



# SOLOMON ISLANDS

## SELECTED ISSUES

January 2022

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# SOLOMON ISLANDS

## SELECTED ISSUES

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## CONTENTS

<b>SPENDING NEEDS FOR ACHIEVING SDGS WITH CLIMATE RESILIENCE</b>	<b>2</b>
A. Background	2
B. Institutional Framework: National Strategies on SDGs and Climate Change	5
C. The Cost of Achieving SDGs and Climate Goals	7
D. Policy Discussions	11
E. Conclusions	16
<b>FIGURES</b>	
1. Climate Readiness and Vulnerability Index, 2019	3
2. Benchmarking SDG Performance	4
3. Efficiency of Primary and Secondary Education Spending	5
4. Annual Additional Spending Needs (in percent of 2030 GDP)	8
5. DIGNAD Simulations on Climate-Proofing Investment and PFM Reform	12
6. Financing for Development Spending	13
7. Calibration of Operational Target and Public Debt: Baseline vs. Alternative Scenarios	15
<b>TABLES</b>	
1. Budget Allocation to SDG-Related Expenditure	4
2. Annual Additional Spending Needs in Education and Health	9
<b>APPENDIX</b>	
I. Currently Identified Priority Investment List with Climate-Proofing Component	17
References	18

# SPENDING NEEDS FOR ACHIEVING SDGs WITH CLIMATE RESILIENCE<sup>1</sup>

*This note quantifies additional spending needs for Solomon Islands to achieve key Sustainable Development Goals (SDGs) targets by 2030. The estimate indicates annual additional spending needs of about 6.9 percent of 2030 GDP. Higher investment in energy infrastructure, including on renewable energy, is a key priority to strengthening climate change adaptation and paving the way towards a low-carbon transition. Creating fiscal space for projects with climate-proofing components through budget reallocation, while improving spending efficiency, would raise economic returns by building climate resilience. An integrated financing strategy with a mix of additional concessional financing and front-loaded fiscal measures, including domestic revenue mobilization, is needed and should be properly sequenced to achieve SDGs by 2030. The SDGs and climate commitment should be integrated into the existing PFM reform agenda to achieve climate-sensitive development goals.*

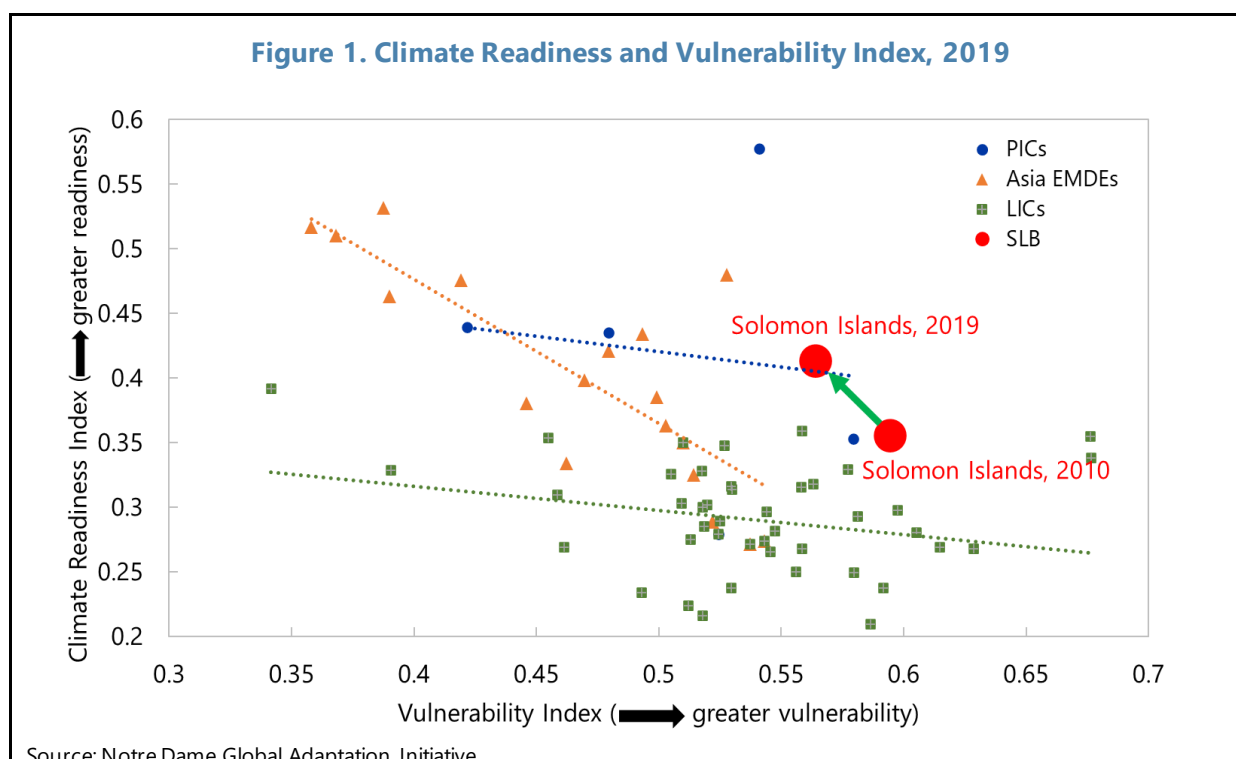
## A. Background

**1. Solomon Islands continues to face challenges stemming from vulnerability to natural disasters and climate change.** The country generally experiences two cyclones per year, with southern and eastern provinces especially vulnerable. It is geographically spread out (consisting of six major and over 900 smaller islands) and around 80 percent of the national population live in low-lying coastal areas. The densely populated areas with main transport network access in coastal areas are highly exposed to climate risks.

**2. The high climate sensitivity to sea-level rise, anomalous weather conditions, and unpredictable events such as floods and storms pose significant fiscal risks.** Based on Notre Dame Global Adaptation Initiative (ND-GAIN) index, Solomon Islands remains one of the most vulnerable countries to extreme climate events among low-income countries (LICs). This creates challenges for the development of education, health, and basic physical infrastructure. At the same time, the climate readiness score has gradually improved over the past decade, reflecting progress in catching up with other emerging market and developing economies (EMDEs) in Asia (Figure 1).

