National Training Workshop on the development of REDATAM
 applications for the dissemination of the 2011 census data
17 - 28 February 2014
Port of Spain, Trinidad and Tobago

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REPORT OF NATIONAL TRAINING WORKSHOP ON THE DEVELOPMENT OF REDATAM APPLICATIONS FOR THE DISSEMINATION OF THE 2011 CENSUS DATA

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CONTENTS

A.   INTRODUCTION

1.   The Population and Housing Census provides statistical information on demographic, social, economic and housing characteristics, and therefore often forms the foundation of many national systems. In addition, it is also an invaluable source of critical baseline data for evidence-based policy formulation, planning and development. Notwithstanding that, the effective use of census data for purposes of policymaking, research and development relies heavily on the availability and accessibility of the data by researchers, decision makers and governments. Consequently, ensuring the dissemination of census results via publications, electronic media or other form is therefore a key consideration for many national statistical offices.

2.   The Retrieval of data for small areas by microcomputer (REDATAM) is a software programme that has been used by many countries for the quick and effective dissemination of microdata from surveys and censuses through the Internet and CD-ROMS. The software has been used by many Latin American and Caribbean countries for the processing and dissemination of census and survey data and has increasingly become the software of choice for national statistical offices in Africa, Asia and the Pacific.

3.   The Trinidad and Tobago Central Statistical Office (CSO) has been one of the users of the software for the dissemination of the 2001 census data. Based on the utility of the software, the CSO has committed to using the software for the dissemination of the 2011 census data. To that end, a request was submitted to the Economic Commission for Latin America and the Caribbean (ECLAC), by the CSO for capacity-building in the use REDATAM, and technical support with the development of a dynamic web-based application for the dissemination of the 2011 census data.

4.   In response to the technical assistance request, ECLAC subregional headquarters for the Caribbean convened the National Workshop on the development of REDATAM applications for the dissemination of the 2011 census data. The overall objective was to improve the current national statistical capacity in the use of REDATAM for the dissemination of microdata. The workshop was also expected to fulfil the following outcomes:

> (a) Increased capacity of staff of the central statistical office and Information Technology (IT) personnel to develop applications for the timely dissemination of microdata of national surveys and censuses;
>
> (b) Increased awareness of the REDATAM software as a tool for dissemination of microdata from surveys or censuses;
>
> (c) The development of a stand-alone web-based application for disseminating the results of the 2011 Population and Housing Census by end of April 2014.

5.   The workshop facilitators were drawn from the Latin American Demographic Centre (CELADE) Population Division, and the ECLAC subregional headquarters for the Caribbean. Funding for the technical assistance mission was provided under the regular programme for technical cooperation.

B.   ATTENDANCE AT THE WORKSHOP

1.   Place and date of the workshop

6.   The National Training Workshop on the development of REDATAM applications for the dissemination of the 2011 census data was held from 17 to 28 February 2014 in Port of Spain, Trinidad.

2. Participation

7.   The workshop primarily targeted database experts and web developers from the Central Statistical Office of Trinidad and Tobago and the IT Department of the Ministry of Planning and Sustainable Development, some of whom had been trained in REDATAM through either national or regional introductory workshops. The composition of the participants by sex was 7 males (46.7 per cent) and 8 females (53.3 per cent). The full list of participants is annexed to this report.

C.   SUMMARY OF HIGHLIGHTS AND KEY OUTCOMES OF THE WORKSHOP

1. Opening session

8.   The opening ceremony of the workshop featured remarks from Diane Quarless, Director, ECLAC subregional headquarters for the Caribbean and Roger Jugmohan, Deputy Director, Central Statistical Office of Trinidad and Tobago.

9.   In her remarks, the Director of ECLAC spoke about the importance of the CSO to national progress and development and recognised the challenges facing the organization at the present time. She said that she was very pleased that ECLAC was cooperating with the CSO and the Ministry of Planning and Sustainable Development in the organization of a workshop addressing such an important issue. Ms. Quarless acknowledged the support of Sterling Chadee, the new Director of the CSO, the previous Director, Dave Clement, and Assistant Director, Robert Latiff. She also thanked Lenin Aguinaga and Alejandra Silva of CELADE for coming from Santiago, Chile, to lead the workshop.

