Research Study on the Development Assistance to the Small Islands Developing States (SIDS)

Final Report

December 2015

Japan International Cooperation Agency
Infrastructure and Peacebuilding Department

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Abbreviations

3R	Reduce, Reuse, and Recycle
ACP	African, Caribbean, and the Pacific
ASEAN	Association of South-East Asian Nations
BPoA	Barbados Plan of Action
C/P	Counterpart
CARICOM	Caribbean Commission
CAS	Cell Alive System
CRFM	Caribbean Regional Fisheries Mechanism
ECOWAS	Economic Community of West African States
FSM	Federated States of Micronesia
GDP	Gross Domestic Products
GNI	Gross National Income
ICT	Information and Communication Technology
IOC	Indian Ocean Commission
JICA	Japan International Cooperation Agency
J-PRISM	Japanese Project for Promotion of Regional Initiative Solid Waste Management
MIRAB	Migration, Remittance, Aid, and Bureaucracy
MSG	Melanesian Spearhead Group
MSI	Mauritius Strategy of Implementation
NCDs	Non-Communicable Diseases
OECS	Organisation of Eastern Caribbean States
PET	Polyethylene terephthalate
PIDF	Pacific Islands Development Forum
PIF	Pacific Island Forum
PLG	Polynesian Leaders Group
PNG	Papua New Guinea
SADC	Southern African Development Community
SIDS	Small Island Developing State(s)
SPC	Secretariat of the Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme
TPP	Trans-Pacific Partnership
UNDP	United Nations Development Programme
USP	University of the South Pacific

Exchange rate

1 United States Dollar (USD) = 122.74 Japanese Yen (JPY)
1 Euro = 136.19 JPY
1 Vanuatu Vatu = 1.176 JPY
1 Cabo Verde Escudo = 1.25 JPY

Exchange data taken from the following websites

JICA (http://www.jica.go.jp/announce/manual/form/consul_g/ku57pq00000kzv7m-att/rate_201508.pdf)

Oanda
(http://www.oanda.com/lang/ja/currency/converter/)

Preface

Japan consists of four main islands (Honshu, Hokkaido, Shikoku, and Kyushu), and has more than 6000 remote islands. Japan has a long history of promoting the development of domestic small islands and provided much infrastructure under the law for promotion of self-sustainability of regions in Japan.

As an island nation, Japan shares the Pacific Ocean and therefore has a strong relationship with the Pacific island states by hosting the Pacific Island Leaders Meeting (PALM) every three years since 1997. The recent one, the seventh, was held in May 2015 in the City of Iwaki, Fukushima Prefecture in Japan, and issued the Fukushima Iwaki Declaration on "Building a Prosperous Future Together." Recognizing that "consistent effort is necessary to address the national, sub-regional and regional priorities in the Pacific, the Leaders decided to enhance cooperation with a central focus on the following seven areas, taking into account the achievements from the PALM process: (1) disaster risk reduction; (2) climate change; (3) environment; (4) people-to-people exchanges; (5) sustainable development (including human resource development); (6) oceans, maritime issues, and fisheries; and (7) trade, investment, and tourism."[1]

Japan also participated in the 3rd International Conference on the Small Island Developing States (SIDS) held in Samoa in September 2014. A Japan-CARICOM Summit Meeting was held in Trinidad and Tobago in July 2014.

The Japan International Cooperation Agency (JICA), which is the official organization responsible for the implementation of the Japan's Official Development Assistance, has provided development assistance to developing countries, including SIDS.

Since the volume of JICA's assistance differs from region to region or country to country, it is difficult to apply the same methodology of development assistance to all the SIDS. It may be worth considering a regional approach, because SIDS of a region are quite similar in character and have similar development issues. While intra-regional coordination and approach has been applied within a region such as the Pacific or the Caribbean, coordination or harmonization of the assistance methodology to the SIDS beyond the region has not been done so far.

This research study intends to capture various JICA assistance to SIDS that may be rated as good practices and analyzes if these practices can be applied to other SIDS beyond the region. Moreover, as Japan also has unique experience on domestic remote islands for the promotion of the regional economy, this experience is also valuable for SIDS.

This Research Study Report consists of the following chapters.
Chapter 1 explains the characteristics of SIDS in terms of economy and main production. It also discusses the difference in level of isolation among regions.
Chapter 2 briefly summarizes the regional cooperation of SIDS.
Chapter 3 introduces various development practices applied to SIDS.
Chapter 4 introduces various development experiences of Japan on domestic remote islands.
Chapter 5 concludes findings of Chapters 3 and 4.
Chapter 6 provides recommendations.

[1] Source: http://www.mofa.go.jp/a_o/ocn/page4e_000261.html

Development assistance covers a very wide area ranging from the economy to the social sector. For the sake of comparison, this report deals with four aspects of development, namely, (1) institutions and governance, (2) economy and production, (3) resources and environment, (4) society and culture.

Climate change, disaster risk reduction, and renewable energy are additional serious issues for SIDS. JICA considers separate assistance to the Pacific region in those sectors. Therefore, this report does not cover these sectors.

The period of the research study was from December 2014 to September 2015. During the research study, three discussion sessions were held at the JICA Head Office with three external advisors and JICA staff of the relevant departments and overseas offices in December 2014, and February and July 2015.

The names and positions of the external advisors are as follows.

Dr. Izumi Kobayashi	President, Japan Pacific Islands Association Professor, Osaka Gakuin University
Dr. Takehiro Kurosaki	Deputy Director, Pacific Islands Centre
Dr. Hisao Sekine	Professor, University of Tsukuba

The names and positions of the research study team are as follows.

Mr. Toshiyuki Iwama	Executive Technical Advisor to the Director General, Infrastructure and Peacebuilding Department, JICA
Mr. Takahiro Uchida	Urban and Regional Development Group, Infrastructure and Peacebuilding Department, JICA
Mr. Kazuo Nishiyama	IC Net Limited
Mr. Masayuki Takazawa	Kokusai Kogyo Co., Ltd.

Three field surveys were conducted

From 13 January to 8 February 2015	Countries Visited: Federated States of Micronesia, Republic of Palau, Republic of Vanuatu, Kingdom of Tonga, Republic of Fiji, Tuvalu
From 3 March to 29 March 2015	Countries Visited: The United States of America (World Bank), Republic of Guyana (CARICOM Secretariat), Saint Lucia, Saint Vincent and the Grenadines, Republic of Trinidad and Tobago (Embassy of Japan), Antigua and Barbuda, Grenada, Commonwealth of Dominica
From 1 June to 18 June 2015	Countries Visited: Republic of Cabo Verde, Republic of Madagascar (JICA Office), Republic of Seychelles, Union of Comoros

JICA and the research study team would like to express sincere gratitude to all persons and organizations who kindly accepted the team for discussion and field visits, and provided various useful information and documents.

Chapter 1: Characteristics of SIDS

There are 51 countries and regions called “Small Island Developing States (SIDS)” in the world. They have similar constraints, which are smallness, isolation, remoteness[2], and being surrounded by oceans.

Smallness makes it difficult for SIDS to enjoy the economies of scale. Together with the higher transport cost compared with continental states, economic development is a challenge for SIDS. In many cases, SIDS have no option but to depend on external income, such as remittance made by migrants, aid provided by donors, and bureaucracy (public sector as the largest employer). This economic structure of SIDS is abbreviated as Migration, Remittance, Aid, and Bureaucracy (MIRAB) economy.

In 1-1, various economic indicators are collected and analyzed to clarify the characteristics of SIDS. After that, the levels of the development of tourism and primary industry in SIDS are examined, as these are the main economic activities in SIDS. Finally, the level of governance in SIDS is analyzed, as good governance is a prerequisite for development.

In 1-2, the level of isolation in SIDS in the Pacific, the Caribbean, the Indian Ocean, and Africa is compared.

In 1-3, assistance of major donors to SIDS is summarized.

1-1. MIRAB Economy, Tourism and Other Industries, and Governance in SIDS

Francis Hezel (2012) examined MIRAB economy with various statistical data. In this report, similar methodology is employed and statistical data is collected over 51 SIDS with the maximum effort to ensure consistency of the data. Indicators of MIRAB economy, development of tourism and other industries are summarized in Tables 1, 2, and 3. For each indicator, the average over 51 SIDS is calculated and indicators higher or lower than the average are highlighted in red.

[2] Isolation refers to a state that is very far from neighboring countries, whereas remoteness refers to a state that has many remote islands within the state.

Table 1: Indicators of MIRAB economy and development of tourism and other industries (Pacific SIDS)

Red indicates	Gap between 2 and 1 is bigger than 15%		More than 15%	More than 35%	Less than 3.0			More than 1.0	More than 15%	More than 20%	More than 70%	
Country	Migration stock # of immigrants and emigrants (% of national population)		Remittance Amount of incoming remittance (% of national GDP)	Aid Amount of foreign aid (% of national government budget)	Bureaucracy Ratio of GDP/national budget (if the ratio is bigger, it indicates the existence of bigger private sector)	GNI / capita US$ (2012)		Tourism # of tourists (% of national population)	Composition of GDP by sector of origin			
	1. Immigrants	2. Emigrants							Agriculture	Industry	Service	Year
Fiji	252.7%	22.3%	6.38%	6.31%	3.54	4,507		0.76	11.7	18.1	70.2	2013
Vanuatu	1.4%	3.1%	2.64%	45.24%	4.11	2,869		0.44	22.4	9.7	67.9	2013
Solomon Islands	1.3%	0.5%	1.47%	81.42%	2.68	1,543		0.04	50	10.6	39.4	2013
Samoa	5.4%	58.3%	23.83%	38.55%	2.73	3,437		0.67	10.2	25.9	64	2013
Tonga	5.1%	52.9%	12.78%	83.33%	4.24	4,524		0.47	20.9	21.9	57.2	2013
Kiribati	4.1%	5.1%	7.56%	59.39%	1.62	2,077		0.05	24.3	7.9	67.8	2010
Tuvalu	1.4%	36.0%	-	184.64%	1.65	7,051		0.10	16.6	27.2	56.2	2002
Micronesia (FSM)	2.5%	27.8%	-	131.25%	3.32	3,317			14	12	74	2011
Palau	26.4%	26.3%	-	29.28%	2.34	8,853		5.67	3.2	20	76.8	2012
Marshall Islands	3.0%	13.8%	12.57%	78.60%	1.84	4,748		0.09	14.3	13.9	71.8	2011
Nauru			-		4.44	12,577			6.1	33	60.8	2009
Niue			-		0.61	-		6.00	23.5	26.9	49.5	2003
Cook Islands					2.65	14,918		5.81	29	15	56	1995
PNG	0.4%	0.6%				2,014		0.02	27.6	39.1	33.3	2013

Table 2: Indicators of MIRAB economy and development of tourism and other industries (Caribbean SIDS)

Red indicates	Gap between 2 and 1 is bigger than 15%		More than 15%	More than 35%	Less than 3.0			More than 1.0	More than 15%	More than 20%	More than 70%	
Country	Migration stock # of immigrants and emigrants (% of national population)		Remittance Amount of incoming remittance (% of national GDP)	Aid Amount of foreign aid (% of national government budget)	Bureaucracy Ratio of GDP/national budget (if the ratio is bigger, it indicates the existence of bigger private sector)	GNI / capita US$ (2012)		Tourism # of tourists (% of national population)	Composition of GDP by sector of origin			
	1. Immigrants	2. Emigrants							Agriculture	Industry	Service	Year
Antigua and Barbuda	31.5%	62.3%	1.72%	5.95%	4.91	12,740		2.78	2.2	16.4	81.4	2013
Bahamas	19.1%	14.3%	-		3.99	21,102		3.82	2.1	7.1	90.8	2013
Barbados	11.1%	34.7%	-		2.94	14,739		1.89	3.1	13.9	83	2013
Belize	14.9%	18.1%	4.64%	8.04%	4.65	4,380		0.85	13	23	64	2012
Cuba	0.1%	13.4%	-	0.17%	1.44	6,197		0.25	3.8	22.3	73.9	2013
Dominican Republic	5.9%	13.3%	7.40%	2.07%	5.49	5,512		0.44	6	29.1	64.9	2013
Dominica	8.7%	104.5%	4.67%	13.15%	2.67	6,710		1.10	15.7	15.6	68.7	2013
Grenada	10.3%	52.5%	3.55%	6.13%	4.13	6,989		1.10	5.6	15.8	78.5	2013
Guyana	2.0%	62.9%	10.67%	16.71%	3.18	3,583		0.22	20.7	38.5	40.8	2013
Haiti	0.4%	13.8%	21.05%	70.27%	3.40	708		0.03	24.1	19.9	56	2013
Jamaica	1.2%	37.5%	15.05%	1.07%	3.52	5,187		0.72	6.5	29.4	64.1	2013
St. Kitts and Nevis	11.0%	56.4%	6.94%	8.50%	4.14	13,777		1.93	1.8	23.1	75.1	2013
St. Lucia	7.5%	34.6%	2.26%	15.88%	6.20	7,204		1.70	3.1	17.4	79.5	2013
St. Vincent and the Grenadines	10.0%	58.9%	4.35%	9.58%	4.01	6,314		0.68	5.4	20.3	74.4	2013
Suriname	7.3%	45.9%	0.13%	10.06%	5.33	9,012		0.45	8.9	36.6	54.5	2013
Trinidad and Tobago	2.7%	30.6%	0.51%	0	3.26	18,067		0.30	0.3	57.7	42	2013
Anguilla	0.0%	0.0%			0.00	*12,200			2.5	23.6	73.8	2013
Aruba	31.2%	15.4%			0.00	*25,300			0.4	33.3	66.3	2002
Virgin Islands (U.S. territory)	60.7%	4.0%			0.00	*36,100			1	19	80	2003
Montserrat	0.0%	0.0%			0.00	*8,500			1.6	23.2	75.1	2013
Puerto Rico	8.8%	47.3%			0.00	*28,500			0.7	48.8	50.5	2013

Table 3: Indicators of MIRAB economy and development of tourism and other industries (Indian Ocean, African, and Asian SIDS)

Red indicates	Gap between 2 and 1 is bigger than 15%		More than 15%	More than 35%	Less than 3.0			More than 1.0	More than 15%	More than 20%	More than 70%	
Country	Migration stock # of immigrants and emigrants (% of national population)		Remittance Amount of incoming remittance (% of national GDP)	Aid Amount of foreign aid (% of national government budget)	Bureaucracy Ratio of GDP/national budget (if the ratio is bigger, it indicates the existence of bigger private sector)	GNI / capita US$ (2012)		Tourism # of tourists (% of national population)	Composition of GDP by sector of origin			
	1. Immigrants	2. Emigrants							Agriculture	Industry	Service	Year
Maldives	21.4%	0.3%	0.14%	5.02%	2.48	6,503		2.83	3	17	80	2012
Singapore	41.7%	5.1%	-	0	7.07	51,550		2.09	0	29.4	70.6	2013
Timor-Leste	1.0%	2.8%	216.57%	16.69%	3.61	3,641		0.05	2.6	81.6	15.8	2013
Cabo Verde	2.8%	32.1%	9.32%	41.32%	3.22	3,731		0.98	9.3	18.8	71.9	2013
Comoros	1.6%	14.5%	9.02%	30.81%	3.93	830		0.03	51	10	39	2012
Guinea-Bissau	1.1%	5.4%	5.34%	75.32%	5.58	507			58	13.5	28.5	2013
Mauritius	3.4%	12.9%	2.09%	6.68%	4.35	9,337		0.78	4.5	22	73.4	2013
Sao Tome and Principe	3.3%	19.0%	7.44%	62.16%	2.59	1,397		0.06	13.7	19.5	66.8	2013
Seychelles	13.2%	10.4%	1.0%	4.25%	2.58	10,198		2.26	2	18.7	79.4	2013

Migration

The data on immigrant and emigrant stock for each SIDS is taken from the World Bank database "Bilateral Migration Matrix 2013." Crude numbers of immigrant and emigrant stock are divided by the population of the country to get the relative scale of immigrants and emigrants. On average, SIDS has immigrant stock equivalent to 9% of the national population, and 24.9% of emigrant stock. In total about 15% of the national population moved out of the country (population drain).

In the Pacific, Fiji, Samoa, Tonga, Tuvalu, and Micronesia are the countries with a high scale of population drain. The main destination of emigrants from Micronesia is the United States, as the compact of free association between the two countries allows people from Micronesia to move and work freely in the United States. The population drain is in general considered to be a negative factor for national development, but emigration also has some positive effects. For example, due to the limited economy and environment of SIDS it might be necessary to seek income sources outside the island country. Foreign remittance is one of the important sources of income for the country in Tonga and Tuvalu. As people move from remote islands to the capital city and further to other countries, the emigration from the capital city keeps the urban population within a certain level.

Unlike other SIDS, Palau has both outgoing emigrants and incoming immigrants. The reason for this seems to be that the gap between the small national population (approximately 20,000) and the large number of tourists (approximately 120,000 tourists per year) creates demand for foreign labor, and the wage rate in Palau is higher than that of the surrounding countries. The main destinations of outgoing emigrants from Palau are Guam and mainland United States. The origins of the incoming immigrants to Palau are the Philippines and China. In this way, labor moves around the world in search of better employment no matter the size of a country. Immigrants are also seen in Antigua & Barbuda, Mauritius, the Seychelles, and the Maldives, according to statistical data. All these countries have the conditions mentioned above, that is, demand for foreign labor in the tourism sector and good wage rates.

There seem to be two different flows of immigrants in the Pacific region. The main destinations of migrants from Polynesian countries (Samoa and Tonga) are the United States, Australia, New Zealand, and American Samoa. For the migrants from Micronesian countries, the main destinations are the United States, Northern Mariana Islands, and Guam. Melanesian countries (PNG, the Solomon Islands, and Vanuatu) have much fewer emigrants compared with Polynesia and Micronesia. Kobayashi points out the high prevalence of tradition in the society, and low adaptability to the foreign society as the reasons for the low migration in Melanesian countries.[3] It seems that the conditions have not changed greatly even now, 20 years after Kobayashi's study. However, seasonal work programs do exist in Australia and New Zealand, where laborers from Melanesian countries go to work in the orchards for fruit harvesting.

The high percentage of the emigrant stock in Caribbean SIDS indicates the bigger scale of population drain in Caribbean SIDS. According to the statistics, Dominica has emigrant stock that is bigger than the national population. Their destinations include both outside (the United States, European countries) and inside (Antigua & Barbuda) the Caribbean region.

Remittance

The statistical data is taken from the World Bank website.[4] If the purpose of the migration is to find a better income earning opportunity, and family and relatives of the emigrants remain in the original country, then there

[3] 1994, Studies on Pacific Island Countries

[4] http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1288990760745/RemittanceData_Inflows_Oct2014.xls

should be a positive correlation between the scale of population drain and the scale of the remittance. The scale of the remittance is shown as the percentage of GDP and it indicates that the remittance to Samoa and Tonga is one of the important sources of income for the countries.

Table 4: Remittance breakdown for Samoa, Tonga, and Micronesia

	Sending country (2014, Million USD)							
Receiving country	The United States	New Zealand	Australia	American Samoa	Northern Mariana Islands	Guam	Others	Total
Samoa	18.01	62.63	26.71	32.23			0.77	140.35
Tonga	45.39	42.52	21.88	2.96			1.46	114.20
Micronesia	15.78					5.13	1.14	22.05

*Data are taken from the World Bank website[5]

In the case of Haiti, migration flow (number of emigrants per year) is not high, but emigrant stock is high in the United States, Canada, France, and the Dominican Republic, totaling 1.37 million[6]

, and naturally, the remittance to Haiti is also high. Jamaica also has high emigrant stock in the United States, Canada, England, Germany, and France, totaling 1.1 million, and remittance is also high. Guyana has higher percentage of emigrant stock than Haiti, but the scale of remittance compared with GDP is less than half that of Haiti. It is not possible to find out the exact reason behind this, but it may be possible that the GNI per capita in Haiti (USD 708) is about one fifth that of Guyana (USD 3583), so that the same amount of income earned and remitted by emigrants occupies a bigger share of national income in Haiti.

SIDS in the Indian Ocean and the Atlantic Ocean are less dependent on remittance. Maldives, Mauritius, and Seychelles depend very little on remittance, possibly due to the well-developed tourism sector within the countries.

It should be noted that a big difference exists between various data sources. According to the data taken from the World Bank website, the incoming remittance to Timor-Leste is 130 million USD, equivalent to 216% of GDP in 2013. However, another data source (Ministry of Foreign Affairs, Japan) provides 1,468 million USD as the same country's GDP. If this is the right number, then the scale of remittance in Timor-Leste should be considered to be less than 9% of GDP. Although such a big gap is not observed for other countries, the statistical comparison should be used to grasp just the general characteristics of the countries.

Aid

The data on the foreign aid is taken from the website of the Ministry of Foreign Affairs, Japan. The data on the government budget is taken from the CIA World Factbook. In SIDS in the Pacific region, aid is of a significant scale compared to the government budget. Fiji and Palau seem to be less dependent on aid thanks to the active private sector. SIDS in the Caribbean region depend little on aid except Haiti. However, a UN paper[7] analyzing the finance of SIDS points out that some Caribbean SIDS have a high percentage of debt compared with GDP. Figure 1 shows the scale of debt compared to GDP. SIDS in the Indian Ocean and Africa depend highly on aid, except Mauritius and Seychelles.

