



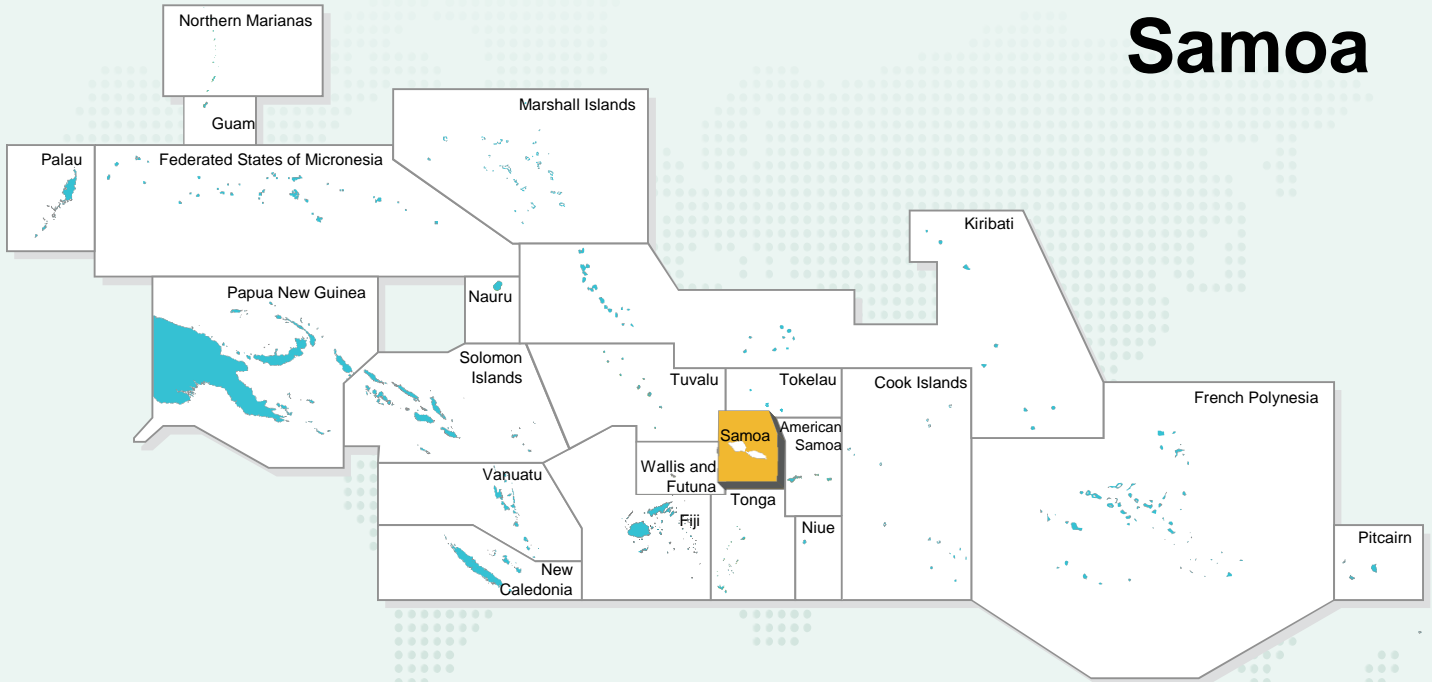
IIEC

International Institute for Energy Conservation



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partnership**

Country Report for **Samoa**



Technical Analysis of Appliance Markets to Support the Pacific Appliance Labelling and Standards (PALS) Programme

Prepared for

Renewable Energy and Energy Efficiency Partnership (REEEP)

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CONTENTS

1	ACKNOWLEDGMENTS	1
2	INTRODUCTION	2
2.1	Country Background	2
2.2	Objective	2
3	FINDINGS	3
3.1	Import Statistics.....	3
3.2	Market Penetration of Electrical Appliances (Census 2011)	17
3.3	Market Characteristics	18
3.4	Energy Labels	18
3.5	Information Gaps	20
4	CONCLUSION	21
5	ANNEX – COUNTRY DATA SHEETS	22
6	REFERENCES	28

FIGURES

Figure 3.1	– Number of Refrigerators and Freezers Imported per Year (units).....	4
Figure 3.2	– Annual Percentage Breakdown of Refrigerator Imports by Country of Origin (based on number of units)	4
Figure 3.3	– Annual Percentage Breakdown of Freezer Imports by Country of Origin (based on number of units)	4
Figure 3.4	– Import Value (T\$) per Year for Freezers and Refrigerators	5
Figure 3.5	– Annual Percentage Breakdown of Refrigerator Imports by Country of Origin (based on import value)	5
Figure 3.6	– Annual Percentage Breakdown of Freezer Imports by Country of Origin (based on import value)	6
Figure 3.7	– Number of Air Conditioners (All Sizes) Imported per Year (units)	6
Figure 3.8	– Annual Percentage Breakdown of Air Conditioner (All Sizes) Imports by Country of Origin (based on number of units).....	7
Figure 3.9	– Import Value (T\$) per Year for Air Conditioners (All Sizes).....	7
Figure 3.10	– Annual Percentage Breakdown of Air Conditioner (All Sizes) Imports by Country of Origin (based on import value)	8
Figure 3.11	– Number of Domestic Washing Machines and Dish Washers Imported per Year (units).....	8
Figure 3.12	– Annual Percentage Breakdown of Domestic Washing Machines Imports by Country of Origin (based on number of units).....	9
Figure 3.13	– Import Value (T\$) per Year for Domestic Dish Washers and Washing Machines.....	9
Figure 3.14	– Annual Percentage Breakdown of Domestic Washing Machines Imports by Country of Origin (based on import value)	10

Figure 3.15 – Number of Electric Water Heaters Imported per Year (units)	10
Figure 3.16 – Annual Percentage Breakdown of Electric Water Heater Imports by Country of Origin (based on number of units).....	11
Figure 3.17 – Import Value (T\$) per Year for Electric Water Heaters	11
Figure 3.18 – Annual Percentage Breakdown of Electric Water Heater Imports by Country of Origin (based on import value).....	12
Figure 3.19 – Import Value (T\$) per Year for Electric Fans	12
Figure 3.20 – Annual Percentage Breakdown of Electric Fan Imports by Country of Origin (based on import value)	13
Figure 3.21 – Number of Incandescent Lamps and (Linear) Fluorescent Lamps Imported per Year (units).....	13
Figure 3.22 – Number of Other Lighting Imported per Year (units).....	14
Figure 3.23 – Annual Percentage Breakdown of Incandescent Lamps by Country of Origin (based on number of units)	14
Figure 3.24 – Annual Percentage Breakdown of Fluorescent Lamps by Country of Origin (based on number of units)	15
Figure 3.25 – Annual Percentage Breakdown of Other Lighting by Country of Origin (based on number of units).....	15
Figure 3.26 – Import Value (T\$) per Year for Incandescent Lamps, Fluorescent Lamps and Other Lamps	16
Figure 3.27 – Annual Percentage Breakdown of Incandescent Lamps by Country of Origin (based on import value)	16
Figure 3.28 – Annual Percentage Breakdown of Fluorescent Lamps by Country of Origin (based on import value)	17
Figure 3.29 – Annual Percentage Breakdown of Other Lighting by Country of Origin (based on import value)	17
Figure 3.30 – Electrical Appliance Shop in Samoa selling Refrigerators, Freezers and Washing Machines with Chinese Energy Label (top left), Singaporean Energy Label (top right), Aus/NZ Energy Labels (middle and bottom).....	19

TABLES

Table 2.1 – General Information on Samoa.....	2
Table 3.1 - Ownership of Selected Household Appliances in Samoa	17
Table 3.2 – Brand and countries of manufacture of most common electrical appliances in Samoa.....	18
Table 3.3 – Proportion of Electrical Appliances with Energy Labels	19
Table 5.1 – Physical Units Imported per Year	22
Table 5.2 – Percentage Breakdown of Imports by Country of Origin (based on import units) for 2008 and 2009	23
Table 5.3 – Percentage Breakdown of Imports by Country of Origin (based on import units) for 2010 and 2011	24
Table 5.4 – Import Value (T\$) Per Year	25
Table 5.5 – Percentage Breakdown of Imports by Country of Origin (based on import value) for 2008 and 2009.....	26
Table 5.6 – Percentage Breakdown of Imports by Country of Origin (based on import value) for 2010 and 2011	27

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2 INTRODUCTION

2.1 Country Background

Table 2.1 – General Information on Samoa

Neighbouring Countries	Cook Islands, Fiji, French Polynesia, Niue, Tonga, Tuvalu and Wallis & Futuna
Capital City	Apia
Currency	Samoa Tala (ST\$)
Population Size (habitants)	187,820 (2011 Census)
Number of Households	26,205 (2011 Census)
Electrification Rate (%)	98%
Status of S&L Scheme	Under Implementation through the PALS Programme focusing on refrigerators and freezers. Government endorsement being sought.

Source: Samoa Bureau of Statistics; SPC, 2011

2.2 Objective

The objective of this study is to analyse the characteristics of major appliance and lighting products and markets in Samoa, in order to inform and support decision making on the most suitable Standards & Labelling (S&L) strategy for Samoa.

The study focuses on the following electrical appliances:

- Refrigerators
- Freezers
- Air Conditioners
- Lamps – including incandescent, linear fluorescent and compact fluorescent
- Televisions
- Other relevant products.

3 FINDINGS

3.1 Import Statistics

The electrical appliance information presented in this section is based on data provided by the Customs Department and Bureau of Statistics in Samoa and covers the most common electrical appliances in the country.

The Figures presented below show the total number of electrical appliance units imported annually into Samoa from 2008 to 2011¹, the total annual import value (T\$) of each type of electrical appliance imported into Samoa from 2008 to 2011 and the respective share of import value and number of units according to country of origin². Note that there is no data on number of electric fan units imported into Samoa. In addition, there is no customs data on television import value and number of units due to different interpretations of harmonized system codes for television apparatus by the customs department. Figures with no value for a given year imply data was not available.

Samoa is one of the few countries in the Pacific region with customs information on the number of units imported per country of origin. This report provides analysis on the country of origin of electrical appliances based on import value and import unit data. Using number of units imported is a more accurate way of determining the market share of each country as the import value share is influenced by exchange rates and equipment costs, i.e. the average electrical equipment import value from Australia/New Zealand and Europe are typically higher than that of the People's Republic of China (China). Note also that all customs departments are focus on determining the value of the imported electrical appliances for taxation purposes and therefore the number of units is not usually a priority or correctly indicated by the supplier and/or customs officer, especially with regard to small electrical appliances such as lamps. An on-site survey was conducted to enable a better assessment of the country(ies) of origin of electrical appliances in Samoa (see section **Error! Reference source not found.** and **Error! Reference source not found.**).

3.1.1 Refrigerators and Freezers

According to Figure 3.1, the number of freezer units imported into Samoa fluctuated from 2008 to 2011 reaching a peak of approximately 1,400 units in 2010, while the number of imported refrigerator units gradually increased reaching 702 units in 2011.

In this case the share of the country of origin does not differ significantly for refrigerators and freezers based on import value and number of units import. Figure 3.2 shows that most refrigerators were sourced from Singapore from 2008 to 2011 with an average share of 53% based on number of units imported. While Figure 3.3 shows that most freezers were imported from New Zealand from 2008 to 2011 with an average 48%. However, the share of freezers originating from New Zealand gradually fell from a 64% share in 2009 to a 25% share in 2011.

¹ Calendar Years

² Country from which the electric appliance was imported. Different from country of manufacture. E.g. Appliance can be manufactured in Thailand but imported through Singapore.