10.   In delivering the opening remarks on behalf of the Director of the Central Statistical Office, the Deputy Director expressed the pleasure of his office in seeing the request for training materialise in such short time. He underscored the value of the training for building institutional capacity and ensuring the development of a web-based application of the dissemination of the 2011 census. He concluded by thanking ECLAC for the continued support and urged participants to take advantage of the training.

2. Main achievements

11.   The intended outcome of the workshop was the development of a basic, functional test version of a database in REDATAM format that could be further developed by staff of the CSO and Ministry for the dissemination of the 2011 census data. To that end, staff of the two offices received targeted training in three core components of the REDATAM software namely, the Create, Process and Web server modules.

12.   To achieve the set objective within the timeframe, the workshop was structured to accommodate an introductory session for all participants on the basics of REDATAM and the creation of databases using the Create module during the first three days. This enabled the staff to gain familiarity with the REDATAM environment and to create simple databases using samples of data in varied formats including Statistical Package for Social Scientists (SPSS), Census and Survey Processing System (CSPRO) and Data Base File formats. Following that introductory session, participants were split into two groups: one focusing on the creation of a complete REDATAM database using the 2011 Population and Housing Census data; and the other focusing on the analysis of data and construction of indicators. To achieve optimum results, participants were grouped so that a select group of staff from the CSO who were familiar with the census database and involved in the data collection and processing aspects of the census handled the database creation element of the workshop. The remaining participants who were end users of the data and dealt with the processing of data requests and analysis constituted the second group.

13.   The database creation sessions enabled the conversion of the existing census database from CSPRO and SPSS formats to REDATAM format. That database would subsequently be used for the development of a web-based application during week two of the workshop. Significant emphasis was placed on developing a

database that would provide users with access to reliable data on population and housing characteristics without violating the confidentiality and rights of the respondents.

14.   The parallel sessions on the Process module were aimed primarily at those staff who will be users and analysts of the census data. During these sessions, participants learned how to use both the Process module's menus and the REDATAM programming language to produce outputs such as tables, indicators and maps based on census data.

15.   The second week of the workshop focused on developing a web-based application using the REDATAM Web server module. By the conclusion of that week, participants were able to develop functional beta applications. The sessions enabled participants to lean the basics on how to how to add content to the application and structure different types of nodes based on the functions to be performed.

16.   As a concluding activity, the core group of database experts and web developers drafted a timeline and list of tasks that needed to be completed by all parties in order to achieve the completion and release of a national census database by end of April 2014.

D.   SUMMARY OF EVALUATION

17.   The ensuing summary provides an analysis of participants' responses to the evaluation administered to participants at the conclusion of the workshop. While the workshop was conducted in two parts, the same evaluation questionnaire was administered to both groups; therefore the report presents a consolidated account of responses received from all participants. Responses were received from all 15 participants, thus the views expressed below were fully representative of the groups.

18.   The composition of the respondents of the evaluation by sex and organizational type was as follows:

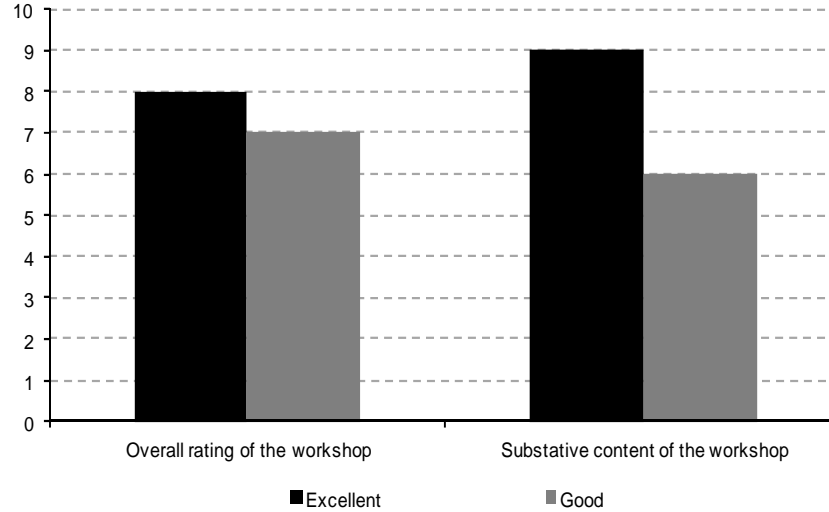Table 2
Sex of respondents by department or ministry

