

Sample Design Proposal



2013/14

Palau

Household Income & Expenditure Survey

1. Introduction

The following document details a brief summary of the survey plan for the 2013/14 Palau Household Income & Expenditure Survey (HIES).

Covered in the document are the following issues:

- a) Sample design related issues
 - a. Target/Sample population
 - b. Sample frame creation
 - c. Sample size
 - d. Sample allocation
 - e. Sample adjustment
 - f. Sample selection
- b) Field logistics plan
- c) Survey budget
- d) Survey timetable

It should be emphasized that this is currently nothing more than a proposal, and as such comments are welcome from all parties involved in the survey.

2. Sample Design Related Issues

2.1 Population of Interest

In addressing the population of interest for the survey, two key populations need to be understood:

<p style="text-align: center;"><u>Target Population</u></p>

<p style="text-align: center;">This is the population which we ideally want to report survey results for</p>
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<p style="text-align: center;"><u>Sample Population</u></p>

<p style="text-align: center;">This is the population for which it is considered feasible to cover in the survey</p>
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In an ideal world the sample population will equal the target population, however, based on a range of constraints it is not always desirable to cover the entire target population in the sample frame when designing a survey.

In a population survey, the main areas where restrictions are introduced in order to reduce the target population so that a more realistic and appropriate sample can be selected are:

- 1) Geographical area of interest

2) The types of living quarters included in the survey

2.1.1 Geographical Areas of Interest

Palau consists of 16 States, all of which it would be desirable to include in the HIES. However, due to the geographical nature of Palau, two of these states (Hatothobei & Sonsoral) are located at a great distance away from the main population, are very difficult to reach, and only include a small proportion of Palau's population. For this reason it is proposed for the Palau 2012/13 HIES, that these two states be removed from the sample population. The following table shows the population for these two areas, thus providing details on what proportion of Palau's population will be removed as a result of this exclusion.

<u>Geographical Area</u>	<u>Number people</u>	<u>Percentage</u>
Persons in Hatothobei/Sonsoral	16	0.1%
Persons in remaining areas	17,485	99.9%
PERSONS IN PALAU	17,501	100.0%

In total, the excluded population based on the 2012 census, only consists of 16 people out of a total of 17,501 people, representing only 0.1 percent of the Palau population.

2.1.2 Living Quarters covered

In the November 2012 Palau mini-census, population data was collected from all persons living in Palau in both private dwellings and group quarters.

Group Quarters

Group quarters were further divided in to two groups; institutionalized persons, and other persons living in group quarters. Institutionalized persons covered those persons living under formally authorized, supervised care or custody in institutions at the time of enumeration. Such persons were classified as patients or inmates of an institution regardless of the availability of nursing or medical care, the length of stay, or the number of persons in the institution. Generally, institutionalized persons are restricted to the institutional buildings and grounds (or must have passes or escorts to leave) and thus have limited interaction with the surrounding community. Also, they are generally under the care of trained staff who have responsibility for their safekeeping and supervision. In Palau for the 2012 mini-census only the prison was considered an institution.

Other group quarters cover people living in a group situation which are not considered institutions. For Palau, the relevant types of non-institutionalized group quarters cover the following:

- 1) College Dormitories: Only expected to include PCC
- 2) School Dormitories: Information needs to be collected from all persons staying in the dormitory, although only the information from overseas students may be required later, as local students staying in school dormitories will be captured at the house where they usually stay
- 3) Religious Group Quarters: These should only be included as a group quarters if the residents live as a group, and not in separate dwellings, for example – Catholic Sisters Resident
- 4) Workers Dormitories: These will be common in Palau and should only cover quarters where accommodation is paid for by the employer, and the residents generally share kitchen and bathroom facilities. They do not include residential places for workers where the residents pay their own rent and generally take care of themselves
- 5) Live aboard: These quarters cover persons who generally reside on maritime vessels, often the staff who work on these boats

Private dwellings

Private dwellings will be considered all other living quarters which can provide a place to stay for its residents.

A typical one unit building, housing a family, will make up most private dwellings, and provide the living arrangements for most people in Palau. However, apartment blocks are also a very common living arrangement in Palau, and are also considered private dwellings. Situations which may appear border line, but should be classified as private dwellings include:

- a) People living on the grounds of religious institutions, but have their own separate accommodation
- b) People living in accommodation set up by their employer, but pay rent and fend for themselves

Living quarters to cover for HIES

It is an accepted practice for the HIES to cover all living quarters regarded as private dwellings, and the Palau 2013/14 HIES will follow this recommendation.