[5] http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1288990760745/Bilateral_Remittance_Matrix_2014.xlsx

[6] World Bank, bilateral migration matrix

[7] UN, 2013, Financing for Sustainable Development in Small Island Developing States

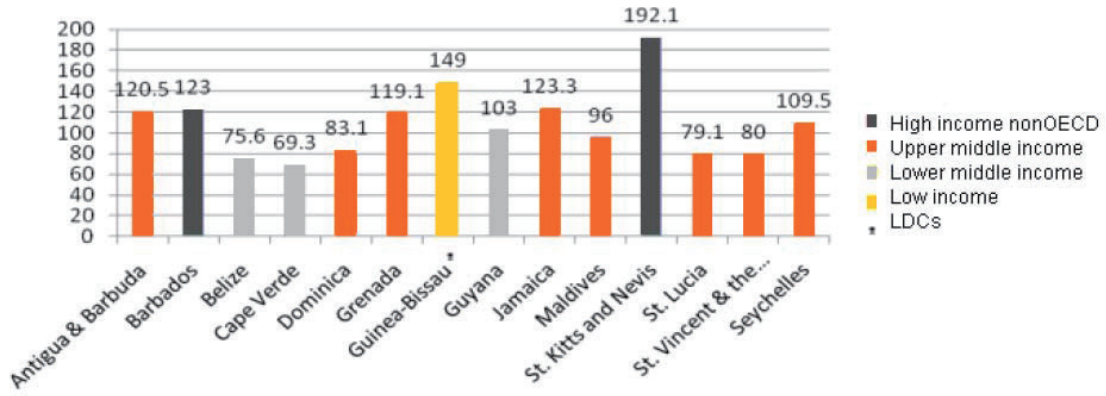

Figure 1: Scale of debt in SIDS shown as % of GDP

Bureaucracy

In SIDS, development of the private sector is a challenge, and often the government sector is the main source of employment and income earning opportunity. As Francis Hezel argued in his paper[8], if the private sector is well developed, then the GDP should be bigger compared with the government budget. The figures in Tables 1, 2, and 3 reflect how well private sector is developed in each SIDS, but it needs to be treated with caution. For example, the GDP–government budget ratio in Guinea-Bissau is 5.58, the third highest among all the SIDS (next to 7.07 in Singapore and 6.20 in St. Lucia). This indicator may need further assessment to reflect the real characteristics of each SIDS.

Tourism

Since it is difficult to obtain a consistent and comparable figure on the contribution of the tourism sector to the GDP, the ratio between the number of yearly tourists visiting SIDS and national population is used to check how developed the tourism sector is. The data on the number of yearly tourists is taken from "World Statistics Pocketbook 2014 edition Small Island Developing States."

In the Pacific, Palau has a significant number of yearly tourists, five times more than the national population. In the Caribbean, Antigua & Barbuda, Bahamas, and many others have a large number of tourists. Antigua & Barbuda has 0.25 million tourists per year, but according to the field survey this accounts only for long-stay tourists and does not include the 0.75 million cruise ship passengers visiting the country for a short stay (typically arriving in the morning, and leaving in the evening of the same day). The economic impact of cruise ship passengers is limited compared to long-stay tourists.

The total number of tourists visiting Antigua & Barbuda becomes 1 million including the short stay, equivalent to more than 11 times the national population. The definition of tourists[9] may vary depending on countries and needs to be treated with caution.

Around Africa, Maldives and Seychelles have a well-developed tourism sector. Mauritius and Cabo Verde have a relatively well-developed tourism sector.

Poor infrastructure for tourists and shortage of human resources in the tourism sector hinders the development of the tourism sector. Tuvalu is one such example, because tourists visiting the country are only 1000. It may not be as extreme as Tuvalu but many other SIDS in Pacific face the same challenge, namely poor accessibility, poor infrastructure for tourists, and shortage of human resources.

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[8] Pacific Islands Policy 7, 2012, Pacific Island Nations: How Viable are their economies?

[9] According to the interview, tourists stay in Antigua & Barbuda for 5-10 days.

Primary Industry

Tables 1, 2, and 3 show the composition of GDP by sectors of origin taken from the CIA World Factbook. The percentage of primary industry in the Pacific varies from 3.2% in Palau to 50% in the Solomon Islands. On average, the primary industry in Pacific SIDS accounts for 15% of GDP, which is higher compared with other regions. Moreover, subsistent agriculture and fishing are still practiced in Pacific SIDS and again the figure needs to be treated with caution, as it is quite difficult to estimate the real scale of contribution to GDP.[10]

Compared with the Pacific region, SIDS in other region have a lower share of primary industry except Haiti, Jamaica, Comoros, and Guinea-Bissau. It seems that SIDS with higher percentage of primary industry tend to have lower GNI per capita. Economies depending on primary industry may need diversification for economic growth. Considering that there is no guarantee that SIDS can always import foods, or can start to produce food products by themselves as soon as they become necessary, keeping a good scale of subsistent agriculture and fishing may be one way to mitigate the dependence on external factors and improve resilience against external shocks. In fact, one report assesses the traditional subsistent economy as a "safety net" to mitigate the external shocks caused by the globalization and modernization of the economy.[11]

In general, islands made of coral have attractive seas and beaches but are difficult for developing the agriculture sector due to the poor availability of water and soil. Volcanic islands do not have attractive beaches but are rich in water and soil for primary industry.

Governance

Table 5 shows the indicators on governance for SIDS, taken from "Governance matters V: aggregate and individual governance indicators for 1996–2005," World Bank.

Table 5: Indicators on governance for SIDS in the Pacific region

Country	1. Voice and Accountability	2. Political Stability	3. Government effectiveness	4. Regulatory quality	5. Rule of Law	6. Control of corruption	Avg.
Fiji	0.18	0.29	-0.09	-0.35	-0.25	-0.6	-0.14
Vanuatu	0.6	1.27	-0.33	0.05	0.53	0.26	0.40
Solomon Islands	0.27	-0.05	-0.69	-1.05	-0.9	0.02	-0.40
Samoa	0.62	1.1	0.35	0.01	1.09	0.17	0.56
Tonga	-0.16	0.53	-0.48	-0.69	0.45	-1.28	-0.27
Kiribati	0.87	1.38	-0.5	-0.98	0.76	0.22	0.29
Tuvalu	1.04	1.38	0.23	-0.37	1.2	-0.15	0.56
Micronesia (FSM)	1.11	1.08	-0.09	0.19	0.72	-0.28	0.46
Palau	1.19	1.1	-0.76	NA	-0.07	NA	0.37
Marshall Islands	1.19	1.1	-0.96	-0.77	-0.27	-0.43	-0.02
Nauru	1.03	1.1	-0.44	NA	0.83	NA	0.63
Niue	NA	NA	-0.44	NA	NA	NA	-0.44
Cook Islands	NA	NA	0.23	-0.05(2004)	0.63 (2004)	0.07 (2004)	0.23
PNG	-0.05	-0.81	-0.96	-0.86	-0.92	-1.08	-0.78

[10] obayashi points out in his book (Studies on Pacific Island Countries) that Pacific SIDS used to inflate GDP by 110-130% in the 1980s to accommodate the contribution of the subsistent primary industry to GDP.

[11] Ministry of Foreign Affairs, 2008, external evaluation on the assistance provided for the Pacific island states (in Japanese).

Table 6: Indicators on governance for SIDS in the Caribbean region

Country	1. Voice and Accountability	2. Political Stability	3. Government effectiveness	4. Regulatory quality	5. Rule of Law	6. Control of corruption	Avg.
Antigua and Barbuda	0.54	0.8	0.48	0.6	0.73	0.78	0.66
Bahamas	1.14	0.83	1.28	0.99	1.33	1.32	1.15
Barbados	1.12	1.18	0.48	1	1.22	1.17	1.03
Belize	0.92	0.31	0.13	0.09	0.02	-0.22	0.21
Cuba	-1.87	0.03	-0.94	-1.75	-1.14	-0.26	-0.99
Dominican Republic	0.2	0.05	-0.41	-0.27	-0.66	-0.66	-0.29
Dominica	1.12	1	0.57	0.75	0.66	0.68	0.80
Grenada	0.84	0.49	0.26	0.36	0.32	0.68	0.49
Guyana	0.49	-0.38	-0.52	-0.38	-0.8	-0.58	-0.36
Haiti	-1.41	-1.91	-1.39	-1.17	-1.62	-1.45	-1.49
Jamaica	0.57	-0.33	-0.12	0.24	-0.55	-0.5	-0.12
St. Kitts and Nevis	0.87	1.29	1	1.14	0.82	1	1.02
St. Lucia	1.04	1.1	1.12	1.14	0.82	1.15	1.06
St. Vincent and the Grenadines	1.04	1.14	1.07	1.14	0.82	1	1.04
Suriname	0.74	0.26	-0.04	-0.46	-0.15	0.05	0.07
Trinidad and Tobago	0.44	-0.05	0.29	0.65	-0.07	0.01	0.21
Anguilla	0.81	1.2	1.56	1.09	1.67	1.25	1.26
Aruba	1.03	1.37	1.29	0.85	0.88	1.25	1.11
Virgin Islands (U.S. territ	1.03	0.52	1.29	1.09	1.15	0.78	0.98
Montserrat	NA	NA	NA	NA	NA	NA	NA
Puerto Rico	1.03	0.72	1.01	1.01	0.62	1.1	0.92

Table 7: Indicators on governance for SIDS in Asia, the Indian Ocean, and Africa region

Country	1. Voice and Accountability	2. Political Stability	3. Government effectiveness	4. Regulatory quality	5. Rule of Law	6. Control of corruption	Avg.
Maldives	-1.09	0.76	0.18	0.5	0.33	-0.28	0.07
Singapore	-0.29	1.08	2.14	1.79	1.83	2.24	1.47
Timor-Leste	0.18	-0.69	-0.97	-1.09	-0.55	-0.77	-0.65
Cabo Verde	0.83	0.88	-0.11	-0.21	0.21	0.21	0.30
Comoros	-0.28	-0.36	-1.63	-1.63	-0.96	-0.93	-0.97
Guinea-Bissau	-0.31	-0.51	-1.46	-1.11	-1.33	-1.08	-0.97
Mauritius	0.92	0.9	0.6	0.32	0.79	0.32	0.64
Sao Tome and Principe	0.56	0.61	-0.75	-0.84	-0.63	-0.77	-0.30
Seychelles	-0.04	0.84	-0.05	-0.09	0.21	0.01	0.15

There are six different indicators.

i) Voice and Accountability: The extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and free media.

ii) Political Stability: Perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including political violence and terrorism.

iii) Government Effectiveness: The quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

iv) Regulatory Quality: The ability of the government to formulate and implement sound policies and

regulations that permits and promotes private sector development.

v) Rule of Law: The extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence.

vi) Control of Corruption: The extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

The indicator is estimated within the range of -2.5 and +2.5, the higher the better. It should be treated with caution, as the data source varies by country, and it may contain errors.

On average, Pacific SIDS scored 0.1, Caribbean SIDS scored 0.44, and Indian Ocean and African SIDS scored -0.12. Caribbean SIDS have higher scores, except Cuba, the Dominican Republic, Guyana, Haiti, and Jamaica. In the Indian Ocean and Africa, Comoros and Guinea-Bissau have low scores.

In the colonization process, indigenous people in Caribbean SIDS died out almost completely and a Western style governance system completely replaced the old traditional system, whereas SIDS in the Pacific region were colonized, although indigenous people and their traditional governance system did not disappear but merged with the Western governance system. Even nowadays, Pacific SIDS have different tribes maintaining their own language, chiefly governance system[12], land tenure, and other traditional culture and social aspects. This may be why their governance is assessed low by a Western style of assessment.

1-2. Level of Isolation

Due to the smallness, it is difficult for SIDS to have an independent economy. Instead, it is necessary for SIDS to build a relationship with the external market. However, isolation of SIDS from continental markets is one of the main factors that make it difficult to link SIDS to external markets. In this section, the level of isolation of SIDS in four different regions (the Pacific, the Caribbean, the Atlantic, and the Indian Ocean) is analyzed.

Methodology

(1) Physical distance

Physical distances from SIDS to surrounding major cities or countries are taken. In the Pacific region, Fiji (Nandi) is taken as the epicenter, as it is actually the center for marine and air transportation in the region. For the same reason, Barbados (Bridgetown), Cabo Verde (Praia), and Seychelles (Victoria) are selected as the epicenters of each region.

(2) Selection of major cities surrounding SIDS

To measure the physical distance, major cities surrounding the epicenter are selected from the cities listed as "Global Cities" and "Emerging Cities" in the 2014 Global Cities Index and Emerging Cities Outlook published by A. T. Kearney, a USA based consulting firm. The total population of the top 15 Global Cities is 180 million, and that of the top 15 Emerging Cities is 220 million, and it is big enough for SIDS to have market opportunities at present and in the future.

Result

(1) Distance from SIDS to major cities (Global Cities and Emerging Cities)

Table 8 shows the distance from SIDS to major cities. Table 9 shows the average distance from SIDS to Global Cities, and Table 11 shows the average distance from SIDS to Emerging Cities.

[12] Except Tonga, which has a monarchy.

a. The Pacific region: Fiji (Nandi)

In the case of the Pacific region, there is no continent within a radius of 2,000 km from Fiji (Nandi), nor Global Cities or Emerging Cities. The east edges of the Australian continent (including Sydney and Melbourne) and New Zealand are within a radius of 4,000 km. Within a radius of 6,000 km, the far eastern edge of Indonesia is covered, and the Asian continent is within 8,000 km.

b. The Caribbean region: Barbados (Bridgetown)

Part of Latin America (Venezuela, the northern part of Brazil, and Colombia) is within a radius of 2,000 km from Barbados (Bridgetown). The eastern part of the North American continent is within 4,000 km. The western part of the European continent is within 6,000 km. London and Paris are within 8,000 km.

c. The Atlantic region: Cabo Verde (Praia)

The western edge of the African continent is within a radius of 2,000 km from Cabo Verde (Praia). The Iberian Peninsula, a part of the European continent, including Madrid, and part of Latin America are within 4,000 km. Most of Europe and New York is covered within 6,000 km.

d. The Indian Ocean: Seychelles (Victoria)

The eastern part of the African continent is within a radius of 2,000 km from Seychelles (Victoria). Most of the eastern African continent as well as some parts of the Middle East and India, including Dubai, Mumbai, and Bangalore are within 4,000 km. Some European and ASEAN countries are within 6,000 km, and Paris, Frankfurt, and 10 ASEAN countries are within 8,000 km.

Results are summarized in the tables below, and also in maps in the appendix.

Table 8. Distance from the top 15 Global Cities to SIDS

Global City				SIDS		Straight-line Distance (km)
2014 Rank	City	Population*	Remarks	SIDS	City	
1	New York	20,630,000	NY-NJ-CT	Fiji	Nadi	12,830
				Barbados	Bridgetown	3,390
				Cape Verde	Praia	5,640
				Seychelles	Victoria	13,600
2	London	10,236,000		Fiji	Nadi	16,260
				Barbados	Bridgetown	6,770
				Cape Verde	Praia	4,570
				Seychelles	Victoria	8,160
3	Paris	10,858,000		Fiji	Nadi	16,540
				Barbados	Bridgetown	6,860
				Cape Verde	Praia	4,440
				Seychelles	Victoria	7,850
4	Tokyo	37,843,000	Tokyo-Yokohama	Fiji	Nadi	7,140
				Barbados	Bridgetown	14,220
				Cape Verde	Praia	14,120
				Seychelles	Victoria	9,790
5	Hong Kong	7,246,000		Fiji	Nadi	8,210
				Barbados	Bridgetown	16,020
				Cape Verde	Praia	13,810
				Seychelles	Victoria	7,040
6	Los Angeles	15,058,000		Fiji	Nadi	8,910
				Barbados	Bridgetown	6,330
				Cape Verde	Praia	9,520
				Seychelles	Victoria	16,700
7	Chicago	9,156,000		Fiji	Nadi	11,720
				Barbados	Bridgetown	4,200
				Cape Verde	Praia	6,770
				Seychelles	Victoria	14,500
8	Beijing	21,009,000		Fiji	Nadi	9,000
				Barbados	Bridgetown	14,090
				Cape Verde	Praia	12,640
				Seychelles	Victoria	7,920
9	Singapore	5,624,000		Fiji	Nadi	8,310
				Barbados	Bridgetown	17,580
				Cape Verde	Praia	13,950
				Seychelles	Victoria	5,410
10	Washington	4,889,000		Fiji	Nadi	12,570
				Barbados	Bridgetown	3,350
				Cape Verde	Praia	5,840
				Seychelles	Victoria	13,910
11	Brussels	2,089,000		Fiji	Nadi	16,290
				Barbados	Bridgetown	7,060
				Cape Verde	Praia	4,710
				Seychelles	Victoria	7,860
12	Seoul	23,480,000		Fiji	Nadi	8,100
				Barbados	Bridgetown	14,340
				Cape Verde	Praia	13,410
				Seychelles	Victoria	8,710
13	Toronto	6,456,000		Fiji	Nadi	12,420
				Barbados	Bridgetown	3,900
				Cape Verde	Praia	6,130
				Seychelles	Victoria	13,840
14	Sydney	4,036,000		Fiji	Nadi	3,160
				Barbados	Bridgetown	16,130
				Cape Verde	Praia	17,860
				Seychelles	Victoria	10,240
15	Madrid	6,171,000		Fiji	Nadi	17,500
				Barbados	Bridgetown	6,200
				Cape Verde	Praia	3,420
				Seychelles	Victoria	7,820
Total		184,781,000				
*Demographia, Table 1 in "World Urban Areas 11th Annual Edition:2015:01"						

Table 9. Average distance from SIDS in each region and to the top 15 Global Cities

SIDS		Avg. Straight-line Distance (km)
SIDS	City	
Fiji	Nadi	11,264
Barbados	Bridgetown	9,363
Cape Verde	Praia	9,122
Seychelles	Victoria	10,223

Table 10. Distance from the top 15 Emerging Cities to SIDS

Emerging City				SIDS		Straight-line Distance (km)
2014 Rank	City	Population*	Remarks	SIDS	City	
1	Jakarta	30,539,000		Fiji	Nadi	7,750
				Barbados	Bridgetown	18,330
				Cape Verde	Praia	14,510
				Seychelles	Victoria	5,690
2	Manila	24,123,000		Fiji	Nadi	7,160
				Barbados	Bridgetown	16,940
				Cape Verde	Praia	14,910
				Seychelles	Victoria	7,520
3	Addis Ababa	3,376,000		Fiji	Nadi	15,450
				Barbados	Bridgetown	10,660
				Cape Verde	Praia	6,780
				Seychelles	Victoria	2,340
4	Sao Paulo	20,365,000		Fiji	Nadi	13,320
				Barbados	Bridgetown	4,310
				Cape Verde	Praia	5,000
				Seychelles	Victoria	11,030
5	New Delhi	24,998,000	Delhi	Fiji	Nadi	11,900
				Barbados	Bridgetown	13,440
				Cape Verde	Praia	10,230
				Seychelles	Victoria	4,370
6	Rio de Janeiro	11,727,000		Fiji	Nadi	13,700
				Barbados	Bridgetown	4,380
				Cape Verde	Praia	4,720
				Seychelles	Victoria	10,690
7	Bogota	8,991,000		Fiji	Nadi	12,130
				Barbados	Bridgetown	1,850
				Cape Verde	Praia	5,650
				Seychelles	Victoria	14,430
8	Mumbai	17,712,000		Fiji	Nadi	12,130
				Barbados	Bridgetown	13,690
				Cape Verde	Praia	10,120
				Seychelles	Victoria	3,260
9	Nairobi	4,738,000		Fiji	Nadi	15,210
				Barbados	Bridgetown	10,720
				Cape Verde	Praia	6,880
				Seychelles	Victoria	2,130
10	Kuala Lumpur	7,088,000		Fiji	Nadi	8,620
				Barbados	Bridgetown	17,260
				Cape Verde	Praia	13,660
				Seychelles	Victoria	5,200
11	Bangalore	9,807,000		Fiji	Nadi	11,470
				Barbados	Bridgetown	14,470
				Cape Verde	Praia	10,800
				Seychelles	Victoria	3,130
12	Beijing	21,009,000		Fiji	Nadi	9,000
				Barbados	Bridgetown	14,090
				Cape Verde	Praia	12,640
				Seychelles	Victoria	7,920
13	Johannesburg	8,432,000	Johannesburg-the East Rand	Fiji	Nadi	14,100
				Barbados	Bridgetown	10,400
				Cape Verde	Praia	7,220
				Seychelles	Victoria	3,780
14	Kolkata	14,667,000		Fiji	Nadi	10,660
				Barbados	Bridgetown	14,730
				Cape Verde	Praia	11,510
				Seychelles	Victoria	4,680
15	Istanbul	13,287,000		Fiji	Nadi	16,050
				Barbados	Bridgetown	8,930
				Cape Verde	Praia	5,810
				Seychelles	Victoria	5,750
Total		220,859,000				
*Demographia, Table 1 in "World Urban Areas 11th Annual Edition:2015:01"						

Table 11. Average distance from SIDS in each region and to the top 15 Emerging Cities

SIDS		Avg. Straight-line Distance (km)
SIDS	City	
Fiji	Nadi	11,910
Barbados	Bridgetown	11,613
Cape Verde	Praia	9,363
Seychelles	Victoria	6,128

Observations

Fiji (Nandi) is most isolated among the four epicenters of SIDS in different regions (the Pacific, the Caribbean, the Atlantic, and the Indian Ocean) in terms of the average distance to the top 15 Global and Emerging Cities. Fiji (Nandi) finds only two Global Cities (Sydney and Melbourne) within a radius of 4,000 km, while SIDS in other regions find many more Global and Emerging Cities in the same radius.

