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2019 MAY PSMB MEETING

DOCUMENT N° 5:

FEEDBACK FROM THE FIELD TEAM AND NATIONAL STATISTICAL AGENCY WHO IMPLEMENTED THE RMI HOUSEHOLD INCOME AND EXPENDITURE SURVEY EXPERIMENT

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EXECUTIVE SUMMARY

The Republic of the Marshall Islands Household Income and Expenditure Survey Experiment¹ (‘the RMI HIES Experiment’) was implemented with three objectives, including:

- i. To test the appropriateness of using technology – in the form of tablets using Survey Solutions² software – to collect data when conducting household income and expenditure survey (HIES) in the context of remote, low-connectivity and low-electrification, Pacific Island states;
- ii. To test different methodologies for the collection of consumption data through HIES; and
- iii. The inclusion of complementary survey modules to add value to the HIES data set and to fill data gaps.

Whilst it’s of high importance that an empirical approach is adopted to evaluate the above objectives to ensure that the data produced are of high quality and that they meet data user needs, it’s also important to ensure that the new technology, survey modules and methodologies can be operationalized by Pacific statistical agencies and that they are fit for purpose in the cultural and logistical context of the Pacific.

This paper presents the results of an online survey that was implemented upon completion of the RMI HIES Experiment. The online survey collected information from the implementing agents – the Economic Policy, Planning and Statistics Office (EPPSO) and the field staff who were involved in the RMI HIES Experiment – to seek qualitative feedback on operation aspects of the project with specific reference to the above objectives.

The results, by objective, are summarized below.

Technology

- The use of tablets to collect data using Survey Solutions software was well assimilated by the field teams.
- Access to internet to backup data and to take advantage of the software’s data quality and field management applications was challenging, particularly in the remote islands, however the risk of data loss is deemed equivalent to that of a paper-based survey. The advantages of the tablet software’s in-build data validation checks remain beneficial.
- The use of satellite phones to access internet worked, however it is expensive and not without problem and it is therefore not deemed a problem-proof solution to internet inaccessibility.

Consumption modules

- The 7-day recall module was considered by field teams to be the best option in terms of:
 - Ease of interview for the enumerator;
 - Reducing respondent burden; and
 - Capturing accurate consumption data.
- There are significant additional time implications – and associated cost to the survey and respondent – of collecting consumption data through the use of the diary.
- Empirical analysis of the data produced through the RMI HIES Experiment, and user feedback on data usability, should guide the recommendation for the optimal method for collecting consumption data through HIES.

Complementary modules

- The complementary modules were generally easy to implement by the field staff.
- Certain modules require more focused training and it is recommended that training modules and resources are developed to support the collection of high quality data for the additional modules.

¹ Project summary: <http://purl.org/spc/diqilib/doc/qpzta>

² <https://mysurvey.solutions/>

RECOMMENDATION

Pacific Statistics Methods Board is invited to:

- i. Note the results of the survey of EPPSO and the field staff who were responsible for managing and implementing the RMI HIES Experiment;
- ii. Acknowledge that internet connectivity is problematic when using tablets to collect data, however that the risk of data loss is equal to that of using paper to collect data;
- iii. Acknowledge the advantages on in-built verification functionality that tablet-based data capture systems offer;
- iv. Note the feedback that the survey results indicated that the preferred method to collect consumption data was Arm 1 (7-day recall) and acknowledge that the empirical analysis of the data collected in the RMI HIES Experiment should ultimately guide recommended method for the collection of consumption data; and
- v. Endorse the recommendation for more comprehensive training and development of resource materials for the complementary survey modules, particularly economic activity, food insecurity experience scale and fisheries.

INTRODUCTION

The Republic of the Marshall Islands Household Income and Expenditure Survey Experiment³ (‘the RMI HIES Experiment’) was implemented with three objectives, including:

- i. To test the appropriateness of using technology – in the form of tablets using Survey Solutions⁴ software – to collect data when conducting household income and expenditure survey (HIES) in the context of remote, low-connectivity and low-electrification, Pacific Island states;
- ii. To test different methodologies for the collection of consumption data through HIES; and
- iii. The inclusion of complementary survey modules to add value to the HIES data set and to fill data gaps.

Whilst it’s of high importance that an empirical approach is adopted to evaluate the above objectives to ensure that the data produced are of high quality and that they meet data user needs, it’s also important to ensure that the new technology, survey modules and methodologies can be operationalized by Pacific statistical agencies and that they are fit for purpose in the cultural and logistical context of the Pacific.

This paper presents the results of an online survey that was implemented upon completion of the RMI HIES Experiment. The online survey collected information from the implementing agents – the Economic Policy, Planning and Statistics Office (EPPSO) and the field staff who were involved in the RMI HIES Experiment – to seek qualitative feedback on operation aspects of the project with specific reference to the above objectives.

BACKGROUND

EPPSO is the national statistical agency of the Republic of the Marshall Islands (RMI). EPPSO agreed to host the RMI HIES Experiment given that RMI is due to conduct a HIES in 2019. EPPSO’s motivation for hosting the survey was to strengthen their capacity in management and implementation of complex national statistical collections in advance of conducting their HIES – EPPSO last conducted a HIES in 2002. EPPSO was also motivated to host the RMI HIES Experiment in order to improve the methodology that it will adopt when conducting its HIES and to contribute towards regional statistical development.