For group quarters it is also recommended to exclude the prison, as it is not considered appropriate to include such institutions in a survey such as HIES.

A decision as to whether the remaining group quarters should be included is based on the following criteria:

- 1) Ease in accessing and covering them in a survey such as HIES
- 2) Relevance to the subject matter of the survey
- 3) Whether their impact on the subject matter is mostly covered already

Under these criteria, the following recommendations are made:

School/college dormitories: Will **exclude** from HIES as these individuals will be covered in the households from which they came (if selected)

Work dormitories: Aim to **include** in the HIES as they are an important aspect of the subject matter focused on in this survey, and not addressed elsewhere

Live aboard: Will **exclude** due to the movement of such vehicles, and the minimal impact they may have on such a survey

Convents/religious quarters: Will **exclude** based on their expected minimum impact on the survey subject matter

NB: Given students in dorms are expected to have a high portion of their income and expenses covered in their original household of origin, and there were no religious group quarters identified during the census, only persons in the prison and living aboard are expected to be excluded from the survey. These people account for 81 out of 2,322 group quarters residents (only 3.6%).

Important: Addressing Hotels/Motels

Hotels/Motels in Palau generally provide accommodation for 3 different types of people:

- a) Short term guests (generally overseas persons visiting for holidays/business)
- b) Long term guests (generally local persons or overseas persons staying for long periods, who occupy one of the standard hotel rooms for a lengthy period)
- c) Workers barracks (generally houses the overseas workers who work at the hotel in group style accommodation)

For the Palau 2013/14 HIES it is considered appropriate to exclude the short term guests (a), but include the long term guests (b) and persons staying in workers barracks (c). The persons staying in the workers barracks, should already be addressed in the group quarter component of the survey. However, care needs to be taken to ensure that all long-term residents staying in hotels are suitably identified and included in the sample frame for private dwellings. This can best be achieved by removing all such dwellings from the private dwelling list from the 2012 mini-census, and re-listing these living quarters just prior to HIES fieldwork, by contacting such hotels where they are expecting to exist. A separate private dwelling sample can then be taken from this list.

2.2 Creation of the sampling frame

The sample frame is the list of units identified in the sample population above, from which the sample will be selected.

Based on the issues raised above, three such sample frames can be created for the 2013/14 Palau HIES:

NB: All three frames outlined below exclude the states of Hatohobei and Sonsorol

2.2.1 Private Dwellings

Frame 1: A list of all private dwellings identified from the 2012 mini-census that excludes any units that were identified as long term residencies in a hotel/motel in the mini-census.

Frame 2: A list of all long term residencies staying at any hotel/motel across Palau

2.2.2 Group Quarters

Frame 3: A list of all workers barracks/dormitories as identified in the 2012 Palau mini-census

2.3 Determining the sample size

2.3.1 Introduction to determining sample size

Numerous issues influence the decision of determining the sample size for a sample survey. Such issues include:

- The degree of accuracy required for key estimates
- The number of domains for which estimates are required
- The population size of the country
- The sample selection procedure
- The degree of variability in the data being collected

Most of these important factors for determining an appropriate sample size are known in advance, however, the degree of variability in the data being collected is often not known until after the survey has been conducted. As a result of this factor, guesswork is often required to determine an appropriate sample size for the survey in question. Having said that, a HIES was conducted in Palau in 2006, and RSEs were computed for key estimates

for the survey. This information can therefore provide a good guide as to how well the sample size performed for the last HIES, and guide us in determining a suitable sample size for the 2013/14 HIES.