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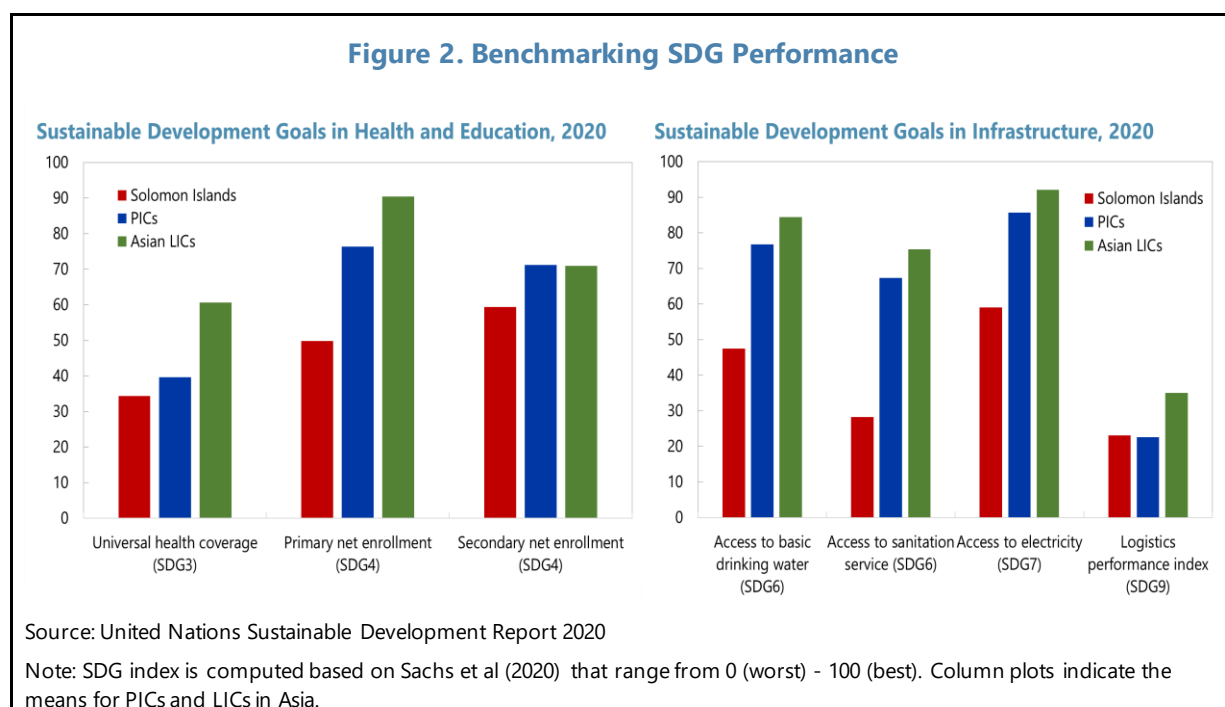
<sup>1</sup> Prepared by Manabu Nose (FAD). The author appreciates active discussion and feedback from Solomon Islands authorities (including Ministry of Development Planning and Aid Coordination; Ministry of Environment, Climate Change, and Disaster Management; Ministry of Education and Human Resource Development; Ministry of Infrastructure Development; Ministry of Mining and Energy; and Solomon Islands Energy Authority) during the 2021 Article IV Consultation. Insightful discussion with sector experts from Asian Development Bank, UNDP, UNICEF, and World Bank; and inputs from Aleksandra Zdzienicka (OMD), Tewodaj Mogues (FAD) and Mercedes Garcia-Escribano (ICD) are greatly acknowledged.



**3. Climate adaptation and the progress towards achieving SDG targets are among the top policy concerns and are well-integrated into the National Development Strategy (NDS).** The authorities have made progress in the energy sector by transitioning from fossil fuel-based to renewable energy. Unlocking the potential of a young and growing population also requires substantial improvements in human and physical capital. Despite the government's policy commitments, the gap in key SDG indicators remains large (Figure 2). The human development indicators and access to basic infrastructure significantly lag peers in the Pacific Island countries (PICs) and LICs in Asia. While developing Asia faces common challenges in meeting SDGs (IMF, 2018a), a low base in the welfare index suggests that broad-based improvements in health, education, and infrastructure to the peer's level would yield large welfare gains for Solomon Islands.

**4. The SDG performance gap indicates large financing needs for investing in education, health, and infrastructure over the medium term, adding a challenge on fiscal sustainability.** While additional investments in those areas are needed for long-term development, effective and efficient investment is critical given that fiscal deficits are projected to further widen and lead to rising debt. Based on the 2020 budget data, about 22 percent of GDP (more than half of total expenditure) was allocated to education, health, and physical infrastructure (in water supply and sanitation, energy, and transport) (Table 1). Solomon Islands' budget allocation to education is the second highest among PICs next to Vanuatu. However, analysis based on the FAD Expenditure Assessment Tool indicates that the quality of social spending (particularly in education) needs a significant improvement in efficiency (Figure 3). Infrastructure spending tends to cluster in Guadalcanal island (where the capital, Honiara, is located). The fragmented budget allocation results in an uneven access to basic or safety infrastructure services between urban and rural provinces,

which leads to chronic poverty in remote areas (World Bank, 2017a). The inefficiency in development spending is thus a major constraint to welfare improvement.