To conduct the RMI HIES Experiment, EPPSO staff were engaged to manage the implementation of the survey and to act as Headquarters in reviewing data quality, which is an important role with implementing a HIES using Survey Solutions.

EPPSO hired 15 staff (3 Supervisors and 12 Enumerators) to implement survey operations. The field staff were broken up into three teams. Teams 2 and 3 were recruited from Majuro – the capital of RMI – and these teams conducted field operations in Majuro and in rural atolls of Ailinglaplap, Jaluit, Namdrik and Wotje. Team 1 conducted field operations exclusively in densely populated island of Ebeye on Kwajalein Atoll.

The selected islands allowed for measurement of the objectives in urban settings – Majuro and Ebeye – and in rural/remote islands. The urban and rural domains allowed for testing the objectives in different contexts, which are deemed to be somewhat representative of the geographic domains across the Pacific. For example, the urban domain is characterized by high population densities and populations who are more commonly engaged in formal employment and cash-based consumption patterns and where internet connectivity and electrification is readily available. The rural domain is characterized by high participation in the subsistence economy and low access to internet and electrification.

METHOD

The online survey was implemented using SurveyMonkey⁵ and conducted in April, 2019. The questionnaire is provided in Annex 1 and it covered the following general themes and questions:

- i. Demographic profile of the respondents;
- ii. Use of technology, including electrification, internet accessibility and use of a satellite phone to access the internet to synchronize data;

³ Project summary: <http://purl.org/spc/diqilib/doc/qpzta>

⁴ <https://mysurvey.solutions/>

⁵ SurveyMonkey Inc. San Mateo, California, USA. Website: www.surveymonkey.com

- iii. Implementation of the different experimental arms to collect consumption data; and
- iv. Inclusion of the complementary HIES questionnaire modules.

Profile of respondents

In total, 20 responses to the online questionnaire were received. The profile of the respondents is provided in the below table.

Table 1: Response rate and profile of respondents

| | EPPSO | Team 1 | Team 2 | Team 3 | Total |
|---------------|----------|----------|----------|----------|-----------|
| Female | 4 | 1 | 2 | 4 | 11 |
| 15 to 24 | | | 1 | | 1 |
| 25 to 34 | | | | 3 | 3 |
| 35 to 44 | 3 | 1 | 1 | 1 | 6 |
| 45+ | 1 | | | | 1 |
| Male | 2 | 3 | 3 | 1 | 9 |
| 25 to 34 | 1 | 3 | 3 | | 7 |
| 35 to 44 | | | | 1 | 1 |
| 45+ | 1 | | | | 1 |
| Total | 6 | 4 | 5 | 5 | 20 |

The online survey had a 93 percent response rate from the employed field staff⁶ and 6 respondents from EPPSO. For the field team, all 3 Supervisors responded and 11 of the 12 Enumerators responded. The results of the survey are summarized below.

RESULTS

Use of technology

Half of the respondents own a smart phone, one-fifth own a tablet and one-quarter own a laptop. It appears that respondents that own a tablet were more comfortable with the use of technology, however the majority of respondents (80 percent) expressed being comfortable or more in working with new technology (Figure 1).

Table 2: Respondent ownership of smart phone, tablet and laptop

| | Own smart phone | Own tablet | Own laptop |
|--------------|-----------------|------------|------------|
| No | 10 | 16 | 15 |
| Yes | 10 | 4 | 5 |
| Total | 20 | 20 | 20 |

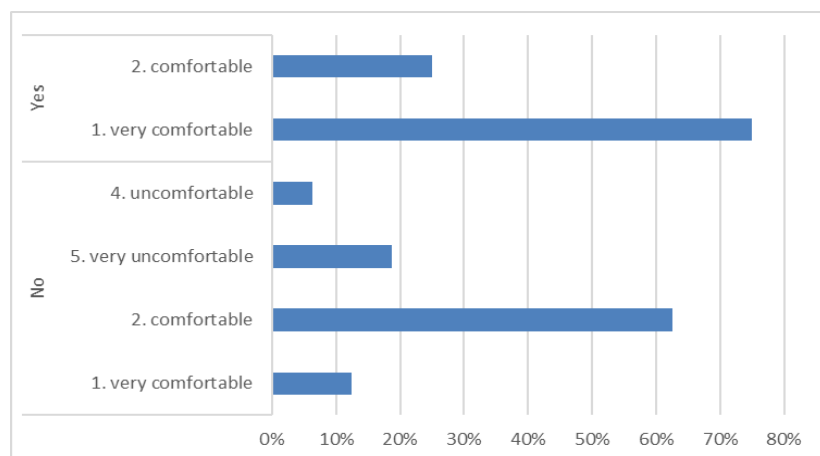


Figure 1: Level of comfort working with new technology, by tablet ownership

⁶ A member of Team 1, Mr Paul Albert, regrettably passed away after completion of the RMI HIES Project.

PAPI v CAPI

Ten of the field staff had previously been involved in a survey that was entirely administered on paper (PAPI). The below figure presents the results of the level of difficulty that the field staff encountered using tablets (CAPI) to collect data when comparing with their previous experience implementing a PAPI survey. The questions asked about the level of difficulty when collecting individual-level (“roster-type”) data, multiple choice data and entering responses to “other (note)”.

