

# Annex VI - Case Study - Cook Islands

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## VI.1. General Description and Basic Economy

The Cook Islands are located in the South Pacific, north-east of New Zealand and east of Fiji. The country is extremely small and very remote: it consists of 15 islands and atolls that together constitute only 236 km<sup>2</sup> of land area within 1,800,000 km<sup>2</sup> of ocean. Of these islands, Rarotonga is the biggest, and home to the country's international airport and approximately 70% of its 12,500 people (2011).<sup>1</sup> This isolation limits access to foreign markets and the islands have recently gained some attention largely because of the US's increasing interest in the South Pacific.

Politically, The Cook Islands are a self-governing parliamentary democracy and have an associated state relationship with New Zealand. The Cook Islands have not moved to full independence, and New Zealand remains responsible for external affairs. Although not a full UN member, The Cook Islands are a member of the Alliance of Small Island States (AOSIS).

Tourism is central to the country's economy, and services account for 78.5% of GDP (2008 est)<sup>2</sup>. More than ten times the nation's population visit the country each year as tourists. The islands have limited manufacturing capacity, lack indigenous natural resources, and are seasonally exposed to cyclones. The islands' estimated GDP in 2005 was \$183.2m US, or \$12,000 US per person, and estimated to be growing at 0.1% while its population is shrinking by approximately 3% (2012 est.)<sup>3</sup>

<sup>1</sup> 2011 Cook Islands Census, Ministry of Finance and Economic Management, <http://www.mfem.gov.ck/>

<sup>2</sup> Central Intelligence Agency, <https://www.cia.gov/library/publications/the-world-factbook/geos/cw.html>

<sup>3</sup> Central Intelligence Agency, <https://www.cia.gov/library/publications/the-world-factbook/geos/cw.html>

## VI.2. Nature of Aviation and shipping Industries

### VI.2.1 Aviation

The Cook Islands are home to one international airport in Rarotonga, which receives 149 flights per month from New Zealand, and 13 flights per month each from Tahiti, Australia, and Los Angeles.<sup>4</sup> Because of the importance of tourism to the economy and the geographic isolation of the islands, aviation is an integral sector for passenger transport to the country. The domestic carrier is Air New Zealand to which The Cook Island government contributed NZ\$2,982,000.00 in 2009<sup>5</sup> and which operates Airbus A320's in their Cook Island Service. Air New Zealand owns 16 of these planes, with a further 10 on order.<sup>6</sup>

Cargo also arrives by air to The Cook Islands but in relatively small amounts. In 2011, approximately 1200 tonnes of cargo arrived by air.<sup>7</sup>

### VI.2.2 Shipping

Because of The Cook Islands' import dependence (see below), shipping is integral to the country's economy. There are two ports in the country: Avatiu Harbour in Rarotonga and Arutanga on Aitutak. Avatiu is the nation's main port, and is serviced by Reef Shipping and the Pacific Forum Line, a multi-governmental regional shipping service owned by the governments of 12 South Pacific nations including the Cook Islands, that was set up to ensure functional shipping and support development by connecting South Pacific islands to NZ, Australia, and one another.

Avaitu is 5.8m deep, and has a 386m wharf, limiting the size of freight transport ships that service the country to those of the small feeder scale. Avatiu is service regularly only by the *Southern Reef* and the *Reef Express*, which were constructed in 1999 and 1986 respectively. They visit on a 3 weekly cycle and have a TEU capacity of 516 and 367 respectively. A tanker also visits once a month to supply fuel for both electricity (diesel) and transport. Total incoming tonnage exceeds 150,000 tonnes per year on all shipping imports.