		Type of organization you represent:		*Total*
		National Statistics Department/ Office	*IT Department – Ministry of Sustainable Development*	
Sex of respondent	Male	2	5	7
	Female	8	0	8
Total		**10**	**5**	**15**

1.   Substantive content and usefulness of the workshop

19.   The evaluation sought participants' overall perceptions of various aspects of the workshop ranging from the relevance of the content and the value added by the training to the conduct of the sessions and the general organization of the workshop.

20.   Participants overall rating of the workshop was high with all responses being split between the categories of "excellent" (53.3 per cent) and "good" (46.7 per cent). Similar positive ratings were provided regarding the substantive content of the workshop. Responses to this item were evenly distributed between the categories of "excellent" and "good". Table 1 displays the distribution of the responses across the 5-point scale used for those two items.

Figure 1
Participants' feedback on content and overall quality of the workshop

21.   Participants were also required to indicate, through a dichotomous question, the extent to which the workshop lived up to their initial expectations. With the exception of one person who had ambivalent feelings (3= "not sure or no response), all participants responded positively to this item.

2.   Usefulness and impact of training

22.   A number of items were included in the evaluation form to assess the value added through the training sessions. Of particular importance were participants' views on the initial impact of the training. This was assessed by measuring participants' perceptions of relevance of the training to participants' needs and the usefulness of the training for strengthening technical capacity. A combination of open-ended and rating scale items were used for this component of the evaluation. Each of the closed-ended items was scored along a continuum from "highly useful" to "not useful at all".

23.   In terms of the relevance of the training for the work of their respective institutions, 10 (66.7 per cent) respondents indicated that it was "very relevant", 4 (26.7 per cent) stated that that it was "relevant" and one person rated it as "regular".

24.   As a follow-up to that item, participants were asked to identify specific areas for improvement such as topics that should have been included or could have been addressed during the sessions. The majority of participants indicated that the training was adequate and indicated satisfaction with the content. Those views were stated in the following comments:

- ▪ "All subject areas were addressed adequately in the time allocated".
- ▪ "The training was well executed. Some of the slides were outdated because of the recent updates to the software but overall executing of the training was excellent".
- ▪ "I thought all aspects relevant to my work were covered. From the creation and validation of database to generation of tables".

25.   One participant indicated that there was need to allocate more time for the training:

- ▪ "More time could have been allocated to the modules, thus enabling participants a greater advantage of exploring all aspects of the modules in greater depth. At least a couple more days to the training".