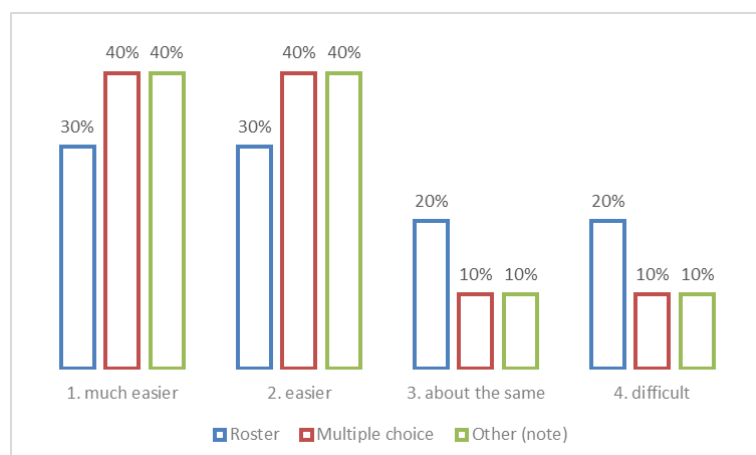


Figure 2: Level of difficulty in collecting information when comparing CAPI with PAPI

Generally, the respondents found the use of tablets easier to collect individual-level, multiple choice and other types of data when using CAPI rather than PAPI. There was a degree of difficulty in the use of CAPI, particularly in the implementation of rosters.

CAPI (Survey Solutions) v CAPI

Six of the field staff had previously been involved in a survey that was entirely administered using CAPI. All six respondents used tablets (as opposed to smart phones) as a means to capture data in their previous experiences using CAPI. The questions asked about the level of difficulty when collecting individual-level (“roster-type”) data, multiple choice data and entering responses to “other (note)”.

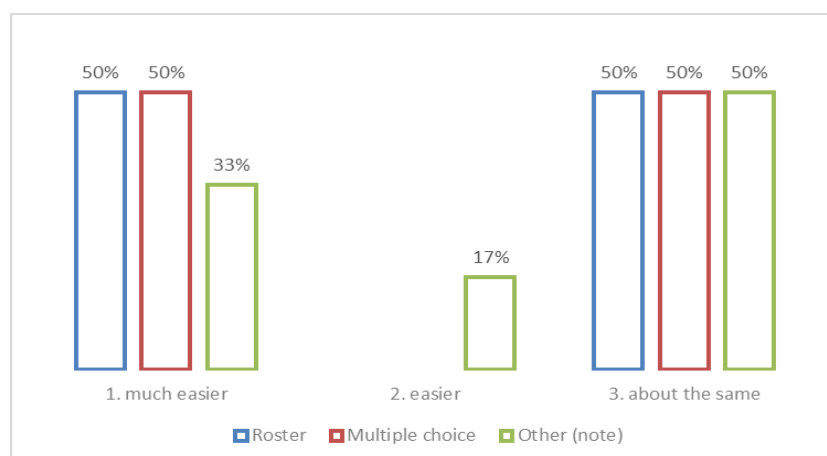


Figure 3: Level of difficulty in collecting information when comparing CAPI (Survey Solutions) with CAPI

Respondents found the use of Survey Solutions CAPI software used in the RMI HIES Experiment the same or easier to use when compared with the prior experience using other CAPI software.

Internet connectivity

30 percent of respondents reported having difficulty connecting to the internet. The difficulties specified include:

- Connectivity challenges in both Majuro and in the Outer Islands;
- Slow and unreliable connectivity in the Outer Islands; and

- Inability to synchronize data at all on one atoll (Namdrik).

Use of the satellite phone

25 percent of respondents used the satellite phone to access the internet to back up data. 65 percent of the satellite phone users consider it to be a good technology to facilitate data backup. The 35 percent who did not consider the satellite phone to be a good means for data backup stated that:

- In poor weather conditions it does not work;
- Internet connectivity was not too much of a challenge, so the satellite phone is unnecessary;
- The satellite phone is unreliable and field staff did not feel confident using it as they thought that it may result in data loss if the internet connection dropped during synchronization (data transfer / backup).

Commentary on the use of the satellite phone in the RMI HIES Experiment

A satellite phone was procured for the RMI HIES Experiment with the objective of testing it's suitability as a means to transfer/back-up data. It is noted that Survey Solutions CAPI software requires an internet connection for enumerators to transfer data to Supervisors⁷ and then to Headquarters. The transfer of data primarily allows for backup of data to the server, however it also allows Supervisors and Headquarters (the statistical agency) to review data quality and send the data back to the interviewer for amendment if error is found. It also allows for live field operation monitoring, which greatly facilitates survey management. Without internet, backup is not possible, so the risk of data loss is in the tablet itself.

For the RMI HIES Experiment, the satellite phone was procured for USD 1,500 and one gigabyte of data was procured at a cost of USD 3,500.

Each data packet (backup) amounts to around 1.8 megabytes, so the one gigabyte data allocation should have covered around 550 households in total.

The experience in RMI was that one of the field staff did a software update on their tablet (and possibly misused the internet data for personal purposes), which amounted to the use of 500 megabytes – around USD 1,750 in cost – over the course of a couple of hours. As a result of this, the satellite phone data was exhausted before completion of the survey.

Electrification

Ten percent of field staff reported challenges in charging their tablet.

