Government of the
Cook Islands

Cook Islands Cost of Living — Income and Expenditure Review

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1 Introduction

This report presents a summary of the cost of living in the Cook Islands, based on household income and expenditure, as well as progress in attaining the economic goals of the National Sustainable Development Plan. The report focuses on the differences in the cost of living and income inequality between Rarotonga and the Pa Enua, although some international comparisons are presented as well.

The primary data source for the report is the Cook Islands Household Income and Expenditure Survey 2015-2016 (HIES 2015-16) as well as more recent income tax data for 2017 and 2018. It has to be noted that the two data sets use different sources and different methodologies and are not wholly equivalent, nevertheless they are the best data sets available at the time of writing this report.

Cost of Living (CoL) is an important economic concept attempting to measure the expense of maintaining a particular standard of living. In addition to measuring the absolute standard of living, it is important for policy makers to know the relative position of the country vis-à-vis its neighbours. To shed light on this aspect of the economic conditions in the Cook Islands, the report makes some international comparisons with neighbouring countries using standard measures of inequality such as the Gini coefficient. Such comparisons, while illustrative need to be interpreted carefully, given the geographic location and the size of the Cook Islands economy.

2 Effects of Growth on Income Distribution

The Cook Islands economy has expanded significantly in recent years with the real annual growth rates of 6.0%, 6.8% and 8.9% from 2016 to 2018 respectively. Such growth, fuelled mostly by the tourism sector, has benefited the economy in many ways, including through the progress made towards attaining the economic goals of the National Sustainable Development Plan. Table 1 presents a summary of the progress against the two economic goals of the 16 National Sustainable Development Plan 2015-2020 goals.

Notable among the indicators is falling debt to GDP ratio, relieving the pressure on the government and the private sector and allowing for rising consumption and investment.

Several aspects of the economic expansion have translated into improvements in welfare. In particular, there has been a notable reduction in the population living below the minimum liveable income, from 17% in 2016 to 11% in 2018.[1] Furthermore, according to tax data, the incomes of the lowest quintile (the poorest 20% of the population) have been rising in real terms (deducting the effect of inflation). However, it has to be noted that the growth in income in this section of the population has been lower than the growth in the overall GDP, which indicates that the recent economic growth has not benefited the lowest income families to the same degree as it has the higher income families.

This skewed welfare effect of the economic growth can be attributed to the underlying economic activity occurring mostly in Rarotonga and benefiting the local population, which is more affluent relative to the Pa Enua – average annual income of a household in Rarotonga was NZD 55,150 – over 43% higher than the average annual income of Pa Enua households at NZD 38,480.[2]

While the benefits of the economic growth have been disproportionately felt in Rarotonga, it appears from the data that the income effect on the Rarotongan population has been felt

[1] It needs to be noted, that limitations in data availability make it difficult to ascertain the welfare of the lowest income population. HIES data this report relies on draws only from a sample of the population. Income tax data is much more comprehensive but also has limitations with respect to low income individuals. Individuals earning less than 11,000 NZD are exempt from filing tax return and therefore are omitted from datasets based on tax figures.

[2] (HIES 2015-16)

relatively equally. The Gini coefficient for the Cook Islands, the measure of income and wealth distribution amongst all residents, has been falling, although at a very slow pace.[3]

Table 1: Progress in attaining National Sustainable Development Goals

NSDP Goals	Indicators	NSDP Target	2016	2017	2018
Goal 1: Improve welfare, reduce inequity and economic hardship	Percentage of population below minimum livable income	<15%	17%	14%	11%
	The Gini Coefficient	Gini coefficient <0.37 or consecutive years of decreasing coefficient.	0.429	0.427	0.427
	Real growth in the lowest income quintile	annual growth >1.5% or at a minimum consecutive years of	3.77%	4.10%	3.85%
Goal 2: Expand economic opportunities, improve economic resilience and productive employment to ensure decent work for all	Real median income	annual growth >1.5%	3.47%	5.13%	4.11%
	Real GDP (aggregate)[2]	annual growth >2% or at minimum 2+years of consecutive	5.70%	6.80%	8.90%
	Toursim (number of visitors per year)		146,473	161,362	168,760
	Tourism (percentage growth in visitors per year)		17%	10.2%	4.6%
	Average lenght of stay per visitor (days)		10	8	10
	Total Debt to GDP ratio (in percent)[2]	<100%	78%	86%	72%
	Employee wellbeing: fraction of employees satisfied with their overall wellbeing[1][in	>60%	77.0%	79.0%	79.6%
	Growth in non-tourist related industries	annual growth >3%	1.50%	2.50%	11.2%