In terms of the average distance from SIDS to the top 15 Emerging Cities, the difference in average distance for Fiji (Nandi) and Barbados (Bridgetown) is not significant (300 km) as shown in Table 11. However, in terms of the average distance from SIDS to the top 15 Global Cities, Barbados (Bridgetown) seems to be less isolated, as it is 2,000 km nearer to the top 15 Global Cities than Fiji (Nandi), as shown in Table 9. The shorter distance to the Global Cities might be one of the reasons why many of the SIDS in the Caribbean region successfully developed their tourism sector.

The average distance from Seychelles (Victoria) to the top 15 Global Cities is 10,223 km, approximately 1,000 km more than Barbados (Bridgetown), but it has successfully developed a tourism sector.

While the distance has a positive relationship to the travel time and therefore travel cost, the size of the hinterland is the determining factor for the demand.

Tables 12 and 13 show that Seychelles has the biggest population size of Global Cities and Emerging Cities within a radius of 8,000 km. Fiji has the smallest population size of the Global Cities within 8,000 km, reaching only 94,790,000, which is approximately one fifth that of Seychelles (4,446,543,000). The average distance from SIDS and Global Cities is more than 10,000 km from both Fiji and Seychelles. However, in terms of the population size of the Global Cities within 8,000 km, Seychelles has a far bigger market than Fiji. Even within 2,000 km, Seychelles has population size of Global Cities 10 times more than Fiji.

The result confirms the similar trend in terms of the access to the Emerging Cities from SIDS. Fiji has access to a population size of 54,662,000 in the Emerging Cities within 8,000 km, while Seychelles has access to a population size more than six times bigger than Fiji. Fiji has no access to the Emerging Cities between 2,000 and 6,000 km distance, but Seychelles has 66,095,000 (within 2,000–4,000 km) and 195,331,000 (within 4,000–6,000 km) population size of Emerging Cities. In this way, comparison of the market size, in addition to the physical distance, shows that SIDS in the Pacific region are more isolated than the SIDS in other regions.

Table 12. Distance from SIDS and population of Global Cities

Distance between the Global City and SIDS	Epicenter in the four different regions							
	Nadi/Fiji (Pacific)		Bridgetown/Barbados (Caribbean)		Praia/Cape Verde (Atlantic)		Victoria/Seychelles (Indian Ocean)	
	Global Cities	Population	Global Cities	Population	Global Cities	Population	Global Cities	Population
0-2,000 km			Caracas	2,861,000				
			Bogota	8,991,000				
Sub-total				**11,852,000**				
2,000-4,000 km	Sydney	4,036,000	New York City	20,630,000	Madrid	6,171,000	Addis Ababa	3,376,000
	Melbourne	3,906,000	Washington D.C.	4,889,000	Barcelona	725,000	Nairobi	4,738,000
			Toronto	6,456,000	Casablanca	3,211,000	Johannesburg	8,432,000
			Boston	4,478,000	Lagos	13,123,000	Mumbai	17,712,000
			Miami	5,764,000			Chennai	9,714,000
			Montreal	3,536,000			Karachi	22,123,000
			Atlanta	5,015,000			Dubai	3,933,000
			Tampa	2,621,000			Abu Dhabi	982,000
			Lima	10,750,000			Doha	1,564,000
							Riyadh	5,666,000
							Manama	1,340,000
Sub-total		**7,942,000**		**64,139,000**		**23,230,000**		**79,580,000**
4,000-6,000km			Chicago	9,156,000	New York City	20,630,000	New Delhi	25,998,000
			Houston	5,764,000	Washington D.C.	4,889,000	Kuala Lumpur	7,088,000
			Dallas	6,174,000	Boston	4,478,000	Bangalore	9,807,000
			Casablanca	3,211,000	Montreal	3,536,000	Kolkata	14,667,000
			Mexico City	20,063,000	London	10,236,000	Istanbul	13,287,000
			Buenos Aires	14,122,000	Paris	10,858,000	Dhaka	15,669,000
			Sao Paulo	20,365,000	Brussels	2,089,000	Bangkok	14,998,000
			Rio de Janeiro	11,727,000	Vienna	1,763,000	Shanghai	23,416,000
			Santiago	6,225,000	Berlin	4,069,000	Chongqing	7,217,000
					Frankfurt	1,915,000	Singapore	5,624,000
					Amsterdam	1,624,000	Tel Aviv	2,979,000
					Istanbul	13,287,000	Lahore	10,052,000
					Zürich	785,000	Lagos	13,123,000
					Rome	3,906,000	Cairo	15,600,000
					Stockholm	1,484,000	Cape Town	3,812,000
					Munich	1,981,000	Kinshasa	11,587,000
					Geneva	599,000		
					Copenhagen	1,248,000		
					Milan	5,257,000		
					Dublin	1,160,000		
					Budapest	1,710,000		
					Prague	1,310,000		
					Budapest	1,710,000		
					Istanbul	13,287,000		
					Warsaw	1,720,000		
					Cairo	15,600,000		
					Rio de Janeiro	11,727,000		
					Sao Paulo	20,365,000		
					Bogota	8,991,000		
					Caracas	2,861,000		
					Tunis	1,990,000		
					Kinshasa	11,587,000		
Sub-total		-		**96,807,000**		**188,652,000**		**194,924,000**

*Continued on the next page

Table 12. Distance from SIDS and population of Global Cities

Distance between the Global City and SIDS	Epicenter in the four different regions							
	Nadi/Fiji (Pacific)		Bridgetown/Barbados (Caribbean)		Praia/Cape Verde (Atlantic)		Victoria/Seychelles (Indian Ocean)	
	Global Cities	Population	Global Cities	Population	Global Cities	Population	Global Cities	Population
6,000-8,000km	Tokyo	37,843,000	Los Angeles	15,058,000	Chicago	9,156,000	Paris	10,858,000
	Taipei	7,438,000	San Francisco	5,929,000	Toronto	6,456,000	Brussels	2,089,000
	Osaka	17,444,000	Vancouver	2,273,000	Miami	5,764,000	Madrid	6,171,000
	Manila	24,123,000	Amsterdam	1,624,000	Atlanta	5,015,000	Vienna	1,763,000
			London	10,236,000	Houston	5,764,000	Moscow	16,170,000
			Paris	10,858,000	Dallas	6,174,000	Berlin	4,069,000
			Brussels	2,089,000	Tampa	2,621,000	Frankfurt	1,915,000
			Madrid	6,171,000	Moscow	16,170,000	Barcelona	725,000
			Vienna	1,763,000	Buenos Aires	14,122,000	Amsterdam	1,624,000
			Berlin	4,069,000	Lima	10,750,000	Zürich	785,000
			Frankfurt	1,915,000	Mexico City	20,063,000	Rome	3,906,000
			Barcelona	725,000	Santiago	6,225,000	Stockholm	1,484,000
			Zürich	785,000	Riyadh	5,666,000	Munich	1,981,000
			Rome	3,906,000	Doha	1,564,000	Geneva	599,000
			Stockholm	1,484,000	Tel Aviv	2,979,000	Copenhagen	1,248,000
			Munich	1,981,000	Manama	1,340,000	Milan	5,257,000
			Geneva	599,000	Nairobi	4,738,000	Budapest	1,710,000
			Copenhagen	1,248,000	Johannesburg	8,432,000	Prague	1,310,000
			Milan	5,257,000	Cape Town	3,812,000	Warsaw	1,720,000
			Dublin	1,160,000	Addis Ababa	3,376,000	Tunis	1,990,000
			Budapest	1,710,000			Casablanca	3,211,000
			Prague	1,310,000			Manila	24,123,000
			Tunis	1,990,000			Beijing	21,009,000
							Shenzhen	12,084,000
							Guangzhou	20,597,000
							Ho Chi Minh City	8,957,000
							Hong Kong	7,246,000
							Taipei	7,438,000
Sub-total		**86,848,000**		**84,140,000**		**140,187,000**		**172,039,000**
Total		**94,790,000**		**256,938,000**		**352,069,000**		**446,543,000**

*1) Eighty-four Global Cities are included in the table. Global Cities more than 8,000 km away from SIDS are not included.

*2) The population estimate is taken from “Demographia World Urban Areas 11th Annual Edition: 2015:01”

Table 13. Distance from SIDS and population of Emerging Cities

Distance between the Emerging City and SIDS	Epicenter in the four different regions							
	Nadi/Fiji		Bridgetown/Barbados		Praia/Cape Verde		Victoria/Seychelles	
	Global Cities	Population	Global Cities	Population	Global Cities	Population	Global Cities	Population
0-2,000 km			Caracas	2,861,000				
			Bogota	8,991,000				
Sub-total		-		**11,852,000**		-		-
2,000-4,000 km			Lima	10,750,000	Casablanca	3,211,000	Addis Ababa	3,376,000
					Lagos	13,123,000	Nairobi	4,738,000
							Johannesburg	8,432,000
							Mumbai	17,712,000
							Chennai	9,714,000
							Karachi	22,123,000
Sub-total		-		**10,750,000**		**16,334,000**		**66,095,000**
4,000-6,000 km			Casablanca	3,211,000	Tunis	1,990,000	Lagos	13,123,000
			Mexico City	20,063,000	Cairo	15,600,000	Cairo	15,600,000
			Buenos Aires	14,122,000	Rio de Janeiro	11,727,000	Cape Town	3,812,000
			Sao Paulo	20,365,000	Sao Paulo	20,365,000	Jakarta	30,539,000
			Rio de Janeiro	11,727,000	Bogota	8,991,000	New Delhi	25,998,000
					Caracas	2,861,000	Kuala Lumpur	7,088,000
					Istanbul	13,287,000	Bangalore	9,807,000
					Budapest	1,710,000	Kolkata	14,667,000
							Istanbul	13,287,000
							Dhaka	15,669,000
							Bangkok	14,998,000
							Shanghai	23,416,000
							Chongqing	7,217,000
Sub-total		-		**69,488,000**		**76,531,000**		**195,221,000**
6,000-8,000 km	Jakarta	30,539,000	Lagos	13,123,000	Nairobi	4,738,000	Tunis	1,990,000
	Manila	24,123,000	Tunis	1,990,000	Johannesburg	8,432,000	Casablanca	3,211,000
					Addis Ababa	3,376,000	Manila	24,123,000
					Buenos Aires	14,122,000	Beijing	21,009,000
					Lima	10,750,000	Shenzhen	12,084,000
					Mexico City	20,063,000	Guangzhou	20,597,000
							Ho Chi Minh City	8,957,000
Sub-total		**54,662,000**		**15,113,000**		**61,481,000**		**91,971,000**
Total		**54,662,000**		**107,203,000**		**154,346,000**		**353,287,000**

*1) Thirty-four Global Cities are included in the table. Global Cities more than 8,000 km away from SIDS are not included.

*2) The population estimate is taken from "Demographia World Urban Areas 11th Annual Edition: 2015:01"

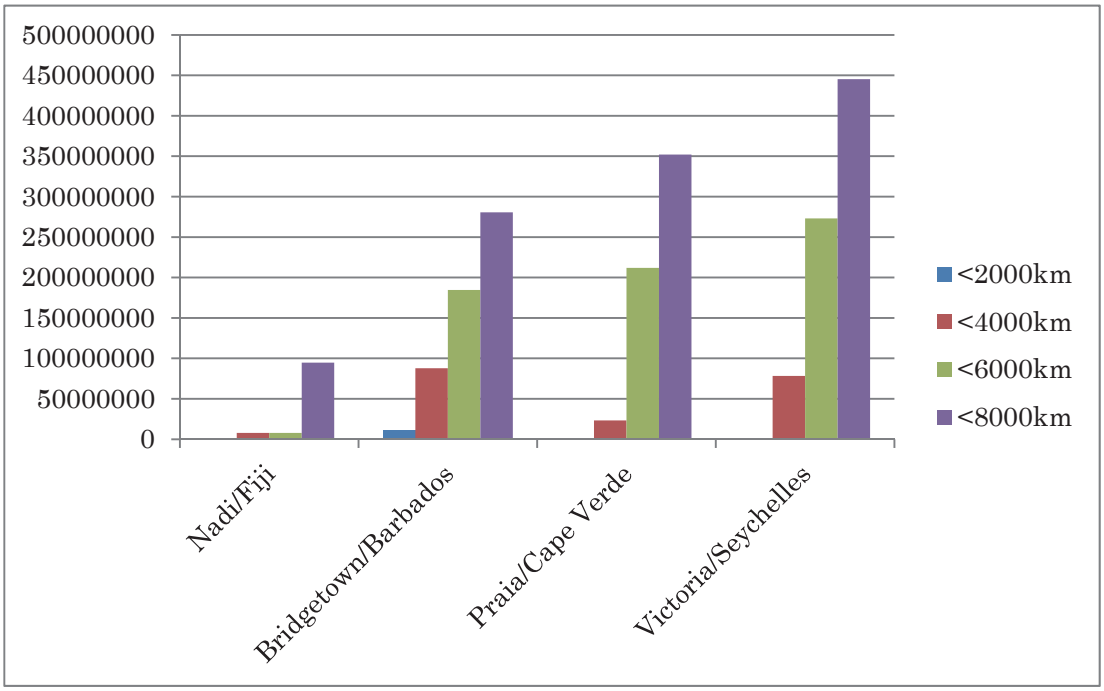


Figure 2: Distance from SIDS and population size of the Global Cities

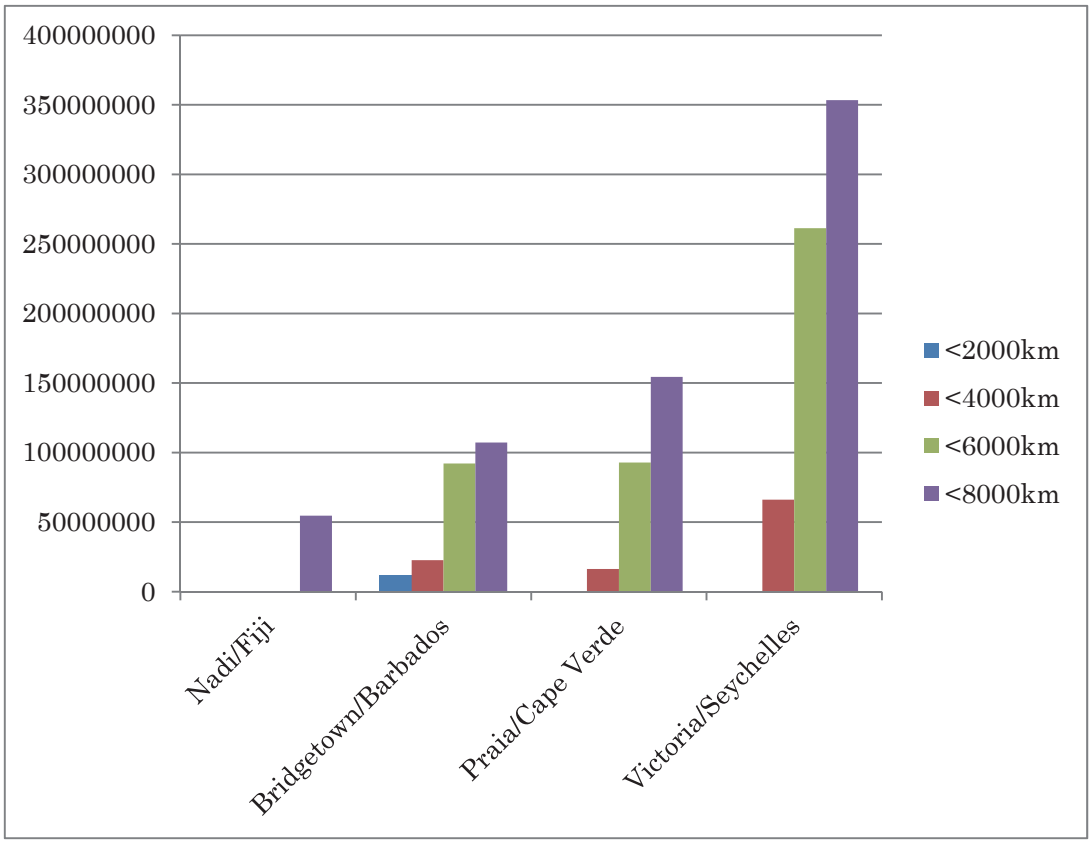


Figure 3: Distance from SIDS and population size of the Emerging Cities

Finally, Table 14 shows the direct air flight access from the major world cities to SIDS. Many SIDS in the Caribbean region have direct air access to England in addition to North America. For example, Barbados has direct access to London twice a day, and also to Manchester. Cabo Verde in Africa has direct access to Portugal. In the Indian Ocean, Mauritius has direct access to England and France. Madagascar has direct flights to France. Among SIDS in the Pacific, Fiji has direct flights from South Korea, USA, Australia, and New Zealand, but it has no direct access to any of the European countries.

The comparison of direct flight access from major world cities to SIDS confirms that SIDS in the Pacific are less accessible compared with SIDS in other regions.

The result of the survey indicates that “connectivity” of SIDS with the external market may have greater impact than the physical distance. Isolation of SIDS is one of the key challenges for development. However, it should be noted that isolation is not just the physical distance but has various factors, such as the accessible market (population) size as shown above.

Table 14. Direct flight access from SIDS to the world's major cities

Country	Regular direct flight from Global and/or Emerging Cities				Regular direct flight from other major cities				Remark
		Straight distance (km)	Flight hours	Flight/w eek		Straight distance (km)	Flight hours	Flight/w eek	
Pacific									
Fiji	Sydney	3,160	5	7	-	-	-	-	
	Melbourne	3,880	6	7	-	-	-	-	
	Seoul	8,100	10.5	3	-	-	-	-	
Vanuatu	Sydney	2,470	4	4	-	-	-	-	
Solomon Islands	Sydney	2,860	4.5	1	-	-	-	-	
Samoa	Sydney	4,340	6.5	6	-	-	-	-	
Tonga	Sydney	3,580	6	2	-	-	-	-	
Kiribati	-	-	-	-	Nandi	2,180	3	2	No direct flight from Global and Emerging Cities
					Honolulu	2,240	3	1	No direct flight from Global and Emerging Cities
Tuvalu	-	-	-	-	Suva	1,070	2.5	2	
Micronesia (FSM)	-	-	-	-	-	-	-	-	No direct flight from Global and Emerging Cities
Palau	Seoul	3,440	5	4	-	-	-	-	
	Tokyo	3,200	5	2	-	-	-	-	
	Taipei	2,410	3.5	1	-	-	-	-	
Marshall Islands	-	-	-	-	Honolulu	3,670	5	2	
Nauru	-	-	-	-	Brisbane	3,330	4.5	3	No direct flight from Global and Emerging Cities
					Nandi	2,230	3	1	
Niue	-	-	-	-	Auckland	2,440	4	2	No direct flight from Global and Emerging Cities
Cook Islands	Sydney	4,970	7.5	1	-	-	-	-	
PNG	Sydney	2,750	4	2	-	-	-	-	
	Singapore	4,940	6.5	5	-	-	-	-	
	Tokyo	5,080	7	1	-	-	-	-	
Caribbean									
Antigua and Barbuda	Miami	2,120	3.5	7					
	New York	3,150	5	1					
	London	6,280	8	6					
Bahamas	New York	1,770	3	7	-	-	-	-	
	Toronto	2,080	3.5	6	-	-	-	-	
	Miami	290	1	7	-	-	-	-	
Barbados	New York	3,390	5	7	-	-	-	-	
	Toronto	3,900	5.5	7	-	-	-	-	
	London	6,770	8.5	2	-	-	-	-	
Belize	Dallas	1,900	3	1	-	-	-	-	
	Miami	1,230	2	7	-	-	-	-	
	Atlanta	1,840	3	7	-	-	-	-	
Cuba	Toronto	2,310	3.5	7	-	-	-	-	
	Mexico	1,770	3	7	-	-	-	-	
	Madrid	7,450	9	5	-	-	-	-	
Dominican Republic	New York	2,500	4	7	-	-	-	-	
	Madrid	6,700	8	7	-	-	-	-	
	Bogota	1,600	8	7	-	-	-	-	
Dominica	-	-	-	-	Bridgetow n (Barbados)	330	1	7	No direct flight from Global and Emerging Cities
					San Juan (Puerto Rico)	600	2	7	No direct flight from Global and Emerging Cities
Grenada	New York	3,400	5	4					
	Miami	2,460	3.5	7					
Guyana	New York	4,090	6	7	-	-	-	-	
	Toronto	4,590	6.5	1	-	-	-	-	
	Miami	3,150	4.5	1	-	-	-	-	
Haiti	New York	2,470	4	7	-	-	-	-	
	Montreal	3,000	4.5	3	-	-	-	-	
	Miami	1,130	2	7	-	-	-	-	