Different methodologies for the capture of consumption data

Refer Annex 2 for a description of the different experiment arms.

The respondents were asked which experimental arm they thought was:

- Best from the perspective of an enumerator;
- Best from the perspective of a respondent; and
- Best from the perspective of collecting accurate data.

The below table presents a distribution of the results. Overall, Arm 1 (7-day food consumption recall) appeared to be the preferred methodology by the field team. The field team also considered that Arm 1 is preferable to the responding household and in terms of collecting accurate data.

⁷ It is noted that an "offline supervisor" function has recently been developed, which does not require internet connection; however the "offline supervisor" function does not store data in the server, so it does not alleviate risk of data loss.

Table 3: Preferred arm by field team, and perceived preferred arm by the household and for accuracy

| | Preferred by field team | Preferred by household | Accuracy |
|-------------------------------------|-------------------------|------------------------|------------|
| Arm 1 (CAPI recall) | 50% | 45% | 35% |
| Arm 2 (CAPI diary) | 10% | 20% | 15% |
| Arm 3 (PAPI diary - high monitored) | 25% | 10% | 15% |
| Arm 4 (PAPI diary - low monitored) | | 5% | 5% |
| (blank) | 15% | 20% | 10% |
| TOTAL | 100% | 100% | 20% |

Reason Arm 1 was preferred by the field team

- Ease of implementation;
- Arm 1 is much faster (around 2-hours only);
- Only requires one visit to the household and respondent is not tired of seeing them;
- It is easier for the household;
- It's easier for the respondent and enumerator; and
- Perceives this to collect the highest quality data.

Reason Arms 2 and 3 were preferred by the field team

- Entering the diary gives opportunity for the enumerator to check/verify diary entry (Arm 2);
- Diary entry was sometime illegible, so entering the data in the household allows for verification (Arm 2);
- Uncertainty if the household can remember consumption over 7-days, so they feel data quality is higher for Arms 2 and 3; and
- Easy and efficient to implement (Arm 3).

Reason Arm 1 was perceived as being preferred by the responding household

- Ease of implementation;
- Better to ask questions in a face-to-face interview than leaving the household with a diary;
- "Because they are lazy with the diary – they want a fast-food diary";
- Does not waste time;
- It is not tiring; and
- Households did not like being visited more than once.

Reason Arms 2, 3 and 4 are perceived as being preferred by the responding household

- You can sit with the household while they complete the diary (Arm 2);
- Easier to remember food acquisition each day than over 7-days (Arm 3);
- Household cooperated and completed the diary, as requested (Arm 3); and
- Households did not have time for frequent visits (Arm 4).

Reason Arm 1 is perceived to produce the most accurate data

- Households cooperate well on visit 1.

Reason Arms 2, 3 and 4 are perceived to produce the most accurate data

- Opportunity to probe and verify during data entry in the household (Arm 2);
- Respondents are less likely to forget (Arm 2 and 3);
- High monitoring gives opportunity for ongoing training (Arm 3); and
- High monitoring gives opportunity to monitor diary completion (Arm 3).

Time taken to complete various parts of the questionnaire

Table 4: Distribution of enumerator time taken to complete various tasks

| | Core HIES module interview | 7-day recall | Opening / closing stocktake | Training households to complete the diary | Arm 2 diary entry | Arm 2 and 3 diary checking | Household completing diary | Arm 3 and 4 diary entry (by EPPSO) |
|-----------------------------------|----------------------------------|-----------------|-----------------------------------|---|-------------------------|-------------------------------|----------------------------------|--|
| Arms: | All | 1,5 | 2,3,4 | 2,3,4 | 2 | 2,3 | 2,3,4 | 3,4 |
| 0 to 14 mins | 5% | 5% | 5% | 15% | | | 5% | 10% |
| 15 to 29 mins | 10% | 5% | 15% | 20% | 20% | 25% | | 5% |
| 30 to 44 mins | 20% | 30% | 10% | 10% | 30% | 20% | 25% | 5% |
| 45 to 59 mins | 25% | 15% | 20% | 20% | 20% | 15% | 25% | |
| 60 to 74 mins | 15% | 20% | 20% | 5% | | 10% | 15% | 15% |
| 90 to 104 mins | 15% | 5% | 5% | 5% | 5% | | 10% | |
| 105 to 119 mins | | | | | 5% | 5% | | 10% |
| 9_120 mins (2-hours) + (blank) | 10% | 5% | 5% | 5% | | 5% | | |
| | | 15% | 20% | 20% | 20% | 20% | 20% | 55% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

- Most frequently, the core HIES module (all arms; excl. 7-day recall or diary) took 45 to 59 minutes to complete.
- The 7-day recall (Arms 1 and 5) most frequently took 30 to 44 minutes to complete.
- The opening and closing stock (Arms 2, 3 and 4) most frequently took 45 to 74 minutes (in total) to complete.
- Training of the households to complete the diary (Arms 2, 3 and 4) most frequently took 15 to 59 minutes.
- In-field entry of the diary (Arm 2) most frequently took 30 to 44 minutes per visit.
- In-field diary checking (Arms 3 and 4) most frequently took 15 to 29 minutes per visit.
- Field staff estimate that households spent a total of 30 to 59 minutes to complete the diary.
- EPPSO most frequently took 60 to 74 minutes to complete the data entry (Arms 3 and 4; using Survey Solutions web application) for an entire diary (14-days).