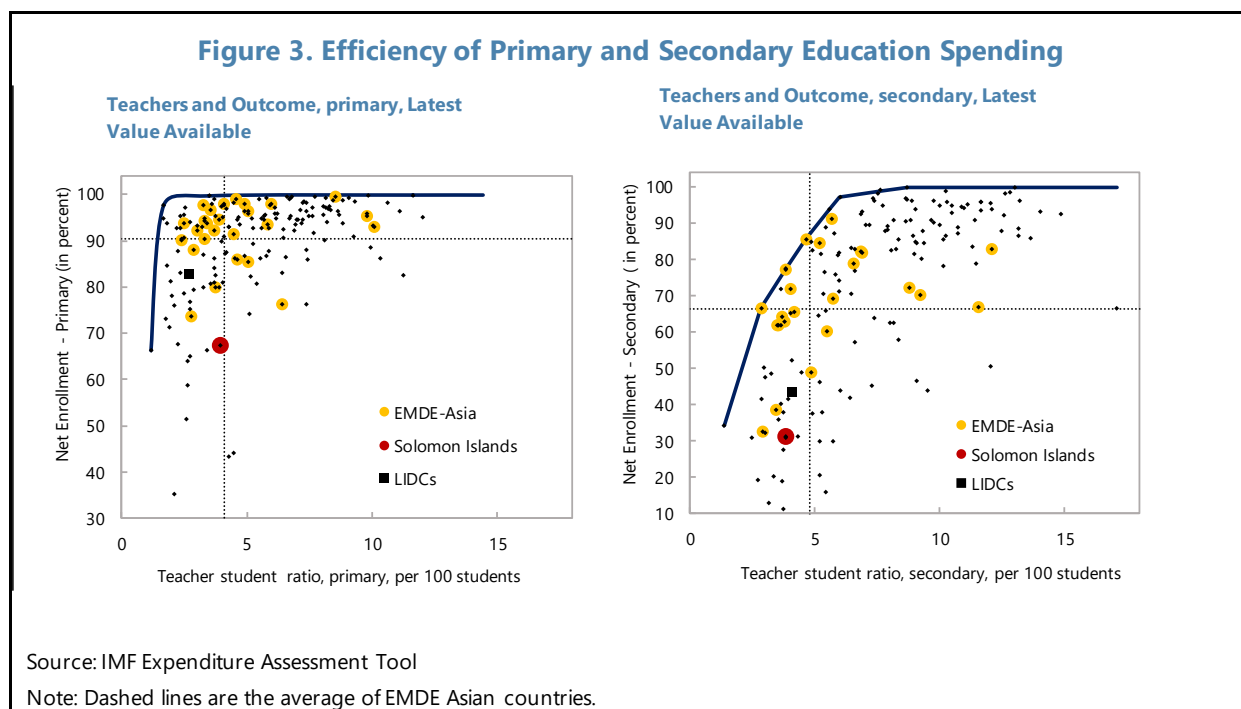


**Table 1. Budget Allocation to SDG-Related Expenditure**

**Expenditure by Functions of Government (COFOG)**

	2016	2017	2018	2019	2020
<i>In percent of GDP</i>					
Education	12.0	12.1	10.8	11.1	12.8
Health	4.8	4.9	4.3	4.5	5.2
Environmental protection	0.7	0.7	0.7	0.7	0.8
Transport	3.3	3.3	2.9	3.0	2.8
Energy	0.2	0.2	0.2	0.2	0.1
<b>Total</b>	<b>21.0</b>	<b>21.2</b>	<b>18.9</b>	<b>19.5</b>	<b>21.8</b>
<i>Percent of total expenditure</i>					
Education	30.1	30.1	30.1	30.1	31.9
Health	12.1	12.1	12.1	12.0	13.0
Environmental protection	1.8	1.8	1.8	1.8	2.0
Transport	8.2	8.2	8.2	8.2	7.0
Energy	0.4	0.4	0.4	0.4	0.3
<b>Total</b>	<b>52.7</b>	<b>52.6</b>	<b>52.7</b>	<b>52.6</b>	<b>54.2</b>

Source: IMF Statistics Department Database (in GFSM2014)



**5. Solomon Islands is benchmarked against comparable peers in key sectors for the size of spending needs for achieving SDGs while building climate resilience.** The analysis follows the SDG costing methodology (Gaspar et al, 2019; Tiedemann et al, 2021). It also analyzes macro-fiscal implications of scaling up investments related to SDGs and climate adaptation, considers financing strategies, and identifies priority policy areas for Solomon Islands.

## B. Institutional Framework: National Strategies on SDGs and Climate Change

**6. Basic national and sector-level strategies in SDGs and climate adaptation are in place, but there is room to improve their implementation.** The NDS sets out long-term development policy objectives (covering 20 years, up to 2035), priorities, and a monitoring framework. An equitable access to quality health and education services and building climate resilience constitute the key targets. In alignment with the NDS, the National Infrastructure Investment Plan (NIIP) presents the medium-term investment plan (up to 2023), including a list of priority projects, many of which are donor-funded projects related to climate adaptation (see appendix). Financing strategies, including the use of public-private partnerships (PPP) are also discussed.

The following *sector-level strategies* are included in the NDS:

- **Education** (National Education Action Plan: “NEAP”): The Education Strategic Framework (ESF, from 2016 to 2030) overviews education policy goals in line with the SDGs and the NDS. The NEAP translates the ESF into a five-year implementable action plan. The Ministry of Education and Human Resources Development (MEHRD) manages the NEAP; monitors specific actions in improving access, quality, and management of education services every year; and evaluates the

progress made towards meeting SDGs targets. The NEAP 2022–2026 will focus on equalizing access to education by: (i) extending school fee free access to primary and secondary education for low-income households; (ii) eliminating gender disparities in school enrollment; and (iii) addressing funding shortage and inadequate school infrastructure at provincial level. The MEHRD is working on a school infrastructure project (from 2022–2026) with donor support.

- **Health** (National Health Strategic Plan: “NHSP”): The NHSP2016–2020 aims to achieve universal coverage to basic health services, for example by prioritizing resources to unserved remote provinces. Improving the quality of health services and maintenance of health facilities are another area of focus. The Ministry of Health and Medical Services (MHMS) delivers health services through one national hospital (in Honiara), 11 provincial hospitals, and other rural health clinics. Like education, access to hospitals and skilled health professionals are concentrated in Honiara with few services available in other provinces. The MHMS has developed a policy to address the urban-rural gaps in health service delivery. COVID-19 has added strains on the progress towards the universal health coverage due to the lack of capacity in meeting increased demand for health services.
- **Energy** (National Energy Policy): Like other PICs, Solomon Islands has historically depended on imported diesel for power generation. Moreover, the energy infrastructure is vulnerable to extreme climate events (see Figure 5 of the Staff Report), which constrains domestic supply of electricity. As a result, access to electricity is significantly lower than the PIC median while electricity tariff is the most expensive among PICs. To make the energy sector climate-resilient with more stable power generation capacity and cheaper electricity costs, the government has embarked on a shift to renewable energy alongside a strategy to ensure universal access to affordable and reliable energy (ADB, 2021).

## 7. The authorities are committed to implementing their long-term decarbonization plan.

At the 26<sup>th</sup> UN Conference of the Parties (COP26) in November 2021, developed nations pledged to at least double financing for climate adaptation efforts in developing countries by 2025. The COP26 made some steps in accelerating actions to reduce the use of fossil fuels, promote renewable energy and support energy-efficient industrial growth worldwide. Like other Pacific Island countries, the decarbonization strategy is the national priority in Solomon Islands to meet its climate targets under the Nationally Determined Contributions (NDC) resulting from the 2015 Paris Agreement. The energy strategy aims to reduce fuel-based electricity generation (from 83 percent in 2019 to 43 percent by 2030) and increase the proportion of renewable energy. The goal is to increase the share of solar and hydropower production from 16 percent in 2019 to 53 percent by 2030 nationwide.<sup>2</sup> In this pursuit, Solomon Power is implementing a five-year capital program (in amount of SB\$ 1 billion) for new renewable energy investments and transmission network expansion across all provinces,

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<sup>2</sup> A separate target for Honiara is set at 90 percent renewables by 2030.

extending the coverage to the outlying islands, supported by donors (ADB, World Bank, Australia, and New Zealand).<sup>3</sup>

## C. The Cost of Achieving SDGs and Climate Goals

**8. The additional spending needs for achieving SDGs while making climate adaptation investment are estimated.** As the key reference, we use the country's latest performance indicators available in 2019 related to human capital (education and health) and physical infrastructure (water and sanitation, road infrastructure, and electricity access). To quantify the additional spending needs, the latest performance level is compared with those of best performers in the comparable group ("benchmarking approach").<sup>4</sup> The national policy targets for SDGs by 2030 are also reflected in the costing exercise.