*Continued on the next page

Table 14. Direct flight access from SIDS to the world's major cities

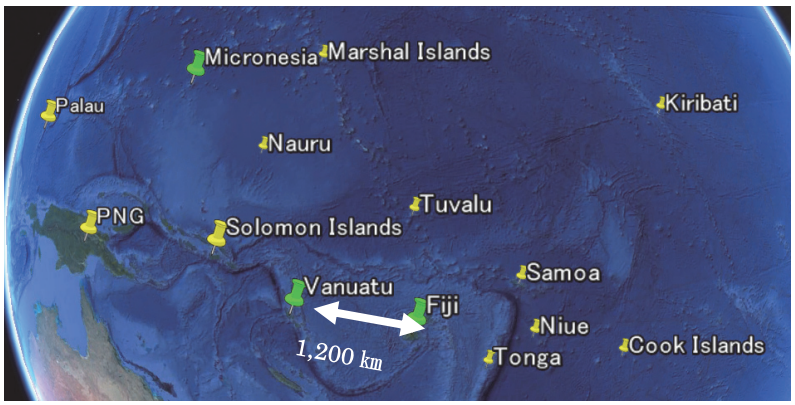
Country	Regular direct flight from Global and/or Emerging Cities				Regular direct flight from other major cities				Remark
		Straight distance (km)	Flight hours	Flight/w eek		Straight distance (km)	Flight hours	Flight/w eek	
Jamaica	Toronto	2,880	4.5	7	-	-	-	-	
	Miami	930	2	7	-	-	-	-	
	London	7,540	9	4	-	-	-	-	
St. Kitts and Nevis	Miami	2,030	3	7					
	New York	2,810	4.5	2					
St. Lucia	New York	3,230	5	7	-	-	-	-	
	London	6,790	8.5	7	-	-	-	-	
	Toronto	3,720	5.5	3	-	-	-	-	
St. Vincent and the Grenadines	-	-	-	-	Bridgetown (Barbados)	170	1	7	No direct flight from Global and Emerging Cities
					Port of Spain (Trinidad Tobago)	280	1	7	No direct flight from Global and Emerging Cities
Suriname	Amsterdam	7,510	7	7	-	-	-	-	
Trinidad and Tobago	New York	3,560	5.5	7	-	-	-	-	
	London	7,110	9.5	4	-	-	-	-	
	Toronto	4,050	6	7	-	-	-	-	
Anguilla	-	-	-	-	Antigua Barbuda	180	1	3	No direct flight from Global and Emerging Cities
Aruba	New York	3,180	5	7	-	-	-	-	
	Amsterdam	7,890	10	2	-	-	-	-	
	Bogota	980	2	7	-	-	-	-	
Virgin Islands (U.S. territory)	New York	2,640	4	4	-	-	-	-	
	Atlanta	2,580	4	7	-	-	-	-	
	Miami	1,770	3	7	-	-	-	-	
Montserrat	-	-	-	-	Antigua Barbuda	60	0.5	7	No direct flight from Global and Emerging Cities
Puerto Rico	New York	2,590	4	7	-	-	-	-	
	Madrid	6,380	8	2	-	-	-	-	
	Toronto	3,070	1	5	-	-	-	-	
Asia									
Maldives	Dubai	3,050	4	4	-	-	-	-	
	Singapore	3,380	5	7	-	-	-	-	
	Bangkok	3,140	4.5	7	-	-	-	-	
Singapore	Paris	10,750	13.5	7	-	-	-	-	
	Tokyo	5,330	7	7	-	-	-	-	
	Johannesburg	8,660	11	7	-	-	-	-	
Timor-Leste	Singapore	2,640	4	3	-	-	-	-	
Africa-Indo									
Cape Verde	Casablanca	2,620	3.5	5	-	-	-	-	
Comoros	Nairobi	1,360	2	6	-	-	-	-	
Guinea-Bissau	Casablanca	6,040	3.5	5	-	-	-	-	
Mauritius	Paris	9,420	12	7	-	-	-	-	
	London	9,730	12	5	-	-	-	-	
	Dubai	5,050	6.5	7	-	-	-	-	
Sao Tome and Principe	-	-	-	-	Libreville (Gabon)	300	1	5	No direct flight from Global and Emerging Cities
					Lisbon	4,540	6	1	No direct flight from Global and Emerging Cities
Seychelles	Paris	7,850	10.5	3	-	-	-	-	
	Dubai	3,320	4.5	7	-	-	-	-	
	Johannesburg	3,780	5	3	-	-	-	-	

*1) Flight information is taken from Google
(https://www.google.com/flights/#search;f=HND,NRT;d=2015-04-29;r=2015-05-03;mc=e)
The information on distance is taken from Google Maps
(https://www.google.co.jp/maps/@35.6802114,139.7086545,16z?hl=ja)

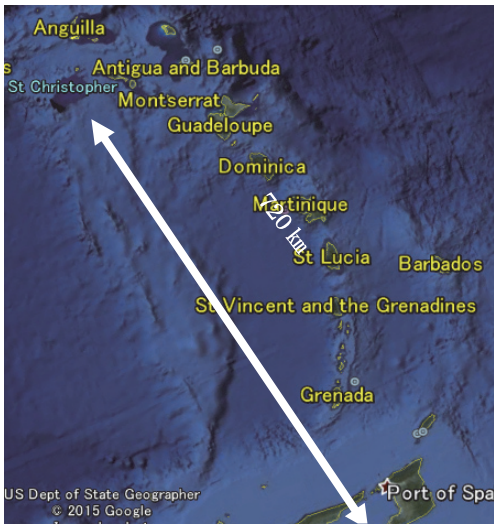
The Caribbean SIDS are physically less isolated from each other than the SIDS in the Pacific. The map below shows the distance between Port Vila and Suva, capital cities of Vanuatu and Fiji (1,200 km). The distance between Palau and the Cook Islands is 7,600 km.

On the other hand, the farthest distance within the Caribbean SIDS is approximately 720 km between Antigua & Barbuda and Trinidad & Tobago.[13] In the Pacific, just one country (Vanuatu) has a length of 800 km with 83 islands. In terms of the distance, one country alone in the Pacific is bigger than the Caribbean SIDS. They are all SIDS but physical isolation in the Pacific and the Caribbean is quite different.

[13] Guyana is excluded, as it is in South America.



*Made from Google Earth



*Made from Google Earth

1-3. Major Donors

The information on the assistance from donor countries and agencies to SIDS is taken from the OECD website (Query Wizard for International Development Statistics) and summarized below. Other relevant information is taken from the websites of the donor countries and agencies.

1) Australia

According to an official document of the Australian government[14], Australian assistance focuses on southeast Asia and the Pacific region.

The priorities of the assistance are as follows.

i) Infrastructure, trade facilitation, and international competitiveness
ii) Agriculture, fisheries, and water
iii) Effective governance: policies, institutions, and functioning economies
iv) Education and health
v) Building resilience: humanitarian assistance, disaster risk reduction, and social protection

[14] Commonwealth of Australia, DFAT, Australian aid: promoting prosperity, reducing poverty, enhancing stability, June 2014.

vi) Gender equality and empowering women and girls

Recent bilateral assistance to SIDS is as follows.

Table 15: Australian net assistances to SIDS in the Pacific (Million USD)

	2009	2010	2011	2012	2013
PNG	301.85	386.94	510.9	498.57	474.25
Solomon Islands	168.78	254	252.02	225.67	198.53
Vanuatu	40.04	55.96	61.78	67.54	51.94
Fiji	20.07	33.72	36.58	57.04	47.26
Samoa	17.81	42.76	29.02	51.49	35.76
Tonga	14.42	20.91	31.36	29.65	31.61
Kiribati	10.07	14.53	40.98	30.35	29.55
Nauru	18.31	23.33	33.83	23.3	24.78
Others	14.41	16.63	26.78	49.19	33.05
Oceania, regional	97.88	128.12	185.45	114.17	114.37
Total	703.64	976.9	1208.7	1146.97	1041.1

In 2013, Australia provided 4,149 million USD to developing countries, of which 1,041 million USD (25.1%) went to the SIDS countries in the Pacific. Out of this, more than half was provided to PNG and approximately 20% was given to the Solomon Islands. Apart from the assistance provided for SIDS in the Pacific, more than 100 million USD was given to Timor-Leste.

Australia's assistance to the SIDS in the Caribbean, the Atlantic, and the Indian Ocean is limited, totaling less than 5 million USD.

2) New Zealand

New Zealand makes it clear that their focus is on the Pacific region.[15] Their priorities are

i) Improved economic well-being (Agriculture, fisheries, tourism, energy, transport)

ii) Improved human development outcomes (Education and health)

iii) Improved resilience and recovery from emergencies

iv) Improved governance, security, and conditions for peace

Recent bilateral assistance to SIDS is as follows.

Table 16: New Zealand's net assistance to SIDS in the Pacific (Million USD)

	2009	2010	2011	2012	2013
Solomon Islands	26.83	25.48	21.16	29.38	33.86
Tokelau	8.84	13.12	17.77	17.45	23.13

[15] New Zealand Ministry of Foreign Affairs and Trade, International Development Group Strategic Plan 2012-2015, 2012

Samoa	10.34	17.76	11.71	17.78	22.04
Papua New Guinea	14.69	23.85	25.73	24.28	19.07
Vanuatu	15.5	12.86	13.57	15.25	14.92
Tonga	7.18	11.42	14.7	19.19	13.21
Niue	5.55	12.56	16.4	12.94	12.52
Cook Islands	2.88	9.81	15.15	13.34	9.69
Kiribati	5.33	2.88	12.9	12.58	6.76
Fiji	3.33	3.63	3.94	5.4	6.27
Tuvalu	1.32	1.89	3.9	4.29	3.43
Nauru	1.11	1.7	1.61	2.46	2.1
Others	0.14	0.2	0.15	0.28	0.17
Oceania, regional	32.83	33.98	46.71	53.51	55.18
Oceania, Total	135.9	171.1	205.4	228.1	222.4

In 2013, New Zealand provided 350 million USD of assistance to developing countries, of which 153 million USD was for SIDS. Compared with Australia, whose assistance is geographically more diverse, New Zealand focuses clearly on the Pacific region. The breakdown of New Zealand's assistance to the Pacific SIDS shows that Tokelau, Niue, and the Cook Islands, which have a compact of free association or similar status with New Zealand are the main recipient countries.

The assistance of New Zealand to SIDS in the Caribbean, the Atlantic, and the Indian Ocean is quite limited.

3) The EU

The framework of the assistance from the EU to SIDS is the Cotonou Agreement between the EU and African, Caribbean, and Pacific (ACP) countries. The Cotonou Agreement is valid for 20 years from 2003, and is the basis for assistance from the European Development Fund (EDF). The 10th EDF provided 22,682 million Euro during 2008-2013. The 11th EDF covers 2014–2020, and is expected to provide 30,500 million Euro.

The yearly plan made public by the EU[16] refers to Fiji, PNG, and Vanuatu for the necessity of improving resilience against natural disaster. It also refers to Cuba, Dominica, the Dominican Republic, Jamaica, St. Lucia, and St. Vincent for the same necessity. As for Haiti, it recognizes the need to improve hygiene, health services, and livelihood and food security for the poorest to fully recover from the aftermath of the earthquake in 2010.

In 2013, the EU provided 15,723 million USD to developing countries, of which 3.4% was provided to SIDS. The regional breakdown is summarized below (Tables 17, 18, 19, and 20), showing their strong presence in SIDS in the Caribbean, the Atlantic, and the Indian Ocean regions.

[16] European Commission, 2014, General Guidelines for Operational Priorities on Humanitarian Aid in 2015

Table 17: The EU's net assistance to SIDS in the Pacific (Million USD)

	2009	2010	2011	2012	2013
Fiji	12.8	6.23	7.24	7.63	12.87
Solomon Islands	3.67	24.97	5.96	12.66	8.39
Papua New Guinea	32.39	50.06	18.29	14.69	7.08
Vanuatu	2.78	2.05	1.87	4.28	4.06
Kiribati	1.94	0.79	3.31	2.21	3.52
Samoa	8.97	11.42	20.55	7.77	3.04
Tuvalu	0.41	0.24	4.67	0.73	2.44
Nauru	0.91	1.09	0.1	1.39	1.13
Micronesia	1.65	0.5	1.66	0.07	0.91
Tonga	0.76	1.62	8.99	0.74	0.61
Niue	0.34	1.12	0.98	0.62	0.54
Cook Islands	0.3	0.11	1.63	0.73	0.4
Marshall Islands	1.4	0.55	0.09	0.12	0.3
Palau	0.59	0.69	0.07	..	0.05
Total	68.91	101.4	75.41	53.64	45.34

Table 18: The EU's net assistance to SIDS in the Caribbean (Million USD)

	2009	2010	2011	2012	2013
Haiti	102.67	284.27	180.72	131.41	105.28
Jamaica	105.9	106.43	17.16	11.78	59.85
Dominican Republic	66.14	80.73	35.05	62.89	48.85
Guyana	52.21	29.25	27.89	30.51	31.32
Belize	9.92	7.38	9.08	14.18	15.65
St. Kitts-Nevis	2.54	8.56	16.59	19.33	13.79
Cuba	16.85	24.9	4.8	7.5	12.92
St. Lucia	16.17	23.61	19.46	24.33	12.6
Dominica	22.55	23.46	15.59	4.72	11.52
Suriname	26.8	17.35	7.56	5.95	6.85
Montserrat	5.57	8.62	2.22	6.59	6.24
Anguilla	..	8.29	0.03	4.66	5.06
St. Vincent & Grenadines	13.22	10.38	12.31	7.54	4.34
Antigua & Barbuda	0.51	12.24	3.98	-0.12	0.62
Grenada	14.8	12.17	2.79	0.8	0.34
Total	465.21	670.55	355.23	332.07	335.23

Table 19: The EU's net assistance to SIDS in the Atlantic and the Indian Ocean (Million USD)

Country	2009	2010	2011	2012	2013
Mauritius	93.16	67.88	70.32	87.28	77.17
Guinea-Bissau	60.12	16.57	20.58	14.74	18.75
Cape Verde	22.56	36.93	27.96	9.5	12.49
Seychelles	11.98	4.62	6.39	14.23	10.32
Comoros	15.23	10.67	7.92	11.69	8.51
Sao Tome & Principe	3.6	5.95	4.93	5.32	7.51
Total	206.65	142.62	138.1	142.76	134.75

Table 20: The EU's net assistance to SIDS in Asia (Million USD)

Country	2009	2010	2011	2012	2013
Maldives	3.77	5.62	0.05	4.71	0.17
Singapore	..	..	..	..	..
Timor-Leste	10.26	14.55	18.25	34.84	19.66
Total	14.03	20.17	18.3	39.55	19.83

4) The USA

In 2013, the USA provided 26,383 million USD to developing countries, of which 2.7% was given to SIDS. Regional breakdown of the assistance is shown in Tables 21, 22, 23, and 24. The USA concentrates their assistance to Federation of Micronesia, Marshall Islands, and Palau in the Pacific region, which have a compact of free association with the USA. In the Caribbean region, the USA is the top donor for Haiti and the Dominican Republic. As for SIDS in the Indian Ocean, the Atlantic, and Asia, the USA provides a limited scale of assistance.

Table 21: The USA's net assistance to SIDS in the Pacific (Million USD)

	2009	2010	2011	2012	2013
Micronesia	107.6	107.1	98.42	98.21	114.1
Marshall Islands	49.09	68.01	75.18	59.63	70.6
Palau	26.76	15.05	18.35	0.03	13.65
Papua New Guinea	2.76	2.29	3.57	3.58	7.27
Vanuatu	22.76	19.19	4.47	2.21	2.67
Fiji	1.94	1.72	2.39	1.71	1.92
Samoa	1.48	1.42	1.42	0.73	1.3
Tonga	1.21	1.2	1.48	1	1.27
Solomon Islands	0.06	0.23	0.25	0.47	1.06
Total	213.6	216.2	205.5	167.6	213.8

Table 22: The USA's net assistance to SIDS in the Caribbean (Million USD)

	2009	2010	2011	2012	2013
Haiti	319.6	1107	620.2	427.6	405.4
Dominican Republic	14.12	35.52	27.6	49.88	36.82
Belize	2.87	2.78	2.76	1.83	11.67
Cuba	20.01	16.39	12.81	12.71	10.4
Guyana	26.08	21.84	18.81	17.28	9.87
Jamaica	-2.05	-3.56	0.95	2.5	1.62
Grenada	0.08	0.02	0.02	..	0.5
Antigua & Barbuda	-0.18	0.11	0.18	0.16	0.12
Anguilla	..	..	..	..	0.02
St. Lucia	..	..	..	0.01	0.01
St. Vincent & Grenadines	-0.06	0.18	-0.18	-0.12	-0.08
Suriname	0.64	0.22	0.97	0.06	-0.08
Total	381	1181	683.7	510.9	476.3

Table 23: The USA's net assistance to SIDS in the Atlantic and the Indian Ocean (Million USD)

	2009	2010	2011	2012	2013
Guinea-Bissau	1.14	6.52	1.73	11.94	8.12
Cape Verde	36.41	37.12	9.38	3.84	5.15
Mauritius	0.13	0.47	0.16	0.38	0.38
Comoros	0.38	0.4	0.37	0.22	0.29
Seychelles	0.01	0.02	0.02	0.03	0.23
Sao Tome & Principe	0.4	0.02	0.61	0.19	-0.29
Total	38.47	44.55	12.27	16.6	13.88

Table 24: The USA's net assistance to SIDS in Asia (Million USD)

	2009	2010	2011	2012	2013
Timor-Leste	29.07	27.34	36.63	21.79	21.12
Maldives	-0.05	0.86	..	0.43	0.01
Total	29.02	28.2	36.63	22.22	21.13

5) China

China is a rapidly emerging donor country, especially for SIDS in Pacific. There is no official information on the scale of assistance provided by China for SIDS, but a significant scale of assistance is provided for eight SIDS in the Pacific (the Cook Islands, the Federation of Micronesia, Fiji, Niue, PNG, Samoa, Tonga, and Vanuatu) that have a diplomatic relationship with China.

During the field survey, Chinese aided projects were observed in many countries, such as an inter-island vessel in Micronesia, a convention center in Vanuatu, a hospital, stadium, and airport in Antigua & Barbuda, and the national assembly building in Seychelles.

An article for Foreign Affairs[17] estimates the total assistance of China to developing countries in the Pacific between 2006 and 2013 was 1,060 million USD, equivalent to one sixth of the assistance provided from Australia (6,800 million USD). China has been the top donor for Fiji, and second donor for the Cook Islands, PNG, Samoa, and Tonga. The article expresses concern over the fact that China has shifted their assistance from grants to loans after 2006, and this may affect the total debt level of SIDS.

6) Japan

In 2013, Japan provided 8,611 million USD to developing countries, of which 174 million (2.0%) was given to SIDS. Regional breakdown of the assistance is shown in Tables 25, 26 27, and 28. Japan concentrates its assistance in the Pacific region. In other regions, a limited scale of assistance is provided, except Haiti, Cabo Verde, and Timor-Leste.

Table 25: Japanese net assistance to SIDS in the Pacific (Million USD)

	2009	2010	2011	2012	2013
Micronesia	9.38	16.34	28.39	7.98	22.44
Solomon Islands	5.98	16.33	24.11	15.59	22.43
Palau	6.07	9.58	3.73	7.68	16.21
Vanuatu	13.07	15.61	7.39	10.14	13.53
Kiribati	6.79	3.47	3.84	17.38	12.91
Marshall Islands	8.30	12.59	6.21	10.07	11.24
Tuvalu	8.58	4.54	14.13	3.95	7.58
Samoa	15.97	27.02	17.39	15.92	7.38
Fiji	23.23	19.02	18.76	18.81	6.71
Tonga	11.72	23.77	18.61	13.30	4.50
Nauru	2.47	1.64	1.82	1.74	0.39
Cook Islands	0.05	0.09	0.07	0.44	0.31
Niue	0.07	0.05	0.04	0.09	0.06
Papua New Guinea	-4.16	22.21	11.34	-1.09	-7.16
Total	107.52	172.26	155.83	122	118.53

[17] The Geopolitics of Chinese Aid, March 4, 2015, https://www.foreignaffairs.com/articles/china/2015-03-04/geopolitics-chinese-aid

Table 26: Japanese net assistance to SIDS in the Caribbean (Million USD)

	2009	2010	2011	2012	2013
Haiti	24.84	71.98	22.24	16.36	13.41
Cuba	3.63	5.16	4.73	5.40	5.66
Belize	1.70	7.46	1.22	1.44	1.22
St. Lucia	6.40	2.55	2.02	1.42	1.15
Guyana	4.64	6.54	0.85	8.94	1.00
Dominican Republic	0.23	-1.91	-6.17	-9.96	0.95
Dominica	4.46	2.75	3.40	0.66	0.74
Antigua & Barbuda	0.97	6.76	9.64	0.80	0.35
St. Vincent & Grenadines	3.67	0.87	0.69	0.68	0.32
Grenada	0.68	5.84	8.49	0.04	0.15
St. Kitts-Nevis	0.03	0.72	0.73	0.19	0.15
Suriname	0.26	0.01	0.03	0.01	0.07
Jamaica	-5.25	-2.12	-22.63	-22.58	-18.15
Total	46.26	106.61	25.24	3.40	7.02

Table 27: Japanese net assistance to SIDS in the Atlantic and the Indian Ocean (Million USD)

	2009	2010	2011	2012	2013
Cape Verde	17.87	17.40	26.54	12.64	15.56
Guinea-Bissau	9.43	16.11	9.78	6.62	5.65
Sao Tome & Principe	0.42	3.60	3.54	3.70	2.72
Comoros	5.30	0.70	3.66	6.71	1.82
Seychelles	9.06	9.57	1.24	1.75	0.55
Mauritius	-2.07	-2.85	-2.44	1.07	-0.64
Total	40.01	44.53	42.32	32.49	25.66

Table 28: Japanese net assistance to SIDS in Asia (Million USD)

	2009	2010	2011	2012	2013
Timor-Leste	11.88	27.67	26.71	18.84	22.17
Maldives	17.99	37.3	4.55	5.57	1.27
Total	29.87	64.97	31.26	24.41	23.44

Tables 29, 30, and 31 summarize the principal donors for each SIDS.