Arutanga is a smaller port on an outlying island. The harbour is shallow, and incoming vessels are serviced by barges that ferry goods to port. A concept proposal exists to deepen the harbour as part of a long-term development vision.<sup>8</sup>

## VI.3. Export and Import Summary<sup>9</sup>

The Cook Islands are import dependent and in December 2011 the balance of trade stood at NZ\$27m. Food and live animals constitute the most commonly imported

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<sup>4</sup>Cook Islands Statistical Bulletin, Misc. Statistics, March Quarter 2012, Ministry of Finance and Economic Management, <http://www.mfem.gov.ck/>

<sup>5</sup> 2009 Cook Island Crown Accounts

<sup>6</sup>[http://www.airlineupdate.com/content\\_public/airlines/airline\\_profiles/airlines\\_newzealand/airnz.htm](http://www.airlineupdate.com/content_public/airlines/airline_profiles/airlines_newzealand/airnz.htm)

<sup>7</sup> Cook Islands Statistical Bulletin, Misc. Statistics, March Quarter 2012, Ministry of Finance and Economic Management, <http://www.mfem.gov.ck/>

<sup>8</sup> Cook Islands Port Authority. <http://www.ports.co.ck/amenities.html>

<sup>9</sup> Because of its size, available economic data for The Cook Islands is extremely limited in international databases including WTO and Worldbank Datasets. The country publishes some data, but little is readily available prior to 2007.

goods (27.5% of imports, NZ \$29.3m in 2011), and this need for agricultural imports is driven by the limited arable land within the country (16% of the total). This is followed by vehicles and mechanical equipment (26.1%, NZ \$ 29m in 2011), and manufactured goods (11.4%, NZ \$12m in 2011.) 83% of these imports come from New Zealand, with small additional imports from Australia, Japan, and the US. The total value of imports has fallen from NZ \$144m in 2007 to NZ \$105.6m, in 2011, a fall of 27%.<sup>10</sup>

Year	Total Imports	Food and Live Animals	Beverages and				Chemicals	Basic Pkgs.	Machines, Transport and Equipment	Man. Goods	Other
			Tobacco	Crude Materials	Minerals, Metals, etc.						
2007	\$143,985,000.00	\$27,790,000.00	\$5,787,000.00	\$4,468,000.00	\$25,833,000.00	\$8,701,000.00	\$23,372,000.00	\$30,344,000.00	\$17,126,000.00	\$355,000.00	
2008	\$153,760,000.00	\$35,314,000.00	\$6,152,000.00	\$3,143,000.00	\$24,291,000.00	\$9,591,000.00	\$22,466,000.00	\$31,679,000.00	\$20,344,000.00	\$778,000.00	
2009	\$112,468,000.00	\$31,971,000.00	\$4,759,000.00	\$3,423,000.00	\$6,287,000.00	\$10,085,000.00	\$18,851,000.00	\$23,118,000.00	\$13,371,000.00	\$402,000.00	
2010	\$111,756,000.00	\$32,873,000.00	\$6,388,000.00	\$3,204,000.00	\$7,630,000.00	\$8,393,000.00	\$16,688,000.00	\$23,101,000.00	\$12,785,000.00	\$442,000.00	
2011 (p)	\$105,690,000.00	\$29,274,000.00	\$6,878,000.00	\$2,334,000.00	\$5,719,000.00	\$7,741,000.00	\$12,054,000.00	\$29,010,000.00	\$12,059,000.00	\$621,000.00	

Source: Cook Islands Ministry of Finance and Economic Management

Fossil fuel imports are also vital for the country's electricity system, which is largely dependent on imported diesel to run aging generators. Historic Comtrade data below illustrate the increasing costs of fossil fuel imports since 2000, although the data suggests a different trend from the Cook Islands data above. Coal imports are almost non-existent.