Notes:
Data for 2017 and 2018 based on Income tax database. Data for 2016 based on HIES 2015-16
[1] Survey of the public service employees. Does not include the private sector.
[2] Based on fiscal year. For example: 2016 = July 1st 2015 - June 30 2016.

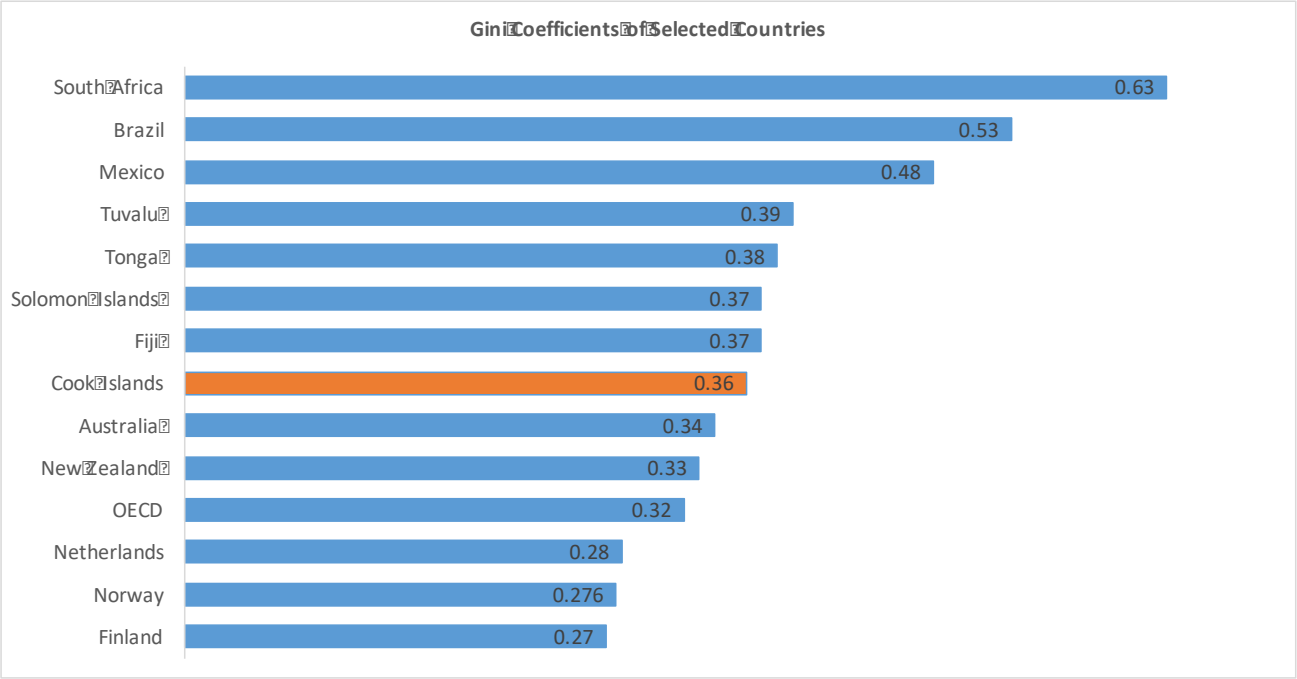
The Gini coefficient presented in Table 1 has been computed from tax data, without taking into account income taxes, transfer payments and housing, therefore it overestimates the true level of the coefficient. For example, the HIES reported a Gini coefficient of 0.329 for Rarotonga, 0.386 for the Pa Enua, and 0.36 for the entire country after taking into account taxes, imputed housing and social transfers. Nevertheless, even taking into consideration the potential overestimation of the coefficient from the tax data, there is a preliminary indication of a slow decrease in the Gini coefficient which suggests a slow move towards more equal income and wealth distribution.