▪ The final comment related to the database and a suggestion for "greater familiarity with the CSO data set".
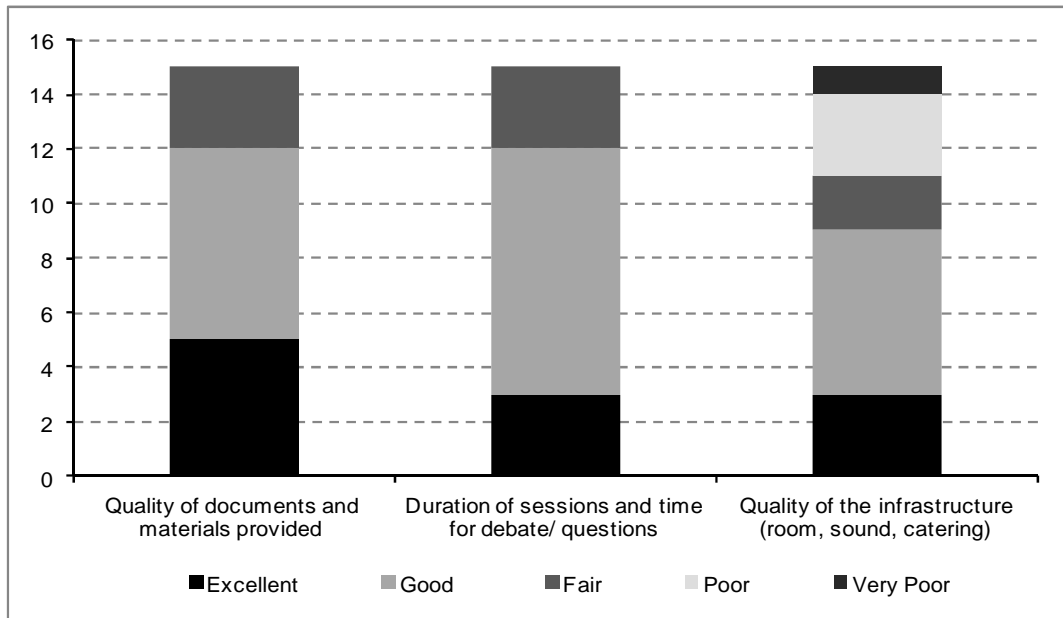
26.   Given that the main objective of the workshop was to build on existing national capacity to use the REDATAM software for the development of data dissemination application, participants were provided with an opportunity to evaluate the extent to which this objective was met by indicating the usefulness of the training for strengthening their capacity in that area. Responses to this item were key indicators of actual impact of the training. Of the 15 respondents, two thirds stated that the training was "very useful" for meeting that goal while the remaining 5 (33.3 per cent) rated it as "useful".

27.   Participants held divergent views on the usefulness of the training for engaging in discussions and exchanging experiences with representatives of other institutions. This aspect of the workshop was evaluated along a 6-point scale that ranged from "very useful" to "not sure/ no response". The views of two thirds of the participants were split equally between the ratings of "very useful" and "useful". Of the remaining participants, two participants (13.3 per cent) rated it as "regular", two stated it was "somewhat useful" and one person was uncertain.

3. Organization of the workshop

28.   Three components related to organizational aspects of the workshop were assessed. These included: the quality of the documents and materials, the duration of the sessions and time for discussions and the quality of the infrastructure. Each aspect was scored along a continuum ranging from 1 to 6, with 1 representing "excellent" and 6 indicating "no response/ not sure". For all aspects except the quality of the infrastructure, at least 12 (80 per cent) of the participants provided ratings of "excellent" or "good"; the modal score for each being "good". Participants had disparate views on the quality of infrastructure; the breakdown of those responses is given in the figure below. Figure 2 shows the distribution of these ratings.

Figure 2
Participants' views of the organization of the workshop

29.   The participants who rated the infrastructure for the workshop as "poor" provided the following justification for their choice of rating:

- "I found that the infrastructure was poor. The room was hot, too many participants for the small room. It was difficult to focus on the presentation and the actual exercises because of how the furniture was arranged".
- "The training facility could be improved".
- "The rooms weren't ideal but that may be due to the last minute preparations for the training".

30.   In the final section of the evaluation, participants were given an opportunity to provide general comments and suggestions on what could be improved in relation to the organization of the workshop. Some of the comments provided were consistent with those provided in the previous section and for the most part were complimentary.

- "Congratulations on a job well done".
- "The facilitators were very patient and knowledgeable. They did an excellent job walking us through the software".

Some participants restated their dissatisfaction with the venue for the workshop:

- "The training facility could be improved".
- "The room was a bit compact for the number of persons".
- "Good accommodation – could be better, space constraint".

In addition, one recurring comment related to the allocation of more time.