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Oils petroleum, bituminous, distillates, except crude	\$4,431,419.00	\$2,793,957.00	\$2,837,366.00	\$5,287,898.00	\$6,806,099.00		\$18,563,840.00		
Petroleum gases and other gaseous hydrocarbons	\$192,513.00	\$333,479.00	\$379,896.00	\$514,805.00	\$523,284.00		\$663,479.00		

Source: Comtrade

Exports are much more limited. In 2011, total exports amounted to NZ \$3.95m, which constitutes less than 4% of imports. The Cook Islands' main exports are pearl shells, pearls, fruit juice, and fish, of which 28% goes to Japan, 21% to Italy, and 17% to China. Total exports have also fallen since 2007 when they totalled NZ \$7m.<sup>11</sup>

Year	Total Exports	Paw Paws	Taro	Live Fish	Fresh Fish	Pearls	Pearl Shells	Clothing	Maire	Other
2007	\$7,052,000.00	\$117,000.00	-	\$62,000.00	\$3,141,000.00	\$2,129,000.00	\$278,000.00	\$50,000.00	\$18,000.00	\$1,257,000.00
2008	\$5,895,000.00	\$23,000.00	-	\$205,000.00	\$1,994,000.00	\$1,053,000.00	\$147,000.00	-	\$12,000.00	\$1,459,000.00
2009	\$4,396,000.00	\$8,000.00	\$5,000.00	\$211,000.00	\$1,950,000.00	\$1,997,000.00	-	-	\$18,000.00	\$1,007,000.00
2010	\$7,163,000.00	\$20,000.00	\$5,000.00	\$220,000.00	\$3,790,000.00	\$1,575,000.00	-	-	\$58,000.00	\$1,495,000.00
2011 (p)	\$3,956,000.00	-	-	\$147,000.00	\$2,390,000.00	\$369,000.00	\$213,000.00	\$40,000.00	\$84,000.00	\$713,000.00

Source: Cook Islands Ministry of Finance and Economic Management

### VI.3.1 Tourism

Tourism dominates the national economy and visitors notably boost the resident population throughout the year. Visitor numbers have increased since 2007 from 97,316 to 112,643 in 2011 (estimated.)<sup>12</sup> Tourism in turn drives other key national industries, including retail and wholesale trade (20% of 2010 GDP), transportation (18%), restaurants and hotels (16%), construction (5%), and electricity generation (2%). In the second largest island, Aitutaki, 50% of employment is in the tourism industry. Approximately 60% of visitors originate from New Zealand, 18% from Australia, and 12% from the EU.

While domestic reporting does not identify tourism as a single industry, the table below illustrates the impact of tourism on all of the sectors mentioned above.

<sup>10</sup> Overseas Trade, Ministry of Finance and Economic Management, <http://www.mfem.gov.ck/>

<sup>11</sup> Overseas Trade, Ministry of Finance and Economic Management, <http://www.mfem.gov.ck/>

<sup>12</sup> Cook Statistics Office, Tourism Statistics, <http://www.stats.gov.ck/Statistics/Tourism/tournav.htm>

Calendar Year						% Change over Previous Year				
	2006	2007	2008	2009	2010(p)	2006	2007	2008	2009	2010(p)
<b>Total</b>	<b>289,680</b>	<b>310,146</b>	<b>332,119</b>	<b>330,486</b>	<b>334,825</b>	<b>11.7</b>	<b>7.1</b>	<b>7.1</b>	<b>-0.5</b>	<b>1.3</b>
Agriculture	8,522	8,950	8,773	9,290	9,120	-10.0	5.0	-2.0	5.9	-1.8
Fishing & Pearl	8,024	9,299	8,158	7,567	7,994	-12.6	15.9	-12.3	-7.2	5.6
Mining & Manufacturing	10,387	10,766	11,845	12,556	11,929	-2.3	3.6	10.0	6.0	-5.0
Electricity & Water Supply	5,112	6,120	7,350	7,425	8,429	-7.9	19.7	20.1	1.0	13.5
Construction	10,764	11,049	11,984	14,667	11,771	10.5	2.6	8.5	22.4	-19.7
Wholesale & Retail Trade	64,113	72,036	85,464	66,204	80,795	15.3	12.4	18.6	-22.5	22.0
Restaurants & Accommodation	41,069	44,628	48,066	52,602	49,419	15.7	8.7	7.7	9.4	-6.0
Transport & Communication	50,299	50,263	52,210	59,034	44,241	18.2	-0.1	3.9	13.1	-25.1
Finance & Business Services	32,466	32,165	35,208	41,586	44,209	1.8	-0.9	9.5	18.1	6.3
Community & Personal Services	11,099	10,274	9,517	9,767	8,275	37.0	-7.4	-7.4	2.6	-15.3
Public Admin	27,677	28,962	29,188	28,841	34,592	16.8	4.6	0.8	-1.2	19.9
Education and Health Services	16,023	17,147	18,163	18,268	18,510	4.3	7.0	5.9	0.6	1.3
Ownership of Dwellings	15,378	18,945	19,352	20,128	22,916	14.0	23.2	2.2	4.0	13.8
less FISim	11,254	10,458	13,161	17,451	17,374	-1.9	-7.1	25.8	32.6	-0.4