**9. Overall analysis indicates sizable additional spending needs of 6.9 percent of 2030 GDP per year (Figure 4).**<sup>5</sup> The size of spending needs is comparable to other PICs, but smaller than the average for lower middle-income countries (LMIC) in Asia and Latin America. Climate-related additional costs are estimated to be relatively small in education and health, while significantly higher in infrastructure (mainly due to additional costs related to renewable energy). The estimate based on the cost of climate-proofing energy projects (see appendix) suggests annual spending needs for building climate-resilient roads and energy infrastructure could reach about 2.8 percent of 2030 GDP (of which roughly a half is to be financed by external loans).

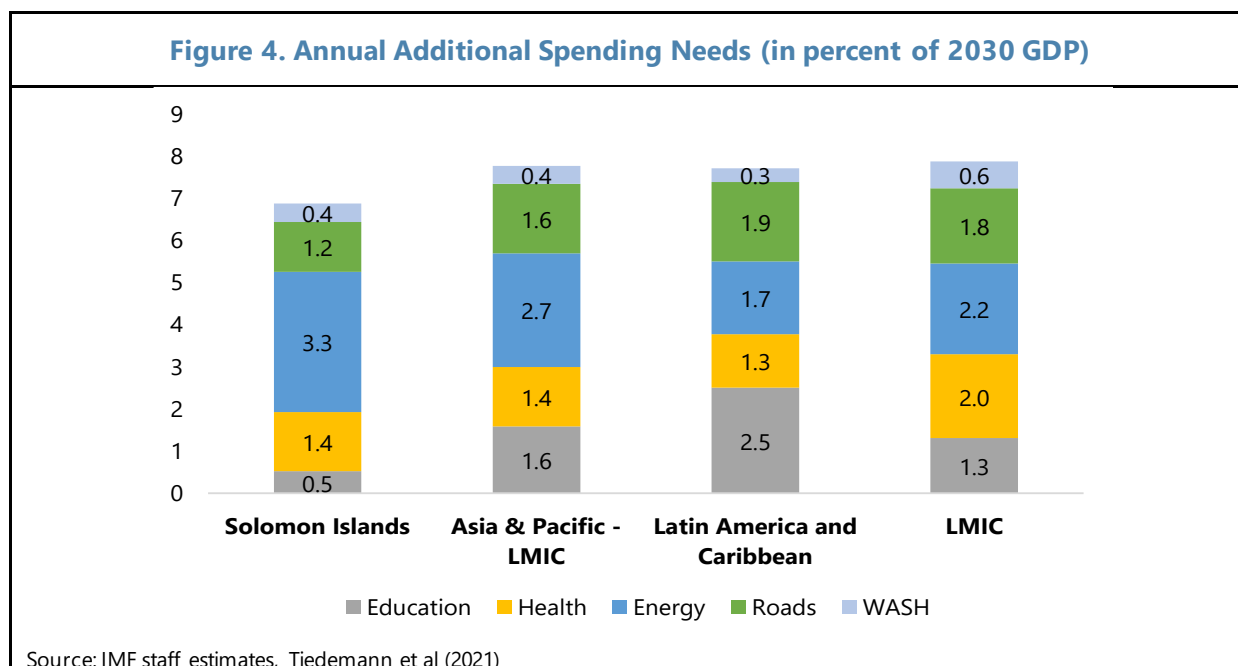
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<sup>3</sup> Solomon Power has committed 19 renewable (Hydro and Solar Hybrid) projects that are co-financed by donors' capital grants. With donor supports, 16 Solar Hybrid projects aim to expand customer base outside Honiara, which is also expected to contribute to the promotion of rural electrification.

<sup>4</sup> The exercise involves several steps: (i) identify main cost drivers of each sector; (ii) set the reference values of each cost driver consistent with the best-performing peers (or national policy target); and (iii) calculate the necessary spending level in 2030. The peer group is selected from countries in the same income bracket and same level of SDG, human development, and climate vulnerability index, but final selection also reflects the views of sector experts from development agencies (Tiedemann et al, 2021).

<sup>5</sup> The point estimate is subject to two key caveats: (i) the costing method does not cover other key sectors (e.g., agriculture, natural resources) and other types of infrastructure, such as maritime transportation and digital infrastructure, which are important for island economies such as Solomon Islands; and (ii) the methodology does not explicitly account for urban-rural disparities in service quality (except for water and sanitation). Sector experts from other agencies suggest that improving education, health, and water and sanitation services would cost much more in remote areas due to higher project costs. In this respect, the result could be interpreted as a relatively conservative estimate of total development spending needs.





**10. To achieve better education outcomes, additional cost is about 0.5 percent of GDP, with priority given to improving spending efficiency** (Table 2). Despite large overall budget allocation to education, the enrollment rate is significantly lower than in other countries, calling for improvements in the efficiency of service provision. In our estimate, improvement in education quality through smaller classroom size and better access (using the 2030 targets in SDG4, i.e., 100 percent enrollment in primary and secondary, and 50 percent enrollment in pre-primary and tertiary education) would require an annual additional cost of 0.5 percent of GDP. Rather than quantity, reprioritizing the composition of education spending seems critical for achieving the SDGs. The 2021 budget allocation is heavily skewed to recurrent spending, on teacher payrolls, school grants and scholarships, while development spending is small (only 3 percent of the education budget).. Quality of education has been impaired by lack of capital investment in expanding primary and secondary schools, especially outside Honiara, as reflected by high student-teacher ratio. A shift in expenditure composition from recurrent to capital spending in education would thus be warranted.

**11. Compared to education, cost of improving health to reach the SDGs is significantly higher at about 1.4 percent of GDP** (Table 2). Solomon Island's SDG index on health coverage is significantly lower and total health spending (at only 5.2 percent of GDP) is smaller than the peers. Raising health outcomes requires an improvement in both the quantity and quality of health services, including an increase in the number of doctors and clinics, particularly in rural areas. This will result in an additional fiscal cost of 1.4 percent of 2030 GDP.

