline: 500 Megabits/second) c. Availability of service increased to 99% in accordance with the industry standard | a. Internet service price list published by ISPs and telecommunications operators b. Ping time at consumer level as measured by tools such as web-based speed tests (e.g., www.speedtest.net) c. Reports published by ISPs and telecommunications operators | Lack of guidelines, policy, and capacity to manage the assets of the Avaroa Cables An inefficient and ineffective corporate governance process within Avaroa Cables prevents a reduction in the wholesale internet price |
| Output The Cook Islands' portion of the Manatua cable system connecting Samoa and French Polynesia, which includes additional spurs and branching units to connect Aitutaki and Rarotonga in the Cook Islands, constructed and commissioned | By 2019: a. Regional submarine cable system constructed between Samoa and French Polynesia, with spurs to Rarotonga and Aitutaki (2017 baseline: not applicable) b. Landing stations with inland cable system constructed in Rarotonga and Aitutaki (2017 baseline: not applicable) c. Submarine cable operationalized (2017 baseline: not applicable) | a. Progress reporting from Avaroa Cables b. Operational reporting logs c. Performance testing report | Lack of consortium financing delays implementation of the cable system Implementation of telecommunications sector reforms is delayed Land for the cable path and landing station is not made available in a timely manner |
| Key Activities with Milestones 1. The Cook Islands' portion of the Manatua cable system connecting Samoa and French Polynesia, which includes additional spurs and branching units to connect Aitutaki and Rarotonga in the Cook Islands, constructed and commissioned 1.1 Award contracts by Q2 2018 1.2 Carry out marine survey and complete marine operations for laying cables by Q2 2018 1.3 Install terminal equipment by the end of Q1 2019 1.4 Equip cable landing systems with the necessary cross-connect facilities for customers by Q1 2019 1.5 Train cable company staff on landing facility operation and maintenance, and update skills and knowledge periodically by Q1 2019 1.6 Put in place an appropriate cable repair and maintenance agreement for spurs before completing cable laying by Q1 2019 1.7 Achieve commissioning and provisional acceptance and be ready for service by Q2 2019 1.8 Secure final acceptance for the cable system by Q3 2019 | | | |
| Project Management Activities Continue regular monitoring and supervision until Q4 2019 | | | |

| |
|--|
| Follow up safeguard issues and risk management plan in a timely manner until Q3 2019 Manage contracts during Q2 2018–Q3 2019 Provide timely progress reports until Q3 2019 Carry out regular accounting and annual audits until Q3 2019 |
| Inputs ADB: \$15,000,000 (loan) |
| Assumptions for Partner Financing Outputs not administered by ADB that are necessary to reach the outcome: Government of New Zealand: NZ\$15,000,000 (grant) |

ADB = Asian Development Bank, ISP = internet service provider, Q = quarter.
^a Government of the Cook Islands, Prime Minister's Office, Central Policy and Planning Office. 2016. *Te Kaveinga Nui: National Sustainable Development Plan, 2016–2020*. Rarotonga.
Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=50110-001-3>

1. Loan Agreement
2. Project Agreement
3. Sector Assessment (Summary): Information and Communications Technology
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Economic and Financial Analysis
8. Country Economic Indicators
9. Summary Poverty Reduction and Social Strategy
10. Risk Assessment and Risk Management Plan
11. Initial Environmental Examination

Supplementary Document

12. Due Diligence Report on Involuntary Resettlement