2.3.2 Outcomes from 2006 Palau HIES

For the 2006 Palau HIES, a sample of 1,063 households were selected from a population of 4,684 households. From this sample, 776 households fully responded to the survey, resulting in a sample fraction of 16.6 per cent, which was a little down from the desirable figure of 20 per cent. The RSE's for key estimates produced from this survey were still quite acceptable at both national level and even for smaller geographical areas. For the survey, the following RSE's were produced at the national level:

Income Category	RSE	Expenditure Category	RSE
Wage & Salary Income	4.8%	Food	3.9%
Subsistence Income	17.1%	Alcohol. Tobacco & Betel nut	6.4%
Business Income	30.1%	Clothing & Footwear	10.7%
Income from Customs	26.2%	Housing	13.8%
Social Security Income	10.7%	Household Operations	3.9%
Remittances	21.1%	Transportation	9.8%
Home Consumption	6.6%	Health, Personal, Educ & Serv.	12.3%
Imputed Rent	2.1%	Leisure & Entertainment	6.2%
Other Gifts	17.0%	Miscellaneous	5.3%
Other Income	24.1%	Imputed rent	2.1%
TOTAL INCOME	3.6%	Gifts given (cash)	43.5%
		Gifts received (non-cash)	18.2%
		TOTAL EXPENDITURE	4.0%

2.2.3 Population results from 2012 mini-census

The following two tables provides a count of the number of households and persons (for private dwellings) and the number of barracks and persons (for workers barracks) in the Palau 2012 mini-census, excluding Hatothobei and Sonsorol. The first table provides the breakdown by the six stratum adopted for the 2006 Palau HIES, whereas the second table provides the breakdown by urban/rural only, where urban is considered a combination of Koror and Airai.

Stratum	Private Dwellings		Workers Barracks		Total
	Households	Persons	Barracks	Persons	Persons
1.Koror	2746	9799	117	1632	11431
2.Airai	649	2303	23	234	2537
3.East Babeldaob	375	1296	1	7	1303
4.West Babeldaob	325	1163	5	33	1196
5.Peleliu	168	483	1	6	489
6.Kayangel/Angaur	70	206			206
TOTAL	4333	15250	147	1912	17162

Urban/Rural	Private Dwellings		Workers Barracks		Total
	Households	Persons	Barracks	Persons	Persons
Urban	3395	12102	140	1866	13968
Rural	938	3148	7	46	3194
TOTAL	4333	15250	147	1912	17162

2.2.4 Planned sample size for 2013/14 HIES

Private dwellings

Although the response rates were down in the 2006 HIES, with a smaller more experienced team working over 12 months, it is expected there will be improvements in this area. However, the expected sample loss of 10 per cent was probably too ambitious, and given the actual rate ended up at $287/1,063 = 27$ per cent, it is more realistic to assume a sample loss of around 15 per cent with improvements for the 2013/14 HIES.

Based on the RSEs presented in 2.3.2, it also appears that the 20 per cent desirable sample produced sound results for the survey, and with higher response rates anticipated, these results from a sample error perspective should improve. It is therefore proposed for the 2013/14 Palau HIES that a sample size of 20 per cent be adopted, which also allows for sample loss of 15 per cent.

Worker's Barracks

The worker's barracks population was not accommodated for in the Palau 2006 HIES. For that reason there is little information available on which to accurately determine a suitable sample size for this component of the sample.

As alluded to above in 2.3.1, a key criteria in determining the sample for a population is the degree of variability of the data being collected for that population. Although no solid evidence exists to support this, it would be fair to say that the income and expense patterns of persons living in worker's barracks would be a lot more homogeneous than the private household population. It is therefore proposed to select only a 10 per cent sample of persons living in workers barracks.

2.4 Sample Allocation

In the 2006 Palau HIES, effort was made to design a sample which could produce results for the six domains (stratum) detailed in 2.2.3. Whilst reasonable results were generated for each of these domains, it was felt that post survey, there was no great use of these results at that level.

For the 2013 HIES it is proposed to focus on generating reliable results at the national level, with focus also being place on producing results for the urban/rural split. In the case of Palau, the urban population is considered to consist of the states of Koror and Airai.

With this in mind, the sample allocation for the private dwelling sample and workers barracks sample will be carried out as described below.

Important Note

For the private dwelling sample, the selections will be done at the household level as the sample frame will contain a list of household.

For the workers barracks sample, the selections will be done at the person level as the sample frame will contain a list of persons

2.4.1 Private Dwellings

In order to generate national level results as well as urban/rural splits, a “back of the envelope” approach of allocating the required sample proportional to the square root of the population was applied. To achieve this, the overall 20 per cent sample was determined to be 867 households, and this was allocated to the urban and rural splits based on the square root of their populations (# hhs). These figures were then increased by a factor of (1 / 0.85) to account for an expected 15 per cent sample loss.