Table 29: Top 10 donors for SIDS in the Pacific region (net assistance in million USD, source: OECD Query Wizard for International Development Statistics)

Recipient country		2008												2013												2008/2013 Change
		1	2	3	4	5	6	7	8	9	10			1	2	3	4	5	6	7	8	9	10			
Cook Islands	Donor	NZ	AUS	ITA	EU	JPN						Others	Total	NZ	AUS	AsDB	EU	JPN	WHO	KOR	FRA	DEU		Others	Total	
	Million USD	3.78	0.64	0.06	0.06	0.02						0.00	4.55	12.00	5.26	0.72	0.40	0.31	0.25	0.11	0.02	0.02		0.00	19.10	320%
Fiji	Donor	AUS	JPN	EU	NZ	GEF	UNDP	UNFPA	KOR	USA	FRA	Others	Total	AUS	EU	JPN	NZ	UNICEF	USA	Global Fund	DEU	UK	WHO	Others	Total	
	Million USD	18.31	7.49	6.03	3.85	3.65	2.25	1.84	1.80	1.27	1.10	2.19	49.78	47.26	12.87	7.95	6.27	5.76	1.92	1.91	1.75	1.49	1.04	3.80	92.02	85%
Kiribati	Donor	AUS	JPN	EU	NZ	GEF	USA	GAVI	KOR	ITA	UK	Others	Total	AUS	JPN	IDA	NZ	EU	AsDB	GEF	WHO	GAVI	UK	Others	Total	
	Million USD	8.12	7.68	6.22	3.63	0.91	0.47	0.11	0.11	0.06	0.03	0.00	27.34	29.55	12.91	8.25	6.76	3.72	3.12	0.61	0.45	0.05	0.02	0.00	65.44	139%
Marshall Islands	Donor	USA	JPN	EU	AUS	NZ	ITA	Norway	CHE	KOR		Others	Total	USA	JPN	AsDB	AUS	IDA	GEF	EU	WHO	KOR	NZ	Others	Total	
	Million USD	47.26	2.43	1.71	0.53	0.16	0.06	0.05	0.02	0.00		0.00	52.22	71.43	11.24	5.35	4.81	3.03	0.32	0.30	0.22	0.16	0.05	0.15	97.06	86%
Micronesia (FSM)	Donor	USA	JPN	EU	AUS	NZ	DEU	KOR				Others	Total	USA	JPN	AUS	AsDB	EU	WHO	Luxembourg	NZ	CAN	CHE	Others	Total	
	Million USD	79.84	5.23	4.29	1.30	0.13	0.03	0.01				0.00	90.82	114.08	22.44	3.72	2.78	0.91	0.52	0.30	0.07	0.04	0.03	0.00	144.89	60%
Palau	Donor	USA	JPN	EU	AUS	DEU	UK	NZ	KOR			Others	Total	JPN	USA	AUS	DEU	CAN	GEF	KOR	WHO	Finland	EU	Others	Total	
	Million USD	27.29	12.73	1.28	0.29	0.13	0.10	0.04	0.03			0.00	41.90	16.21	13.65	4.42	0.09	0.05	0.04	0.06	0.06	..	0.05	0.00	34.65	-17%
PNG	Donor	AUS	EU	NZ	JPN	GFATM	UNDP	GAVI	DEU	IDA	USA	Others	Total	AUS	AsDB	Global Fund	IDA	NZ	JPN	EU	USA	OFID	GAVI	Others	Total	
	Million USD	321.31	25.44	17.22	10.09	10.02	3.63	3.37	2.28	2.00	1.96	9.97	407.28	474.25	87.75	35.05	26.66	19.07	11.44	8.01	7.35	6.93	6.26	17.50	700.28	72%
Samoa	Donor	AUS	EU	NZ	JPN	IDA	GEF	USA	UNDP	KOR	UK	Others	Total	AUS	NZ	IDA	AsDB	IMF	GEF	JPN	EU	USA	OFID	Others	Total	
	Million USD	12.43	10.22	7.62	4.80	3.13	0.85	0.83	0.48	0.20	0.20	0.15	40.92	35.76	22.04	18.38	17.71	8.82	7.65	7.38	4.35	1.30	1.23	2.38	126.99	210%
Solomon Islands	Donor	AUS	NZ	JPN	EU	ITA	IDA	SPN	UK	GAVI	CAN	Others	Total	AUS	NZ	JPN	AsDB	EU	IDA	UNDP	USA	Global Fund	WHO	Others	Total	
	Million USD	185.84	22.06	9.48	7.19	0.54	0.37	0.31	0.25	0.20	0.17	0.17	226.59	198.53	33.86	22.43	14.77	8.39	5.67	1.24	1.06	0.98	0.95	3.57	291.45	29%
Tonga	Donor	AUS	NZ	JPN	USA	EU	IDA	UK	KOR	ITA	DEU	Others	Total	AUS	IDA	AsDB	NZ	JPN	USA	WHO	EU	KOR	UAE	Others	Total	
	Million USD	11.72	6.37	3.75	0.83	0.81	0.70	0.50	0.10	0.06	0.01	-0.05	24.80	31.61	15.45	14.68	13.21	4.50	1.27	0.66	0.66	0.25	0.20	0.21	82.70	233%
Tuvalu	Donor	JPN	NZ	AUS	EU	KOR						Others	Total	AUS	JPN	NZ	AsDB	EU	GEF	IDA	KOR	WHO	Finland	Others	Total	
	Million USD	5.76	4.49	4.27	0.32	0.20						0.00	15.04	8.99	7.58	3.43	2.57	2.53	0.86	0.84	0.12	0.09	0.08	0.02	27.10	80%
Vanuatu	Donor	AUS	USA	JPN	FRA	NZ	EU	UK	SPN	KOR		Others	Total	AUS	NZ	JPN	EU	FRA	USA	WHO	GEF	DEU	UNDP	Others	Total	
	Million USD	26.81	25.88	14.07	11.58	10.53	4.10	0.09	0.03	0.00		0.00	93.09	51.94	14.92	13.53	5.04	4.22	2.67	1.01	0.36	0.28	0.11	0.21	94.28	1%
Nauru	Donor	AUS	EU	JPN	NZ	KOR						Others	Total	AUS	NZ	EU	JPN	ITA	WHO	AsDB	GEF	KOR		Others	Total	
	Million USD	26.76	1.52	1.49	0.77	0.00						0.00	30.55	24.78	2.10	1.13	0.39	0.13	0.10	0.03	0.03	0.01		0.00	28.70	-6%
Niue	Donor	NZ	EU	AUS	JPN							Others	Total	NZ	AUS	EU	KOR	WHO	JPN	GEF				Others	Total	
	Million USD	15.42	1.60	0.92	0.05							0.00	17.99	12.52	4.87	0.54	0.11	0.07	0.06	0.01				0.00	18.18	1%

AUS	AUS
BEL	Belgium
CAN	Canada
CHE	Switzerland
DEU	Germany
FRA	France
GRC	Greece
ITA	Italy
KOR	Korea
NLD	Netherland
PRT	Portugal
SPN	SPN
UAE	United Arab Emirates

Table 30: Top 10 donors for SIDS in the Caribbean region
(net assistance in million USD, source: OECD Query Wizard for International Development Statistics)

Recipient country		2008												2013												2008/2013 Change
		1	2	3	4	5	6	7	8	9	10			1	2	3	4	5	6	7	8	9	10			
Antigua and Barbuda	Donor	EU	JPN	GRC	UK	FRA	DEU					Others	Total	EU	GEF	JPN	USA	KOR	CAN	AUS	UK	Finland	GRC	Others	Total	
	Million USD	2.44	0.63	0.10	0.02	0.01	0.01					0.00	3.20	1.10	0.36	0.35	0.24	0.12	0.05	0.05	0.03	0.02	0.01	0.02	2.36	-26%
Bahamas	Donor	No data												No data												
	Million USD																									
Barbados	Donor	EU	UNAIDS	USA	UNDP	UK	SPN	FRA	JPN	CAN	ITA	Others	Total	No data since 2011												
	Million USD	5.29	0.41	0.39	0.24	0.18	0.16	0.11	0.09	0.05	0.04	0.06	7.00													
Belize	Donor	EU	USA	JPN	UNICEF	CAN	Global Fund	Ireland	KOR	UK	Finland	Others	Total	EU	USA	OFID	UK	Kuwait	Global Fund	IDB	JPN	KOR	UNICEF	Others	Total	
	Million USD	11.47	2.41	1.47	0.60	0.44	0.32	0.29	0.11	0.09	0.03	0.04	17.25	16.45	11.86	9.80	2.60	1.75	1.45	1.42	1.22	0.76	0.70	1.42	49.42	186%
Cuba	Donor	SPN	USA	BEL	CAN	CHE	JPN	Global Fund	FRA	EU	DEU	Others	Total	SPN	EU	USA	CHE	Global Fund	OFID	GEF	JPN	CAN	Norway	Others	Total	
	Million USD	45.83	11.99	5.94	5.17	5.04	4.01	3.20	3.00	2.61	2.56	8.91	98.25	13.35	12.92	10.47	9.77	9.32	7.30	5.74	5.66	3.73	3.62	20.21	102.09	4%
Dominican Republic	Donor	EU	SPN	USA	GFATM	KOR	JPN	FRA	DEU	CAN	ITA	Others	Total	USA	EU	FRA	Global Fund	SPN	OFID	JPN	IDB	KOR	DEU	Others	Total	
	Million USD	60.99	53.11	42.57	19.49	14.25	13.62	11.09	10.83	2.29	2.01	9.14	239.40	52.66	51.22	29.56	20.04	19.72	10.72	10.10	4.67	3.94	2.86	7.89	213.36	-11%
Dominica	Donor	EU	IDA	JPN	CAN	FRA	UK	NZ	USA	ITA	GRC	Others	Total	EU	FRA	IDA	JPN	AUS	KOR	UNDP	UK	CAN	GEF	Others	Total	
	Million USD	18.71	1.76	1.20	0.54	0.35	0.24	0.05	0.03	0.02	0.01	0.01	22.91	11.74	9.17	1.39	0.74	0.19	0.16	0.06	0.05	0.01	0.01	0.01	23.52	3%
Grenada	Donor	EU	IMF	IDA	FRA	JPN	CAN	NZ	USA	Ireland	UK	Others	Total	IDA	Kuwait	DEU	UAE	EU	AUS	USA	CAN	JPN	KOR	Others	Total	
	Million USD	9.63	8.52	2.48	1.17	0.43	0.14	0.07	0.05	0.04	0.02	0.04	22.59	6.27	2.16	1.49	1.00	0.64	0.63	0.50	0.24	0.15	0.13	0.15	13.36	-41%
Guyana	Donor	EU	USA	CAN	JPN	GFATM	IDA	UK	UNICEF	DEU	UNDP	Others	Total	IDB	EU	USA	Global Fund	IDA	CAN	UNICEF	GEF	JPN	UNDP	Others	Total	
	Million USD	54.14	25.62	9.53	7.75	6.86	5.68	4.66	1.03	0.82	0.68	0.09	116.85	61.83	32.19	9.97	2.65	2.01	1.72	1.39	1.36	1.00	0.92	2.91	117.95	1%
Haiti	Donor	USA	CAN	EU	IMF	SPMN	FRA	Global Fund	IDA	JPN	Norway	Others	Total	USA	IDB	CAN	EU	IDA	FRA	Global Fund	CHE	UK	Norway	Others	Total	
	Million USD	259.68	141.52	117.50	50.12	45.50	41.87	34.78	24.77	11.72	10.35	64.65	802.45	410.65	199.33	105.95	105.30	92.71	65.54	22.74	22.33	14.99	14.25	106.92	1160.69	45%
Jamaica	Donor	EU	USA	JPN	GFATM	UK	BEL	CAN	SPN	KOR	GEF	Others	Total	EU	USA	UK	Global Fund	CAN	BEL	JPN	IDB	KOR	UNAIDS	Others	Total	
	Million USD	80.75	23.13	19.99	7.95	5.47	4.15	2.27	2.02	1.34	1.10	2.93	151.12	65.72	22.14	19.44	8.41	3.13	2.86	2.16	2.10	1.52	0.83	2.92	131.23	-13%
St. Kitts and Nevis	Donor	ITA	EU	FRA	JPN	Austria	UK					Others	Total	EU	AUS	CAN	JPN	KOR	UK	GEF				Others	Total	
	Million USD	33.53	10.07	0.38	0.02	0.01	0.00					0.00	44.02	14.52	0.26	0.16	0.15	0.10	0.09	0.02				0.00	15.29	-65%
St. Lucia	Donor	EU	IDA	FRA	JPN	UK	NZ	USA	DEU	Ireland		Others	Total	EU	IDA	JPN	Kuwait	FRA	AUS	GEF	CAN	UK	KOR	Others	Total	
	Million USD	14.97	3.90	1.48	1.47	0.07	0.07	0.02	0.02	0.01		0.00	22.01	13.40	9.81	1.15	0.88	0.85	0.21	0.20	0.19	0.16	0.12	0.08	27.06	23%
St. Vincent and the	Donor	EU	JPN	IDA	FRA	DEU	Austria	NZ	UK			Others	Total	EU	IDA	JPN	AUS	KOR	CAN	UNDP	UK	GEF	Czech Republic	Others	Total	
	Million USD	13.28	9.47	1.64	0.47	0.39	0.17	0.06	0.02			0.00	25.49	5.40	4.97	0.32	0.21	0.11	0.07	0.07	0.05	0.04	0.03	0.01	11.27	-56%
Suriname	Donor	NLD	EU	JPN	BEL	Global Fund	USA	FRA	CAN	Finland	DEU	Others	Total	FRA	EU	Netherlands	BEL	IDB	Global Fund	USA	GEF	CAN	UNDP	Others	Total	
	Million USD	67.58	24.71	3.93	1.62	1.52	1.15	0.76	0.11	0.08	0.01	0.00	101.48	14.29	6.85	3.21	1.68	1.54	1.46	0.77	0.53	0.35	0.20	0.27	31.15	-69%
Trinidad and Tobago	Donor	EU	FRA	UK	USA	CAN	UNAIDS	DEU	UNDP	GEF	NZ	Others	Total	No data since 2011												
	Million USD	4.84	1.66	0.85	0.32	0.32	0.29	0.26	0.26	0.18	0.07	0.06	9.09													

AUS	AUS
BEL	Belgium
CAN	Canada
CHE	Switzerland
DEU	Germany
FRA	France
GRC	Greece
ITA	Italy
KOR	Korea
NLD	Netherland
PRT	Portugal
SPN	SPN
UAE	United Arab Emirates

Table 31: Top 10 donors for SIDS in the Indian Ocean, the Atlantic, and Asia
(net assistance in million USD, source: OECD Query Wizard for International Development Statistics)

Recipient country		2008												2013												2008/2013 Change
		1	2	3	4	5	6	7	8	9	10			1	2	3	4	5	6	7	8	9	10			
Maldives	Donor	JPN	NLD	IDA	AUS	EU	UNDP	GEF	KOR	CAN	UNFPA	Others	Total	AUS	IDA	FRA	AsDB	GEF	UAE	WHO	JPN	OFID	DEU	Others	Total	
	Million USD	9.32	5.90	4.20	2.34	1.15	0.69	0.67	0.57	0.56	0.51	2.02	27.94	7.59	6.50	4.48	2.34	1.98	1.56	1.35	1.27	0.91	0.91	3.62	32.50	16%
Singapore	Donor	No data												No data												
	Million USD																									
Timor-Leste	Donor	AUS	PRT	USA	EU	JPN	SPN	Ireland	Norway	DEU	Sweden	Others	Total	AUS	JPN	USA	EU	AsDB	PRT	NZ	DEU	Global Fund	Norway	Others	Total	
	Million USD	74.48	38.99	32.74	27.37	26.45	13.96	10.23	7.67	6.66	6.03	24.62	269.21	108.57	22.17	21.65	19.66	19.03	17.33	9.19	7.93	5.62	5.60	21.24	257.98	-4%
Cabo Verde	Donor	PRT	EU	USA	IDA	SPN	Luxembourg	Netherlands	FRA	JPN	ITA	Others	Total	PRT	Luxembourg	EU	JPN	FRA	IDA	SPN	USA	BADEA	Global Fund	Others	Total	
	Million USD	68.95	27.95	23.80	20.79	20.32	19.44	11.67	9.09	5.29	5.21	14.41	226.91	161.61	18.98	16.80	15.56	9.40	9.05	5.91	5.35	4.50	3.86	15.10	266.12	17%
Comoros	Donor	FRA	EU	IMF	IDA	UNDP	GEF	Norway	UNFPA	UNICEF	Global Fund	Others	Total	IDA	FRA	EU	AfDF	IMF	Global Fund	UAE	JPN	GEF	UNICEF	Others	Total	
	Million USD	21.15	9.87	3.52	2.63	2.35	1.05	0.94	0.84	0.81	0.49	0.92	44.57	100.69	43.27	8.51	5.15	4.73	3.88	2.48	1.82	1.52	1.14	4.88	178.10	300%
Guinea-Bissau	Donor	EU	IDA	PRT	SPN	AfDF	JPN	FRA	UNDP	ITA	UNICEF	Others	Total	Global Fund	EU	BEL	IDA	USA	PRT	JPN	SPN	UNDP	UNICEF	Others	Total	
	Million USD	48.37	24.42	17.84	16.35	6.64	5.83	5.58	3.23	2.24	2.16	14.03	146.69	22.62	18.75	10.91	8.43	8.12	8.04	5.65	4.97	3.21	2.71	11.63	105.04	-28%
Mauritius	Donor	EU	FRA	GEF	JPN	UNDP	DEU	UK	USA	AUS	UNFPA	Others	Total	EU	FRA	GEF	BADEA	JPN	UK	Global Fund	AUS	WHO	AfDB	Others	Total	
	Million USD	94.98	53.62	3.38	3.37	1.52	1.41	0.60	0.18	0.13	0.08	-2.05	157.25	87.53	72.07	4.16	3.95	2.56	2.52	1.72	1.65	0.89	0.56	1.76	179.36	14%
Sao Tome and Principe	Donor	FRA	PRT	IDA	SPN	JPN	EU	Global Fund	BEL	IMF	UNDP	Others	Total	PRT	EU	IDA	AfDF	Global Fund	JPN	FRA	IMF	WHO	GEF	Others	Total	
	Million USD	13.79	13.30	8.86	8.03	7.22	4.12	2.70	2.43	1.34	0.94	2.78	65.50	17.25	7.81	6.42	6.22	4.59	2.72	2.03	1.12	0.91	0.76	3.43	53.26	-19%
Seychelles	Donor	FRA	JPN	EU	UNFPA	UK	DEU	ITA	NZ	GRC	USA	Others	Total	EU	UAE	FRA	BADEA	AUS	WHO	JPN	UK	AfDB	USA	Others	Total	
	Million USD	2.93	1.62	0.74	0.09	0.07	0.06	0.05	0.03	0.01	0.01	0.01	5.61	11.37	7.22	4.48	2.35	1.82	0.59	0.55	0.49	0.40	0.23	0.15	29.65	428%

AUS	AUS
BEL	Belgium
CAN	Canada
CHE	Switzerland
DEU	Germany
FRA	France
GRC	Greece
ITA	Italy
KOR	Korea
NLD	Netherland
PRT	Portugal
SPN	SPN
UAE	United Arab Emirates

Chapter 2: International Conferences and Regional Organizations Related to SIDS

2-1. The Third International Conference on SIDS

SIDS belong to the Alliance of Small Island States, and have an international conference every 10 years to discuss their common challenges, such as climate change, natural disaster, waste management, and international trade. In 1994, a Global Conference on the Sustainable Development of SIDS was held in Barbados, and the Barbados Plan of Action (BPoA) was adopted to promote the protection of the fragile ecosystem and human resource development. In 1999, the 22nd United Nations special assembly on SIDS discussed the framework for the monitoring and evaluation of the implementation of BPoA. In 2005, an international conference for the implementation review on BPoA was held in Mauritius and adopted the Mauritius Strategies for Implementation (MSI). A high-level meeting on the sustainable development of SIDS was held in 2010 at the United Nations headquarters to review the progress of MSI.

The third international conference on SIDS was held in 2014 in Samoa. Representatives from more than 40 countries and 10 international organizations participated in the conference, and Japan co-chaired the multi-stakeholder partnership dialogue on climate change and disaster risk management. Other multi-stakeholder partnership dialogues were held on i) sustainable economic development, ii) social development in SIDS, health, and Non-Communicable Diseases (NCDs), iii) sustainable energy, iv) ocean, seas, and biodiversity, and v) water and sanitation, food security, and waste management. Japan announced its readiness to assist human development in three years. On the last day of the conference, the SIDS Accelerated Modalities of Action (SAMOA pathway) was adopted.

2-2. The 7th Pacific Islands Leaders Meeting (PALM 7)

Since 1997, Japan has been inviting Pacific island leaders to Japan once every three years in order to hold regular discussions and strengthen the ties between Japan and SIDS in the region. In May 2015, the 7th Pacific Islands Leaders Meeting (PALM 7) was held in Iwaki City in Fukushima Prefecture. In the meeting Japan announced that it would provide assistance for SIDS in the Pacific of more than 55 billion JPY (equivalent to approximately 450 million USD), and would cooperate for the human development and exchange of more than 4,000 people. Additionally, a new training program called Pacific LEADS (Pacific Leaders Educational Assistance for Development of State) was created with the recognition of a strong need for training opportunities for the younger generation who will make the future of the countries. Through Pacific LEADS, Japan will provide 100 young administrative officers with study opportunities in master's courses and internship opportunities.

For the main focus of the assistance, "Trade, Investment and Tourism" was newly added to the existing areas, which were disaster risk reduction/climate change/environment/people-to-people exchanges/sustainable development/oceans: maritime issues and fisheries.