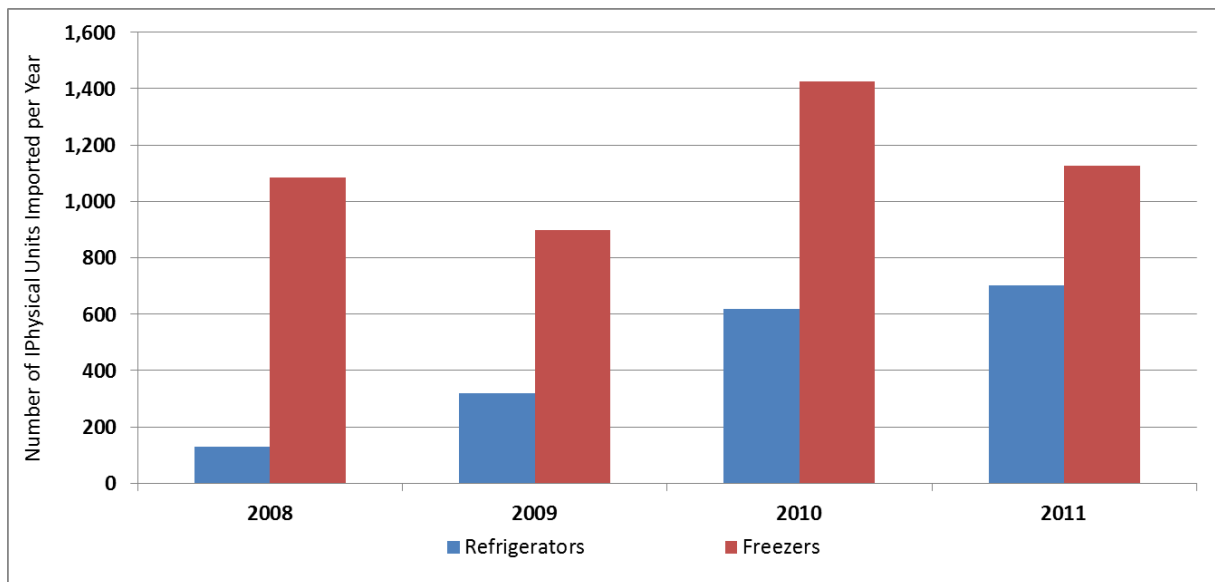


Figure 3.1 – Number of Refrigerators and Freezers Imported per Year (units)

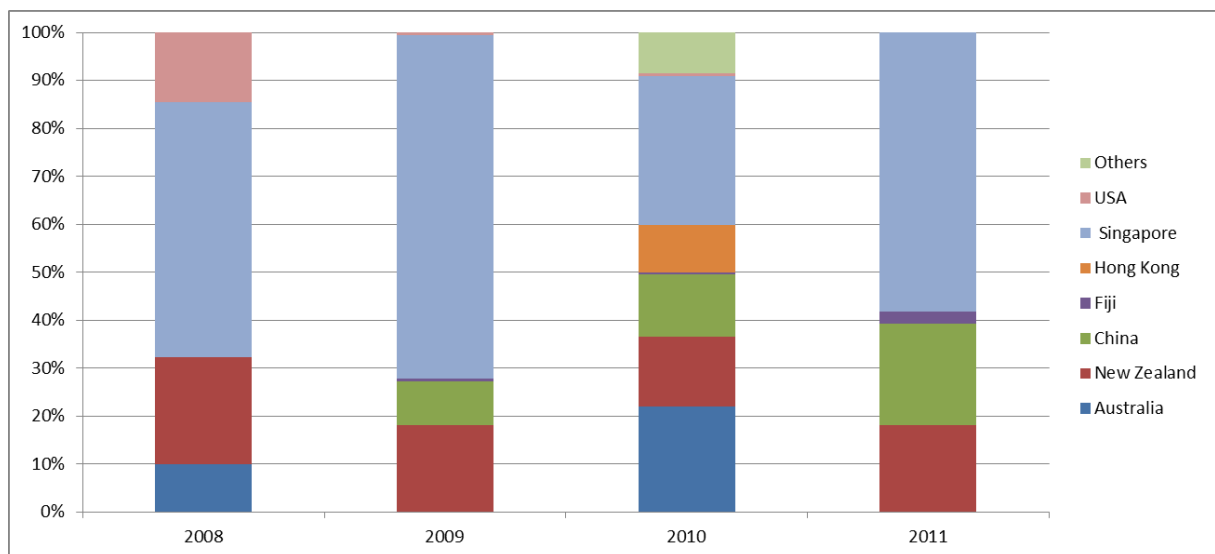


Figure 3.2 – Annual Percentage Breakdown of Refrigerator Imports by Country of Origin (based on number of units)

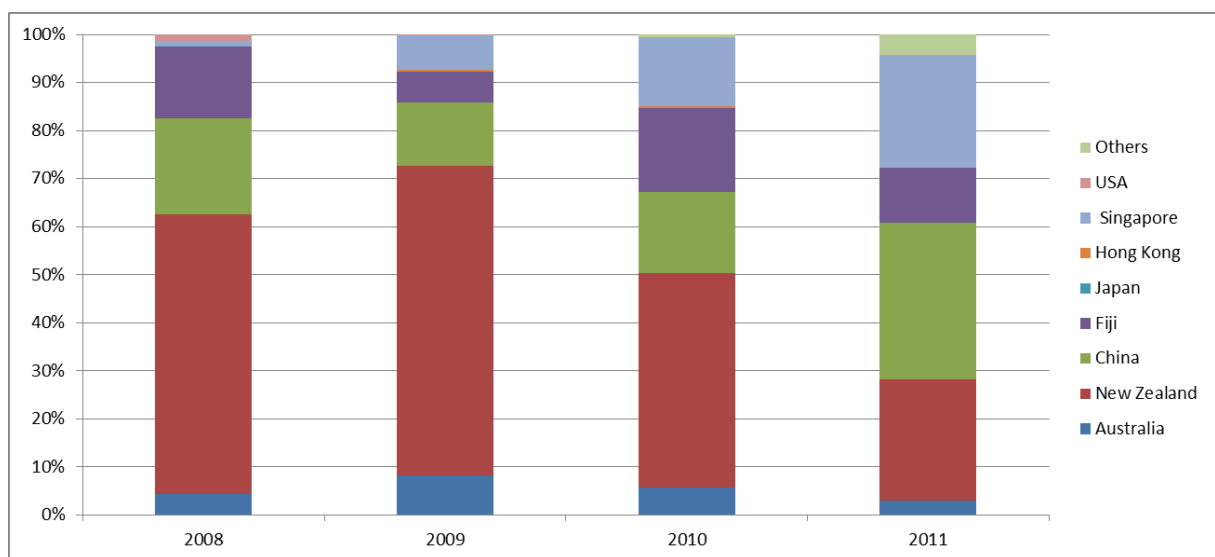


Figure 3.3 – Annual Percentage Breakdown of Freezer Imports by Country of Origin (based on number of units)

Overall, the import value of both refrigerators and freezers increased from 2008 to 2011 (Figure 3.4). As shown by Figure 3.5, based on import value, the share of refrigerators originating from Australia and New Zealand varies significantly. During 2009 and 2011, there were actually no refrigerators sourced from Australia. On average, 44% of refrigerators originated from Singapore from 2008 to 2011.

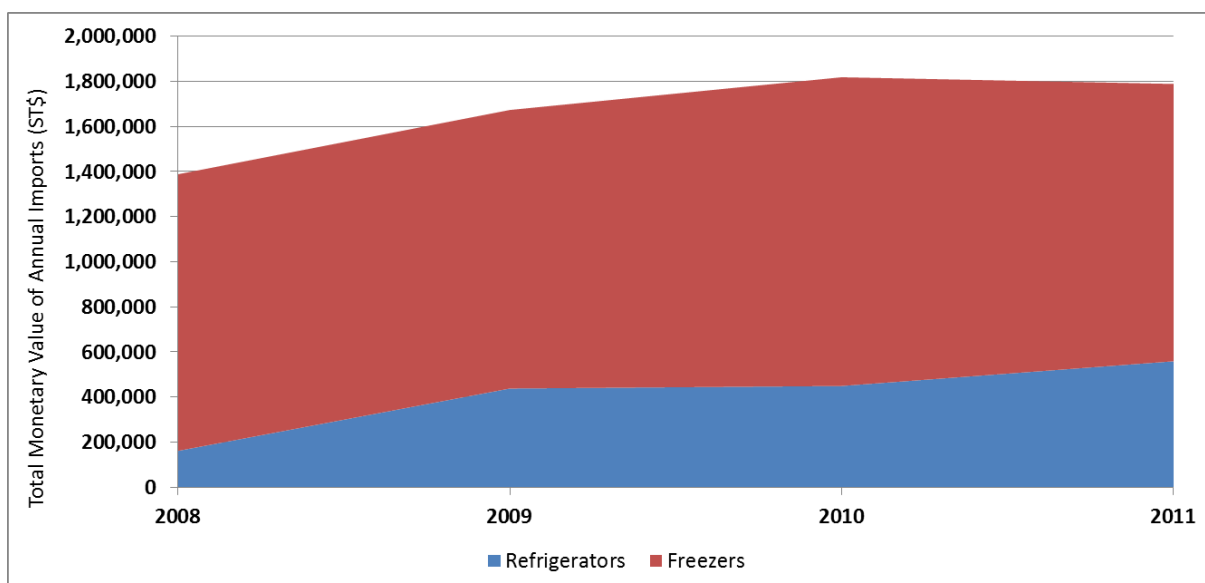


Figure 3.4 – Import Value (T\$) per Year for Freezers and Refrigerators

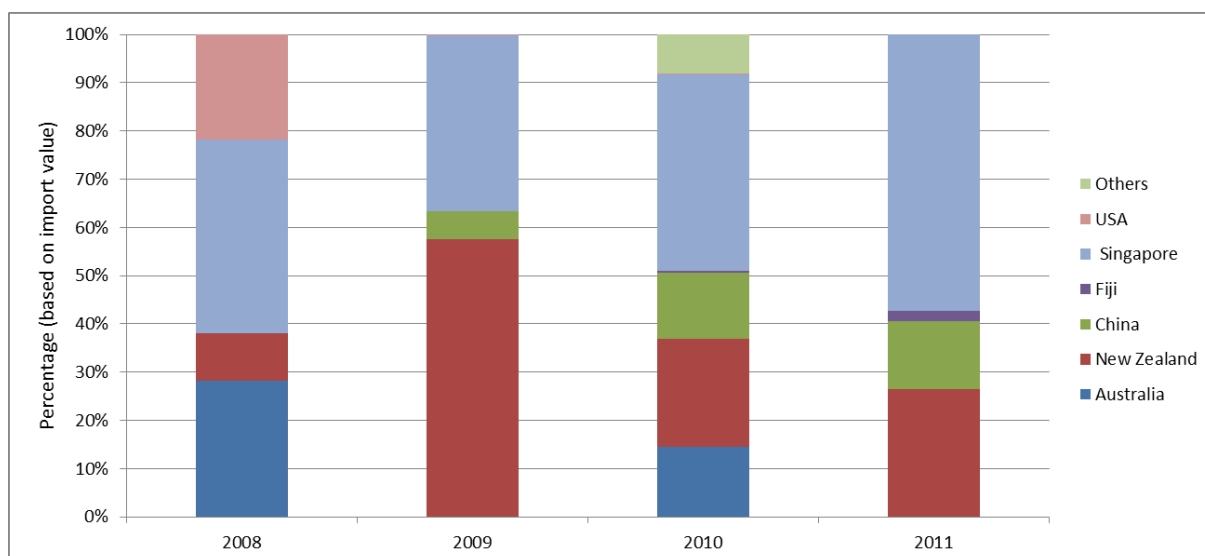


Figure 3.5 – Annual Percentage Breakdown of Refrigerator Imports by Country of Origin (based on import value)

The trend of import value for freezers follows a very different pattern from the refrigerators, with an average 60% of freezers originating from New Zealand. However, the share of freezers sourced from Singapore increased gradually from 2008 to 2009 reaching a 14% share in 2011 as well as from People’s Republic of China (China) with a 29% share in 2011. While the share of freezers imported from New Zealand fell from 70% in 2008 to 40% in 2011.