Table 2. Annual Additional Spending Needs in Education and Health

<b>Education</b>				
	<b>GDP per capita \$3000-\$6000</b>	<b>Solomon Islands</b>		<b>Additional Costs</b>
	<b>High performance</b>	<b>2019 (or latest)</b>	<b>2030 (w/ Climate)</b>	<b>SDG w/ Climate</b>
GDP per capita	4,093.7	2,383.5	3,471.6	
<i>Main factors</i>				
Students per teacher ratio	18.7	31.6	18.7	
Teacher wages (ratio to GDP per capita)	2.0	3.0	2.0	
Other current and capital spending (% total spending)	56.9	69.4	56.9	
<i>Other</i>				
Student age population (% total population)	50.6	59.5	58.0	
Enrolment rate (pre-primary to tertiary)	58.1	59.3	80.2	
<i>Results</i>				
Education spending (percent of GDP)	7.3	<b>10.9</b>	<b>11.5</b>	<b>0.5</b>
Spending per student (USD 2018)	1,011.0	739.4	857.3	
SDG4 index	88.2		>80	
HCI		0.42	0.50	
Climate vulnerabilities		0.66	0.46	
<b>Health</b>				
	<b>GDP per capita \$3000-\$6000</b>	<b>Solomon Islands</b>		<b>Additional Costs</b>
	<b>High performance</b>	<b>2019 (or latest)</b>	<b>2030 (w/ Climate)</b>	<b>SDG w/ Climate</b>
GDP per capita	3,300.1	2,383.5	3,471.6	
<i>Main factors</i>				
Doctors per 1,000 population	0.7	0.2	0.7	
Other medical personnel per 1,000 population	3.5	4.2	3.5	
Doctor wages (ratio to GDP per capita)	7.4	12.9	7.4	
Other current and capital spending (% total spending)	70.1	39.7	70.1	
<i>Results</i>				
Health spending (percent of GDP)	<b>6.2</b>	<b>4.9</b>	<b>6.2</b>	<b>1.4</b>
Per capita spending (USD 2018)	203.3	117.9	213.9	
SDG3 index	75.1		>75	
<i>Health indicators (lower better)</i>	3.2	4.8	1.5	
Climate vulnerability (lower better)	0.46	0.66	0.46	

Source: IMF staff estimates, Tiedemann et al (2021)

**12. Physical infrastructure:** Building on the unit cost of development projects that the government has already committed (including climate-proofing projects), additional cost for energy, road, and water and sanitation (WASH) is estimated at 4.9 percent of 2030 GDP, with the largest needs in the energy sector.

- *Energy.* Additional spending needs are estimated at about 3.3 percent of GDP, much higher than the peer group, reflecting large investment plans in hydropower and several other solar power projects. Only 21 percent of the population has access to electricity in 2019. Electricity access is expected to reach 50 percent by 2025 (including with the expansion of electricity generation from the Tina hydropower project) and 70 percent by 2030. Energy mix is assumed to shift towards renewables in line with the decarbonization plan. The analysis calculates the unit cost of electricity generation, transmission, and distribution based on project appraisal documents of existing energy investment projects. The additional cost related to climate adaptation is estimated from the total cost of climate-proofing energy projects (see appendix).
- *Road.* The additional spending needs are estimated at about 1.2 percent of GDP. Based on income and population growth projections alongside the estimated demand elasticities of roads, climate proofed road network would need to be expanded by 342 km. According to World Bank's project appraisal documents, 90 percent of existing roads (1,694 km in total) are in poor condition and would need to be rehabilitated. The estimate includes maintenance costs for the entire road network.
- *WASH.* The additional spending needs are estimated at about 0.4 percent of GDP. Provision of safe drinking water and sanitation services remain a key NDS priority towards achieving the SDG poverty alleviation objective (Solomon Islands Voluntary National Review, 2020). We use the country-specific unit cost estimates of the WASH sector from Hutton and Varughese (2016). The analysis approximates the average cost for the country to increase climate resilience based on the sensitivity to extreme weather events and natural hazard following Hallegatte et al (2019a,b) and Miyamoto (2019a,b). In 2019, about 20 percent (27 percent) of the population did not have access to basic water (sanitation) services, while more than 60 percent of population did not have access to safely managed water and sanitation services. The situation is worse in rural areas where capital and logistical costs of installing water and sanitation infrastructure is much higher.

**13. Infrastructure investment in maritime transport and digital connectivity would be critical for unleashing long-term economic transformation.** Beyond energy, roads, and water and sanitation, the costing methodology does not include other types of infrastructure, such as maritime transportation and digital infrastructure, which are important for island economies such as Solomon Islands, where geographic isolation and the remoteness from major markets constrain the competitiveness of the private economy. Additional investment in maritime connectivity is therefore critical for reducing barriers to domestic and foreign trade. With limited job opportunities at home, combined with geographic bottlenecks, internet connectivity is expected to open new opportunities to access overseas jobs without physical migration. World Bank (2017b) has estimated that increased access to internet would contribute to significant long-term growth in GDP and productivity, and new job creation. For Solomon Islands, the investment in submarine cable

connection (the “Coral Sea Cable System”, completed in 2019) is expected to unleash the growth potential as found for similar investments in other low-income countries (Hjort and Poulsen, 2019). Given that Solomon Island’s mobile and internet penetration rates are still below the regional average, additional infrastructure investments, on top of what was estimated in this paper, would be needed to raise the growth potential.

**14. The COVID-19 has hit the development agenda hard.** The pandemic directly hit the health sector, lowered educational attainment due to school closure, and significantly increased unemployment and extreme poverty. To combat this, the government took swift fiscal policy measures, directing resources to priority areas (health, education, and social protection) as well as COVID-related measures and fiscal stimulus (see the Staff Report). This resulted in an increase in budget allocation to health and education and a lower infrastructure spending in the 2020 and 2021 budget. To avoid a permanent setback towards SDGs, additional spending on human and physical capital on top of the estimates in Figure 4 (based on the pre-pandemic data) would be needed. The IMF’s recent post-pandemic SDG assessment in other country cases estimates that the pandemic resulted in an additional annual financing need of 2.5 percent of GDP when extrapolated to all LIDCs. Failure to increase investment would delay the progress towards SDGs as the scarring effects from the pandemic persist longer (Benedek et al, 2021).