It is illustrative to compare inequality in income distribution of the Cook Islands with other selected countries. Figure 1 presents the comparison of selected countries in the world. It is generally regarded that Gini coefficients above 0.5 indicate extremely unequal wealth and

[3] The Gini coefficient is a number between 0 and 1, the closer the number is to 0 the more equal income distribution.

income distribution, while those below 0.3 indicate very equitable distributions. The majority of countries fall in the range of 0.3 to 0.4, while the average for all OECD countries is 0.32. By this measure, the Cook Islands income inequality levels are at the higher end of moderate levels.

Figure 1. Gini Coefficient of Selected countries



Source: World Bank and OECD, years 2013-2016

Note: the figure used for the Cook Islands is based on the 2015-16 HIES

3 Domestic Income and Expenditure Disparities

Table 2. Average Household Expenditure and Income.

	Rarotonga (RA)	Pa Enua (PE)	Percentage Difference (RA-PE)/PE
Average annual HH expenditure, by category (NZD)			
Food and non-alcoholic beverages	6,760	10,010	-32%
Alcohol, tobacco and kava	2,840	2,610	9%
Clothing and footwear	1,010	660	53%
Housing and utilities	12,530	6,760	85%
Furniture and HH maintenance	1,480	1,260	17%
Health	110	60	83%
Transport	4,950	3,580	38%
Communication	2,150	1,340	60%
Education	100	20	400%
Recreation and culture	700	470	49%
Restaurant and hotel	1,920	970	98%
Miscellaneous	1,470	840	75%
Non-consumption expenditure	1,510	1,520	-1%
Investment expenditure	5,230	1,610	225%
Total	**42,760**	**31,720**	
Average annual HH expenditure, by type (NZD)			
Cash (total)	33,790	23,670	43%
Subsistence (gross total)	590	3,350	-82%
Imputed rents	8,370	4,650	80%
In-kind (employer)	10	50	-80%
Total	**42,760**	**31,720**	
Average annual HH net income, by category (NZD)			
Wages and salaries	34,490	19,560	76%
Business	2,820	1,070	164%
Primary	1,360	1,450	-6%
Subsistence (net total)	200	2,020	-90%
Capital	1,860	1,390	34%
Transfer	5,080	6,730	-25%
Casual	330	210	57%
Remittances	480	440	9%
Home production gifted	160	900	-82%
Imputed rents	8,370	4,650	80%
Total	**55,150**	**38,420**	
Average annual HH income, by type (NZD)			
Cash	46,410	30,810	51%
In-kind (employer)	10	50	-80%
Subsistence (net)	200	2,020	-90%
Home production gifted	160	900	-82%
Imputed rents	8,370	4,650	80%
Total	**55,150**	**38,430**	