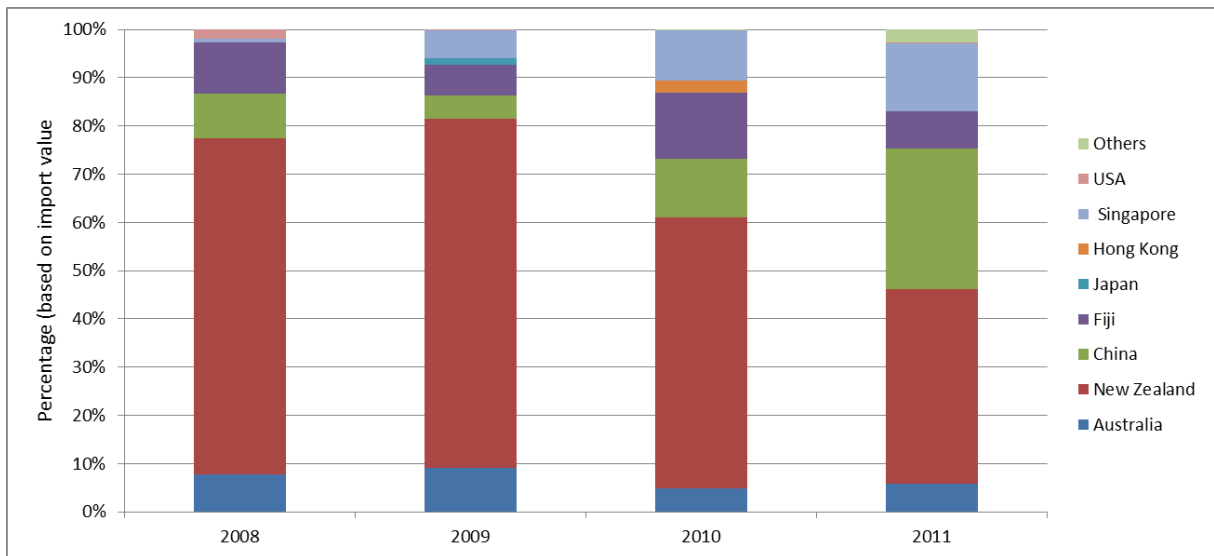
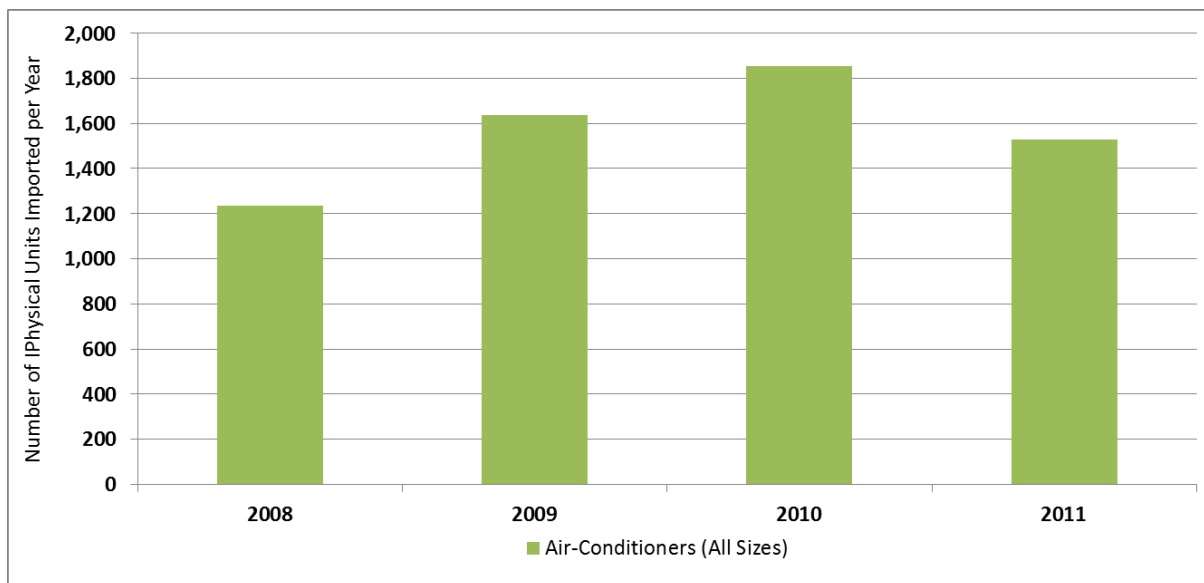


Figure 3.6 – Annual Percentage Breakdown of Freezer Imports by Country of Origin (based on import value)

3.1.2 Air Conditioners

Figure 3.7 shows that the number of air conditioners imported increased continuously until 2010 and then fell by 312 units in 2011.



Based on import units, an average 31% of air conditioners were sourced from China and 31% from New Zealand from 2008 to 2011 (Figure 3.8). This indicates the share of the country of origin does not differ significantly based on import value and number of units import, except for 2009. In 2009, the air conditioner import value from China should have reflected a higher number of units and could potentially indicate data error (see Figure 3.10).

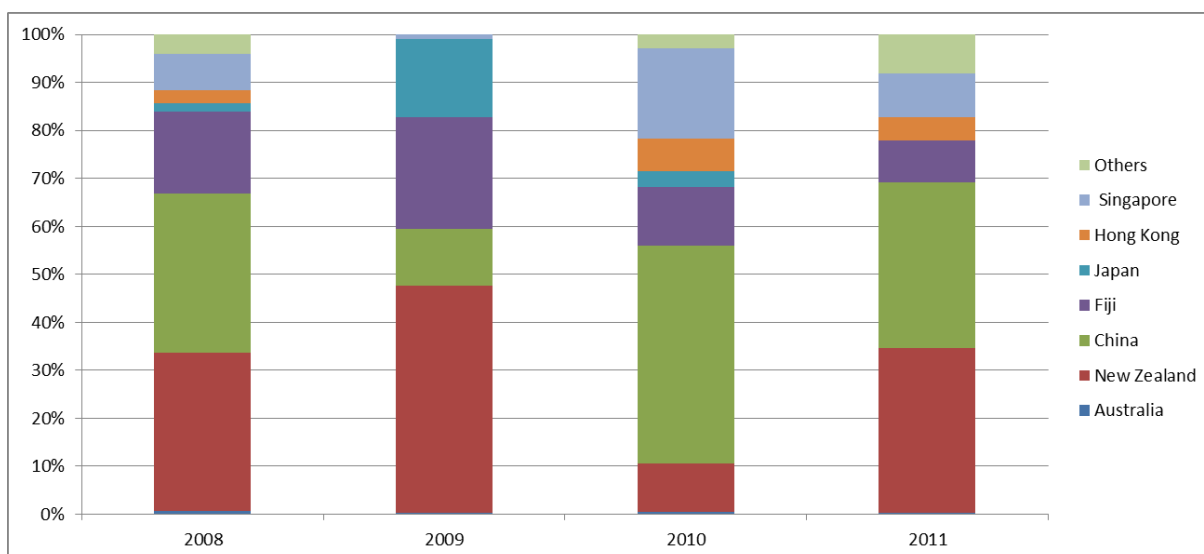


Figure 3.8 – Annual Percentage Breakdown of Air Conditioner (All Sizes) Imports by Country of Origin (based on number of units)

Air Conditioners (all sizes) have the highest import value of all electrical appliances imported into Samoa and covered under this report (Figure 3.9). There was a steep increase in import value of air conditioners in 2010 potentially due to bulk purchase of electrical appliances by local wholesalers, retailers or private companies (e.g. hotel sector).

The share of air conditions sourced from Fiji decreased gradually from 2008 to 2011. On average 40% of air conditioners are sourced from China and 31% from New Zealand from 2008 to 2011 (Figure 3.10). In 2010, 65% of air conditioners originated from China.

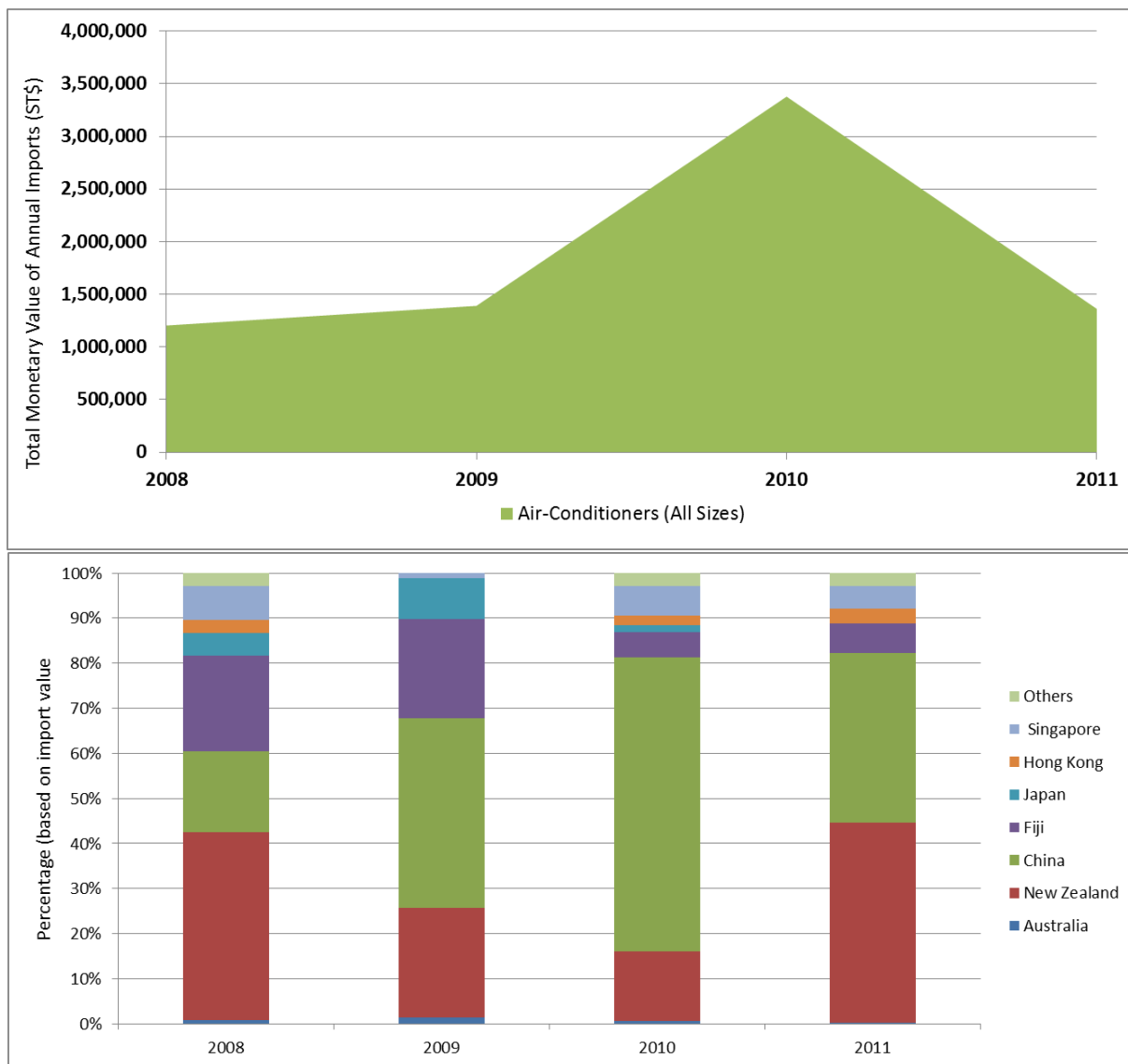


Figure 3.10 – Annual Percentage Breakdown of Air Conditioner (All Sizes) Imports by Country of Origin (based on import value)

3.1.3 Domestic Dish Washing and Washing Machines

An average 240 household washing machines and 11 household dish washing machines are imported per year in Samoa (Figure 3.11). The numbers of washing machines imported varies considerably on an annual basis. Note that the difference in annual values could be due to bulk purchase of electrical appliances by local wholesalers, retailers or private companies (e.g. hotel sector) in a given year or interpretation of international harmonized system codes³ used to identify the type of electrical appliances by the national customs department.

³ See methodology and harmonized system codes section in main report.