Source: Cook Islands Statistics Office

The Cook Island government sees tourism as the key driver to growth, alongside household spending, particularly as agricultural and manufacturing capacity for growth is limited by the country's geography.<sup>13</sup>

### VI.3.2 Overseas Development Aid

Aid contributions from donor partners totalled \$39.5 million for 2010-11. New Zealand Aid is the most significant source of aid funds, contributing \$23 million in 2010-11.<sup>14</sup> EU Assistance, UN Aid Assistance, and others also contributed.<sup>15</sup> The Cook Islands receives concessional loans from The Asian Development Bank, The Export-Import Bank of China, Caisse Francaise de Development, and the New Zealand Government Superannuation Fund. In 2008 to 2009, an aid surplus of NZ\$1.3m existed.

### VI.4. Key Demographics

The bulk of the Cook Islands population (74%) is based on the island of Rarotonga, while a further 2,035 people (11%) live on Aitutaki.<sup>16</sup> These two islands are the centre of the tourist industry, and depend on the sector. The more remote "Sister Islands" have populations in the hundreds, and receive far fewer visitors. All of the

<sup>13</sup> Cook Islands Renewable Energy Chart Implementation Plan, February 2012

<sup>14</sup> Cook Islands Treasury: The Cook Islands Half Year Economic and Fiscal Update For the Financial Year 2010/2011.  
<http://www.mfem.gov.ck/docs/Treasury/Budget/2010-11/BPS%20n%20HYEFU/Combined%20HYEFU%202010-11.pdf>

<sup>15</sup> 2009 Cook Island Crown Accounts

<sup>16</sup> 2011 Cook Islands Census, Ministry of Finance and Economic Management,  
<http://www.mfem.gov.ck/>

islands however, are dependent on imported fuel for electricity and this is driving emerging plans for renewable energy development.<sup>17</sup> While more than 95% of the country is literate, statistics do not exist on household income distribution within the population.<sup>18</sup>

Although official statistics are not available, one 2008 estimate of the HDI of Cook Islands ranked it 102<sup>nd</sup>, which placed it alongside Russian Federation and Saint Lucia at that time.<sup>19</sup> An estimate of GDP per capita of \$9,100 ranks it 116<sup>th</sup> in the world.<sup>20</sup>

### VI.5. Impacts on Tourism and Trade

As tourism is central to the Cook Island economy, and tourism is dependent on aviation in light of the nation's geography, changes to the costs of air travel would affect the country's economy directly by exerting downward pressure on visitor numbers. Reduced visitor numbers would in turn affect other key economic sectors: wholesale trade, in-country transportation, hotels and restaurants, and construction. These account for 59% of the islands' GDP at present<sup>21</sup>, and negative impacts on these sectors would significantly reshape the country's economy particularly in the population centres of Rarotonga and Aitutaki. Furthermore, the country's dependence on fuel and food imports adds further to its vulnerability under emissions constrained scenarios.