Urban/Rural	Households			
	Population (N)	$N^{0.5}$	20% sample	Allow 15% NR
Urban	3395	58	568	668
Rural	938	31	299	351
TOTAL	4333	89	867	1019

The sample was then allocated to the states, by taking the required sample for the urban and rural areas and allocating proportional to the population of households for that state. The resulting sample is as follows:

Stratum	State	No HHs	Sample	Modified sample	No. W/L's
Urban	14. Koror	2746	540	540	54
	7. Airai	649	128	130	13
	<i>Total</i>	3395	668	670	67
Rural	1. Kayangel	27	10	10	1
	2. Ngarchelong	89	33	30	3
	3. Ngaraard	117	44	40	4
	4. Ngiwal	61	23	20	2
	5. Melekeok	82	31	30	3
	6. Ngchesar	87	33	30	3
	8. Aimeliik	78	29	30	3
	9. Ngatpang	55	21	20	2
	10. Ngardmau	55	21	20	2
	11. Ngaremlengui	76	28	30	3
	12. Angaur	43	16	20	2
	13. Peleliu	168	63	60	6
	<i>Total</i>	938	351	340	34

2.4.2 Workers Barracks

For the worker's barracks in the group quarter population, the sample allocation was achieved in a similar manner. To achieve the sample, the overall 10 per cent sample was determined to be 191 persons, and this was allocated to the urban and rural splits based on the square root of their populations (# persons). These figures were then increased by a factor of (1 / 0.85) to account for an expected 15 per cent sample loss.

Urban/Rural	Persons			
	Population (N)	$N^{0.5}$	20% sample	Allow 15% NR
Urban	1866	43	165	194
Rural	46	7	26	31
TOTAL	1912	50	191	225

2.5 Sample adjustment

The last phase to finalizing the sample numbers was to adjust the desirable sample numbers, so that they could be easily applied by the HIES team in a practical manner over the course of the 12 month fieldwork.

This was achieved by modifying the sample counts (not too much) to enable sample sizes each round would be of a similar size, and workloads for each enumerator were the same size each round.

The desirable workload for an enumerator covering the PD population was 10 households, whereas this figure was increased to 14 persons for GQs as it was envisaged the amount of time required to cover a person in a GQ would be significantly less.

With this in mind, we wanted to ideally have the PD sample to be divisible by 160 so this would enable an even number of households each round, whilst maintaining a workload of 10 households for interviewers covering these areas.

For the GQ sample, given the desirable number of GQs was already 225, and $16 \times 14 = 224$, then a simple reduction of 1 in the GQ sample would result in a nice even workload of 14 persons per round for 1 interviewer. This logic was also applied to the split between urban and rural resulting in 14 workloads in urban and 2 workloads in rural.

The final sample numbers adopted for the survey after these adjustments were made are as follows:

Final private dwelling sample

Stratum	State	No HHs	Sample	Modified sample	No. W/L's	Adjust	Final
Urban	14. Koror	2746	540	540	54	48	480
	7. Airai	649	128	130	13	16	160
	<i>Total</i>	<i>3395</i>	<i>668</i>	<i>670</i>	<i>67</i>	<i>64</i>	<i>640</i>
Rural	1. Kayangel	27	10	10	1	1	10
	2. Ngarchelong	89	33	30	3	3	30
	3. Ngaraard	117	44	40	4	3	30
	4. Ngiwal	61	23	20	2	2	20
	5. Melekeok	82	31	30	3	3	30
	6. Ngchesar	87	33	30	3	3	30
	8. Aimeliik	78	29	30	3	3	30
	9. Ngatpang	55	21	20	2	2	20
	10. Ngardmau	55	21	20	2	2	20
	11. Ngaremlengui	76	28	30	3	3	30
	12. Angaur	43	16	20	2	2	20
	13. Peleliu	168	63	60	6	5	50
	<i>Total</i>	<i>938</i>	<i>351</i>	<i>340</i>	<i>34</i>	<i>32</i>	<i>320</i>

Final group quarter sample

Urban/Rural	Persons				
	Population (N)	N ^ 0.5	20% sample	Allow 15% NR	Adjust
Urban	1866	43	165	194	192
Rural	46	7	26	31	32
TOTAL	1912	50	191	225	224

2.6 Sample Selection

The sample selection technique for the private dwelling sample and group quarter samples were different. A brief explanation of both is provided below.