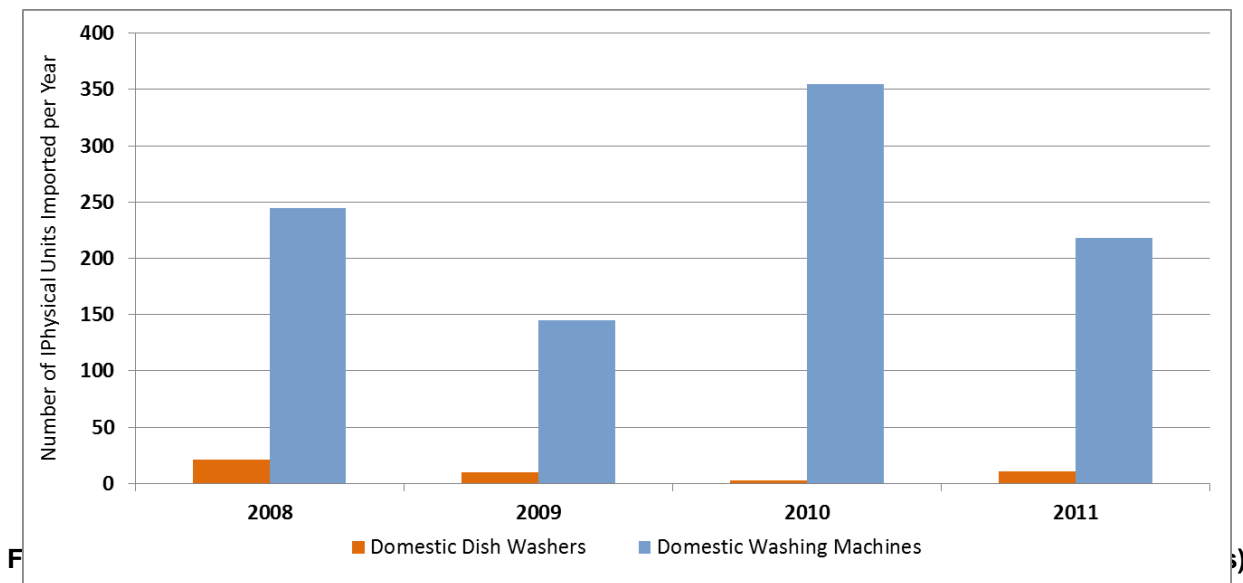


Figure 3.12 shows, based on import units, that the share of washing machines originating from Australia and New Zealand decreased from 2008 to 2010 due to increasing imports from Singapore and to lesser extent China. In 2011, the share of imported washing machine units from Singapore was approximately 63%, followed by Australia with 15% and New Zealand with 14% share.

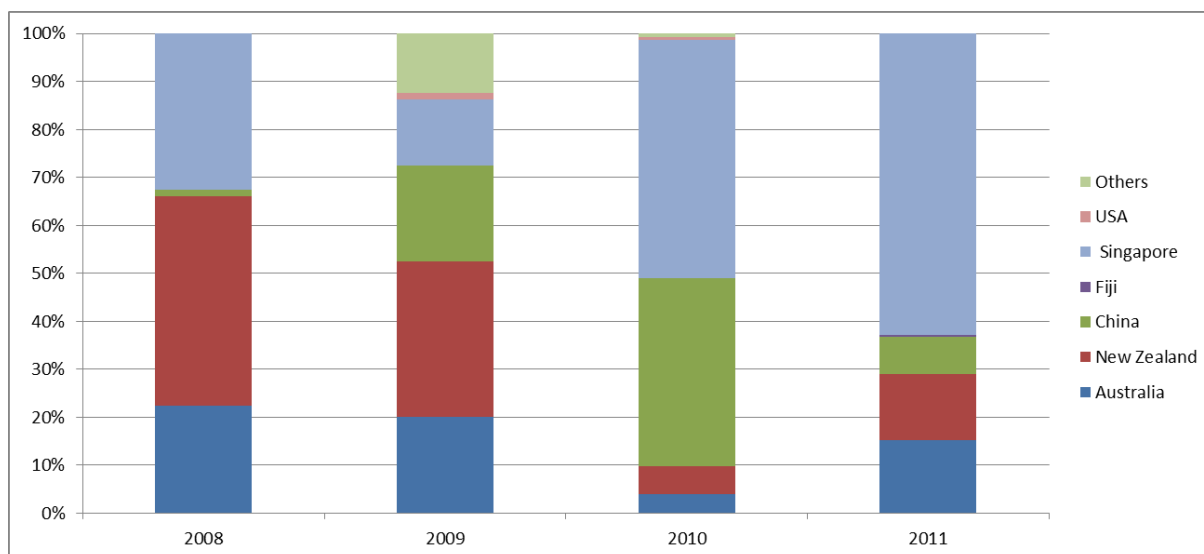
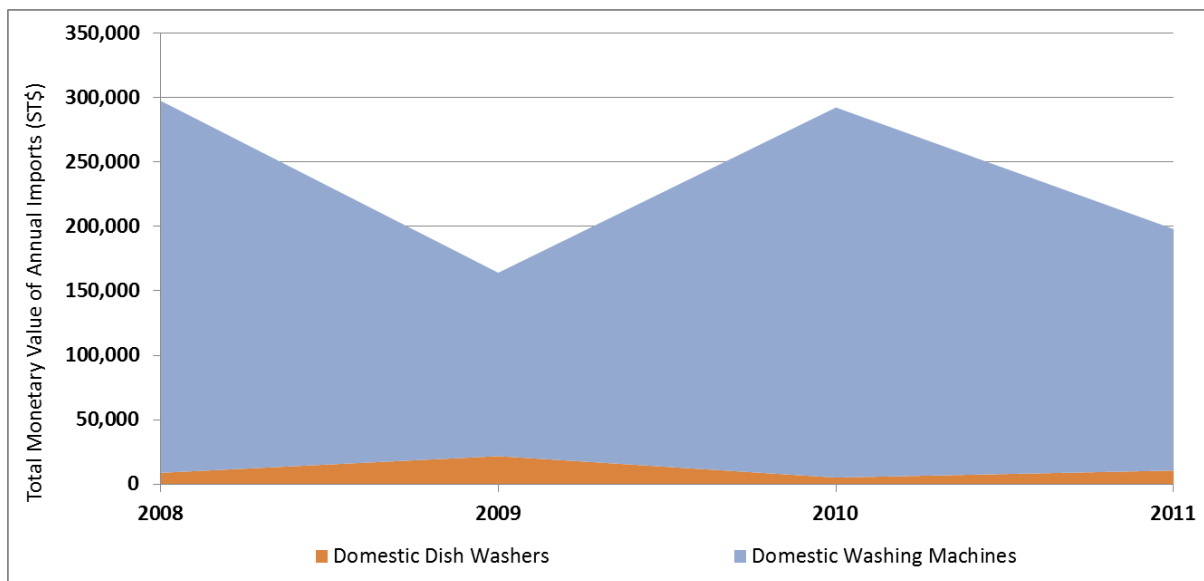


Figure 3.12 – Annual Percentage Breakdown of Domestic Washing Machines Imports by Country of Origin (based on number of units)

The import value of domestic washing machines fluctuates on an annual basis ranging from ST\$140,000 to ST\$300,000, while the low number of domestic dish washers imported is reflected in import values below ST\$25,000 for all years (Figure 3.13).



All domestic dish washers were imported from New Zealand from 2008 to 2011. Domestic washing machines are mostly imported from Australia and New Zealand with shares above 65% in 2008, 2009 and 2011. However, in 2010 the Australia and New Zealand share of domestic washing machine imports fell below 30%, whereas the Singapore share of imports reached 38% (Figure 3.14).

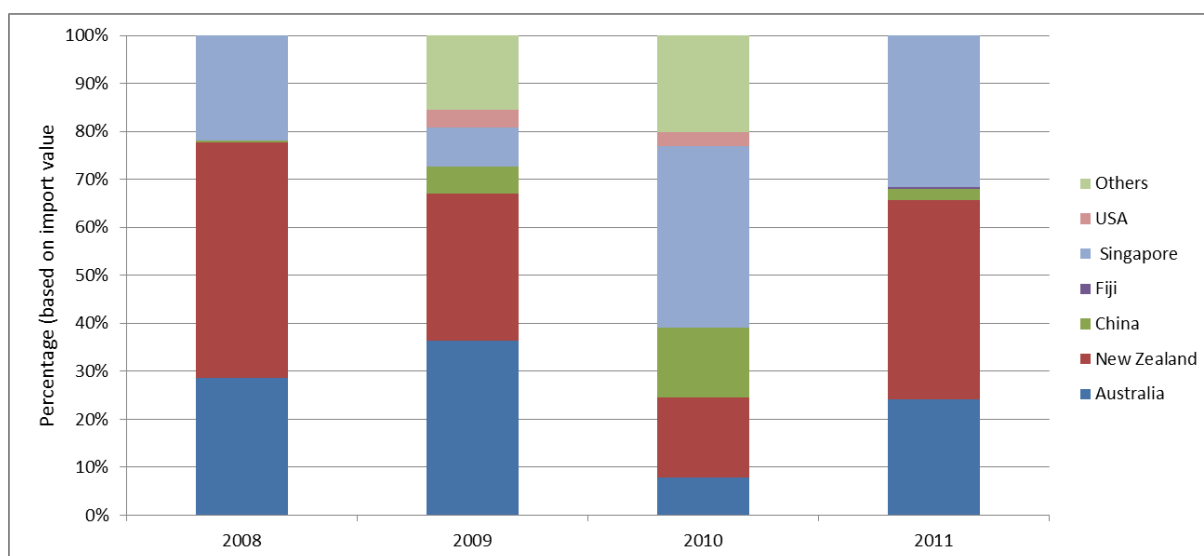
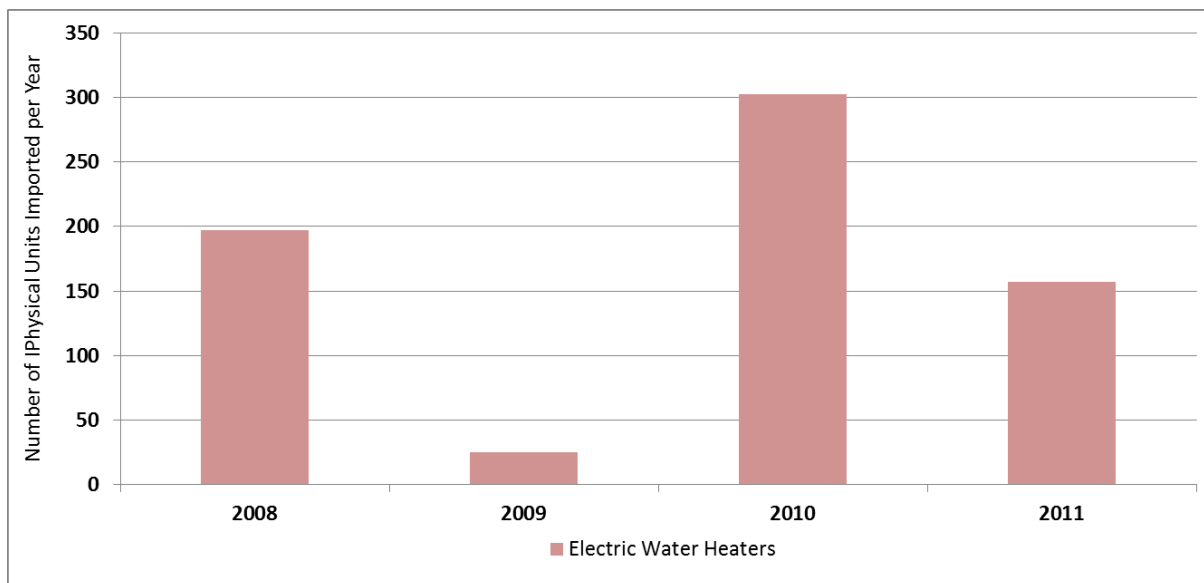


Figure 3.14 – Annual Percentage Breakdown of Domestic Washing Machines Imports by Country of Origin (based on import value)

3.1.4 Electric Water Heaters

The number of electric water heaters imported fluctuated from 2008 to 2011, with approximately 300 units imported in 2010 and just above 150 units in 2011 (Figure 3.15).



Based on import units, the country of origin share for electric water heaters varies significantly from 2008 to 2011. On average 42% of electric water heaters were imported from China, followed by New Zealand with 13% and Australia with 11% (Figure 3.16).

The import unit and import value data for electric water heaters generally follows the same trend, however, based on the country of origin breakdown there is significant difference in 2010.