Complementary questionnaire modules

Refer Annex 3 for a description of the complementary survey modules that were tested.

Table 5: Level of difficulty in the completion of new and complementary survey modules

| | Economic activity | Partakers | Opening/closing stocks | Food insecurity experience scale | Fisheries | Food away from home (recall) | Instruction to complete diary | Remembering 7-day food consumption |
|---------------------------|--------------------------|------------------|-------------------------------|---|------------------|-------------------------------------|--------------------------------------|---|
| Arms: | All | All | 2,3,4 | All | All | 1,5 | 2,3,4 | 1,5 |
| Very easy | | 5% | 5% | | 5% | 5% | | |
| Easy | 20% | 20% | 30% | 25% | 25% | 55% | 40% | 20% |
| Neither difficult or easy | 60% | 45% | 40% | 45% | 35% | 20% | 35% | 45% |
| Difficult | | 10% | | 10% | 15% | 5% | | 10% |
| Very difficult | 5% | | 5% | 5% | 5% | | 5% | 5% |
| (blank) | 15% | 20% | 20% | 15% | 15% | 15% | 20% | 20% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Field staff generally found the complementary modules neither difficult nor easy. Modules that had a higher frequency of difficult or very difficult include:

- Food insecurity experience scale; and
- Fisheries; and 7-day food consumption.

DISCUSSION

Use of technology

The field team generally appeared to assimilate the use of tablets to conduct HIES without significant difficulty. The results of the survey indicate that the use of CAPI is easier than PAPI when collecting individual-level, multiple choice and other(note) data types. The results indicate that the use of Survey Solutions CAPI software was equally as easy – if not more – that experience using other CAPI data captures software.

Electrification did not appear to be a significant challenge in the RMI HIES Experiment. The field teams reported that the provision of power banks would help to lengthen the life of the tablet each day.

Internet connectivity seemed to be problematic, particularly in rural atolls. The trial of the use of the satellite phone to connect to the internet was seemingly unsuccessful due to unreliable connection resulting in field staff not feeling confident to use the technology to synchronize their data.

There are a number of trade-offs when considering the use of PAPI or CAPI in low-connectivity settings. Firstly, the inability to synchronize the tablets to the server increases the risk of data loss; it also limits the ability for Supervisors (although, it is noted that the offline supervisor functionality will somewhat alleviate this issue) and the Headquarters to perform regular data quality checks, and to also monitor and manage field implementation.

Acknowledging the limitations of CAPI and the risk of data loss, it is also acknowledged that the use of PAPI does not alleviate the risks associated with data loss – the risk of losing data that are stored in a tablet is deemed to be on-par with the risk of losing data that is stored on paper. Under a PAPI scenario, data quality checks and field management opportunities are equally as limiting in cases where there is zero internet using CAPI.

It is noted that there are few islands in the Pacific with zero internet connectivity and internet connectivity continues to improve throughout the Pacific region. As such, the challenge and risk associated with inability to synchronize data via the internet will become less and less prominent in the future.

Under a no-connectivity setting, one advantage that CAPI has over PAPI is the ability to program verification and validation checks, and enabling conditions (skip patterns), in the questionnaire. This significantly contributes to improved data quality and improved survey flow and it is an advantage of CAPI that is realized irrespective of whether internet connectivity is available or not.

Methodology for the collection of consumption data

The feedback from the field staff indicated that the preferred methodologies for the collection of consumption data are, in order of preference, Arm 1 (7-day food consumption recall), followed by Arms 2 and 3 (highly monitored two week diary, on CAPI and PAPI respectfully). This feedback was consistent across preferred arm for the enumerator, the respondent and in terms of collecting accurate data.

Some concerns about the respondent's ability to accurately recall consumption were raised about the use of 7-day recall. Concerns about respondent fatigue through multiple visits and limited response to the diary were raised about Arms 2, 3 and 4.

Whilst the feedback from the field teams should be given due consideration, the performance of each arm should be evaluated empirically. Notwithstanding, the preference for Arm 1 (7-day recall) by field staff should be duly noted as operationalization aspects – and respondent participation – are of high importance to successfully conducting HIES.

Cost implications of implementing different consumption modules also needs to be considered. The time to complete certain aspects of the diary (e.g., collection of opening and closing stocks, training the household to complete the diary, diary checking, diary data entry and opportunity cost of household completion of the diary) appears to add significantly to field team's workload when compared with the time taken to implement the 7-day food consumption recall module.

Complementary survey modules

The complementary survey modules did not appear to be problematic. The feedback indicates that more training is required for the following modules:

- i. Economic activity;
- ii. Food insecurity experience scale; and
- iii. Fisheries.

RECOMMENDATION

Pacific Statistics Methods Board is invited to:

- i. Note the results of the survey of EPPSO and the field staff who were responsible for managing and implementing the RMI HIES Experiment;
- ii. Acknowledge that internet connectivity is problematic when using tablets to collect data, however that the risk of data loss is equal to that of using paper to collect data;
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- v. Endorse the recommendation for more comprehensive training and development of resource materials for the complementary survey modules, particularly economic activity, food insecurity experience scale and fisheries.