## D. Policy Discussions

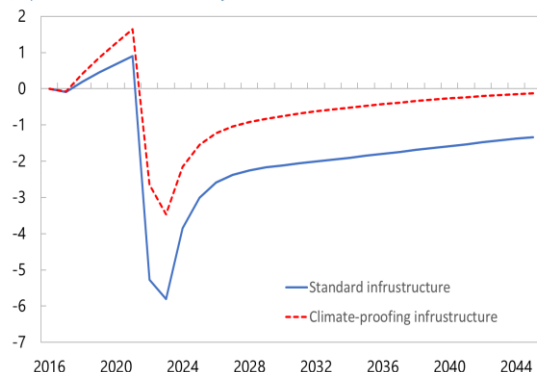
### *Macro-Fiscal Assessment: Fiscal Adjustments and Financing for A Green and Inclusive Growth*

**15. Building climate-resilient infrastructure to mitigate disaster impacts can have significant benefits in terms of fiscal space and growth.** The benefits are highlighted in IMF (2018b) using the Debt-Investment-Growth with Natural Disaster (DIGNAD) model. The DIGNAD model accounts for feedback from climate adaptation investment to resilience building, providing implications for long-term growth, debt sustainability, and financing needs. In the model, the government invests in both standard infrastructure (e.g., roads) and adaptation capital (e.g., seawalls). Natural disaster shock influences the economy through permanent damages on public and private capital, temporary losses of productivity, and increased inefficiencies in public investments. Adaptation capital reduces the damages of natural disasters. In Panel A of Figure 5, the analysis found that prioritizing climate-proofing capital investment is expected to significantly mitigate the negative impacts of natural disasters on fiscal deficits, growth, and debt sustainability.

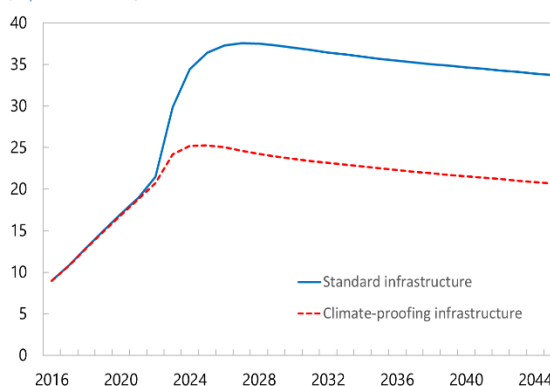
**16. Change in spending composition from recurrent to capital is expected to boost the gains from climate adaptation investment.** More than 90 percent of education and health spending is currently on recurrent (wage, grants, and operational) items. Limited capital expenditure delays progress in improving access to quality education, health, and infrastructure services. The DIGNAD analysis also highlighted the importance of expenditure rationalization to prioritize climate-proofing capital investment. Staff’s past policy advice based on the DIGNAD analysis indicates that higher public investment efficiency through public financial management (PFM) reforms is expected to contribute to larger productivity gains from infrastructure investments while moderately lowering pressure on fiscal deficits and debt by reducing recurrent expenditure (Figure 5, Panel B).

**Figure 5. DIGNAD Simulations on Climate-Proofing Investment and PFM Reform****Panel A. The Benefits of Climate-Proofing Investment****Real GDP Growth**

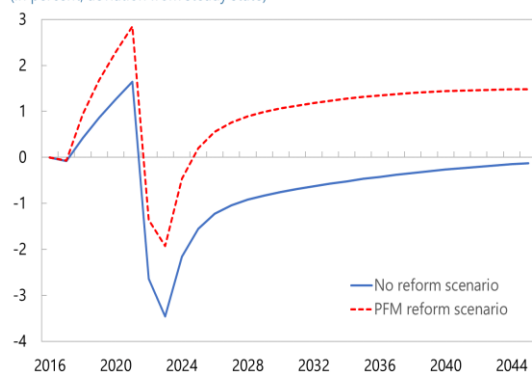
(In percent, deviation from steady state)

**Total Public Debt**

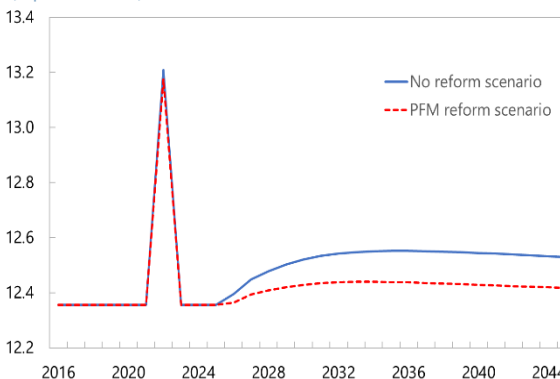
(In percent of GDP)

**Panel B. The Benefits of Public Investment Management Reforms****Real GDP Growth**

(In percent, deviation from steady state)

**Public Current Expenditure**

(In percent of GDP)

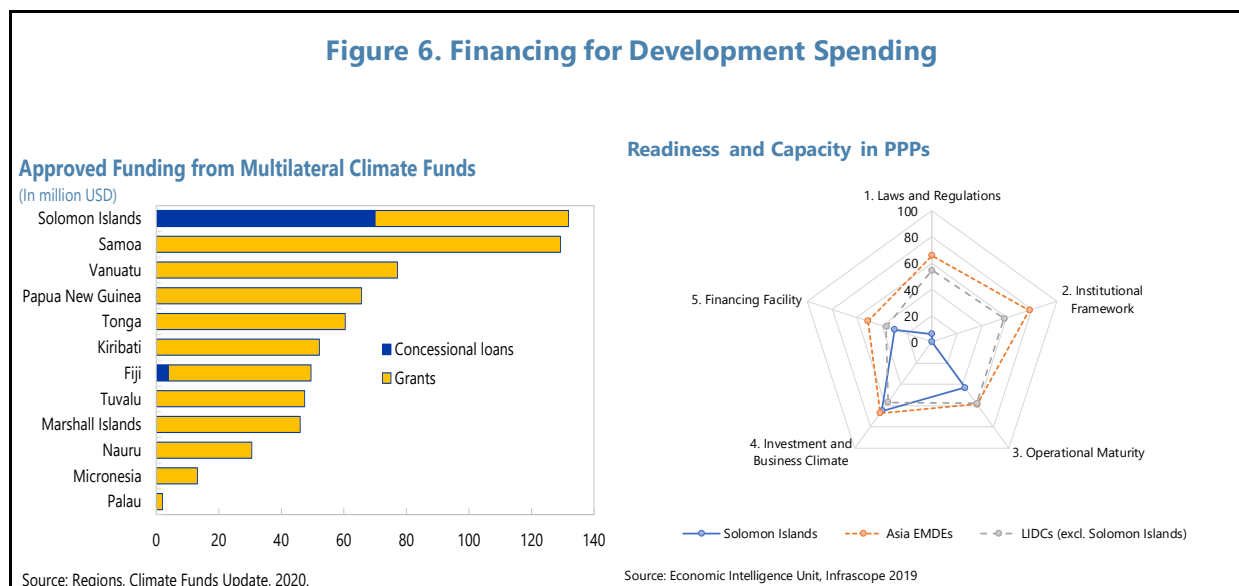


Source: IMF (2018b)

Note: The simulations consider the scale-up of climate-proofing capital investment above steady-state level for five years until 2021, followed by a natural disaster shock on infrastructure destruction.