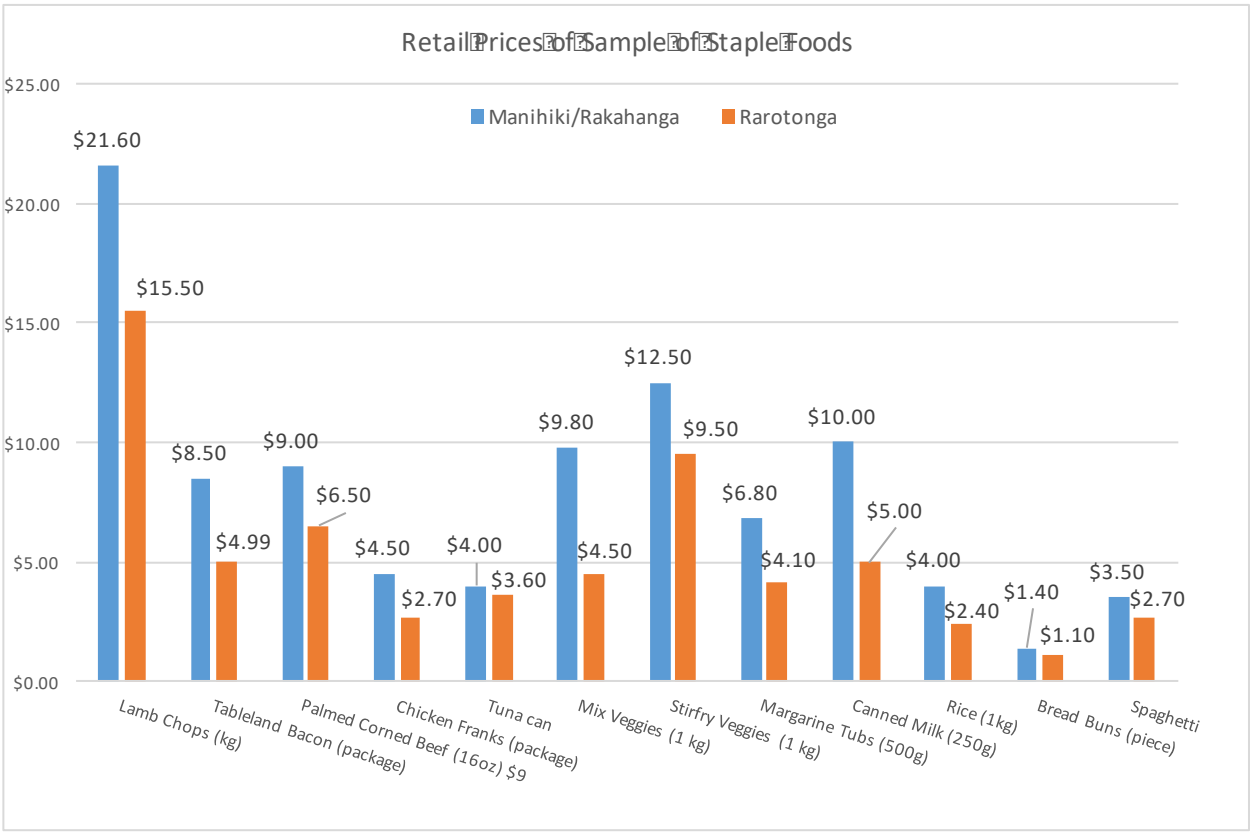
Source: HIES 2015-16

The most reliable recent data on the standard of living, income and expenditure comes from the Household Income and Expenditure Survey (HIES) 2015-16. Table 2 presents summary results from the HIES 2015-16. Findings indicate significant differences in expenditure and income between Rarotonga and the Pa Enua.

One of the largest expenditure groups, food and non-alcoholic beverages illustrates the point. Rarotonga inhabitants spend 3,250 NZD less on the basic food necessities than Pa Enua residents, a 32% difference, which likely represents significantly higher prices in the Pa Enua, rather than local preferences on food spending.

Sample data on food prices in Manihiki as compared to Rarotonga collected in September 2019, while only a small subset, seem to confirm the price differentials (Figure 2).