ANNEX 1: QUESTIONNAIRE

| RMI HIES Experiment |
|---------------------|
| Introduction |

You have recently participated as enumerators in a very important study and pilot test of new methodologies for data collection in the Pacific region. The goal of integrating these new technologies are to (1) obtain more accurate data from respondents, and (2) make the questionnaire easier to administer for interviewers. We are now in the process of evaluating the data and comparing options to move forward with the 2019/2020 HIES and would like your feedback to assist in our decision-making process.

Thanks in advance for participating and for providing your valued feedback.

Demographic information

1. What is your name?

2. What is your gender?

- ☐ Male
- ☐ Female
- ☐ Other

3. What is your age range?

- ☐ 15 to 24
- ☐ 25 to 34
- ☐ 35 to 44
- ☐ 45+

4. Which team were you on?

- ☐ Team 1
- ☐ Team 2
- ☐ Team 3 (Mix of team 2 and 3)
- ☐ EPPSO

5. What was your job?

- ☐ Enumerator
- ☐ Supervisor
- ☐ EPPSO

Technology

6. Do you own a smart phone?

- ☐ Yes
- ☐ No

7. Do you own a tablet?

- ☐ Yes
- ☐ No

8. Do you own a laptop/computer?

- ☐ Yes
- ☐ No

9. On a scale of 1 to 5, rate your personal level of comfort working with new technology.

- ☐ very uncomfortable
- ☐ uncomfortable
- ☐ neutral
- ☐ comfortable
- ☐ very comfortable

10. Have you ever worked as an interviewer before?

- ☐ No
- ☐ If Yes, what was the title of the survey

11. Have you ever worked as an interviewer on a survey that was entirely administered on paper (i.e., did not use tablets to collect data)?

- ☐ Yes
- ☐ No

12. How did you find using tablets in the HIES experiment compared with paper-based survey(s) to collect individual-level (roster style) information?

- ☐ very difficult
- ☐ difficult
- ☐ about the same
- ☐ easier
- ☐ much easier

13. How did you find using tablets in the HIES experiment compared with paper-based survey(s) to collect multiple choice information?

- ☐ very difficult
- ☐ difficult
- ☐ about the same
- ☐ easier
- ☐ much easier

14. How did you find using tablets in the HIES experiment compared with paper-based survey(s) to collect “other (note)” information?

- ☐ very difficult
- ☐ difficult
- ☐ about the same
- ☐ easier
- ☐ much easier

15. Have you ever worked on a survey completely administered on CAPI (i.e., using tablets) before?

- ☐ Yes
- ☐ No

16. What was used to capture the data?

- ☐ Tablet
- ☐ Smartphone
- ☐ Other (please specify)

17. Do you know what software was used for the previous CAPI survey you worked on?

- ☐ No
- ☐ If Yes, what was the name of the software?

18. How did you find using tablets in the HIES experiment compared with other CAPI survey(s) you have been involved in to collect individual-level (roster style) information?

- ☐ very difficult
- ☐ difficult
- ☐ about the same
- ☐ easier
- ☐ much easier

19. How did you find using tablets in the HIES experiment compared with other CAPI survey(s) you have been involved in to collect multiple choice information?

- ☐ very difficult
- ☐ difficult
- ☐ about the same
- ☐ easier
- ☐ much easier

20. How did you find using tablets in the HIES experiment compared with other CAPI survey(s) you have been involved in to collect “other (note)” information?

- ☐ very difficult
- ☐ difficult
- ☐ about the same
- ☐ easier
- ☐ much easier

21. Did you have any difficulty in charging your tablet during the HIES experiment?

- ☐ No
- ☐ If Yes, please briefly describe the difficulty

22. Did you have any difficulty in connecting to the internet to submit your data during the HIES experiment?

- ☐ No
- ☐ If Yes, please briefly describe the difficulty

23. Did you use the satellite phone?

- ☐ Yes
- ☐ No

24. Do you think the satellite phone is a good technology to adopt to backup data? Please explain why

- ☐ Yes
- ☐ If No, please explain why

25. The HIES experiment included 5 different methods of collecting household consumption data. There were:

- i. Arm 1 (CAPI recall): households visited once only. The consumption data were collected by asking the respondent "in the last 7 days, did you eat (food item)? If yes, what was the quantity consumed."
- ii. Arm 2 (CAPI diary): households visited 7 times. The consumption data were collected through a diary and the diary data were entered into the tablet during visits by the enumerator.
- iii. Arm 3 (PAPI diary – high monitoring): households visited 7 times. The consumption data were collected through a diary and the diary data were entered by EPPSO after field operations were completed.
- iv. Arm 4 (PAPI diary – low monitoring): households visited 3 times. The consumption data were collected through a diary and the diary data were entered by EPPSO after field operations were completed.
- v. Arm 5 (CAPI bounded recall): households visited twice. The households were visited 7-days before the interview to tell them to remember what they ate between the first and the second visit. During the second visit, the consumption data were collected by asking the respondent "in the last 7 days, did you eat (food item)? If yes, what was the quantity consumed."