2-3. Regional Organizations

2-3-1. The Pacific region

The Pacific Island Forum (PIF)

The PIF was established to strengthen the regional economic cooperation and political discussion, and currently 14 SIDS, Australia, and New Zealand are member states. The South Pacific Forum was established in 1971, and it was renamed PIF in 2000. Under the PIF, there are specialized institutions for various areas

such as health, fisheries, environment, tourism, energy, and aviation in addition to the Secretariat for the Pacific Community (SPC) and the University of the South Pacific (USP).

Specialized institutions under the PIF
- •Fiji School of Medicine
- •Pacific Islands Forum Fisheries Agency
- •Pacific Island development Programme
- •Secretariat for the Pacific Community
- •Secretariat of the Pacific Regional Environment Programme
- •South Pacific Tourism Organisation
- •University of South Pacific
- •Pacific Power Association
- •Pacific Aviation Safety Office

*Information was taken from the PIF website as of August 2015

The Pacific islands Development Forum (PIDF)

The PIDF was established in 2012 with the initiative of Fiji[18] to create another regional framework to promote regional development. Australia and New Zealand are members of PIDF.

The Melanesian Spearhead Group (MSG)

MSG was created in 1988 with the Solomon Islands, Vanuatu, and New Caledonia. In 1993, a regional trade agreement was signed by PNG, Fiji, the Solomon Islands, and Vanuatu. In 2008, a permanent office was opened in Port Vila, Vanuatu.

The Polynesian Leaders Group (PLG)

The PLG was established in 2011 with Samoa, French Polynesia, Niue, Tokelau, the Cook Islands, Tonga, Tuvalu, and American Samoa. Their intention may be to exert leadership in the region from the Polynesian side.

2-3-2. The Caribbean region

The Caribbean Community (CARICOM)

CARICOM was established in 1973 to promote economic integration and cooperation among member states. Currently, 14 countries and 1 entity belong to CARICOM. Under CARICOM, there are many specialized institutions, such as for meteorology, public health, agriculture, aviation, climate change, and fisheries. CARICOM has been promoting the policy called CARICOM Single Market and Economy (CSME) to create an integrated regional economy where the movement of humans, goods, and capital is liberalized. In July 2015, CARICOM decided to create a new specialized institution called the Caribbean Center for Renewable Energy and Energy Efficiency (CCREEE).

[18] After the coup d'etat in Fiji in 2006, Fiji has not recovered membership of PIF as of August 2015. This may be why Fiji wanted to create another framework.

Specialized institutions under CARICOM

- •Caribbean Disaster Emergency Management Agency (CDEMA)
- •Caribbean Meteorological Institute (CMI)
- •Caribbean Meteorological Organization (CMO)
- •Caribbean Environmental Health Institute (CEHI)
- •Caribbean Agricultural Research and Development Institute (CARDI)
- •Assembly of Caribbean Community Parliamentarians (ACCP)
- •Caribbean Centre For Developmental Administration (CARICAD)
- •Caribbean Food and Nutrition Institute (CFNI)
- •Caribbean Examinations Council (CXC)
- •Caribbean Aviation Safety and Security Oversight System (CASSOS)
- •CARICOM Implementation Agency for Crime and Security (IMPACS)
- •Caribbean Agricultural Health and Food Safety Agency (CAHFSA)
- •Caribbean Knowledge Learning Network Agency (CKLNA)
- •Caribbean Public Health Agency (CARPHA)
- •Caribbean Telecommunications Union (CTU)
- •CARICOM Regional Organization for Standards and Quality (CROSQ)
- •Caribbean Regional Fisheries Mechanism (CRFM);
- •Caribbean Community Climate Change Centre (CCCCC)
- •Caribbean Organization of Tax Administrators (COTA)

*Information was taken from the CARICOM website as of August 2015

Organization of Eastern Caribbean States (OECS)

The OECS was established in 1981 for economic integration in the eastern Caribbean. Currently, six countries, three British territories, and one French territory belong to OECS. Many member states have a population size of 100,000–200,000, which is similar to SIDS in the Pacific. The OECS countries have already introduced a common regional currency called the East Caribbean Dollar, and the Eastern Caribbean Central Bank in St. Kitts and Nevis is in charge of the currency and regional monetary policy.

2-3-3. The Indian Ocean and the Atlantic

The Indian Ocean Commission (IOC)

The IOC was established in 1982 in order to promote political, economic, social, and cultural cooperation and collaboration among member states. Currently Comoros, Madagascar, Mauritius, Seychelles, and Reunion belong to the IOC. Under the IOC, there is a network called “Vanilla Island” to collaborate and promote islands in the Indian Ocean as a tourist destination.

The Economic Community of West African States (ECOWAS)

ECOWAS was established in 1975 to promote economic integration in the region. Currently 15 countries belong to ECOWAS, including Cabo Verde. In addition to economic integration, political stability, national defense, and conflict resolution were included in the mission.

The Southern African Development Community (SADC)

The SADC was established in 1992 with its origin in the Southern African Development Coordination

Conference (SADCC) with participation of South Africa in 1994. It promotes economic integration and conflict resolution and prevention in the region. Mauritius and Seychelles are the members from SIDS.

Chapter 3: Good Practices Found through the Field Survey

3-1. Aspects of Institutions and Governance

3-1-1. Shortage of human and financial resources

Shortage of human and financial resources is a common issue for SIDS. In particular, smallness of SIDS makes it difficult to develop skilled human resources necessary for the governance of the countries. Moreover, small domestic market and higher cost to access external markets makes it difficult to develop economic activities. The limited labor market in SIDS makes it difficult to find skilled labor within the country. The small private sector in SIDS means less tax income for the government, which makes it more difficult to secure the necessary budget for the country. Hence, the shortage of human and financial resources becomes more acute than for continental developing countries. To meet the shortage, external human and financial resources become necessary, as explained in Chapter 1. In terms of human resources, many of the Pacific SIDS depend on external skilled labor, such as political advisors or engineers, while this issue is not found in Caribbean SIDS.

JICA Country Analytical Work for Pacific Region (2012, in Japanese) points out the following.

- Many Pacific SIDS became independent in the 1960s and 1970s. However, the human and financial resources necessary for the countries were largely dependent on the former colonial power.
- Independence was given to SIDS in the Pacific based on politics rather than economy. Consideration was not given to whether a country had the capacity to become independent in terms of governance and economic independence.

Even though more than half a century has passed after independence, shortage of human and financial resources remains a very big challenge and dependence on former colonial powers and donor agencies still exists in Pacific SIDS.

In countries like SIDS, where the capacity of national government is limited, local resources seem to be an option for governance at community level.

Autonomy (self-governance at community level in Epi Island (Vanuatu)

In the Lamen Bay, Epi Island in Vanuatu, the village chief manages a simple water facility. To use the water facility, each household has to pay 120 Vanuatu vatu (equivalent to approximately USD 1.14). The collected money is used for the maintenance of the water facility.

The high school principal in the same village supports the seasonal workers of the community in foreign countries. Every year, as many as 400 villagers go to New Zealand to earn 600,000–900,000 vatu (equivalent to approximately USD 5,700–8,150) for four to seven months of seasonal work. Foreign work involves many risks, such as failure of self-management (wasting of money before coming back home), disagreement on the contract, etc. The high school principal in the village gives an orientation to villagers before they start seasonal work abroad. The villagers learn how to open a bank account and how to act with foreign contractors beforehand. With this orientation, the villagers can work comfortably and bring stable income every year.

Community people in Vanuatu have practices for collective action without depending on the national government. Historically, a self-governing system in villages has been practiced and it is still in place in Vanuatu. Self-governance can take action quicker than national governance, and requires fewer human and financial resources, although it may have a risk of taking wrong decisions due to the lack of technical knowledge and objective information. Hence, good self-governance requires good access to external information.

The key for community governance is human resources. The next case gives an example of human resource development.

Human resource development through investment on education in Cabo Verde

Cabo Verde does not have good natural resources. Even though the land suitable for agriculture is limited and precipitation is not abundant, it managed to develop the economy with a stable political situation and successful economic liberalization. In 2007, it graduated from Least Developed Country to become a Middle Income Country.

National development plan "Growth and Poverty Reduction Strategy III (2012–2016)" points to investment in basic education, higher education, and vocational training as one of the main factors that made the economic growth possible. Until 2003, there was no university in Cabo Verde, but now there are five universities. There is a vocational college to train seaman. The college can accommodate up to 30 students every year, accepting students from countries abroad, such as Sao Tome and Principe and Angola. On the other hand, Cabo Verde recognizes that there are challenges remaining to enhance entrepreneurship and strengthen financial management and capacity in market analysis.

Like Japan and Singapore, Cabo Verde is an example of how a small island nation can achieve economic development through human development.

The next case explains that collaboration among SIDS may solve or mitigate the problem of the shortage of human resources.

South-South cooperation of Fiji in waste management and management and distribution of pharmaceutical products

The Japanese Technical Cooperation Project for Promotion of Regional Initiatives on Solid Waste Management (J-PRISM) is a regional project covering 14 SIDS in the Pacific region. Among the target areas, Laotoka City in Fiji has many good practices in waste management. The officers of the City Council were dispatched to other Pacific countries to share their knowledge and experience through J-PRISM.

The pharmaceutical products distribution center in Suva built by Japanese grant aid distributes the pharmaceutical products also to Tuvalu, Nauru, Cook Islands, Kiribati, and PNG. In addition to the distribution, the Center made available a guideline for the management of pharmaceutical products and shared it with Tuvalu, contributing to their capacity development.

Sharing of regional human resources (the Caribbean)

The Caribbean Commission (CARICOM) was established in 1973 to promote regional cooperation. Under the umbrella of CARICOM, there are specialized institutions for meteorology, public health, agriculture, aviation, climate change, and fisheries. In case of fisheries, the Caribbean Regional Fisheries Mechanism (CRFM) has a regional office in Belize and St. Vincent to promote regional cooperation and to share regional human resources specialized in fisheries. A JICA expert worked at CRFM in St. Vincent to oversee the capacity development in the fisheries sector in the Caribbean region.

Establishment of Regional Multidisciplinary Center of Excellence (Mauritius)

A Regional Multidisciplinary Center of Excellence was established in 2013 with the initiative of Mauritius. It aims to promote the free movement of people, goods, and services within the region, and policy planning and implementation for regional economic development.

3-1-2. Maintenance of infrastructure with the concept of "civil minimum"

Civil minimum is the concept that civil society and local government need to think to maintain the minimum standard of living with a limited budget.

Maintenance of inter-island vessels

An inter-island vessel is indispensable infrastructure for people in remote islands. Unlike roads on the land that normally people can use free of charge, users of inter-island vessels need to pay to cover the necessary cost of the operation and maintenance of the vessels. It is common practice that the government bears some part of the cost to maintain the transport service for remote islands. Japan also has such a practice. For example, Okinawa Prefecture pays 12 inter-island vessel operators to compensate for losses.

SIDS in the Pacific are isolated (long distance to neighboring countries), and have remote islands in the country. Hence, an inter-island vessel is necessary but costly. JICA Country Analytical Work for Pacific Region (2012, in Japanese) points out that there were several accidents of inter-island vessels in the Pacific, possibly due to the lack of proper maintenance.

During the field survey, it was found that Micronesia, Tuvalu, and Cabo Verde undertake proper maintenance for the inter-island vessels granted from Japan, despite their limited national budget. This seems to confirm the sustainability of the assistance, if it meets the real needs of the SIDS. It may be worth considering how the cost of maintenance could be reduced if the facility or human resources for the maintenance are shared regionally.

In Japan, there are cases where vessels lasted for 50 years with proper maintenance of the vessel, with the introduction of Preventive Maintenance Policy.[19]

Maintenance of inter-island vessel provided by the Grant Aid from Japan

Japan provided inter-island vessels to Micronesia, Tuvalu, and Cabo Verde in the 1990s. They are still in operation where the government pays for maintenance and supports operation cost to keep the low fare. In the case of Cabo Verde, the vessel operates in a profitable route and the government needs no subsidy. Operation of the vessels is outsourced to a private company, which has enough technical and financial capacity.

Construction and Maintenance of roads

Roads are the most important land transport of SIDS. The construction of roads could be expensive in SIDS, due to the high cost of imported materials and labor, and often needs external assistance. Maintenance of roads is also a challenge for SIDS, where the technical, financial, and human resources are limited.

As a countermeasure for the financial issue, some SIDS (Palau, Fiji, and Cabo Verde) have introduced a special tax to secure the budget. However, it does not cover all the necessary cost for the maintenance. Moreover, there is a concern in the Pacific that the introduction of the earmarked tax may undermine the

[19] Change the parts on regular basis even if the vessel is operating without any problem.

flexibility in public financial management.

There is a case in Pacific SIDS (Vanuatu) where the community provides labor service for the daily maintenance of the road. This is similar to a program called “Adopt-a-Highway” in the USA and Canada, in which local civil organizations help in the daily maintenance work.

Special tax for the road maintenance

1) Palau

Palau established the road maintenance fund in 2013. However, it does not cover all the necessary cost and every year it needs an additional 200,000 USD.

2) Fiji

A fund for maintenance is made from the registration fee for the vehicle. However, it does not cover all the necessary cost and every year the government needs to prepare additional budget.

3) Cabo Verde

The fund for road maintenance is from the tax on fuel (8 escudo/liter). It generates 4.6 million escudos (equivalent to approximately USD 46,500) but it is not enough to cover all the cost.

Community participation for building or maintenance of infrastructure

In Vanuatu, the government outsources cleaning and grass cutting work to communities to save the cost of road maintenance.

In the remote island of Epi, the community actively participates in the administration and maintenance of the water facility.

3-2. Aspects of Economy and Production

3-2-1. Promotion of local products

SIDS in the Pacific have been maintaining self-sufficient living conditions. Their lifestyle has been “subsistence affluence,” as their lives are not threatened by hunger and drought, and traditionally do not depend on imported goods. However, as their lives become more and more modernized, demand for cash is growing for basic services such as health and education, imported foods, and electronic products.

As explained in Chapter 1, SIDS depend on fragile income sources such as remittance and foreign aid that are a part of the MIRAB economy. To have more secure income sources, the domestic private sector needs to generate income and employment. According to the general principle of economy, an economy grows from primary industry, and moves to the secondary then finally to tertiary industry. However, the development of secondary industry in SIDS seems difficult for the following reasons.

- Isolation from the external market and remoteness within the country makes the cost of production and transportation high and less competitive.
- Due to the smallness of the country, it is difficult to secure human resources in terms of both quantity and quality. Smallness makes it difficult to achieve the economies of scale and reduce cost.

These conditions may work against the development of primary industry as well, but the impact is considered to be less than that on the secondary industry. In this sense, it seems reasonable to consider the development of a private sector in SIDS based on the primary industry. ACP (Africa, Caribbean, Pacific) countries used to have preferential market access to the EU based on the Cotonou Agreement. Today, their market access is not as privileged as before, as trade liberalization grows, and agricultural products in ACP countries including SIDS became less competitive. In the Pacific, the Trans-Pacific Partnership may facilitate

international trade. However, it should be noted that there is a risk that SIDS may suffer more influx of imports while they cannot increase the export due to the weak competitiveness.

As life becomes modernized, imported rice and wheat are replacing the traditional and local root crops. In terms of food security and trade deficit, excess dependence on imported food is not desirable. Thus, development of primary industry is important not only for economic development, but also for food security.

One of the challenges for the development of primary industry in SIDS is the poor variety of the products. Many countries have no option but to produce similar products and to compete with each other to sell in a small market. However, there are some cases where SIDS manage to acquire a niche market based on a detailed market survey, or to develop local specialty products.

Tonga: export of agricultural products to a niche market

Tonga managed to find a niche market in Japan with marrow squash, Mozuku (type of seaweed, *Nemacystus decipiens*) and Satoimo (*Colocasia esculenta*). The climate and soil in Tonga was found to be suitable for the production of Satoimo. Working together with Japanese supermarkets, Tinopai Farm succeeded in producing and exporting Satoimo during May and July, as it is the season with no domestic supply in Japan. 99.8% of the import of Satoimo by Japan is from China, and Tonga is the second during 2007 and 2010. The demand for fresh Satoimo product from Japan is limited, but if Tinopai Farm can produce frozen or shelf-stable products then there is a bigger demand, according to an interview with the farm.

Solomon Islands: Handicrafts made in Solomon Islands, sold in Vanuatu

Most of the souvenirs sold in Vanuatu are imported. The origin varies from China, Indonesia, Vietnam, and other countries including the Solomon Islands. The Solomon Islands have good quality of handicrafts with wood and shellfish. They have a tradition of making shell money, and it may be why the Solomon Islands can make quality handicrafts.

Antigua & Barbuda: Island Cotton—regional specialty

Island Cotton is special high-quality cotton, possible to produce only in Antigua & Barbuda, St. Kitts and Nevis, Barbados, Jamaica, and Belize. Japan has a branch of the West Indian Sea Island Cotton Association to promote island cotton.

3-2-2. Value-addition

Conventionally, producers focus on production. However, there is a growing view that producers should also be engaged in the marketing, distribution, and retail of products to meet the market demand to generate more income. In Japan, it is called “6th Industry,” meaning that primary industry players should also play a role in secondary and tertiary industries.

In the case of a traditional subsistent lifestyle, it is not so difficult to match the supply with demand. However, in the case of the 6th industry, it is important to study the market well and produce what the market demands, not what is it possible to produce.

Vanuatu: Income generation through 6th industry

In Vanuatu, people depend on the coastal fisheries resources for food and income. However, the resource continues to decrease due to climate change, environmental degradation, and overfishing. To improve the situation, Japan implemented the Grace of the Sea phase II Project (2011-2014). One of the income generation activities that the project introduced to mitigate the fishing pressure on the coastal resource was the 6th industry. A small freezer with solar power was installed and it became possible to store the fish. Community people learned catering and started to offer fish dishes to the tourists. In this way, they succeeded in increasing income not by increasing the fish catch but by adding more value to the product.

Another income generator introduced was shell polishing. Community people learned how to polish shells to make handicrafts, and started to sell local products instead of imported products. The selling of handicrafts using local unutilized resources is the unique output of this project, which is also sustainable.

Cabo Verde: Promotion of agri-business

Cabo Verde places the promotion of agri-business as one of the seven priorities in the Growth and Poverty Reduction Strategy III (2012-2016), and plans to produce final product (for example, make wine from grapes) and sell agricultural products with more value added (for example, use local products in hotels and restaurants).

In 2012, there was a good harvest of onions and bananas. However, domestic demand was limited, export market was not accessible due to the high transportation cost, and the onions and bananas were wasted. Since then, Cabo Verde recognizes the need to invest in a cold storage facility.

Tonga: Community business with the support of NGO

Tonga National Youth Congress is an NGO established in 1991 for youth development, and helps the community to produce coconut oil and juice with the support of Oxfam in New Zealand. The government supported farmers to obtain the organic certificate. Currently there are 560 certified farmers and 23 staff working for the production of coconut oil and juice, with the monthly production of 1.2 tons for New Zealand, and 0.3 tons for the domestic market. Residue of the production (coconut shell) is re-used for local handicrafts. The profit goes to the youth in the community, as it is run by an NGO.

3-2-3. Tourism development

As seen in Chapter 1, many SIDS depend on the tourism sector. JICA Country Analytical Work for Pacific Region (2012, in Japanese) points out the following challenges of SIDS for tourism development.

- SIDS have unique natural environment, tradition, and culture with potential for tourism development. However, poor infrastructure and access is the constraint.
- While some countries (regions) successfully developed tourism (Hawaii, New Caledonia, French Polynesia, Cook Islands, Palau, Fiji, and Vanuatu), it is difficult for less developed countries to enter the tourism market.
- Countries with less developed tourism sector should seek what they have, such as pristine nature, tradition, or culture, rather than trying to develop infrastructure to catch up with other countries. Such tourist attractions might be less accessible but do not compete with existing tourist attractions in other countries.

The development of infrastructure for transport is necessary but does not guarantee successful tourism development. It is necessary to thoroughly study how SIDS succeeded or failed to develop the tourism sector, so that investment on the infrastructure will not be wasted.

The Pacific: Infrastructure for transport and tourism development

"Trade, investment and tourism between Pacific island states and Japan" (Japan Institute for Pacific Studies, 2014, in Japanese) analyzes the situation as follows.

- In the wake of World War II, European countries and the USA constructed infrastructure for transport in SIDS in the Pacific, for national security purposes.
- Military bases are made and linked to each other with air and marine transport.
- Even today, the regular air flights follow the route established by the military bases.
- Since the system is designed not for tourism but for military purpose, it does not provide good accessibility and access cost is high.

Antigua & Barbuda: From traditional agricultural nation to tourism nation

Antigua & Barbuda has a well-developed tourism sector. The number of tourists visiting the country reaches 0.25 million (long stay), and 0.75 million (one-day visit with cruise ship) per year. The total number of tourists (1.0 million) is more than 10 times the population of the country that was once a traditional agricultural nation. A US military base was constructed in 1941, ports and airports were constructed, and international traffic started. Ports and airports were further developed in the 1960s, and the country changed to a tourism nation. Nowadays, it has direct flights from London, New York, Toronto, Miami, Frankfurt, and Milan. That may be the reason why Antigua & Barbuda could develop the tourism sector in such a successful manner.

Another advantage of Antigua & Barbuda is that the island is made of coral, and it has very attractive white sand beaches and clear water.

SIDS has advantage for tourism development with white beaches and blue oceans. However, SIDS may have to compete with each other with similar tourist attractions. SIDS in Indian Ocean cooperate with each other for regional promotion of tourism.