Figure 2. Retail Prices of Staple Foods



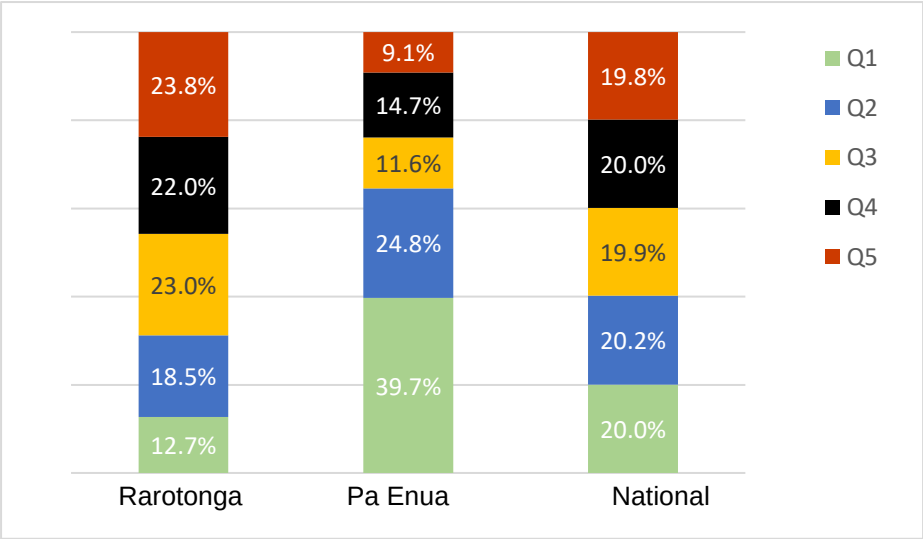
Source: MFEM

Other annual household expenditures categories illustrate the vast disparities in economic and leisure opportunities. Spending on transport, restaurants and hotels, as well as investments are all significantly higher in Rarotonga than in the Pa Enua simply because such opportunities are limited in the Pa Enua.

Income differences further amplify the standard of living divide between Rarotonga and the Pa Enua. Average household income in Rarotonga from wages and salaries is 76% higher than in the Pa Enua. The Pa Enua compensate the lower salary/wages income with higher transfers and higher subsistence income, nevertheless total average household income in the Pa Enua remains 16,730 NZD lower than in Rarotonga (or 13,010 NZD lower when excluding imputed rent).

A more comprehensive assessment of income distribution reveals that the Pa Enua have a much greater share of population in the lowest income quintile (the 20% of households earning the lowest income). According to the HIES, the average household income of the highest quintile is NZD 73,710, while the average household income of the lowest quintile is NZD 24,810 per year. Figure 3 shows that 39.7% of the households living in the Pa Enua fall within the lowest quintile, compared to only 12.7% of households in Rarotonga. Conversely, at the other end of scale, the top quintiles are disproportionately represented in Rarotonga as opposed to the outer islands.

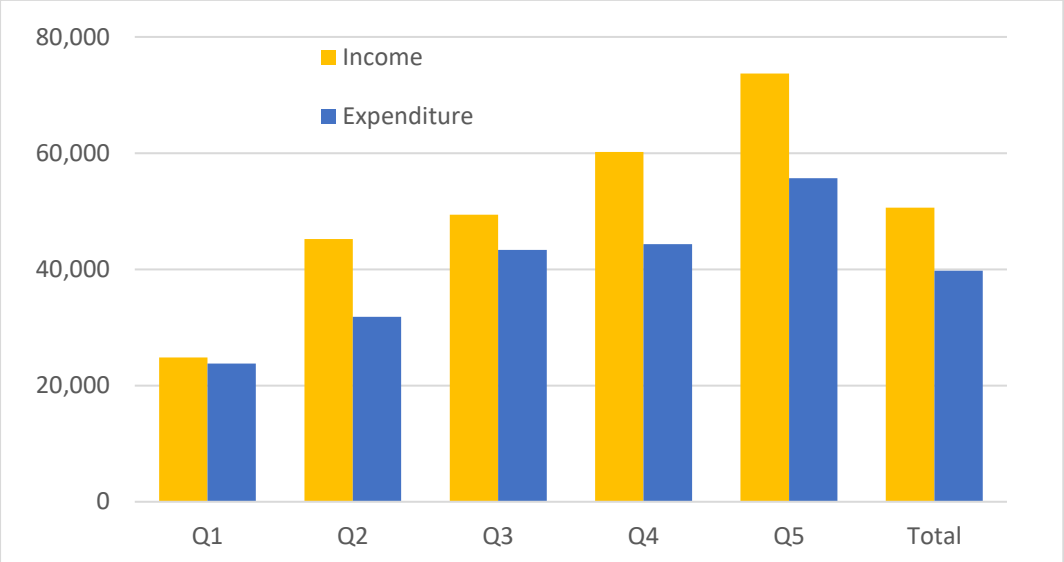
Figure 3: Proportion of HHs in each strata, by income quintile



Source: HIES 2015-16

Figure 4 illustrates the difference in income and expenditure by quintile. It is evident that those households in the lowest income quintile are only able to save on average around $1,000 per year after expenditures. This compares with $18,040 for the highest 20 per cent of income earners.