- "As indicated additional time was needed".
- "I think that a lot was packed into the sessions. Therefore even though a lot was learnt, when it came to the practical we were not sure of ourselves".
- "Only had three days training because we needed to finalize the census data file. This time was not adequate to be able to properly assimilate training in both the Create and Process modules".

Another participant suggested that the documentation for the software should be updated to match the latest version. Other comments related to the readability of the projector screens.

4.   Follow-up activities and areas for future work

31.   The final component of the evaluation included a few questions on ways in which ECLAC could support their respective institutions and countries, in the area of statistics and population development. Only a few participants responded to this item and made the following suggestions:

- "Further training of new staff at the Central Statistical office in other computer software applications and workshops based on population development and statistics are recommended".
- "Continued support on the improvement of the quality of the 2011 Population and Housing Census database particularly with the requirements for the creation of the database".
- "Report writing and database cleaning are areas that need additional resources at the CSO".

E.   CONCLUSIONS

32.   Overall, participants' responses to the evaluation reflected a generally high level of satisfaction with the training and outcomes of the workshop. There was evidence that the workshop met its immediate objective of strengthening national capacity in the use of the REDATAM software. Further, there were strong indications of participants' appreciation of the content addressed by the workshop. Feedback on the

organizational aspects of the workshop was also positive and participants expressed a strong interest in seeing the completion of the work started at the workshop as well as the launch of the national database by the end of April 2014.

F. FUTURE ACTIONS

33. Given that the technical support was specifically provided to assist the Central Statistical Office and IT Department with the developing a sound beta version of a database, there would be a need for close follow-up with all parties involved to ensure that the work continues and results in the development of a fully functional database that is accessible to the public by 30 April 2014. To that end, follow-up meetings will be held with the participants involved in the development of the web-based application and the Director of the Central Statistical Office on a regular basis to ensure all tasks are completed on time.

34. Further, as a follow-up activity, ECLAC would conduct a post-training evaluation six months after the workshop to assess impact of the workshop in terms of the transfer of knowledge, particularly its application for developing applications for microdata dissemination. The evaluation would be conducted through an electronic survey via the Vovici Survey Platform in August 2014.

Annex I

LIST OF PARTICIPANTS

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<u>Annex II</u>

WORKSHOP EVALUATION

UNITED NATIONS

E C L A C

NATIONAL TRAINING WORKSHOP ON THE DEVELOPMENT OF REDATAM APPLICATIONS FOR DISSEMINATION OF THE 2011 CENSUS DATA
Port of Spain, Trinidad and Tobago
17 – 28 February, 2014

WORKSHOP EVALUATION

In an effort to assess the effectiveness and impact of this training course, kindly complete the following evaluation form. Your responses will be invaluable in providing feedback on the overall workshop, identifying areas of weakness and help improve the organization of future workshops**.**

IDENTIFICATION
Sex   ☐ Male ☐ Female
Type of organization you represent: ☐ Central Statistical Office ☐ Ministry of Sustainable Development

Substantive content and usefulness of workshop

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1. How would you rate the training overall?

1. Excellent   2.Good   3.Regular   4.Poor   5.Very poor   6. Not sure/no response

---

2. How would you rate the substantive content of the workshop?

1. Excellent   2.Good   3.Regular   4.Poor   5.Very poor   6. Not sure/no response

---

3. Did the workshop meet your initial expectations?

1. Yes   2. No   3 Not sure / no response

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4. How relevant was the training for the work of your institution?

1. Very Relevant   2. Relevant   3. Somewhat relevant   4. Not relevant   5. Not sure/no response

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5. How would you improve this workshop in terms of the subjects addressed (for example, issues you would have liked to address or analyze in greater depth or subjects which were not so important)?

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6. How useful did you find the training for strengthening your capacity to develop REDATAM applications for the dissemination of micro data?

1. Very useful   2. Useful   3. Regular   4. Not very useful   5. Not useful at all   6. Not sure /no response

---

7. How useful did you find the workshop for engaging in discussions and exchanging experiences with representatives of other institutions?