2.6.1 Private dwellings

Koror and Airai

In Koror and Airai the sample was selected separately within each state. The process was to sort the households in each state by their geographical position, and then skip through this list in order to achieve the desirable sample size. The skip for both states were:

$$\text{Koror} \quad 2,746 / 480 = 5.72$$

$$\text{Airai} \quad 649 / 160 = 4.06$$

Rural states

In the rural states, the sample was distributed to each state proportional to the number of households in each state. As discussed above, these numbers were then adjusted to ensure the sample within each state was divisible by 10. As with Koror and Airai, a simple skip was then applied to each state to determine which households were selected.

2.6.2 Group quarters

The group quarters sample was more challenging. Given the numbers of residents varied dramatically from one group quarter to the next an improvised sample plan needed to be developed to make the survey work with little fuss in the field. The strategy adopted was to firstly combine group quarters together such that there was roughly 20 persons or more residing within them – these combined group quarters are referred to as primary selection units (PSUs). A sample of PSUs was then selected using probability proportional to size (PPS) sampling. Within each selected PSU, a sample of 14 persons will then be selected using systematic sampling from the list of all persons within that PSU.

The plan is to update the list within each selected PSU just prior to the round in which it is selected and do the selections based on the updated list.

It is important that this list be converted to household units rather than people as the data for the survey will be collected from the household units. In most cases the person will be the household unit, however, there may be cases where a couple could be living together in a group quarter, so they should be listed as one household.

3. Field Logistics Plan

The plan for the Palau HIES is to conduct the survey over the course of 12 months, with the sample being divided in to 16 rounds, each lasting 3 weeks each.

With a sample of 960 private dwellings and 224 group quarters, this will result in the following sample being required each round:

Private Dwellings	$960 / 16 = 60$
Group Quarters	$224 / 16 = 14$

With 60 private dwellings and 14 group quarters required each round, 7 enumerators will be required to collect the data, 6 of which will be required to collect data from private dwellings, and 1 to collect data from the group quarters. The team will be divided up as follows:

<u>Sample</u>	<u>Geographical Area</u>	<u>Interviewers</u>	<u>Interviews / Rnd</u>
PD Sample	Koror	3	10
PD Sample	Airai	1	10
PD Sample	Other States	2	10
GQ Sample	All States	1	14

In the case of the PD sample for Koror (3 interviewers) and Airai (1 interviewer) and the GQ sample (1 interviewer), the same interviewers will be used for the entire 16 rounds. For the PD sample in the remaining states however, interviewers from those locations will be chosen. This means that even though only 2 interviewers will be covering these areas at any one time during the 16 rounds, there will be 12 different interviewers covering this area.

At this stage there will be 3 supervisors overseeing the team of interviewers with one supervisor being assigned to the PD sample in the rural states, and the remaining 2 supervisors being assigned to the interviewers covering Koror, Airai and the GQ sample.

The rest of this section provides more information on the manner in which the different components of the sample will be treated in the field.

3.1 Koror sample (Private Dwellings)

As discussed above, a team of 3 interviewers will be required to cover Koror, and these will be the same 3 interviewers for the entire 16 rounds.

The plan will be to have the team start in the north-east of the state in round 1 and work their way down to the south-west by round 16. The workloads of 10 households and where they are located for each of the 3 interviewers can be found in the table below.

[illegible]

3.2 Airai sample (Private Dwellings)

For Airai only one interviewer will be required, who will operate under the 2 supervisors allocated for Koror. The workload plan is provided in the table below which shows only the 4 hamlets with populations in Airai will be visited during the 16 rounds, with 10 households visited each round.

Round of the survey																	
State	Rnd 1	Rnd 2	Break	Rnd 3	Rnd 4	Rnd 5	Rnd 6	Rnd 7	Rnd 8	Rnd 9	Rnd 10	Rnd 11	Rnd 12	Rnd 13	Rnd 14	Rnd 15	Rnd 16
1. OrdomeI	10	10	Christmas Break	10	10	10	10	10	10	7							
2. Ngerusar										3	10	10	10	2			
3. Ngeruluobel														8	5		
4. Ngetkib																5	10

3.3 Other States sample (Private Dwellings)

The table below shows the plan for covering the rural states for the private dwelling sample. Every effort was made to spread the sample out as much as possible by allocating 2 workloads per round. However in order to keep the workloads close together each round and thus reduce travel for the supervisor, this wasn't always possible.