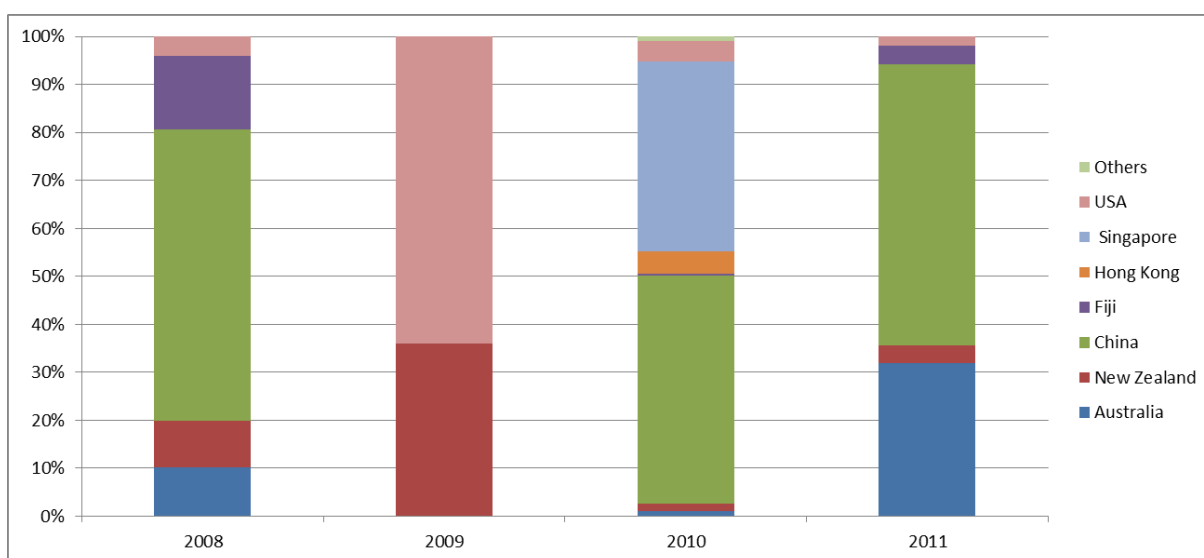
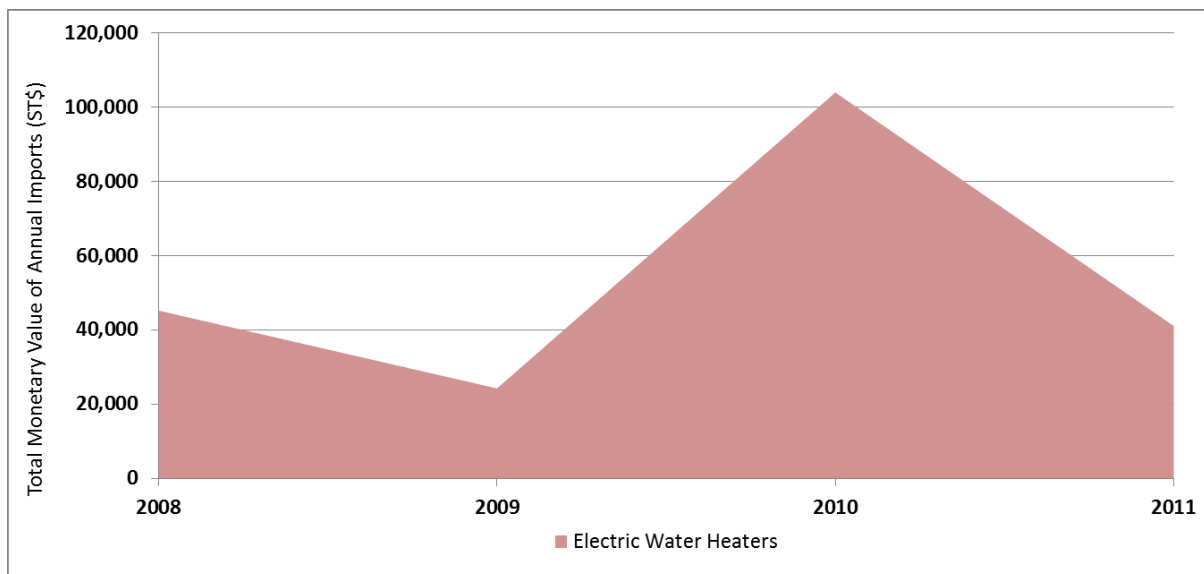


Figure 3.16 – Annual Percentage Breakdown of Electric Water Heater Imports by Country of Origin (based on number of units)

As shown by Figure 3.17, the import value from electric water heaters is low compared to other electrical appliances covered in this section. The electric water heater import value is generally below the ST\$45,000 level except for 2010, when the value peaked to approximately ST\$104,000.



Based on import value, the import origin of electric water heaters in Samoa varies significantly from year to year with 64% and 59% majority share for China in 2008 and 2011, 46% share for USA in 2009 and 54% and 67% for New Zealand in 2009 and 2010, respectively.

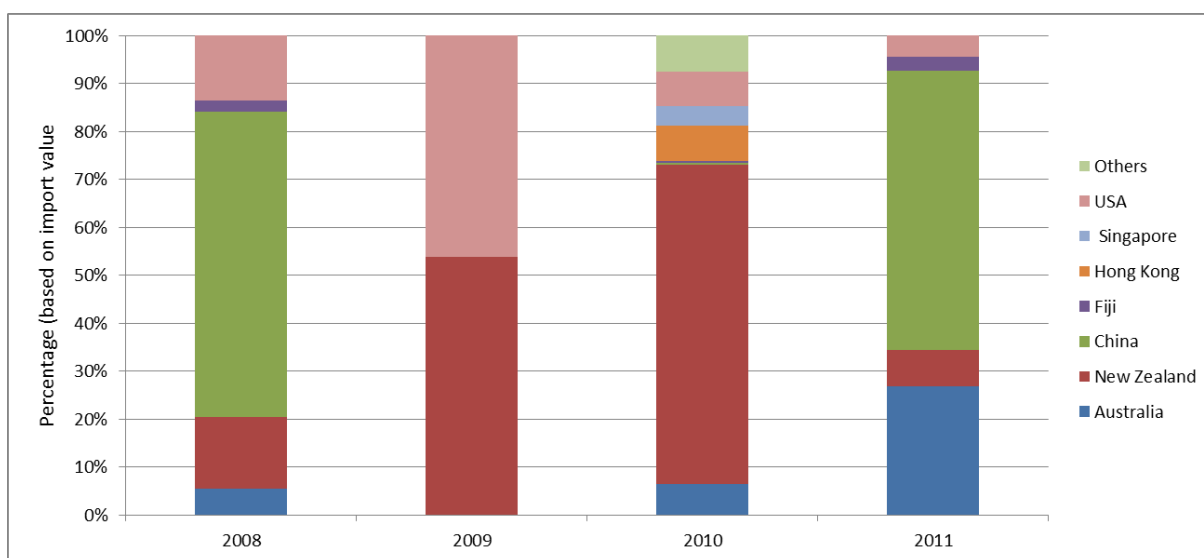


Figure 3.18 – Annual Percentage Breakdown of Electric Water Heater Imports by Country of Origin (based on import value)

3.1.5 Electric Fans

From 2008 to 2011, the import value for electric fans remained relatively flat and around the ST\$500,000 mark (Figure 3.19). In all years, more than 60% of electric fans were imported from New Zealand although the share decreased annually by 6% due to an increase in Chinese and Singaporean imports (Figure 3.20).

There is no data on the number of electric fans imported into Samoa.

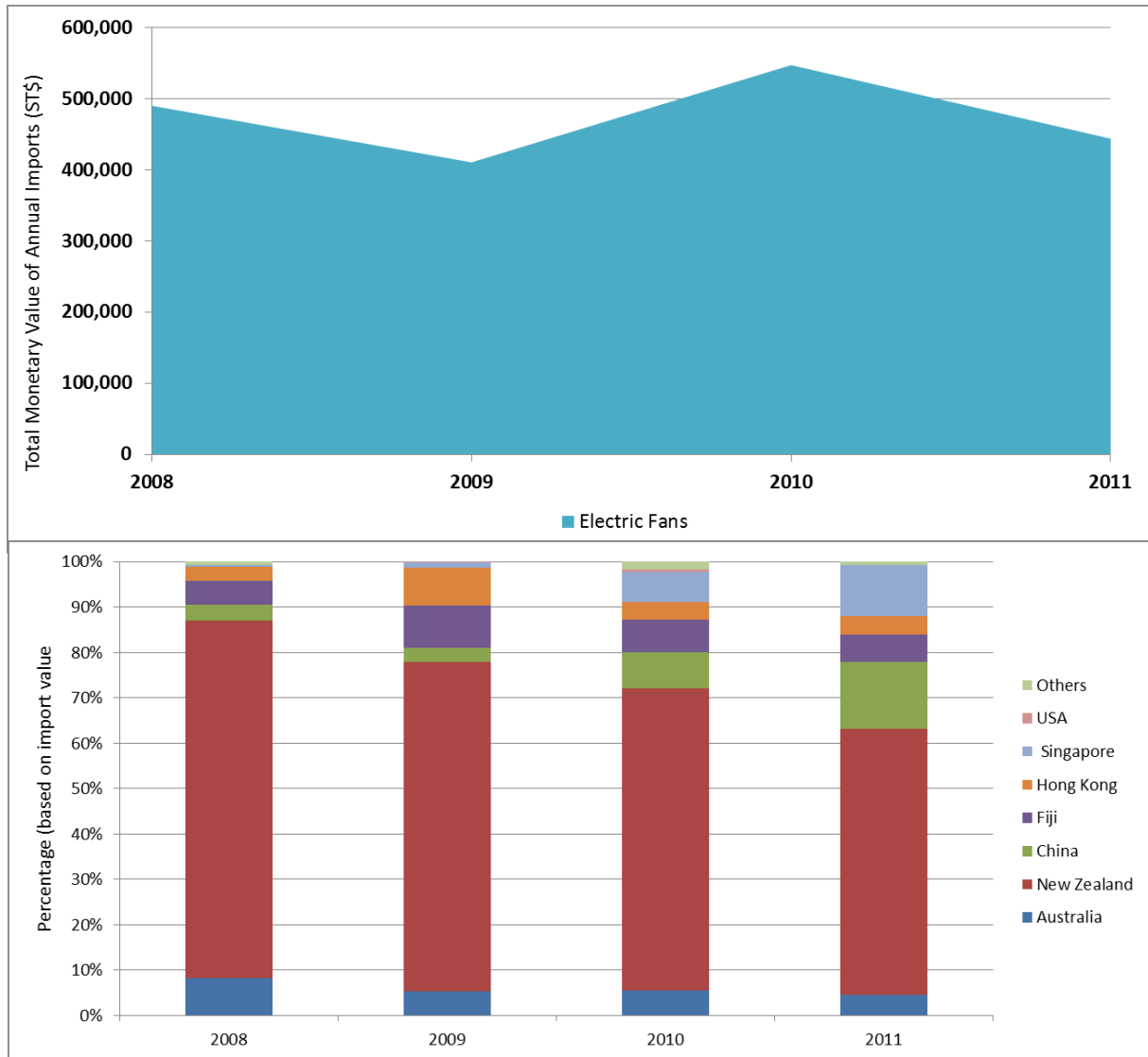
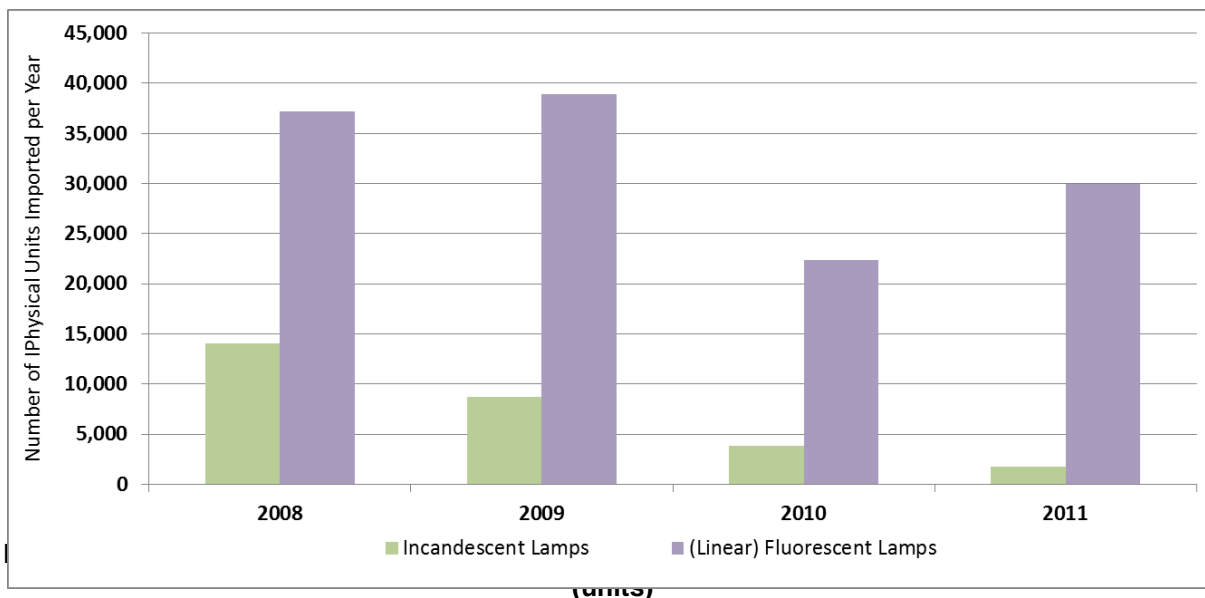