The Indian Ocean: Regional tourism promotion through "Vanilla Islands"

Vanilla Island is a network set up in 2010 under the Indian Ocean Commission. Under this framework, Comoros, Madagascar, Seychelles, Mauritius, Mayotte, and Reunion work together for regional promotion of tourism. Their activities include

- Dissemination of information through websites, Facebook, Twitter, etc.
- Product development in collaboration with tour agents (e.g., package tour to visit Madagascar and Mauritius in 10 days)

They also plan to develop following activities

- Improve connectivity among member states,
- Implementation of training for tour agencies for member states,
- Survey to find out challenges and potentials,
- Formulation of a regional guideline to standardize services in the tourism sector

JICA Country Analytical Work for Pacific Region (2012, in Japanese) points out the concern in Palau, Cook Islands, Fiji, Samoa, Vanuatu, that the tourism sector is managed by foreign capital and profit goes out of the country.

Cabo Verde: Promotion of community-based tourism

Tourism accounts for approximately 20% of GDP. It is estimated that 70% of tourists use the two biggest tourism service providers in the country. It is often the case that big tourism service providers offer "all inclusive" packages, where accommodation, food, and even day-trips and other entertainment activities are included in one price. In such cases, the contribution of the tourism sector to the local economy becomes quite limited.

To solve the issues, Cabo Verde focuses on the development of community-based tourism. It is planned to develop tourist attractions such as exchange programs between tourists and local people and presentation of local culture and traditions in a way that local people can be involved and earn income.

Tourism is not the only option to attract people from abroad. SIDS in the Caribbean region succeeded in inviting offshore campus of universities in the USA. In Antigua & Barbuda, the total number of students in offshore campuses is estimated to be approximately 1,200, contributing to the local economy in a different way from tourism.

3-2-4. Distribution network and utilization of ICT

Apart from primary industry and the tourism sector, there are other examples trying to establish new businesses.

Fiji: Distribution center for pharmaceutical products

Japan assisted Fiji to build a new distribution center for pharmaceutical products in 2004. Since then, the center functions as regional hub to realize a stable supply of pharmaceutical products. The center has distributed pharmaceutical products to Tuvalu, Nauru, Cook Islands, Kiribati, and PNG. The center is expanding capacity to address more needs like medical equipment. It also provides guidance on use of pharmaceutical products.

Tonga: Call center business

Now Tonga has good Internet access with optical fiber. A private firm started call center business in 2012. Procom Tonga Service (PTS) started full operation in 2013. According to the field survey, the company has 24 operators, and business customers in Tonga and New Zealand as of January 2015. Tongan people can speak fluent English, and labor cost is relatively low in the region. These are considered to be the contributing factors for the call center business in Tonga.

3-2-5. Blue Economy

Gunter Pauli presented the concept of Blue Economy in 2010. According to him, Green Economy requires more investment from private firms, and more expense from consumers to protect the environment but its outputs are limited. Blue Economy tries to take ideas from the natural ecosystem to innovate technologies and ensure both comfort and sustainability of the environment without paying a high price. The concept is not necessarily associated with water or oceans, but depending on the context, the same phrase is used for

the economic activities related to water and oceans.[20] Blue Economy can be an alternative to mass tourism, but it is not easy to focus on Blue Economy only, because transport needs certain levels of demand of goods and people.

SIDS and Blue Economy

The concept paper on Blue Economy presented in the summit held in the United Arab Emirates in January 2014 urges that Blue Economy is quite important for SIDS.

Seychelles put high priority on Blue Economy. It has a Ministry of Finance, Trade, and Blue Economy, and a Department of Blue Economy. The department is in charge of coordinating various stakeholders, finding bottlenecks, and considering solutions to promote Blue Economy.

In Comoros, government officials expressed their willingness to promote Blue Economy during an interview with the Ministry of Production, Environment, Energy, Industry and Handicraft.

Seychelles: Protection of mangrove forest through collaboration between the hotel and local people

A resort hotel "Constance Ephelia" in Mahé island focuses on the harmonization of nature and tourism. It plants mangrove trees and monitors the progress working together with local people. Environmentally sensitive tourists are willing to pay the hotel fee, which includes the cost of the activity. Promotion of environmental protection can be considered as eco-tourism, and it matches the concept of Blue Economy.

3-3. Aspects of Resources and Environment

3-3-1. Tourism development and environmental protection

Environmental protection is very important for SIDS, as they enjoy good natural environment to promote tourism. But because of the smallness, only a limited number of people can live within the natural carrying capacity. There is a growing concern that modernized life and tourism development may exceed the carrying capacity of the natural environment. The following example of Palau explains the growing environmental awareness and concern in SIDS.

Palau: Harmonization of tourism and environmental protection

The population of Palau is around 20,000. The number of tourists in 2014 reached as much as 140,000. The growing concern in the government of Palau is that rapid increase of tourists is causing excessive pressure on the environment, and there is a need to introduce certain countermeasures.

A news article updated on the website of Pacific Island Center (March 25, 2015)[21] announces that growing numbers of Chinese tourists made prices of goods and housing higher and local people in Palau are finding it difficult to cope with the change, and that the government of Palau requested China to reduce the flight service from China to Palau. Another article (May 25, 2015) announces that a new tax will be introduced on top of the existing tax for tourists to upgrade the effort for the environmental protection.

3-3-2. Waste management, reuse and recycling of the waste

Modernized lifestyle in SIDS requires many imported goods. The isolation and remoteness in SIDS makes

[20] For example, the EU website refers to "Blue Economy" to explain that aquaculture, costal tourism, marine biotechnology, etc. create 5.4 million jobs and 500 billion Euro.

[21] Found on http://blog.pic.or.jp/ (in Japanese)

it difficult and economically unviable to realize appropriate waste management, such as reuse and recycling of the waste.

Many SIDS improved an existing open dumping site or replaced it with a hygienic disposal site with the help of donors. In addition to the infrastructure, promotion of 3R (Reduce, Reuse, and Recycle) and awareness raising are also conducted in order to reduce the waste and extend the durability of the disposal site. Japan provides assistance through the Project for Promotion of Regional Initiative on Solid Waste Management (J-PRISM) to improve the disposal sites and promote 3R in 12 target countries in the Pacific. J-PRISM is a regional project and counterpart personnel in various countries are engaged in discussion and information sharing to accumulate knowledge and experience for waste management. J-PRISM seems to be contributing to regional human capital in the area of waste management.

Among the SIDS visited during the field survey, Seychelles and all the SIDS in the Caribbean region except Dominica are considering the future introduction of biogas power generation in the used final disposal site. The high cost of power generated by imported fuel may make biogas power generation feasible in the future. Mauritius has already introduced biogas power generation with self-finance.

Outcomes of J-PRISM

1) Improvement of final disposal site

Japan provided technical support to Micronesia, Palau, and Tonga, and existing disposal sites were improved.

2) Improvement of financial capacity with the introduction of a recycling fund

Palau became capable of securing the budget necessary for waste management with the introduction of a recycling fund. With the fund, Palau purchased a waste collection vehicle and other heavy-duty machinery.

3) Community involvement in the promotion of recycling

Vanuatu and Tonga involve communities in the promotion of recycling.

4) Sharing of knowledge and experience

Through J-PRISM, different countries shared knowledge and experience on waste management.

3-3-3. Resilient infrastructure against natural disaster

The negative side of the environment is that SIDS are particularly vulnerable to natural disasters such as cyclones, or tsunami after earthquakes, as they are surrounded by oceans. Therefore, any infrastructure needs to be as resilient as possible, compared to continental developing countries.

Grenada: Resilient infrastructure development

Japan provided assistance to Grenada through the Project for Improvement of Fish Marketing for Grenville (2002–2007). A fish marketing facility was built, and the upgrade of roads and bridges was also undertaken to improve access to markets. As a result, the road became passable even during heavy rain. When Hurricane Ivan hit the country in 2004, the facility made for fish marketing remained intact and was used as an emergency office, because the surrounding buildings were damaged. The resilient infrastructure provided by Japan is highly appreciated by Grenada.

3-4. Aspects of Society and Culture

3-4-1. Mitigation of the negative impact of modern economy, maintenance of safety net

Kobayashi[22] points out the potential conflict between the traditional subsistent economy in Pacific SIDS and modern economy. Today, people need more cash to buy imported goods and obtain social services such as health and education. Since the traditional subsistent economy cannot generate cash, people leave the community to earn cash. This happens in any developing countries. However, in the case of SIDS, it is difficult to develop a private sector even in a capital city due to its smallness, remoteness, and isolation. In a country where the capacity of the government is limited, provision of a safety net becomes a big issue. In the countryside, people used to obtain food and water without cash. There is also a strong mutual aid system in the community. These are considered to be an informal safety net that does not exist in the urban area. Economic development is necessary to enhance the self-governing capacity of SIDS, but it needs to be assessed whether it harms the traditional safety net.

Vanuatu: mutual aid in the community in the capital city and economic development

The community of Lamap is on the Malakula island, far from the capital. Its population is 1000, and 300 live in the capital. These 300 form a branch of the community, and maintain the traditional mutual aid system. With the grass-roots assistance provided by Japan, they are constructing a market in the capital Port Vila. They manage to design and construct the market without depending on external experts. Once completed, the market is expected to sell products of Lamap. The community supports each other, when new people from Lamap come to live in the capital, or when somebody needs assistance. Vanuatu is estimated to have more than 100 different tribes with their own languages. The mutual aid within the same community and tribe seems to be maintained by each tribe.

Many SIDS in the Pacific maintain the customary land tenure system. It sometimes causes land disputes and hinders smooth economic development. On the other hand, it may work as a safety net for local people, as they have access to food and water on the land.

In SIDS in the Caribbean, the Indian Ocean, and the Atlantic, there seems to be less mutual aid in the community, and the government provides a safety net instead.

St. Lucia: Settlement upgrading in capital city

Castries, the capital city of St. Lucia, has urban problems with increasing population. People started to construct their houses in the unplanned area. The area is vulnerable to natural disasters, and if untouched, it might become a slum area. Instead of moving the people out, the government upgraded the settlement by constructing drainage, access roads, and houses. People agreed to pay a part of the cost of upgrading of their settlement.

[22] 1994, Studies for Pacific Island Countries (in Japanese)

Dominica: Social protection of Kalinago

Unlike the Pacific, most of the SIDS in the Caribbean have no indigenous people left. However, Dominica has indigenous people called Kalinago and there is a Ministry to socially protect them. In the northeast of Dominica, there is a settlement of Kalinago. Two thousand two hundred people in 700 households of Kalinago live there. There remains a subsistent economy with little cash income. According to a survey conducted in 1998, households below poverty line were 26.7%, and this remains unchanged according to a government official. The support provided by the Dominican government seems to be working as a safety net for Kalinago and stabilizes the society.

3-4-2. Utilization of existing organizations in the community

In the Pacific SIDS, schools and churches are located throughout the country, including remote islands. Schoolteachers and pastors are well respected by the community. For the development of the country where the outreach of the government is not enough, utilization of existing organizations such as schools and church would be an effective approach.

Vanuatu: Role of schools and churches in the community

School principal in Lamen Bay, Epi Island, give good advice to the community people before they go out of the country for seasonal work. This reduces the problems and disputes during the seasonal work in foreign country, and promotes saving. It also enhances the belongingness to the community. The church also organizes youth, women, and adults for volunteer works and fund raising activities.

3-4-3. Outreach with ICT

For the community, communication with the central government is also necessary for harmonized development and good governance. ICT technology may be able to bring solutions for remote islands to overcome the problems of information sharing and outreach.

Fiji: Utilization of ICT in University of South Pacific (USP)

Japan provided assistance to USP to strengthen their capacity to distant education through the “USP-JICA ICT for Human Development and Human Security Project (2010-2013).” It improved the access to higher education of the Pacific SIDS. While it was intended for higher education, the ICT facility has more potential to outreach in other sectors, such as basic education, adult education, vocational training, etc.

Chapter 4: Development of Remote Islands in Japan

The Center for Research and Promotion of Japanese Islands was established in 1966 for research and policy recommendations, organization of symposium training, and publication. Recently, it also started to organize events and disseminate information to help people in urban areas to resettle on remote islands, where depopulation and aging population are serious problems. According to the Center's website, there are 6,852 islands in Japan, of which 418 are inhabited with population of less than 100. In Asia, there are countries with many islands, such as Japan, Indonesia, and the Philippines. The main islands of these countries are big, and not very much disadvantaged by the characteristics associated with SIDS (smallness, isolation, remoteness, and surrounded by ocean). On the other hand, various efforts are undertaken by remote Japanese islands that may be applicable to SIDS.

The Government of Japan estimates 896 local governments, not only on islands, which is equivalent to almost half of all the local governments, will have a risk of disappearance in 2040 if the depopulation and aging of the population continues. In terms of the decreasing population and problems associated with it, the remote islands in Japan could be the most advanced case in the world.

As shown in the slogan of PALM 7 "We are Islanders!" Japan has unique experience with remote islands, which other continental donors such as the USA, the EU, and China do not have. If Japan can provide assistance to SIDS utilizing its own knowledge and experience accumulated in the remote islands in Japan, it would be something unique and Japan may be able to exert a strong presence in the SIDS.

4-1. Aspects of Institutions and Governance

The shortage of human and financial resources exists on remote islands in Japan as well. Islands depend on the central government in terms of finance and development planning. When the Japanese economy was growing rapidly, the central government could afford the budget for remote islands to construct infrastructure, such as ports, roads, bridges etc. For example, in the case of Ama town in Shimane Prefecture, construction accounted for 18.1% of gross island product as of 1998, second largest next to the public sector (36.5%). Primary industry accounted for 4.9% for the same period. Ten years later, construction accounted for 9.7%, while the public sector accounted for 41% as of 2008. Primary industry accounted for 3.5% for the same period. At the national level, the budget for public work in remote islands was 170 billion JPY as of 1997, and it dropped dramatically to less than 60 billion JPY in 2010. Thanks to the central government's policy and subsidy in the past, remote islands in Japan built good infrastructure for electricity, water, ports, roads, etc. Social services such as health and education were provided on the islands, and telecommunication infrastructure was also installed. However, all these investments did not stop the draining of population from the remote islands in Japan. With draining of population and issue of aging in the remaining population, the population in the remote islands in Japan is decreasing quite rapidly.

Table 32: National population and population on remote islands in Japan

	Population on remote islands	% change	National population	% change
1960	923,062	-	94,301,623	-
1965	837,949	-9.2%	99,209,137	5.2%
1970	736,712	-12.1%	104,665,171	5.5%
1975	666,341	-9.6%	111,939,643	7.0%

1980	630,538	-5.4%	117,060,396	4.6%
1985	597,487	-5.2%	121,048,923	3.4%
1990	546,505	-8.5%	123,611,167	2.1%
1995	509,105	-6.8%	125,570,246	1.6%
2000	472,312	-7.2%	126,925,843	1.1%
2005	433,827	-8.1%	127,767,994	0.7%

*Study report of the Center for Research and Promotion of Japanese Islands in 2000

According to a population estimate, the total population in Japan in 2035 will be 86% that of 2005, whereas the population on remote islands is estimated to be 59% of that in 2005.

From 2013, the Japanese government introduced a subsidy program for the activation of remote islands, in addition to the support for infrastructure that has existed for a long time. The scale of the newly added subsidy program is small but enables local governments to obtain support from the central government for various activities with flexibility, such as for reducing transport cost for economic development, creating employment, or helping people of urban areas of the main island to resettle to remote islands.

As good infrastructure and social services are not enough to keep the population on remote islands, various trials in Japan are implemented.

Ama town, Shimane Prefecture: Participatory development planning

Ama town has 2,400 inhabitants. It is located in a small remote island called “Nakanoshima.” Inter-island vessels are the only means of transport accessible to the islands, as there is no airport. It takes about two hours from the main islands of Japan by rapid vessel, and four hours by normal vessels. In the winter, the sea tends to be rough and often the vessel is canceled. Among various islands in Japan, the isolation of this island is severe.

As explained in the introduction, the main economic activity was construction. The economy grew, but the remaining debt of the town also grew, as the town had to finance the construction on top of the subsidy provided by the central government. When the outstanding debt exceeded 11 billion JPY, people started to worry and began reforms. There was an option to merge with other local governments, but Ama town decided to be independent.[23]

At the beginning, the mayor of the town cut 50% of his salary, and then the local government officials followed and requested a voluntary salary cut. People in the community understood the seriousness of the situation, and requested to increase the tariff for the bus run by the town, and return the subsidy. The sense of crisis was shared among the people on the island. With the strong initiative of the town mayor, various reforms were implemented (to be explained in detail later in the section), and the population drain stopped.

Behind this successful story, there was the 4th island development plan (2009–2018). Approximately 50 members were chosen from the town hall and community to form a study group for development planning. After more than 60 workshops, study meetings, training camps, 24 proposals from the community people were put forward. They were included in the 4th island development plan (2009–2018). The participation of the community people in the process of development planning enhanced the ownership of the plan among community people.

[23] At that time, the central government used to provide subsidies to the local government who decided to merge with other local governments.

A similar case was seen in the Caribbean region. Officials of St. Vincent went to Toronto, Manchester, London, and New York where the immigrants from St. Vincent settle and form a community, to discuss the development plan. Participation of the immigrants in the development planning of the country of origin may have enhanced their belongingness to St. Vincent and ownership of the plan.

Extension officers in community in Japan

After World War II, Japan had problems similar to the developing countries, such as shortage of food, malnutrition, poor hygiene, etc. The Japanese government sent community extension officers in addition to other extension officers specialized in agriculture. The community extension officers helped the community people to analyze the current situation, be aware of problems, and find solutions. The community extension officers disappeared as Japan became rich and community people in the rural area got access to the latest information through various media such as TV, radio, newspapers, magazines, etc.

However, recently the central government appointed new extension officers to work in the community to tackle the issues of decrease, drainage, and aging of the population. The extension officers are expected to contribute to economic development in the community, identifying problems and solutions in the community for better welfare.

When the government cannot provide enough services due to the shortage of human and financial resources or means to access remote areas, community extension officers may be an effective and efficient option.

4-2. Economy and Production

In small and remote islands, economic development is difficult due to higher cost of transport and lack of economy of scale. In many cases, people's living depends on goods brought from outside the island and not many goods go out from the island. It may be exceptional but there are some cases in Japan where islands can send goods out.

Goto city in Nagasaki Prefecture: Production and export of bread on the island

The Island of Fukue has a population of approximately 37,000, and it belongs to Goto city. On the island, there is a bread producing company called "San Françoir."

San Françoir employs 70–80 staff. It exports 4 tons/shipment, and normally there are four to five shipments in a week. The amount of incoming goods to the island of Fukue is some 45,000 tons per year, while outgoing goods is just 7,500 tons. San Françoir negotiated with the transport operator and managed to agree a reasonable tariff because it is better to bring something from the island even if the tariff is low, than bring nothing but air.

Production of San Françoir is not automated. Because it is manual, it can produce a wide variety of products in small quantities. Also, automated production requires additives but manually made bread requires no additives. Moreover, the local employees on the island are serious and tend to remain on the job. As a result, the skills and technique of manual bread production are high and stable in San Françoir. Breads made in San Françoir are sent all over Japan. For this to be feasible, it is a pre-requisite that there is a demand for bread made manually without food additives.

*quarterly publication of Center for Research and Promotion of Japanese Islands (March 2013)

The improvement of telecommunication technology is supposed to contribute to the economic development of remote islands. However, there are not many successful cases, because information is accessible from anywhere, and would not bring an advantage to remote islands. It may be exceptional but there is one successful case on a remote island in Japan.

Island of Yoron in Kagoshima Prefecture: attracting firms to the islands with fast telecommunication network

The Island of Yoron is a small island with 5,500 inhabitants. The main economic activities of the island have been livestock and sugarcane, but it is not very active these days. As many as 150,000 tourists per year used to visit the island in the 1970s, but it has reduced to less than 60,000. Two companies have come to operate business here.

Japan Malco Co., Ltd, with its headquarters in Kanagawa Prefecture, started their business on the island of Yoron in 2008. As of 2010, 31 staff are employed (all local) in the factory in Yoron. The company produces precision apparatus. It is manual and custom-made. It is light enough to keep the transportation cost from the island reasonable. Since it is manual, investment in machinery is not necessary. Thanks to the fast telecommunication network, there is no problem in communications with the headquarters. The main reason why the company opened business on the island was the good and serious characteristics of the local people on the island. In addition to that, the company wanted to make social contribution by creating employment on the island where not many employment opportunities are available.

Another company that opened business on the island of Yoron is “Links.” Its headquarters is in Tokyo. It employs 12 staff in Yoron as of 2011 (all locally employed). The main business of the company is the designing of advertisements. Staff work on the computer, and send the output to the headquarters in Tokyo. There is also a nightshift, so that company can respond 24 hours a day to requests from clients.

*quarterly publication of Center for Research and Promotion of Japanese Islands (April 2011)

In remote islands in Japan, there are many trials of branding and marketing promotion of primary products. Promotion of local specialty and value addition by processing is a common practice across Japan, but it requires detailed market study and due consideration to examine the feasibility.

Economic development through the promotion of primary products in Ama town

Ama town is vested with abundant fisheries resources. However, due to its remoteness, it takes more time compared with other suppliers to get the products to the market. Hence, the products lose freshness and value. To overcome the problem, Ama town decided to introduce the Cell Alive System (CAS). CAS is a technology that makes it possible to freeze and defreeze the product without destroying the cell. Products frozen with CAS can maintain quality (taste and texture) quite similar to fresh products. With CAS, Ama town obtained more access to the market, overcoming the remoteness.

Ama town is promoting other local specialties. One of them is natural salt. It is made manually, following traditional procedures. Another is beef. Cows in Ama town are used to raise calves that are sold to producers outside Ama who sell beef. Nowadays they raise and market the beef with their own brand name. There is a sea cucumber business as well. Young immigrants from the urban area buy sea cucumbers from local fishermen, process them, and export them to China.