Figure 4: Average annual HH income and expenditure, by national income and expenditure quintile (NZD)



While the figures above suggest a degree of inequality in the Cook Islands, particularly between Rarotonga and the Pa Enua, there have been increases in both the minimum wage (to $7.60 per hour) and an increase in welfare payments since the 2015-16 HIES (such as the aged pension and child benefit, amongst others). While welfare payments are not means tested, and are therefore provided to all households, regardless of income level, they have relatively greater impact on low income households.

Increases in the minimum wage may go some way to explaining the real growth in the lowest income quintile since 2015, with growth rates averaging 3.9 per cent between 2015 and 2018.

4 International Income and Expenditure Comparisons

Comparing Cook Islands national average income and consumption expenditure with similar data for New Zealand reveals several evident differences.

A standard measure of average income is GDP per capita, while it has its shortcomings it is the most widely available data for international comparisons. The latest official figures for the Cook Islands (2017) report the nominal GDP per capita at $24,943, while the same data for New Zealand in 2017 was $58,202[4] – an income difference of 133.3%.

A more accurate measure of average income is Gross National Income, which instead of measuring income produced within the borders of the country, measures income produced by the residents of the country regardless of where that income was earnt. For a small, open country like the Cook Islands, non-resident income earners have a greater impact, resulting in a significant difference between GDP and GNI.

Preliminary GNI data suggests that GNI per capita for the Cook Islands in 2017 was $16,860[5], while the comparable figure for New Zealand was $37,470 – an income difference of 101%.

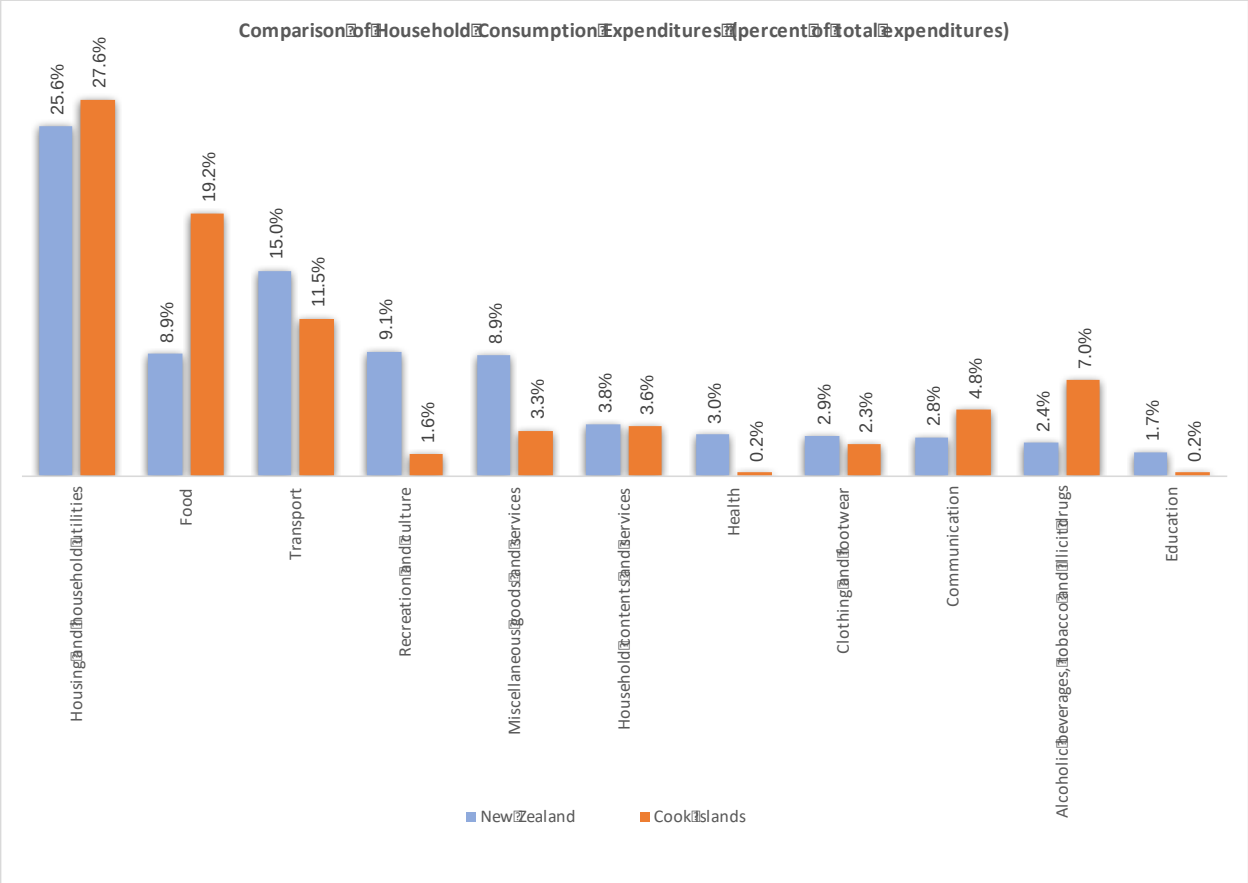
The nominal difference in income is widened by the relative cost of living in both countries. As illustrated in Figure 5, the average New Zealand household spends significantly less of its budget on basic living expenses such as housing and food, while at the same time can afford to spend a higher fraction of income on recreation and culture.