Figure 3.20 – Annual Percentage Breakdown of Electric Fan Imports by Country of Origin (based on import value)

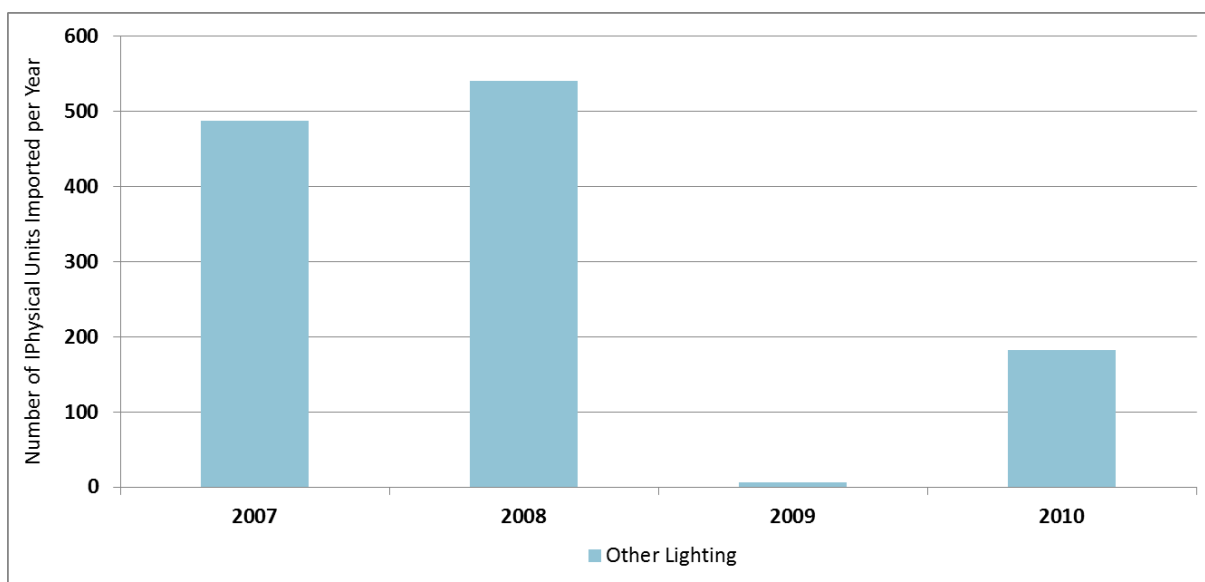
3.1.6 Lighting Appliances

Figure 3.21 illustrates that the number of incandescent lamps imported into Samoa decreased considerably from almost 14,000 units in 2008 to 2,000 units 2011.



This potentially indicates a successful phase out of incandescent bulbs in favour of more energy efficient lighting such linear fluorescent lamps and compact fluorescent lamps (CFLs). However, as the number of (linear) fluorescent lamps and other lighting⁴ appliances (Figure 3.22) fluctuated and did not increase steadily, the changes could be equally related to interpretation of harmonized codes by custom officers. This point is further analysed below under import values of incandescent lamps.

Currently, there is no international harmonized system code for compact fluorescent lamps (CFLs) and therefore it is not possible to determine the market penetration of these energy efficient lighting appliances against i.e. incandescent lamps. It might be advantageous, under the PALS Programme to identify a single harmonized system code for CFLs in the Pacific region for future analysis.



⁴ Other lighting includes ballasts for fluorescent lamps and other lamps not classified under other harmonized codes. This code could potentially include compact fluorescent lamps although these are more likely to be covered under the harmonized system code for fluorescent lamps. See section on harmonized system codes in the main report for more details.

Figure 3.22 – Number of Other Lighting Imported per Year (units)

Based on import units and as shown by Figure 3.23 to Figure 3.25, most lighting appliances were imported from Australia from 2008 to 2011, ranging from 40% to above 90% share of imports. However, for incandescent and other lighting, the Australian share has gradually fallen as these are sourced from other countries such as USA, Fiji, Hong Kong in 2010 and 2011. With the lighting appliances data it is clearer the mismatch between import values and import units. In this case, the import values are likely to be a better reference as not all customs account for the exact number of lamps arriving in a particular shipment. Another possibility, which cannot be discarded, is data error.

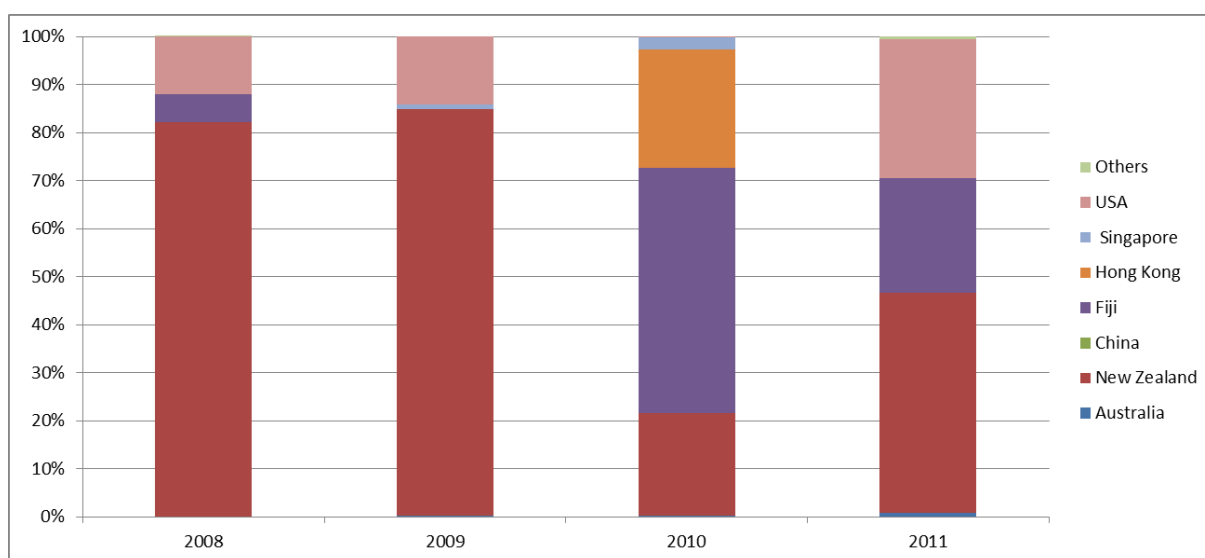


Figure 3.23 – Annual Percentage Breakdown of Incandescent Lamps by Country of Origin (based on number of units)

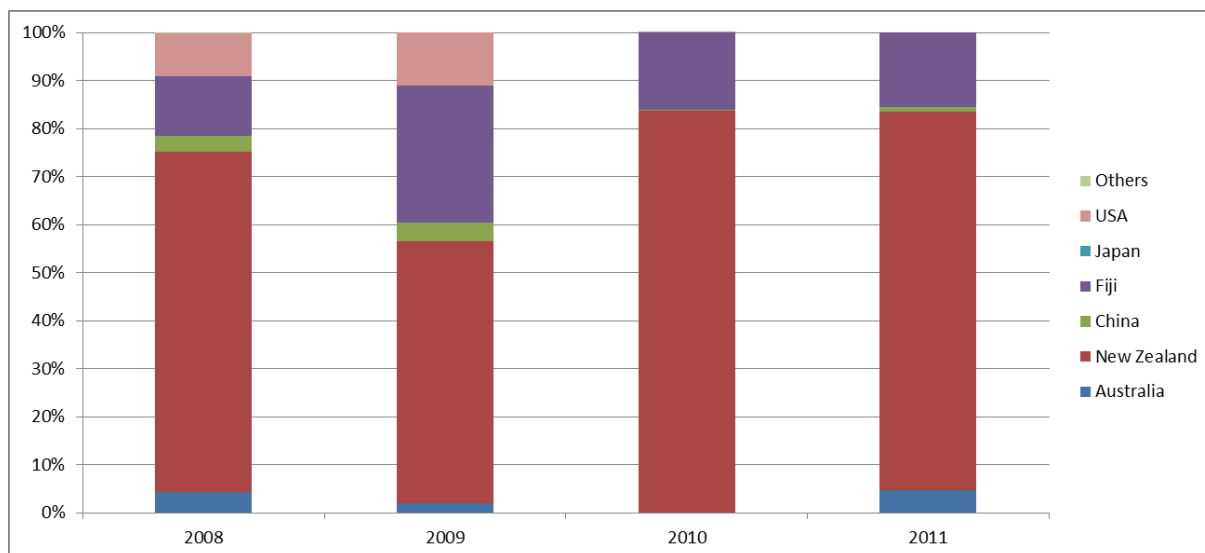


Figure 3.24 – Annual Percentage Breakdown of Fluorescent Lamps by Country of Origin (based on number of units)

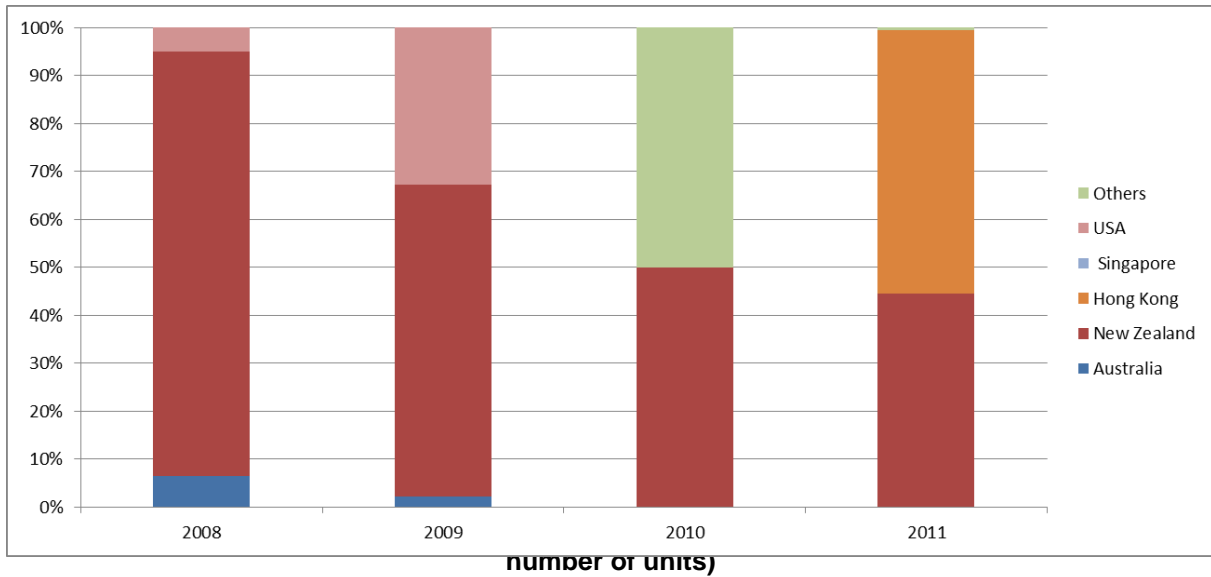


Figure 3.26 covers the import value for incandescent lamps, fluorescent lamps and other lighting. Since 2009, the import value of incandescent lamps decreased significantly from ST\$287,000 to a minimum low of ST\$17,000 indicating a potential phase out of incandescent lamps in Samoa or different interpretation of harmonized system codes by custom officers and respective inclusion of incandescent lamps under other lighting code. The other lighting values could also reflect an increase in CFL imports but these should be equally reflected under (linear) fluorescent lamps but there is no data available on (linear) fluorescent lamps for 2010 and 2011. This is likely to be related to allocation of fluorescent lamps and incandescent lamps under other lighting by customs department. The comparison of import value and number of units imported do not allow for adequate conclusion.