1. Very useful   2. Useful   3. Regular   4. Not very useful   5. Not useful at all   6. Not sure /no response

Organization of the training workshop

8. How would you rate the organization of the workshop? If you choose "poor" or "very poor" please explain your response so that we can take your opinion into account.						
Quality of documents and materials provided	1. Excellent	2. Good	3. Regular	4. Poor	5. Very poor	6. Not sure/No response
Duration of the sessions and time for debate/questions	1. Excellent	2. Good	3. Regular	4. Poor	5. Very poor	6. Not sure/No response
Quality of the infrastructure (room, sound, catering)	1. Excellent	2. Good	3. Regular	4. Poor	5. Very poor	6. Not sure/No response

9. Based on the ratings selected above, please indicate what worked well and what could be improved.

10. Do you have any other comments or suggestions on the organizational aspects of the workshop?

11. What additional technical cooperation activities in the field of population development or statistics would you suggest that ECLAC undertake in the future?

Thank you!!

Annex III

RESPONSES TO QUANTITATIVE ITEMS

Table A.1
Sex of Participants

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	7	46.7	46.7	46.7
Female	8	53.3	53.3	100.0
Total	15	100.0	100.0	

Table A.2
Type of organization being represented

	Frequency	Percent	Valid Percent	Cumulative Percent
Central Statistical Office	10	66.7	66.7	66.7
Ministry of Sustainable Development	5	33.3	33.3	100.0
Total	15	100.0	100.0	

Table A.3
Overall Rating of the workshop

	Frequency	Percent	Valid Percent	Cumulative Percent
Excellent	8	53.3	53.3	53.3
Good	7	46.7	46.7	100.0
Total	15	100.0	100.0	

Table A.4
Rating of substantive content of the workshop

	Frequency	Percent	Valid Percent	Cumulative Percent
Excellent	9	60.0	60.0	60.0
Good	6	40.0	40.0	100.0
Total	15	100.0	100.0	

Table A.5
Did workshop live up to initial expectations

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	14	93.3	93.3	93.3
Not sure/ no response	1	6.7	6.7	100.0
Total	15	100.0	100.0	

Table A.6
Relevance of the training to the work of your institution

	Frequency	Percent	Valid Percent	Cumulative Percent
Very relevant	10	66.7	66.7	66.7
Relevant	4	26.7	26.7	93.3
Regular	1	6.7	6.7	100.0
Total	15	100.0	100.0	

Table A.7
Usefulness of the training for strengthening participants' capacity to develop REDATAM applications for the dissemination of micro data

	Frequency	Percent	Valid Percent	Cumulative Percent
Very useful	10	66.7	66.7	66.7
Useful	5	33.3	33.3	100.0
Total	15	100.0	100.0	

Table A.8
Usefulness of the workshop for engaging in discussions and exchanging experiences

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Useful	5	33.3	33.3	33.3
Useful	5	33.3	33.3	66.7
Regular	2	13.3	13.3	80.0
Somewhat useful	2	13.3	13.3	93.3
Not sure/ no response	1	6.7	6.7	100.0
Total	15	100.0	100.0	

Table A.9
Quality of the documents and materials provided

	Frequency	Percent	Valid Percent	Cumulative Percent
Excellent	5	33.3	33.3	33.3
Good	7	46.7	46.7	80.0
Regular	3	20.0	20.0	100.0
Total	15	100.0	100.0	

Table A.10
Duration of the sessions and time for debate and questions

	Frequency	Percent	Valid Percent	Cumulative Percent
Excellent	3	20.0	20.0	20.0
Good	9	60.0	60.0	80.0
Regular	3	20.0	20.0	100.0
Total	15	100.0	100.0	

Table A.11

Quality of the infrastructure (sound, equipment, catering)

	Frequency	Percent	Valid Percent	Cumulative Percent
Excellent	3	20.0	20.0	20.0
Good	6	40.0	40.0	60.0
Regular	2	13.3	13.3	73.3
Poor	3	20.0	20.0	93.3
Very Poor	1	6.7	6.7	100.0
Total	15	100.0	100.0	