An interesting aspect of the international average household expenditures comparisons are tobacco and alcohol expenditures. Figure 5 indicates that Cook Islands residents devote a significantly higher proportion of their expenditure to alcoholic beverages and tobacco (7% in the Cook Islands versus 2.4% in New Zealand) – given the prices for these are not significantly different in the two countries – the data implies that the higher expenditure can be attributed to greater quantities of these goods consumed by an average household in the Cook Islands than in New Zealand.

[4] Source: IMF, Article IV report, 2019.

[5] Atlas method, in current US dollars.

Figure 5: Comparison of Household Consumption Expenditures



Source: HIES 2015-16 for Cook Islands data, New Zealand Statistical Office for New Zealand data.

This conclusion is reinforced by other data, 21.6%[6] of the Cook Island population aged 15 and over smokes cigarettes, whereas the corresponding number for New Zealand is 13.2%[7] according to Statistics New Zealand.

Similarly, data on alcohol consumption suggests that while overall a smaller fraction of the Cook Islands population consumes alcohol compared to New Zealanders, the average individual alcohol intake may be higher, as is the incidence of alcohol related fatal accidents. According to Cook Islands Police, about 87 per cent of road fatalities recorded in the Cook Islands are alcohol-related[8] whereas in New Zealand alcohol related fatal accidents constitute only 20 per cent[9].

[6] HIES 2015-16.

[7] New Zealand Statistical Office.

[8] Cook Island News, February 27, 2019

[9] Alcohol.org.nz.

5 Conclusions

Recent economic development in the Cook Islands fuelled by the boom in the tourist industry has resulted in robust economic growth both for Rarotonga and, to a slightly lesser degree, the Pa Enua.

Despite this, income disparity between Rarotonga and the Pa Enua is pronounced and places the country on an inequality scale higher than average for the OECD states. In addition to lower nominal incomes, the population in the Pa Enua face higher prices on basic foodstuffs and have limited economic potential due to both geographic distances and labour and capital shortages.

While the income and living standard discrepancies between Rarotonga and the Pa Enua are still pronounced, there is some preliminary evidence, such as the Gini coefficient that the economic inequality is not widening. This is evidenced by both decreases in the percentage of the population living below the minimum liveable standards, and real growth in the incomes of the lowest 20 per cent of the population.