In addition, and despite the small number of units imported, the other lighting import value is larger than that of incandescent and fluorescent lamps combined. This might indicate that not all units of other lighting have been accounted in Figure 3.22.

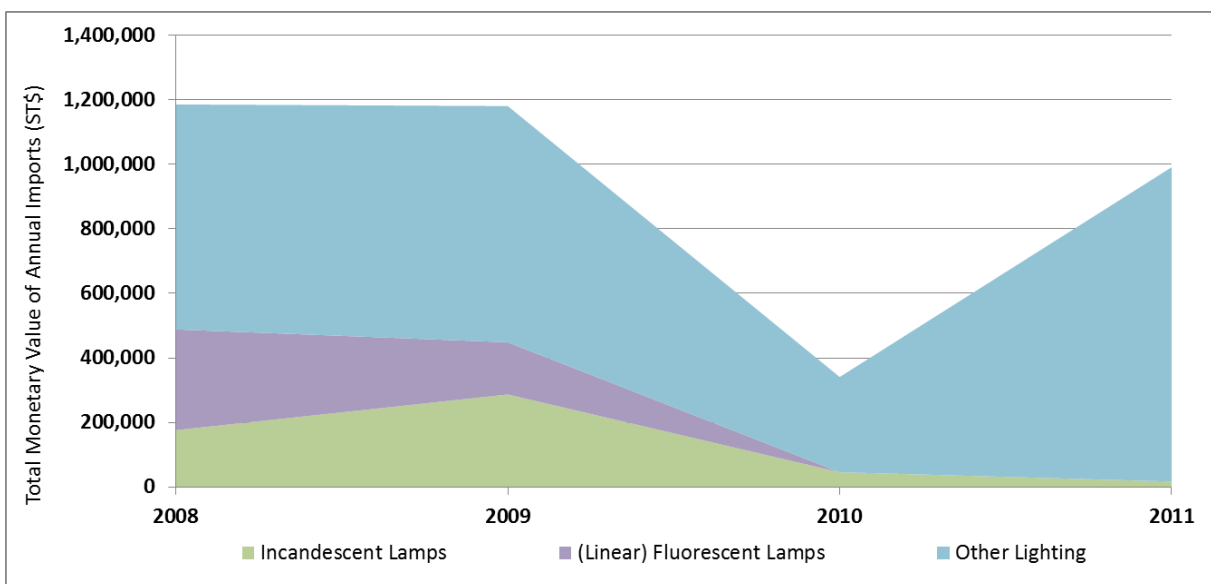


Figure 3.26 – Import Value (T\$) per Year for Incandescent Lamps, Fluorescent Lamps and Other Lamps

In addition, according to Figure 3.27, Figure 3.28 and Figure 3.29, New Zealand is the main source of incandescent lamps, fluorescent lamps and other lighting, with an average 70% share from 2008 to 2011. The only exception to the rule was in 2011, with 42% of other lighting appliances sourced from China based on imported value. Import value data for 2012 will help determine if this change in market share is punctual or long-lasting.

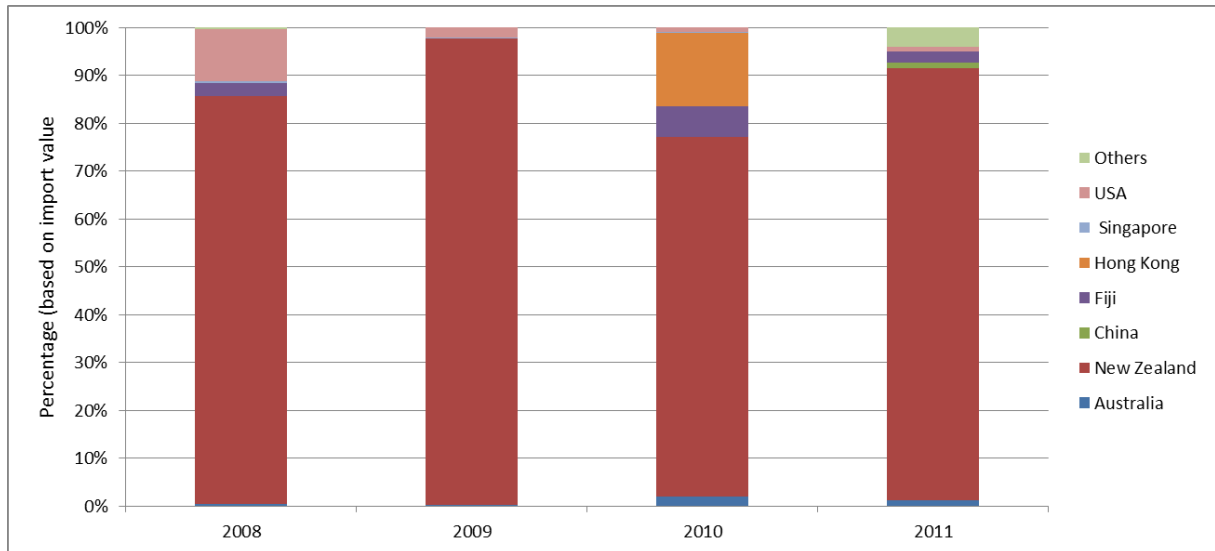


Figure 3.27 – Annual Percentage Breakdown of Incandescent Lamps by Country of Origin (based on import value)

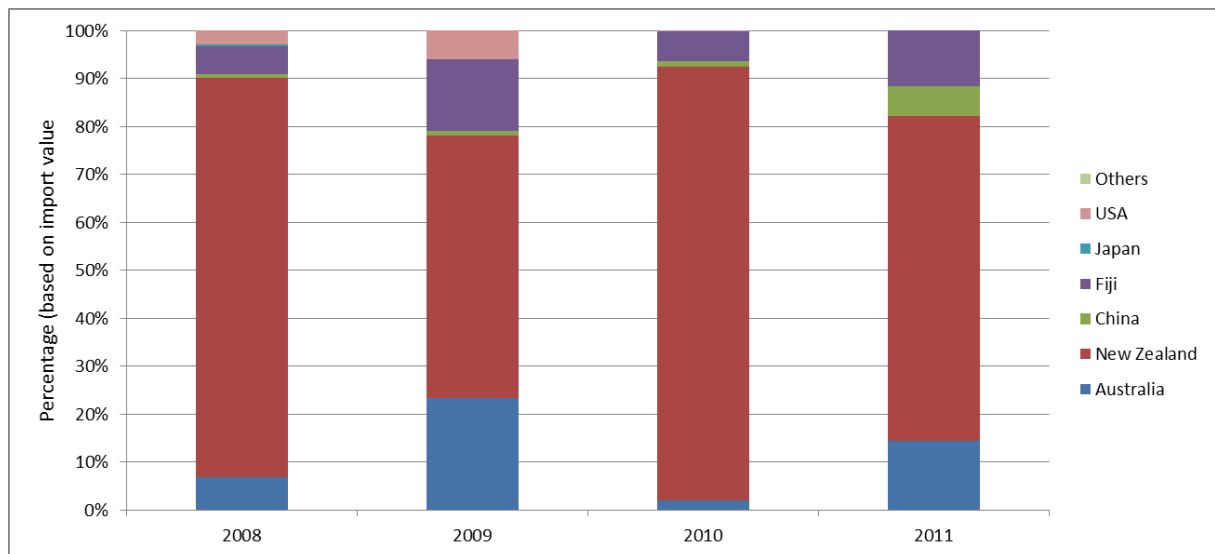
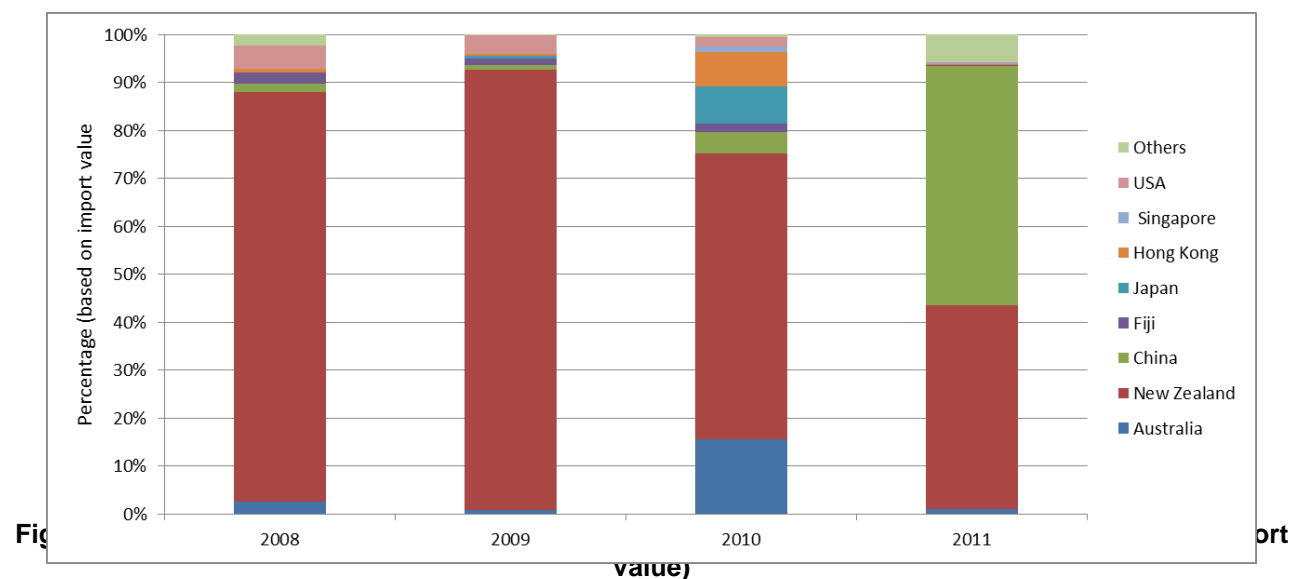


Figure 3.28 – Annual Percentage Breakdown of Fluorescent Lamps by Country of Origin (based on import value)



3.2 Market Penetration of Electrical Appliances (Census 2011)

The 2011 Population Census carried out in Samoa reported that there are 25,262 households with access to electricity and provided details on ownership of selected household appliances. These are summarized in Table 3.1.

Table 3.1 - Ownership of Selected Household Appliances in Samoa

<i>Appliance</i>	<i>2011 (%)</i>	<i>2011 (Est. Unit)¹</i>
Refrigerator	48%	12,100
Freezer	28%	6,947
Television	81%	20,412
Video/DVD Player	63%	15,940
Washing Machine	18%	4,598
Microwave Oven	31%	7,932
Rice Cooker	32%	8,059
Electric Fan	33%	8,387
Air-Conditioners	4%	1,061
Electric Kettle	78%	19,629
Water Pump	4%	935
Computer	10%	2,526

Source: Samoa Population and Housing Census 2011 – Tabulation Report V1

1 - Estimated number of appliances in the residential sector in Samoa, based on 25,262 electrified households

Based on typical unit power consumptions, operating hours and estimated number of appliances currently in use, the priority electrical appliances for S&L Programme in Samoa include: Refrigerator, Freezer, Television, Washing Machine, Rice Cooker, Electric Fan, Air-Conditioners and Lighting Products.

3.3 Market Characteristics

The data presented in this section is based on an electric appliance survey of five major retailers and wholesalers in Samoa conducted by IIEC during June 2012. The data gathered includes information on appliance brands, country of manufacture, and complements existing customs data presented in Section 3.1. Note that information of electrical appliance brands and country of manufacture is not comprehensive. The country of manufacture of certain appliances is not easily identifiable and in some cases could only be identified through the product's user manual.