A different interviewer will be used for each state, so 12 interviewers will be required in total to cover this area. The “x” signifies when the interviewer will first be expected to work in the field,

[illegible]

3.4 Group quarters sample

For the group quarter sample just the one interviewer will be required to cover this area. The sample is such that 12 groups quarter PSU were selected in Koror, 2 from Airai and 2 from the remaining states.

The selected sample for Koror was once again selected starting from the north-east and heading south-west, so little travel should be anticipated for the interviewer each round. The 4 selection from Airai and the other states will be spread out throughout the 16 rounds to maximize the representative nature of the sample as best as possible.

4. Survey Budget

The initial estimates for the survey budget are at around 200,000 USD, with a 10 per cent contingency putting the total cost at 220,000 USD.

The summary of costs for each aspect of the survey are estimated as follows:

Additional staff salaries	\$91,920
Project manager bonus	\$2,600
Respondent payments	\$22,560
Training	\$2,585
Printing	\$12,880
Other materials	\$3,600
Field supplies	\$480
Media & Publicity	\$6,840
Maps	\$150
Transportation	\$5,522
Communication	\$1,600
Accommodation	\$3,360
DA workshop	\$12,300
Dissemination workshop	\$700
Consultancies	<u>\$32,380</u>
TOTAL	<u>\$199,477</u>

As can be seen, the salaries for additional staff (interviewers, supervisors and quality control officers) cover \$91,920 (46 per cent of the total budget) which is to be expected. The next major aspect of the budget will be for consultancy assistance, coming in at \$32,380.

More details of the budget can be found in Appendix A

5. Survey Timetable

The Palau 2013/14 HIES is scheduled to commence fieldwork on the 11th November 2013 and run in the field for a period of nearly 12 months, finishing at the end of October, 2014.

The key activities and their expected timing are as follows:

5.1 Pre-enumeration activities

The major activities to be undertaken during the planning of the HIES, to be undertaken in the second half of 2013, will be the following:

<u>Activity</u>	<u>Start Date</u>	<u>End Date</u>
Development of COICOP classification list	17 June	28 June
Production of survey questionnaires	1 July	27 September
Production of survey manuals	16 September	4 October
Development of data processing system	26 August	20 September
Training of field staff	3 November	8 November

Naturally the majority of time will be assigned to the development of the survey questionnaires. During this time a great deal of thought and consultation needs to take place to make sure the standardized questionnaires have been suitably modified to accommodate the situation in Palau.

More details for the timing of pre-enumeration activities can be found in Appendix B of this report.

5.2 Enumeration activities

The second key phase of the survey will involve the actual collection of data itself. As discussed above, the survey will be split in to 16 rounds each lasting 3 weeks. These 16 rounds are planned to take place in two phases, with the first phase involving the undertaking of the first 2 survey rounds. This will be followed by a Christmas break of 3 weeks in which a review of work for the first 2 rounds will be undertaken. The second phase will involve the collection of data for rounds 3-16. The timing of these activities is summarized as follows:

<u>Activity</u>	<u>Start Date</u>	<u>End Date</u>
Phase 1 (rounds 1-2)	9 November	20 December
Christmas break & Round 1/2 Review	21 December	10 January
Phase 2 (rounds 3-16)	11 January	31 October

More details for the timing of enumeration activities can be found in Appendix B of this report.

5.3 Post-enumeration activities

The major activities to be undertaken after the HIES fieldwork, to be undertaken towards the end of 2014 and early 2015, will be the following:

<u>Activity</u>	<u>Start Date</u>	<u>End Date</u>
Final cleaning of data	4 November	12 December
Production of HIES report	5 January	30 January
Dissemination workshop	11 February	
CPI re-base	16 February	27 February
Data analysis training	2 March	27 March

More details for the timing of pre-enumeration activities can be found in Appendix B of this report.