Not only marketing products, but Ama town also opened a restaurant in the port facility where all the tourists arrive. In the restaurant, people can enjoy local dishes with local specialties. In the metropolitan area in and around Tokyo, there is a restaurant car where people can enjoy the localities of Ama town.

Ama town also plans to open a cooking school in 2016. The trainees are expected to learn about the quality of the local food, and promote it after graduation.

4-3. Aspects of Resources and Environment

In Japan, there are not many abandoned vehicles. However, during the field survey, it was confirmed that there are many abandoned vehicles in some SIDS, and they remain abandoned without practical solutions. Abandoned vehicles may contain parts that are still usable. Kaiho Sangyo Co., Ltd is a company specialized in disposal of old vehicles and extraction of usable parts. Their knowledge and experience may contribute to SIDS to mitigate the issue of abandoned vehicles.

Kanazawa city in Ishikawa Prefecture; Recycling of second-hand parts and training by private company

Kaiho Sangyo Co., Ltd is a company specialized in the recycling of second-hand parts of vehicles. The parts are sold all over the world where Japanese vehicles are popular.

The company has a system called KRA to ensure the quality, inventory, and traceability of the second-hand parts. The company also accepts trainees from abroad to enhance the capacity to recycle vehicle parts.

In Japan, incineration of organic waste is the common practice. However, it is costly to maintain and replace old equipment with new. Taketomi town in Okinawa Prefecture has a unique trial.

Taketomi town in Okinawa Prefecture: Reduction of waste by composting

Taketomi town consists of 8 inhabited islands and some uninhabited islands, with a total population of 4,000. Taketomi town charges a waste collection fee from 2010, but the town does not collect food waste. Instead of collection, the town has installed a large underground composting box in each island. Households should dispose food waste in the composting box. The composting box reduces the amount of waste for incineration, and waste composition without food waste stabilizes the incineration and economizes the cost of maintenance and operation of incinerators.

4-4. Aspects of Society and Culture

4-4-1. Tourism development with social and cultural attractions

There are some islands with popular and unique tourist attractions, such as the beach resort in Okinawa or Yakusugi[24] on the island of Yaku. However, the majority of remote islands do not have such attractions. On the other hand, for tourists coming from abroad or urban areas, daily routine on the island can be a very unique experience.

[24] Yakusugi is the Japanese cedar older than 1,000 years. The oldest one “Joumon sugi” is estimated to be older than 3,000 years.

Ojika town in Nagasaki Prefecture: Life on the island as the tourist attraction

Ojika town is located at the northern edge of the peninsula of Goto. It has 2,600 inhabitants. The main economic activities are fisheries, agriculture, and tourism. Since 2006, the number of tourists is increasing. In 2012, it won a prize from the Minister of Internal Affairs and Communications for its unique effort to team up tourism with agriculture, fisheries, and the normal life on the island. The tourists stay at local residents' houses and learn the life of the island. This program is highly appreciated by high school students from the USA.

The experience on the island is nothing special for the local people, but it is unique for the tourists.

Culture and sports can also be a catalyst for the tourism development.

Mishima village in Kagoshima Prefecture: tourism associated with Jembe

Mishima village consists of three islands, with 400 inhabitants. It is connected to the main island by an inter-island vessel (three times per week) and flight (twice per week). Jembe is a type of African drum. In 1994, a world famous Jembe musician visited the island. Since then regular events of Jembe took place on the island. Now the village has opened a Jembe school, where students stay for 6 months learning about Jembe and island life. Local children went on an exchange program to play Jembe in Africa and Europe.

*quarterly publication of Center for Research and Promotion of Japanese Islands (September 2014)

Goto city in Nagasaki Prefecture and Miyako city in Okinawa Prefecture: tourism development with sports events

Every year since 1985, Goto city in Nagasaki Prefecture organizes a triathlon. In 2015, approximately 1,000 participated in the event. Miyako city in Okinawa Prefecture also organized triathlon events for a long time. In 2015, it was the 31st event and some 1,500 participated.

Apart from these, Sado city in Niigata Prefecture and Okinoshima town in Shimane Prefecture organize an Ultra marathon event. Sports events in remote islands cannot bring a large number of tourists. However, hospitality and interaction with the local people is well appreciated by the participants and there are many repeaters.

4-4-2. Unique value of islands

There is a case where marketing the island with its uniqueness succeeded in bringing young people to move to the island.

Ama town in Shimane Prefecture: It is good not to have

As explained earlier, various reforms in Ama town managed to reverse the drainage of population. Now there are many young people coming to live on the island. Many immigrants to Ama town worked in a big company in urban areas, but felt better to live on a small quiet island than in a city. The subtitle of the 4th development plan of Ama town is "happiness on the island." The plan discusses the different concept of happiness on the island and in the city, that the family, friends, natural environment, and secure community of the island are more important than income/work.

4-5. Applicability of the Japanese Case to SIDS

Difference between Japan and SIDS needs to be taken into account before applying the Japanese example to SIDS. For example, the bread producing company in Goto city in Nagasaki Prefecture is feasible because there is a demand in Japan for bread made manually in small quantities and wide variety, and without food additives. Frozen products with CAS, which made it possible for Ama town to overcome their disadvantage of remoteness, depends on the customer's willingness to pay more for the better quality of the products. In Japan, customers are used to eating raw fish, and they can feel the difference between fresh and de-frozen product. On the other hand, the people in SIDS normally eat fisheries products after cooking. After the cooking, it is not easy to feel the difference hence people may not be willing to pay more for quality that they cannot feel.

Culture and customs are also different in Japan and in SIDS. In Japan, people are used to working hard under pressure, with discipline to have food security for the winter season. This is not common to the lifestyle of SIDS. Modernization of life is changing the society of SIDS, but it takes longer to change the culture and customs of people. Remote islands in Japan do have smallness and remoteness like SIDS, but the physical similarity does not necessarily lead to similar development issues and solutions.

There is also a difference even among SIDS. Pacific SIDS tend to be engaged more in primary industry, some still maintain the subsistent lifestyle, and there is a customary land tenure system still in place. There is diversity even within Pacific SIDS. For example, Polynesian countries tend to depend more on remittance, while Melanesian countries depend less. Palau has practically no dependence at all on remittance. It has a very small primary industry but a very developed tourism sector. Tonga has a constitutional monarchy and its land tenure system is unique.

People in SIDS need time and opportunities to understand the difference among SIDS and between SIDS and Japan to understand well the applicability of various development approaches.

Chapter 5: Conclusion

5-1. Aspects of Institutions and Governance

As shown in "1-2 Level of isolation," SIDS in the Pacific, the Caribbean, the Indian Ocean, and the Atlantic are all isolated from the markets of developed countries. The total population of the hinterland region (e.g., cities within 8000 km) is 38 million in the case of the Caribbean, which is much bigger than that of the Pacific, the Indian Ocean, and the Atlantic with some 10 million population in the hinterland. Another characteristic in SIDS in the Caribbean is that they do not have many remote islands. These may be the contributing factors why they managed to realize closer regional cooperation. Pacific SIDS are considered to be more disadvantaged with more remoteness (in terms of the number of remote islands in the country) and more isolation (more distance to neighboring countries).

The level of isolation of Pacific SIDS needs to be carefully considered. Melanesia, Polynesia, and Micronesia are the three different sub-regions in the Pacific, which had different history before independence. Each country has developed unique community governance that is still in place. In particular, Melanesian countries are diverse in the sense that there exist many different tribes and languages in one country. On the other hand, indigenous people and tradition have almost completely disappeared from SIDS in the Caribbean region, and a Western style of governance forms the base of the society. A wide variety of Pacific SIDS makes the regional collaboration more complicated than that of Caribbean SIDS. Harmonization of traditional governance of Pacific SIDS and Western style of governance seems to be a challenge. Further study is necessary to know how the traditional culture and governance in the Pacific will change due to modernization over time.

Three countries in Micronesia (Federated States of Micronesia, Marshall Islands, and Palau) have a compact of free association. The same trend is observed in the Caribbean region for Cook Islands and Niue (associated with New Zealand), Anguilla (British territory), Aruba (Netherland), Virgin Islands (the USA), Puerto Rico (the USA), and in the Indian Ocean for Reunion (French) and Mayotte (French). These SIDS realize higher economic level than other SIDS, but they are vulnerable to external shocks because the policy of the association countries affects the benefits of these island countries.

Remote islands in Japan also depend on external assistance (from the central government, not from international donors). Even Ama town in Shimane Prefecture, which is one of the best cases of economic development in remote islands in Japan, needs assistance from the central government.

In general, in providing external assistance to developing countries one expects that the outcome of the project will enhance the self-sustainability of the recipient country. However, in the case of SIDS, it might be reasonable to suppose that they need a certain level of dependence on external assistance due to their disadvantages of smallness, remoteness, and isolation. Instead of aiming at economic independence, which is not realistic in many SIDS, enhancing self-governing capacity seems to be a more practical target for SIDS.

Comparing among the SIDS in Micronesia, Palau seems to have greater self-governing capacity. It has its own income source from the tourism sector and less dependence on aid. It tries to enhance financial capacity by creating a special tax to finance road maintenance and recycling of waste. Moreover, it tries to control the tourism sector by reducing regular flights from China, and prohibiting all commercial fishing activities by foreign vessels within its EEZ. These are seen as self-governing capacity to harness the country toward eco-friendly tourism development.

Ama town in Shimane Prefecture in Japan is another example for exerting self-governing capacity under the strong leadership of the town mayor.

Central governments and international donors should provide flexible and continuous assistance to remote islands and SIDS to strengthen their self-governance. Governments and donors should not limit the scale of support for islands by simply comparing the cost effectiveness of the assistance between SIDS and other continental developing countries.

5-2. Aspects of Economy and Production

Tourism and fisheries are the main industries for many SIDS in general. In terms of production, further effort may be possible to promote the local industry. For example, many souvenirs on sale in SIDS are imported from industrialized countries where mass production with low cost is possible. But are the tourists happy with imported products as souvenirs? In Vanuatu, with the assistance of a JICA project, local women learned handicraft, and start to sell local souvenirs instead of imported products. Fishermen and community people learned catering, and started to offer fish dishes to the tourists. As shown in Chapter 4, there are many examples in Japan to add value to the primary commodities made on the island, converting the smallness of the island into uniqueness. In a small island where the varieties of available resources are limited, community people are required to consider the best possible ways to bring out the full potential of the resources, where the government can provide appropriate support and guidance.

As part of community-based tourism, development of local handicrafts can bring benefit to local communities. It may be possible to expand the local market to regional markets. As mentioned in Chapter 3, the Solomon Islands make handicrafts and Vanuatu sells them to tourists. This may be an interesting case where regional collaboration developed a new value chain. It is not only souvenirs that generate value. In Chapter 4, tourism development in remote islands of Japan is presented. It is a case where the tourists appreciate the value of experiencing island life. The usual island life may not be anything special for the local people, but something that people in a city or on the continent cannot find.

Through the field survey, it was found that SIDS are trying to promote common concepts such as SIDS Dock[25], Blue Economy, and regional promotion of tourism. They are considered to be effective to overcome smallness, remoteness, and isolation of SIDS, and utilize the surrounding ocean to realize sustainable development.

5-3. Aspects of Resources and Environment

Because of the smallness of SIDS, natural disasters could hit people and their assets easily. The islands of volcanic origin have steep slopes that could trigger landslides and flash floods. The islands of coral origin are prone to flooding or coastal erosion. Therefore, any facility constructed on SIDS needs to be equipped with preparedness for disaster mitigation as mentioned in the case of the Grenada fishery project.

With regard to the marine resources, there is a type of fishing activity that needs to be restricted as shown in the example of a ban on commercial fishing by foreign vessels in the EEZ of Palau. However, the fishing activity engaged in by local people in SIDS is in general on a small scale. It is concentrated in the coastal zone and offshore pelagic fisheries resources are under-utilized in most cases, with a few exceptions found in Grenada and Maldives. Thus, there is a potential in most SIDS to diversify fishing activities without undermining the sustainability of resources by shifting the fishing activities from the coastal zone to offshore.

Another issue for SIDS due to the smallness is solid waste, because the carrying environmental capacity of the island is small. The waste needs to be segregated, collected, and transshipped, usually by the private sector. However, in the case of SIDS, it is difficult to become economically viable. Antigua managed to use

[25] It is a network of 13 SIDS. It tries to reduce carbon dioxide emission and trade the saved emission quota in the internal market.

the vacant space of vessels to transship PET, plastics, corrugated cardboard, steel cans, and car batteries out of the country. Even in Tuvalu, one of the most remote and isolated countries with a population of just 10,000, there was a private metal recycling operator, but it has stopped operation due to the stagnant market price of metal and high cost of collection and shipment of the waste. The private recycling operator is financially very weak, so if the costs can be reduced by participatory segregation and collection by community people, or the reduction of tariff of shipment in inter-island vessels, and subsidized by introduction of a special tax, recycling in SIDS may become possible.

5-4. Aspects of Society and Culture

SIDS, especially SIDS in the Pacific, have the disadvantage of isolation and remoteness, and the community have been maintaining a strong sense of belongingness.[26] However, as a cash economy and modernized lifestyle are taking a lead and depopulation of the remote island progresses, the level of belongingness decreases. There is an example in Vanuatu of how to maintain the belongingness as explained in Chapter 3. It is not only SIDS that are losing belongingness. The sense of self-governance and mutual aid is also weakening in the community in the remote island of Oki in Japan. The Japanese government re-introduced community extension officers for smooth communication and facilitation between the government and the community.

In the Pacific, the three countries in Micronesia (PNG, Solomon Islands, and Vanuatu) still maintain a subsistent lifestyle and affluence. While the traditional lifestyle may contradict the modern lifestyle, it can work as a safety net for people. The proposition “paradise with subsistent affluence never develops” may not be always true, as we have seen the example of Seychelles, which managed to shift from subsistent affluence to a modernized economy with tourism development. Careful consideration is necessary in this regard, as Seychelles and Pacific SIDS differ very much in terms of isolation from the rest of the world (refer to Chapter 1 “Level of Isolation”) and therefore the social character is quite different.

[26] Unlike other countries, Tonga adopted a constitutional monarchy system since 1862.

Chapter 6: Recommendations

It is very difficult and in many cases not practical for SIDS to become completely independent. However, there are examples where SIDS exert self-governing capacity utilizing external financial assistance. It is also important to fully utilize all the available and unexplored resources, such as local government, civil society, and community.

Some SIDS depend on external political advisors and engineers for the management of the country. Even in SIDS with well-developed tourism, it is often the case that foreign investors get most of the benefit, and the benefit drains out of SIDS. SIDS need to have enough capacity not to be controlled by them but to control them.

Access to the external market in developed countries is a big challenge for the products of SIDS and in general costly because of high standard of quality and hygiene in addition to the transport cost. Hence, it may be worth considering "regional production for regional consumption." Kobayashi[27] points out that intra-regional trade is equivalent to a mere 3.5% of the trade with outside the region, as most SIDS in the region have similar products, and the market of these products is saturated. However, as introduced in Chapter 3, there is a case where handicrafts are made in Solomon Islands and are sold in Vanuatu. If governments or regional organizations can establish a system to effectively promote "regional production for regional consumption," it may boost the local production and consumption.

Methodology 1: Regional Framework

A common vision for regional development or economic integration to facilitate the active movement of goods, labor, and services is important. In this regard, the OECS countries are advanced and already introduced a regional common currency called the Eastern Caribbean Dollar. Moreover, there is a program called "CARICOM Single Market and Economy (CSME)" and liberalization of the regional economy has been promoted since 1989.

As shown in Tables 1, 2, and 3 in Chapter 1, SIDS have a significant scale of emigrants in the world. On average, SIDS have emigrants equivalent to one quarter of national population. Samoa, Tonga, Antigua & Barbuda, Grenada, Guyana, St. Kitts and Nevis, and St. Vincent have emigrants equivalent to more than half of national population. Dominica has emigrants more than national population. By forming a solid emigrant community, emigrants will maintain and foster the belongingness to the country of origin, and this generates the movement of people and money between the country of emigration and the country they originated from. The active traffic of people and money will lead toward the opening of a regular flight service as we see in case of the Caribbean, and that would in turn lead to possible tourism development.

In general, SIDS has shortage of human resources. It is not practical for each SIDS to have a complete set of human resources. In such cases, pooling and sharing of regional human resources seems one way to mitigate the problem. PIF and CARICOM have various specialized regional institutions that could be potentially utilized as a platform. Secretariat of the Pacific Regional Environment Program (SPREP) is a subsidiary organization of PIF. It is a counterpart organization of a JICA Project, and is engaged in the development of regional human capital in the area of waste management. The staff working in the City Council of Suva in Fiji has advanced knowledge and experience in the area of waste management. They shall be considered as important regional human resources to be shared regionally.

[27] 1994, Studies for Pacific Island Countries (in Japanese)

Methodology 2: Combination of Cooperation

Construction of infrastructure is important for regional development, but it does not stop the drainage of population from islands. It is necessary to identify how the infrastructure can mobilize the local resources. Japan has many examples of value chain development in remote islands, which is a combination of local economy and infrastructure. However, since the social, cultural, and economic conditions are quite different between Japan and SIDS, good analysis would be necessary for the adaptation of Japanese practices to SIDS.

There is a case in Grenada where the facility constructed to improve the fish marketing was successfully used as an emergency center at the time of natural disaster, and the upgraded bridge and landslide prevention measures improved the community accessibility even during heavy rain. When we consider the construction, renovation, or replacement of the facility, it would be desirable to plan multiple functions, including disaster prevention and fisheries resource management. In parallel with the infrastructure, assistance to enhance the operation and maintenance of the facility, organization of artisanal fishermen, and community development would be important to ensure the self-sustainability of the facility and the community who use it.

People move from remote islands to the city and the city to surrounding countries or to developed countries looking for better chances of education and employment. While drainage of human resources is in general a negative factor for the development of the country, foreign emigrants may positively contribute to sustainable development with remittance while emigration also reduces the pressure on the urban areas of SIDS. As it is not possible to stop the movement of people, it would be reasonable to assume that people will emigrate, and developing a hub for emigrants and fostering the belongingness to the country of origin among emigrants will be important.

Methodology 3: Knowledge Sharing and Utilization of Community

In remote islands where the central governments find it difficult to deliver public services, the community is one of the important factors in the society, and is capable of providing public services at lower cost and better flexibility than the central government. Hence, the development of the community is an important factor in the development of SIDS. Independent (or self-governing) remote islands in Japan know how to utilize local resources and differentiate them from the resources in other islands. For SIDS, identifying the local resource would be the first important step for development. While we saw some cases of earmarked tax for specific purposes (e.g., road maintenance or recycling of waste) as an effective way to secure the budget, there is also a concern that it may weaken the flexibility in financial management, which is already small. It seems to be important for the self-sustaining development of SIDS to enhance self-governing capacity first to identify all available local resources.

Sharing of knowledge and experience among SIDS in different regions would be useful to enhance capacity, for example in waste management. Due to its isolation, providing assistance to each of many SIDS is not efficient. Therefore, regional cooperation would be necessary. By working closely with regional organizations, pooling and sharing of regional human resources would be facilitated.

The training for SIDS and exchange of knowledge and experience between SIDS and remote islands in Japan may provide good insights for SIDS. The resources available in the remote islands in Japan are not fully utilized for international cooperation. Dispatching community leaders from the remote islands of Japan to SIDS to provide advice, or dispatching future leaders of SIDS to the remote islands in Japan as On-the-Job-Training would foster the sense of solidarity. Cooperation of the remote islands in Japan is something that other continental donors cannot provide. PALM 7 announced a new program called Pacific LEADS to provide education and internship opportunities in Japan for young leaders of SIDS. For this program, it seems

reasonable to utilize remote islands, not only the main islands of Japan.

JICA training related to SIDS
In the JICA training conducted in 2014, the following are related to SIDS.

- Diffusion of Self-sustaining Training on Mathematics Education in Primary and Secondary School in Pacific Island States
- Prevention of Lifestyle-related Diseases (LSRD) in the Community Health Setting in the Pacific Region II
- Management of Water Resources and Water Supply Services for Pacific Island Countries
- Sustainable Tourism Development Utilizing Island Areas
- Planning and Management of Eco-tourism in Tropical and Subtropical Areas for Asia and Oceania Region
- Training for Fisheries Extension Officers in Island Countries
- Sustainable Solid Waste Management in CARICOM Member States
- Conservation and Management of Water Environment in Island Countries

It may be interesting to design cross-sector training to enhance the self-governing capacity of SIDS. There are various combined issues (such as infrastructure, economic development, social services, financial management, etc.), which need to be prioritized to find the optimum balance of solutions. Operation and maintenance of inter-island vessels in combination with solid waste transport and local government administration in combination with enhancement of local production may be an area where Japan could pass on knowledge and experience to SIDS. Suitable candidates for the training would be officials of central government and local government, NGO staff, and community leaders in charge of cross-sector development planning.

Methodology 4: Research and Development

A research study conducted under the framework of SATREPS (Science and Technology Research Partnership for Sustainable Development) in the Pacific on the mechanism of growth and maintenance of coral habitat[28] is currently ongoing in Palau since 2012 and has a good scientific value that can be disseminated widely among SIDS for Japan to contribute internationally to environmental protection. As SIDS have their unique environment and natural habitat, it is worth considering any other areas for research activities.

SIDS are very diversified and examples shown in this report are just some of the various attempts and development. JICA hopes that this report contributes to various discussions and research on the development methods of SIDS, thus promoting the awareness of "We are Islanders."

[28] Refer to the website http://www.jst.go.jp/global/english/kadai/h2403_palau.html for details.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