Table 3.2 – Brand and countries of manufacture of most common electrical appliances in Samoa

Electrical Appliance	Brand	Countries of Manufacture
Air Conditioners (all sizes)	Polar Ice, Akira, Sharp	NA
Domestic Washing Machines	Panasonic, Fisher & Paykel, Modyl	NA
Compact Fluorescent Lamps	GE	NA
Freezers	Samsung, Mitsubishi, LG, Lianpin, Westinghouse, Kelvinator, Fisher & Paykel, Sharp, Panasonic, Toshiba, Akira, Haier	Mostly manufactured in Thailand, For example, Sharp and Haier branded products are manufactured in Thailand and imported through Singapore
Incandescent Lamps	Philips	NA
Refrigerators	Samsung, Mitsubishi, LG, Westinghouse, Kelvinator (Electrolux), Fisher & Paykel, Sharp, Panasonic, Toshiba, Haier	Mostly manufactured in Thailand. For example, Sharp and Haier branded products manufactured in Thailand and imported through Singapore

3.4 Energy Labels

The data presented in this section is based on an electric appliance survey of five major retailers and wholesalers in Samoa conducted by IIEC during June 2012. The objective of the survey was to compile information on the proportion of energy labels for each type of electrical appliance and the respective country of origin of these labels. Table 3.3 only provides information on the electrical appliances which had affixed any type of energy label. Photographs of energy labels on electrical appliances in wholesaler and retailer shops in Samoa are shown in Figure 3.30.

Table 3.3 – Proportion of Electrical Appliances with Energy Labels

Electrical Appliance	% with Energy Labels	Types of Energy Label
Freezers	75% - 100%	About 50% to 75% of freezers have Australian/NZ Energy Labels with the remaining share belonging to Singaporean and Chinese Energy Labels. Almost all non-AUS/NZ labelled refrigerator/freezer are manufactured in Thailand. The Haier branded appliances with AUS/NZ labels are also from Thailand.
Refrigerators	75% - 100%	About 50% to 75% of refrigerators have Australian/NZ Labels with the remaining share belonging to Singaporean and Chinese Energy Labels. Very few refrigerators with US Energy Star Labels.

Chinese brands will typically have Chinese Energy Labels.

Overall, the electrical appliance market in Apia has not changed much since 2009 with the same retailers and brands in market. However, IIEC noticed that the retailers are finding it challenging to sell products with Australian / New Zealand Energy Label due to their higher selling prices. In addition, generally, the energy labels affixed on the appliances are out-dated by two or more years.



Figure 3.30 – Electrical Appliance Shop in Samoa selling Refrigerators, Freezers and Washing Machines with Chinese Energy Label (top left), Singaporean Energy Label (top right), Aus/NZ Energy Labels (bottom)

3.5 Information Gaps

This section summarizes the identified information gaps on electrical appliances in Samoa. The data presented in this report is based on one on-site survey of major wholesalers and retailers shops as well as available customs data in Samoa. This report does not cover electrical appliances imported privately.

As highlighted in Section 3.1, the main information gaps in the customs data provided are related to import value of (linear) fluorescent lamps for 2010 to 2011 and televisions from 2008 to 2011. There is a clear need for improvement in customs data compilation to differentiate between linear and compact fluorescent lamps to better evaluate the impact and market penetration of CFLs in the country. In addition, each customs department in the Pacific has a different interpretation of the international harmonized systems codes (>20 codes) for television appliances. Therefore it is challenging to analyse the television import statistics under one single harmonized code.

4 CONCLUSION

Based on analysis of the electrical appliances customs data for the period of 2008 to 2011 and the wholesaler and retailer shops survey conducted in June 2012, the large majority of the electrical appliances imported into Samoa, particularly high energy consuming appliances such as refrigerators, freezers and air conditioners are sourced from **New Zealand** and **Singapore**.

Note that an increasing number of appliances such as freezers and air conditioners are imported through China. Therefore, the development of a S&L programme for Samoa needs to take into account market demand and supply trends, as well as a range of other factors bearing on the design and effectiveness of S&L programmes. Furthermore, it should allow for the energy efficient appliances to enter the market at an affordable price, irrespective of origin or manufacture.

Finally, in order to further improve customs data compilation and analysis of market penetration of CFLs, in Samoa and the Pacific Region, a single harmonized system code for CFLs in the Pacific region should be discussed and established to enable a clear evaluation of the market uptake of CFLs in the future.

5 ANNEX – COUNTRY DATA SHEETS

Table 5.1 – Physical Units Imported per Year

Electrical Appliance	2008	2009	2010	2011
(Linear) Fluorescent Lighting	37,195	38,893	22,397	29,969
Air Conditioners (all sizes)	1,236	1,639	1,855	1,529
Domestic Dish Washers	21	10	3	11
Domestic Washing Machines	245	145	355	218
Electric Water Heaters	197	25	303	157
Electric Fans	-	-	-	-
Freezers	1,084	899	1,424	1,125
Incandescent Lighting	14,087	8,747	3,846	1,725
Other Lighting	487	541	6	182
Refrigerators	130	319	619	702
Televisions	-	-	-	-

Note – Large difference between annual values might indicate bulk purchase of appliances by wholesalers, retailers or private companies, assuming no change in customs department interpretation of harmonized system codes. The (-) sign indicated information was not available

Table 5.2 – Percentage Breakdown of Imports by Country of Origin (based on import units) for 2008 and 2009

	2008									2009								
	Australia	New Zealand	China	Fiji	Japan	Hong Kong	Singapore	USA	Others	Australia	New Zealand	China	Fiji	Japan	Hong Kong	Singapore	USA	Others
Air Conditioners	1%	33%	33%	17%	2%	3%	7%	0%	4%	0%	47%	12%	23%	16%	0%	1%	0%	0%
Refrigerators	10%	22%	0%	0%	0%	0%	53%	15%	0%	0%	18%	9%	1%	0%	0%	71%	1%	0%
Freezers	4%	58%	20%	15%	0%	0%	1%	1%	0%	8%	64%	13%	6%	0%	0%	7%	0%	0%
Domestic Dish Washing Machines	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%
Domestic Washing Machines	22%	44%	1%	0%	0%	0%	33%	0%	0%	20%	32%	20%	0%	0%	0%	14%	1%	12%
Other Lighting	7%	89%	0%	0%	0%	0%	0%	5%	0%	2%	65%	0%	0%	0%	0%	0%	33%	0%
Electric Water Heaters	10%	10%	61%	15%	0%	0%	0%	4%	0%	0%	36%	0%	0%	0%	0%	0%	64%	0%
Incandescent Lamps	0%	82%	0%	6%	0%	0%	0%	12%	0%	0%	84%	0%	0%	0%	0%	1%	14%	0%
(Linear) Fluorescent Lamps	4%	71%	3%	13%	0%	0%	0%	9%	0%	2%	55%	4%	28%	0%	0%	0%	11%	0%
Electric Fans	-	-	-	-	-	-	-	-	-	0%	100%	0%	0%	0%	0%	0%	0%	0%

Table 5.3 – Percentage Breakdown of Imports by Country of Origin (based on import units) for 2010 and 2011

	2010									2011								
	Australia	New Zealand	China	Fiji	Japan	Hong Kong	Singapore	USA	Others	Australia	New Zealand	China	Fiji	Japan	Hong Kong	Singapore	USA	Others
Air Conditioners	0%	10%	45%	12%	3%	7%	19%	0%	3%	0%	34%	35%	9%	0%	5%	9%	0%	8%
Refrigerators	22%	15%	13%	0%	0%	10%	31%	0%	9%	0%	18%	21%	3%	0%	0%	58%	0%	0%
Freezers	6%	45%	17%	17%	0%	0%	14%	0%	1%	3%	25%	33%	11%	0%	0%	23%	0%	4%
Domestic Dish Washing Machines	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%
Domestic Washing Machines	4%	6%	39%	0%	0%	0%	50%	1%	1%	15%	14%	8%	0%	0%	0%	63%	0%	0%
Other Lighting	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	45%	0%	0%	0%	55%	0%	0%	1%
Electric Water Heaters	1%	2%	48%	0%	0%	5%	40%	4%	1%	32%	4%	59%	4%	0%	0%	0%	2%	0%
Incandescent Lamps	0%	21%	0%	51%	0%	25%	3%	0%	0%	1%	46%	0%	24%	0%	0%	0%	29%	1%
(Linear) Fluorescent Lamps	0%	84%	0%	16%	0%	0%	0%	0%	0%	5%	79%	1%	16%	0%	0%	0%	0%	0%
Electric Fans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5.4 – Import Value (T\$) Per Year

Electrical Appliance	2008	2009	2010	2011
(Linear) Fluorescent Lighting	312,257	161,834	-	-
Air Conditioners (all sizes)	1,203,522	1,390,156	3,377,300	1,361,557
Domestic Dish Washers	8,784	21,698	5,085	10,534
Domestic Washing Machines	288,837	142,416	287,324	187,447
Electric Water Heaters	45,204	24,232	103,966	41,052
Electric Fans	490,187	410,623	547,429	443,925
Freezers	1,227,031	1,235,516	1,369,474	1,230,237
Incandescent Lighting	176,016	286,584	45,754	16,877
Other Lighting	697,474	732,266	294,987	974,171
Refrigerators	160,906	437,627	448,919	558,480
Televisions	-	-	-	-

Note – Large difference between annual values might indicate bulk purchase of appliances by wholesalers, retailers or private companies, assuming no change in customs department interpretation of harmonized system codes. The (-) sign indicated information was not available

Table 5.5 – Percentage Breakdown of Imports by Country of Origin (based on import value) for 2008 and 2009

	2008									2009								
	Australia	New Zealand	China	Fiji	Japan	Hong Kong	Singapore	USA	Others	Australia	New Zealand	China	Fiji	Japan	Hong Kong	Singapore	USA	Others
Air Conditioners	1%	42%	18%	21%	5%	3%	7%	0%	3%	1%	24%	42%	22%	9%	0%	1%	0%	0%
Refrigerators	28%	10%	0%	0%	0%	0%	40%	22%	0%	0%	58%	6%	0%	0%	0%	36%	0%	0%
Freezers	8%	70%	9%	11%	0%	0%	1%	2%	0%	9%	72%	5%	6%	1%	0%	6%	0%	0%
Domestic Dish Washing Machines	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%
Domestic Washing Machines	29%	49%	0%	0%	0%	0%	22%	0%	0%	36%	31%	6%	0%	0%	0%	8%	4%	15%
Other Lighting	3%	85%	2%	2%	0%	1%	0%	5%	2%	1%	92%	1%	1%	1%	0%	0%	4%	0%
Electric Water Heaters	5%	15%	64%	2%	0%	0%	0%	14%	0%	0%	54%	0%	0%	0%	0%	0%	46%	0%
Incandescent Lamps	1%	85%	0%	3%	0%	0%	0%	11%	0%	0%	98%	0%	0%	0%	0%	0%	2%	0%
(Linear) Fluorescent Lamps	7%	83%	1%	6%	0%	0%	0%	3%	0%	23%	55%	1%	15%	0%	0%	0%	6%	0%
Electric Fans	8%	79%	3%	5%	0%	3%	0%	0%	1%	5%	73%	3%	9%	0%	8%	1%	0%	0%

Table 5.6 – Percentage Breakdown of Imports by Country of Origin (based on import value) for 2010 and 2011

	2010									2011								
	Australia	New Zealand	China	Fiji	Japan	Hong Kong	Singapore	USA	Others	Australia	New Zealand	China	Fiji	Japan	Hong Kong	Singapore	USA	Others
Air Conditioners	1%	16%	65%	5%	2%	2%	6%	0%	3%	0%	44%	38%	7%	0%	3%	5%	0%	3%
Refrigerators	15%	22%	14%	0%	0%	0%	41%	0%	8%	0%	26%	14%	2%	0%	0%	57%	0%	0%
Freezers	5%	56%	12%	14%	0%	3%	10%	0%	0%	6%	40%	29%	8%	0%	0%	14%	0%	3%
Domestic Dish Washing Machines	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%
Domestic Washing Machines	8%	17%	15%	0%	0%	0%	38%	3%	20%	24%	42%	2%	0%	0%	0%	32%	0%	0%
Other Lighting	16%	60%	4%	2%	8%	7%	1%	2%	0%	1%	42%	50%	0%	0%	0%	0%	0%	6%
Electric Water Heaters	7%	67%	0%	0%	0%	7%	4%	7%	8%	27%	8%	58%	3%	0%	0%	0%	4%	0%
Incandescent Lamps	2%	75%	0%	6%	0%	15%	0%	1%	0%	1%	90%	1%	2%	0%	0%	0%	1%	4%
(Linear) Fluorescent Lamps	2%	90%	1%	6%	0%	0%	0%	0%	0%	14%	68%	6%	12%	0%	0%	0%	0%	0%
Electric Fans	6%	67%	8%	7%	0%	4%	7%	1%	2%	5%	59%	15%	6%	0%	4%	11%	0%	1%

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