### VI.6. Planned Port Expansions

A project to expand the terminal at Rarotonga Airport was completed in 2010<sup>22</sup> and apparently no further plans for expansion are currently in place. A loan for a project to expand and improve the capacity of the Avatiu port in Rarotonga, the Cook Islands' principal shipping port, was approved by the Asian Development Bank and the Asian Development Fund in 2008. The project plans to widen the harbour entrance, increase the depth alongside the wharf amongst other improvements, such that larger cargo and cruise ships will be able to be accommodated that cannot be currently.<sup>23</sup> Work is anticipated to be completed in late 2012.<sup>24</sup>

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<sup>17</sup> Cook Islands Renewable Energy Chart Implementation Plan, February 2012

<sup>18</sup> Central Intelligence Agency, World Factbook: Cook Islands.

<https://www.cia.gov/library/publications/the-world-factbook/geos/cw.html>

<sup>19</sup> UNESCAP Working Paper: Filling Gaps in the Human Development Index: Findings for Asia and the Pacific. Hastings 2009.

[http://www.unescap.org/pdd/publications/workingpaper/wp\\_09\\_02.pdf](http://www.unescap.org/pdd/publications/workingpaper/wp_09_02.pdf)

<sup>20</sup> <http://www.indexmundi.com/> Accessed 19 November 2012

<sup>21</sup> Cook Islands Half Year Economic and Fiscal Update 2011/2012, Ministry of Finance and Economic Management, <http://www.mfem.gov.ck/>

<sup>22</sup> Cook Islands Airport Authority, Rarotonga International Airport 2012, <http://www.airportcookislands.co.ck/index.php/about-us/airport-history> Accessed 20 December 2012

<sup>23</sup> ADB 2011. Project Number: 40287-023 March 2011. Proposed Supplementary Loan and Administration of Grant. Cook Islands: Avatiu Port Development Project. <http://www2.adb.org/Documents/RRPs/COO/40287/40287-02-coo-rrp.pdf> Accessed 20 December 2012

<sup>24</sup> Cook Islands Ports Authority <http://www.ports.co.ck/development.html> Accessed 20 December 2012.

## VI.7. Modelling results

Results from the Global Emissions Trading for international aviation and shipping (MBM1a) scenario predict a -0.513% contraction of national GDP in 2025, the majority of which (-0.504%) from the aviation sector and just -0.008% from shipping. The second largest impact of the CSEs considered, after Samoa, this can be explained by the very significant dependence of the Cook Islands economy on aviation-based tourism, with the tourism industry making up two thirds of national GDP in recent years.

When the MBMs auctioning or tax revenues are used to reduce employers' social security contributions then in case of the Global Emissions Trading for international aviation and shipping (MBM1a) the expected impact on GDP in 2025 is reduced to -0.442%, with changes in GDP from aviation reduced to -0.445% and impacts from shipping made positive, at 0.002%.

## VI.8. Similar Countries

As geography is a defining driver of The Cook Islands economy, geographically similar countries face comparable challenges. Other archipelago nations with scattered centres of sparse population include:

### Sovereign States:

The Bahamas  
Cape Verde  
Comoros  
Federated States of Micronesia  
Fiji  
Indonesia  
Kiribati  
The Maldives  
The Marshall Islands  
Mauritius  
Palau  
The Phillipines  
Samoa  
The Seychelles  
Tonga  
Tuvalu  
Vanuatu

### Dependencies and other Regions

American Samoa  
British Virgin Islands  
British Indian Ocean Territory  
The Cayman Islands  
The Faroe Islands  
French Polynesia  
Hears Island and McDonald Islands  
Northern Mariana Islands  
Pitcairn Islands  
South Georgia and the South Sandwich Islands

Tokelau  
Turks and Caicos Islands  
US Virgin Islands

As in The Cook Islands, many of these nations additionally depend on tourism as a key driver of economic growth and show limited economic diversification: their geography provides limited raw materials or agricultural opportunity, but is well suited to tourist development. This is the case for many Caribbean island nations such as the US Virgin Islands but applies to a greater or lesser extent in many of the nations listed above. The relative exposure to tourist dependency must be assessed on a case by case basis. As a low-lying developing island nation, other member states of AOSIS by definition share key similarities with Cook Islands.