The method that was preferred to me as an enumerator is:

- ☐ Arm 1 (CAPI recall)
- ☐ Arm 2 (CAPI diary)
- ☐ Arm 3 (PAPI diary - high monitored)
- ☐ Arm 4 (PAPI diary - low monitored)
- ☐ Arm 5 (CAPI bounded recall)

26. Please briefly explain why this method is preferred to you?

27. Based on my experience, this method was preferred by the responding household:

- ☐ Arm 1 (CAPI recall)
- ☐ Arm 2 (CAPI diary)

- ☐ Arm 3 (PAPI diary - high monitored)
- ☐ Arm 4 (PAPI diary - low monitored)
- ☐ Arm 5 (CAPI bounded recall)

28. Why?

29. Based on my experience, I believe this method most likely captured the most accurate information from the respondents:

- ☐ Arm 1 (CAPI recall)
- ☐ Arm 2 (CAPI diary)
- ☐ Arm 3 (PAPI diary - high monitored)
- ☐ Arm 4 (PAPI diary - low monitored)
- ☐ Arm 5 (CAPY bounded recall)

30. Please briefly explain why you believe this method captures the most accurate information?

31. On average, how long did it take you to complete the modules (person and household record, but excluding 7-day recall, stocks and diary) for each household?

- ☐ 0 to 14 mins
- ☐ 15 to 29 mins
- ☐ 30 to 44 mins
- ☐ 45 to 59 mins
- ☐ 60 to 74 mins
- ☐ 75 to 89 mins
- ☐ 90 to 104 mins
- ☐ 105 to 119 mins
- ☐ 120 mins (2-hours) +

32. On average, how long did it take you to complete the 7-day recall module for Arms 1 and 5 for each household?

- ☐ 0 to 14 mins
- ☐ 15 to 29 mins
- ☐ 30 to 44 mins
- ☐ 45 to 59 mins
- ☐ 60 to 74 mins
- ☐ 75 to 89 mins
- ☐ 90 to 104 mins
- ☐ 105 to 119 mins
- ☐ 120 mins (2-hours) +

33. On average, how long did it take you to complete the stocktake (opening + closing) for Arms 2, 3 and 4 for each household?

- ☐ 0 to 14 mins
- ☐ 15 to 29 mins

- ☐ 30 to 44 mins
- ☐ 45 to 59 mins
- ☐ 60 to 74 mins
- ☐ 75 to 89 mins
- ☐ 90 to 104 mins
- ☐ 105 to 119 mins
- ☐ 120 mins (2-hours) +

34. On average, how long did it take you to train (explain to each household) how to complete the diary?

- ☐ 0 to 14 mins
- ☐ 15 to 29 mins
- ☐ 30 to 44 mins
- ☐ 45 to 59 mins
- ☐ 60 to 74 mins
- ☐ 75 to 89 mins
- ☐ 90 to 104 mins
- ☐ 105 to 119 mins
- ☐ 120 mins (2-hours) +

35. On average, how long did each visit take you to complete the diary checking and diary entry for Arm 2?

- ☐ 0 to 14 mins
- ☐ 15 to 29 mins
- ☐ 30 to 44 mins
- ☐ 45 to 59 mins
- ☐ 60 to 74 mins
- ☐ 75 to 89 mins
- ☐ 90 to 104 mins
- ☐ 105 to 119 mins
- ☐ 120 mins (2-hours) +

36. On average, how long did each visit take you to complete the diary checking for Arms 3 and 4?

- ☐ 0 to 14 mins
- ☐ 15 to 29 mins
- ☐ 30 to 44 mins
- ☐ 45 to 59 mins
- ☐ 60 to 74 mins
- ☐ 75 to 89 mins
- ☐ 90 to 104 mins
- ☐ 105 to 119 mins
- ☐ 120 mins (2-hours) +

37. On average, how long do you think that each household spend (in total) filling in the two week diary?

- ☐ 0 to 14 mins
- ☐ 15 to 29 mins

- ☐ 30 to 44 mins
- ☐ 45 to 59 mins
- ☐ 60 to 74 mins
- ☐ 75 to 89 mins
- ☐ 90 to 104 mins
- ☐ 105 to 119 mins
- ☐ 120 mins (2-hours) +

38. [FOR EPPSO ONLY] On average, how long did it take you to enter and code each diary (week 1 and week 2) for Arms 3 and 4?

- ☐ 0 to 14 mins
- ☐ 15 to 29 mins
- ☐ 30 to 44 mins
- ☐ 45 to 59 mins
- ☐ 60 to 74 mins
- ☐ 75 to 89 mins
- ☐ 90 to 104 mins
- ☐ 105 to 119 mins
- ☐ 120 mins (2-hours) +
- ☐ Not applicable

39. If you were trying to reduce the burden on the household, which arm would be preferred?

- ☐ Arm 1 (CAPI recall)
- ☐ Arm 2 (CAPI diary)
- ☐ Arm 3 (PAPI diary - high monitored)
- ☐ Arm 4 (PAPI diary - low monitored)
- ☐ Arm 5 (CAPI bounded recall)

40. If you were trying to get the most quality and accurate data, which arm would be preferred?

- ☐ Arm 1 (CAPI recall)
- ☐ Arm 2 (CAPI diary)
- ☐ Arm 3 (PAPI diary - high monitored)
- ☐ Arm 4 (PAPI diary - low monitored)
- ☐ Arm 5 (CAPI bounded recall)

41. For Arm 5, did you always visit the household exactly 7-days before the second visit?

- ☐ Yes
- ☐ If No, please explain why:

42. For Arms 2, 3 and 4, how often did the household properly complete the diary?

- ☐ no households completed the diary
- ☐ around 1 in 6 households completed the diary
- ☐ around 2 in 6 completed the diary
- ☐ around half completed the diary
- ☐ around 4 in 6 completed the diary
- ☐ around 5 in 6 completed the diary
- ☐ all households completed the diary