**17. Concessional financing and increases in revenue, driven by domestic revenue mobilization, remain key sources for meeting mounting development spending needs.** Fiscal space needs to be expanded through improved revenue administration and tax policy measures to offset the projected decline in logging revenues, while maximizing access to concessional donor financing. Domestic revenue mobilization should be an essential part of the agenda, particularly in developing Asia, including Solomon Islands, as tax effort appears to be relatively low compared to tax capacity (Benedek et al., 2021). Compared with other PICs, Solomon Islands has benefited from a mix of grant and loan financing for the climate-proofing projects (IMF, 2021) (Figure 6, left chart). Concessional financing should remain to be a major source of financing going forward, owing to the high cost of domestic or non-concessional external borrowing. There would also be some room to

increase private financing through PPPs in the future. Based on the EIU’s Infrascopes, Solomon Islands’ investment climate for PPPs is like other Asian EMDEs given that the country has no history of expropriating foreign investments over the decades and government has started to take some steps in supporting PPPs. The Chamber of Commerce and Industry is engaging closely with the private sector through its private sector advisory group. The scope for significant use of PPPs, however, remains limited absent of a PPP regulatory framework and a designated PPP unit (though both are in the process of being developed). The government’s technical capacity in developing a PPP model is still at a nascent stage (Figure 6, right chart).



**18. Staff’s analysis (Staff Report Box 1: Fiscal Anchor) suggests that, once the recovery from the pandemic is ensured, fiscal measures should be geared toward creating space for additional development spending.** Guided by IMF (2018c), the medium-term path of operational deficit target and fiscal financing strategy to achieve the SDG target by 2030 are calibrated under difference scenarios. The analysis incorporates additional spending needs for SDGs and climate adaptation, as estimated by the SDG costing model in section C, into a coherent dynamic financing model (Akanbi et al, 2021). The text table below summarizes the main assumptions for five scenarios: staff’s baseline scenario (see Staff Report) and four alternative scenarios with different financing options and fiscal measures. “Revenue measures” include revenue administration and tax policy measures that would neutralize loss of logging revenues with some additional efficiency gains, which is assumed to bring the overall deficit down to 1.5 percent target level by 2026, when no additional spending is included (scenario A1). Scenarios 2-4 include the additional spending which are financed by concessional loans (scenario A2), grants (scenario A3), or a mix of concessional financing and “front-loaded” fiscal (revenue and expenditure) measures (scenario A4). Given still

Scenario	SDG met	Additional grants
<b>Without additional SDG spending</b>		
Baseline	NO	0.0
A1: Revenue measure	NO	0.0
<b>With additional SDG spending</b>		
A2: Revenue measure + Loans	YES	0.0
A3: Grants	YES	4.4
A4: Revenue measure + Front-loaded adjustment	YES	1.5

high pandemic-related uncertainty in 2022, the rationalization of non-SDG expenditure is assumed to start from 2023 with expenditure tightened to achieve the overall deficit level closer to the authority's target of 1.5 percent over three years (i.e., fiscal deficits at -2.5 percent in 2023, -2.3 percent in 2024, and -2.1 percent in 2025). A gradual scaling-up in SDG investments is assumed after the fiscal adjustment period.<sup>6</sup> As there is currently no concrete plan for developing the required regulatory environment for PPPs, no private financing is assumed in all scenarios.

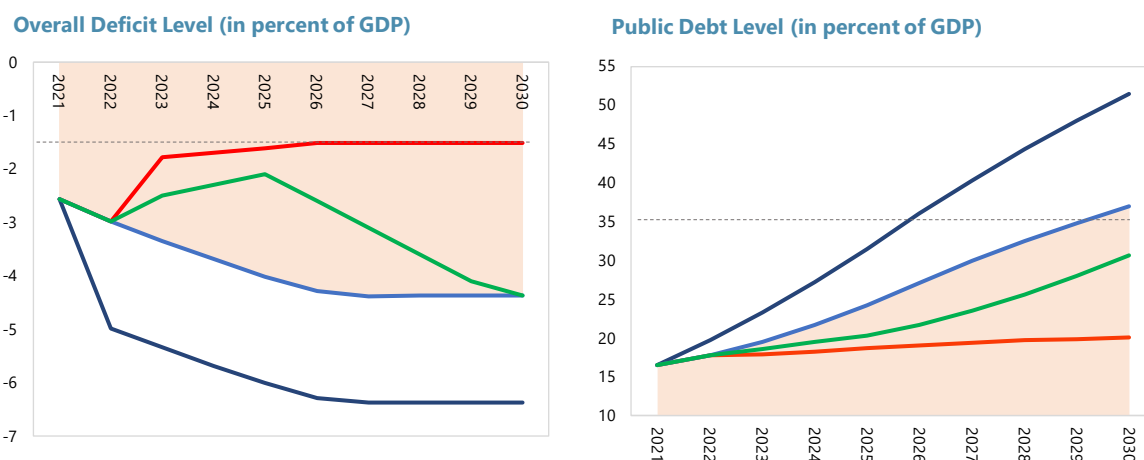
**19. Design of annual deficit target should be properly sequenced, accounting for the recovery from the COVID-19.** Given expected low growth and high pandemic-related uncertainties, a deficit target in the short term should be relaxed compared with the operational target level of 1.5 percent to ensure a durable recovery through well-targeted support to the most vulnerable households and businesses. As debt sustainability hinges on the growth-interest differential, the operational deficit target can be relaxed or tightened depending on the growth performance. Over the medium term, further fiscal reforms besides revenue measures are needed to support fiscal sustainability. To make room for fiscal support, non-essential discretionary spending and expenditures in areas with weak transparency and governance practices, including Constituency Development Funds, should be contained. An effective debt-based fiscal anchor (35 percent of public debt, in percent of GDP) can help sequence appropriate operational fiscal target each year.