Appendix A: Survey Budget

Palau 2013/14 HIES Budget					
Cost Item	Factor 1	Factor 2	Factor 3	Item Cost	Subtotal
Additional Staff Salaries					
Field Interviewers					
Koror - PD (standard)	3 Interviewers	160 Households	\$30 Household	\$14,400	
(bonus)	3 Interviewers	160 Households	\$10 Household	\$4,800	
Airai - PD (standard)	1 Interviewers	160 Households	\$30 Household	\$4,800	
(bonus)	1 Interviewers	160 Households	\$10 Household	\$1,600	
Other States - PD (standard)	2 Interviewers	160 Households	\$30 Household	\$9,600	
(bonus)	2 Interviewers	160 Households	\$10 Household	\$3,200	
Group Quarters (standard)	1 Interviewer	224 Persons/HHs	\$20 Person/HH	\$4,480	
(bonus)	1 Interviewer	224 Persons/HHs	\$10 Person/HH	\$2,240	\$45,120
Field Supervisors					
All sample (standard)	3 Supervisors	52 Weeks	\$100 Per Week	\$15,600	
(bonus)	3 Supervisors	52 Weeks	\$50 Per Week	\$7,800	\$23,400
Quality Control Officers					
QGO	3 QCOs	52 Weeks	\$150 Per Week	\$23,400	\$23,400
Project Manager					
Bonus	1 Project Manager	52 Weeks	\$50 Per Week	\$2,600	\$2,600
Respondent Payments					
PD sample		960 Households	\$20 Household	\$19,200	
GQ sample		224 Persons/HHs	\$15 Person/HH	\$3,360	\$22,560
Recruitment	Not applicable				
Training					
Main training					
Venue	1 venue	5 Days	\$135 per day	\$675	
Refreshments	17 persons	5 Days	\$10 per day	\$850	
Allowance	14 persons	5 Days	\$10 per day	\$700	
Other Training (4)					
Refreshments	9 persons	2 Days	\$10 per day	\$180	
Allowance	9 persons	2 Days	\$10 per day	\$180	\$2,585
Printing					
Questionnaires					
Module 1	12 Pages	1200 Forms	\$0.10 per page	\$1,440	
Module 2	20 Pages	1200 Forms	\$0.10 per page	\$2,400	
Module 3	12 Pages	1200 Forms	\$0.10 per page	\$1,440	
Module 4	16 Pages	1200 Forms	\$0.10 per page	\$1,920	
Diary	20 Pages	2300 Forms	\$0.10 per page	\$4,600	\$11,800
Manuals					
Field Book	40 Pages	20 Copies	\$0.10 per page	\$80	
Module 1	30 Pages	20 Copies	\$0.10 per page	\$60	
Module 2	50 Pages	20 Copies	\$0.10 per page	\$100	
Module 3	40 Pages	20 Copies	\$0.10 per page	\$80	
Module 4	40 Pages	20 Copies	\$0.10 per page	\$80	
Diary	30 Pages	20 Copies	\$0.10 per page	\$60	
Primary Approach Letter	1 Page	1200 Letter	\$0.10 per page	\$120	\$580
Freight			\$500	\$500	\$500