43. Please rate the level of difficulty in completing the following modules: **Economic activity (labour force).**

- ☐ very difficult
- ☐ difficult
- ☐ neither difficult or easy
- ☐ easy
- ☐ very easy

44. Please rate the level of difficulty in completing the following modules: **Recall of partakers.**

- ☐ very difficult
- ☐ difficult
- ☐ neither difficult or easy
- ☐ easy
- ☐ very easy

45. Please rate the level of difficulty in completing the following modules: **Opening and closing stocks for diary.**

- ☐ very difficult
- ☐ difficult
- ☐ neither difficult or easy
- ☐ easy
- ☐ very easy

46. Please rate the level of difficulty in completing the following modules: **Food insecurity experience scale.**

- ☐ very difficult
- ☐ difficult
- ☐ neither difficult or easy
- ☐ easy
- ☐ very easy

Please explain your answer:

47. Please rate the level of difficulty in completing the following modules: **Fisheries**

- ☐ very difficult
- ☐ difficult
- ☐ neither difficult or easy

- ☐ easy
- ☐ very easy

48. Please rate the level of difficulty in completing the following modules: **Food away from home recall.**

- ☐ very difficult
- ☐ difficult
- ☐ neither difficult or easy
- ☐ easy
- ☐ very easy

49. Please rate the level of difficulty in completing the following modules: **Instructing households to complete the diary.**

- ☐ very difficult
- ☐ difficult
- ☐ neither difficult or easy
- ☐ easy
- ☐ very easy

50. Please rate the level of difficulty in completing the following modules: **Remembering what people ate 7-days ago for Arms 1 and 5.**

- ☐ very difficult
- ☐ difficult
- ☐ neither difficult or easy
- ☐ easy
- ☐ very easy

51. Were there any other questions (or parts of the questionnaire) that were difficult to implement?

- ☐ No
- ☐ If Yes, which were they and why ?

52. How do you feel about the training that SPC gave you?

- ☐ very poor
- ☐ poor
- ☐ neutral
- ☐ good
- ☐ excellent

53. How do you feel about the support you received from EPPSO?

- ☐ very poor
- ☐ poor
- ☐ neutral

- ☐ good
- ☐ excellent

54. Is there anything else you would like us to know / take into consideration when we are making the final decision regarding the methodology for the 2019/2020 HIES?

ANNEX 2: DIFFERENT EXPERIMENTAL ARMS TO COLLECT CONSUMPTION DATA

There are five experimental arms, which are used to determine the efficacy of collecting consumption data through diary and 7-day recall means. The experimental arms are described below.

- i. *ARM 1 Recall CAPI*: household members are asked to recall if they acquired and consumed food and non-food items in the last seven days; they are asked the number of partakers in each meal in the last seven days; and they are asked if the household members acquired food away from home in the last seven days. These answers are all provided by the respondent and entered into the tables by the enumerators.
- ii. *ARM 2 Bounded recall CAPI*: this is the same as Recall CAPI, however the enumerator visits the household seven days before conducting the recall interview to ask the household to try to remember what was acquired/consumed over the seven day period leading up to the interview.
- iii. *ARM 3 Diary CAPI – high monitored*: household members are asked to keep a 14-day diary of all food and non-food items that the household acquired each day; they are also asked to record if they acquired and consumed food away from home; the enumerator will visit the household every second day to enter the diary data into the tablet and to ensure that the household is completing the diary comprehensively.
- iv. *ARM 4 Diary PAPI – high monitored*: this is the same as Diary CAPI – high monitored, except the diary data is not entered into the tablet during the visit to the household; it is entered into a data entry system by the national statistical agency after each round; the enumerator will still visit the household every second day to ensure that the diary is being completed.
- v. *ARM 5 Diary PAPI – low monitored*: this is the same as Diary PAPI – high monitored, however the enumerator will only visit the household to drop the diary off on day one, then pick up the first week diary on day seven and to drop the second week diary, then pick up the second week diary on day 14; this is a poorly managed diary without regular monitoring of the household to ensure the diary is being completed.

ANNEX 3: COMPLEMENTARY SURVEY MODULES

In order to meet demand for more dynamic data and to eliminate the need to conduct stand-alone surveys, the below new survey modules are being tested for inclusion in the core HIES questionnaire.

- i. Food away from home: recall and diary-based modules are being tested to encourage more comprehensive reporting of food acquired and consumed away from the dwelling.
- ii. Partakers: recall and diary-based modules are being tested to capture partakers in meals in order to improve consumption estimates.
- iii. Stocks: collection of opening and closing food stocks before and after the two-week food acquisition diary is implemented – this will allow for estimation of apparent consumption, rather than just acquisition.
- iv. Labour module: newly designed module in accordance with the resolution concerning the International Classification of Status in Employment (ICSE-18).
- v. Food Insecurity Experience Scale (FIES): to measure experiences of moderate-to-severe food insecurity and to report against SDG indicator 2.1.2.
- vi. Shocks: household exposure to shocks through adverse environmental, economic and social change.
- vii. Disability: addition of the Washington Group six questions to identify vulnerable populations.
- viii. Improved modules: enhanced health and fisheries modules and improved means to capture information to better estimate household consumption of fixed assets.