**20. Additional concessional financing, combined with front-loaded measures, are needed to achieve SDGs by 2030 while maintaining sustainable debt path (Figure 7).** If additional development spending is financed only by loans (scenario A2), public debt will follow an unsustainable path and breach the authorities' debt target in five years. If financed only by grants (scenario A3), 4.4 percent of GDP additional grant is needed every year, which seems infeasible. Heavy reliance on donor support could also raise development challenges if they fail to materialize as expected and local content of donor-funded projects remains small. In this regard, an integrated financing strategy with a mix of additional loans, grants, and front-loaded fiscal measures (scenario A4) is more desirable. When the operational deficit target is sequenced as under the scenario A4, the negative impact of additional spending needs on debt sustainability is mitigated, while achieving SDG goals. Given the constrained fiscal space, the authorities should carefully review the priority list of each SDG goal and design feasibly sequenced action plans towards 2030.

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<sup>6</sup> In the dynamic financing model, annual SDG investment is endogenously determined by overall deficit, revenue, and non-SDG expenditure envelopes that are exogenously set in line with the staff's macroeconomic framework.

**Figure 7. Calibration of Operational Target and Public Debt: Baseline vs. Alternative Scenarios**



Source: IMF Staff estimates

Note: Dashed lines are the authority's overall deficit target (1.5 percent of GDP) and debt target (35 percent of GDP).

### **Improving PFM for SDGs and Climate Adaptation Agenda**

**21. Sound PFM processes and frameworks are needed to incorporate SDGs and climate adaptation into medium-term planning and annual budget allocation decision.** While strengthening basic PFM practices and public investment management capacity are priorities, there is also room to integrate the SDGs and climate commitments into the existing PFM reform agenda (UNDP, 2019; Gonguet, et al, 2021). At the budget planning stage, the capacity of identifying priority investment could be strengthened, with including a “climate budgeting” element where climate-proofing projects are clarified. Some components of this process are already in place. For example, the NIIP provides a list of donor-funded projects (see appendix) and the Budget Book provides some tags on the nature of spending under each line ministry (including budget items tagged to climate-related expenditure). However, climate-related spending is allocated under related programs for various heads of expenditure (budget category for education, health, energy, water, and environment). As a result, it is difficult to clearly trace costs related to climate adaptation investment in the budget. Drawing on international experiences, the monitoring and evaluation of climate-related financial indicators (for example, climate-related budget allocation and execution) in budget documents or separate climate reports could be developed.<sup>7</sup> A better integration of climate-related fiscal commitments into the PFM law would create stronger political support to achieving climate adaptation objectives in the fiscal operation.

<sup>7</sup> For example, the Ministry of Finance of Bangladesh publishes climate-related budget performance in the budget reports (“Climate Financing for Sustainable Development: Budget Report” and “Bangladesh Economic Review: Chapter 15: Environment, Climate Change and Development”).



## E. Conclusions

**22. A multipronged strategy is needed to meet large development spending needs for the SDG and climate adaptation objectives.** Solomon Islands has made progress in building climate resilience but development spending needs to meet SDG targets remain large. Spending needs are the largest in the energy sector, reflecting the national development priority in investing on renewable energy to achieve a low-carbon transition. Strengthening domestic revenue mobilization and continued concessional external financing are the main financing options. There is also room to improve the efficiency of education, health, and infrastructure spending. Shifting the composition of spending from recurrent to capital expenditure and effective PFM reforms would help unlock additional resources to tackle the development challenges. To secure fiscal sustainability, additional concessional financing, combined with front-loaded expenditure rationalization, are needed to achieve SDGs by 2030 while maintaining a sustainable debt path. Integrating the SDGs and climate adaptation objectives into the medium-term and annual budgetary processes would contribute to more efficient targeting of spending to the climate-proofing priority investment projects. Sustained efforts to introduce a PPP regulatory framework and strengthen institutional capacity would be needed to attract more private investment.

## Appendix I. Currently Identified Priority Investment List with Climate-Proofing Component

Project	Donor	Project Cost, Financing & Status	Description
<b>A. Energy sector</b>			
<a href="#">Tina River Hydropower Project (TRHPP)</a>	ADB, WB, Bilateral (Australia, Korea)	- \$233.37 mil. In PPP (Built-Operate-Transfer) - Loan: 66.8%, Grant: 21.2% - New ongoing (2019-2025)	Develop renewable energy source. Build 15 MW hydro power plant for electricity supply in Honiara; CO2 reduction (49,500 tons/year) and tariff reduction expected.
<a href="#">Solar Power Development Project</a>	ADB	- \$13 mil. - Grant: 56%, Budget: 44% - Almost completed (2016-2022)	Develop renewable energy source. Generate 2 MW grid-connected solar power in Kirakira, Lata, Malu'u, Munda and Tulagi.
<b>B. Transport sector</b>			
<a href="#">Transport Sector Flood Recovery Project (TSFRP)</a>	ADB	- \$13.2 mil. - Loan: 50%, Grant: 50% - Completed (2014-2018)	Restore more resilient transport connectivity after the Cyclone Ita. Reconstruction of bridges and roads in Honiara/Guadalcanal provinces
<a href="#">Sustainable Transport Infrastructure Improvement Program (STIIP)</a>	ADB, Australia	- \$25.5 mil. - Loan: 82%, Grant: 18% - Almost completed (2016-2021)	Improve nationwide (rural and urban) transport system through rehabilitation and maintenance, strengthen climate and disaster resilience of road
<a href="#">Land and Maritime Connectivity project</a>	ADB	- \$150 mil. - Loan: 50%, Grant: 50% - New ongoing (2021-2028)	Rehabilitating/upgrading of 35 km roads near Honiara and upgrading ports/wharfs in Honiara, Ahanga, and Kira Kira. Objectives are to boost transport (land and maritime) connectivity, efficiency, and disaster resilience of transport network.
<a href="#">Road and Aviation Project (SIRAP)</a>	WB	- \$51 mil. - Loan: 60%, Grant: 40% - New ongoing (2019-2024)	Improve air transport and strengthen the climate resilience of roads
<a href="#">Upgrading of Kukum Highway</a>	JICA	- 3.2 bil. Yen (= \$29 mil.) - Grant: 100% - New ongoing (2021-2023)	Improve logistics improvement, disaster prevention and traffic safety through upgrading of Kukum highway in Honiara
<b><u>Costs of new ongoing projects</u></b>		<b>Total cost: \$463.37 mil (=15.2 percent of 2030 GDP)</b> <b>Annual average project cost: \$85.02 mil (=2.8 percent of 2030 GDP); of which external loans-financed cost is \$42.82 mil (=1.4 percent of 2030 GDP)</b>	

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