Palau 2013/14 HIES Budget					
Cost Item	Factor 1	Factor 2	Factor 3	Item Cost	Subtotal
Other Materials					
Zip lock bags		1200 Bags	\$3 Bag	\$3,600	\$3,600
Field Supplies					
Carry Bags		20 Persons	\$15 Carry Bag	\$300	
ID badges		20 Persons	\$2 Badge	\$40	
Clipboard		20 Persons	\$3 Clipboard	\$60	
Stationary		20 Persons	\$4 Stationary	\$80	\$480
Media & Publicity					
Radio	2 Radio Stations	30 Days (pre-survey)	\$5 Advertisement	\$300	
	2 Radio Stations	16 Rounds (during)	\$10 Advertisement	\$320	
Paper	2 Newspapers	16 Rounds	\$85 per round	\$2,720	
T-shirts		100 T-shirts	\$20 per T-shirt	\$2,000	
Caps		100 Caps	\$15 per Cap	\$1,500	\$6,840
Maps					
Digital production		150 Maps	\$1 Map	\$150	\$150
Transportation					
Ferry Trips to Islands					
Peleliu - NSO staff	6 Trips	2 Round trip	\$8 per trip	\$96	
Anguar - NSO staff	3 Trips	2 Round trip	\$10 per trip	\$60	
Kayangel - NSO staff	2 Trips	2 Round trip	\$20 per trip	\$80	
Peleliu - Supervisor	1 Trips	2 Round trip	\$8 per trip	\$16	
Anguar - Supervisor	1 Trips	2 Round trip	\$10 per trip	\$20	
Kayangel - Supervisor	1 Trips	2 Round trip	\$20 per trip	\$40	
Petrol Allowance					
Interviewers - Koror	4 Interviewers	16 Rounds	\$10 per round	\$640	
Interviewers - Airai	1 Interviewer	16 Rounds	\$15 per round	\$240	
Interviewers - Other	2 Interviewers	16 Rounds	\$20 per round	\$640	
Supervisors - Koror	1 Supervisor	16 Rounds	\$20 per round	\$320	
Supervisors - Airai	1 Supervisor	16 Rounds	\$30 per round	\$480	
Supervisors - Other	1 Supervisor	16 Rounds	\$40 per round	\$640	
Car Hire					
Peleliu - NSO staff	1 Trips	3 Days	\$60 Day	\$180	
Anguar - NSO staff	1 Trips	3 Days	\$60 Day	\$180	
Kayangel - NSO staff	1 Trips	3 Days	\$30 Day	\$90	
Peleliu - Supervisor	6 Trips	3 Days	\$60 Day	\$1,080	
Peleliu - Supervisor	3 Trips	3 Days	\$60 Day	\$540	
Peleliu - Supervisor	2 Trips	3 Days	\$30 Day	\$180	\$5,522
Communication					
Phone top-up	7 Interviewers	16 Rounds	\$10 round	\$1,120	
Phone top-up	3 Supervisors	16 Rounds	\$10 round	\$480	\$1,600
Accommodation					
NSO staff	3 Field trips	3 Days	\$80 per day	\$720	
Supervisor (Anguar)	3 Field trips	3 Days	\$80 per day	\$720	
Supervisor (Peleliu)	6 Field trips	3 Days	\$80 per day	\$1,440	
Supervisor (Kayangel)	2 Field trips	3 Days	\$80 per day	\$480	\$3,360

Palau 2013/14 HIES Budget					
Cost Item	Factor 1	Factor 2	Factor 3	Item Cost	Subtotal
DA Training Workshop					
Venue Hire	1 venue	20 Days	\$135 per day	\$2,700	
Refreshment	15 persons	20 Days	\$10 per day	\$3,000	
Flight for trainer		1 Return Flight	\$1,000 Return	\$1,000	
Per Dien for Trainer		28 Days	\$200 Day	\$5,600	\$12,300
Dissemination Workshop					
Venue	1 venue	1 Days	\$200 per day	\$200	
Refreshments	50 persons	1 Days	\$10 per day	\$500	\$700
Consultancies					
1. Q Design and Manuals					
Flights		1 Return Flight	\$1,000 Return	\$1,000	
Per diem		21 Days	\$200 Day	\$4,200	
2. Field Staff Training					
Flights		1 Return Flight	\$1,000 Return	\$1,000	
Per diem		21 Days	\$200 Day	\$4,200	
3. Data Processing Training					
Flights		1 Return Flight	\$2,000 Return	\$2,000	
Per diem		7 Days	\$200 Day	\$1,400	
4. Post Round 2 Review					
Flights		1 Return Flight	\$1,000 Return	\$1,000	
Per diem		7 Days	\$200 Day	\$1,400	
5. Data Cleaning					
Flights		1 Return Flight	\$1,000 Return	\$1,000	
Per diem		7 Days	\$200 Day	\$1,400	
6. HIES Report Attachment					
Flights		1 Return Flight	\$1,000 Return	\$1,000	
Per diem		21 Days	\$180 Day	\$3,780	
7. CPI Re-base					
Flights		1 Return Flight	\$1,000 Return	\$1,000	
Per diem		14 Days	\$200 Day	\$2,800	
8. Poverty report					
Flights		1 Return Flight	\$1,000 Return	\$1,000	
Per diem		21 Days	\$200 Day	\$4,200	\$32,380
Contingency					
10% Contingency					\$19,948
TOTAL COST					\$219,425

Appendix B: Survey Timetable

[illegible]