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The way to the 2010 round of censuses in Asia and the Pacific* **

By

UN ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

(ESCAP)

Introduction

1. This paper is intended to integrate the conclusions and recommendations adopted by the Expert Group Meeting (EGM) on Population and Housing Censuses, which met on 9-10 December 2004 in Bangkok (hereinafter referred to as the "EGM Bangkok")[1]. In that meeting, the *United Nations Principles and Recommendations for Population and Housing Censuses* were reviewed by experts of Asia and the Pacific with the aim to consolidate and convey a regional view for their revision.

2. Experts at the EGM Bangkok, in addition to reviewing the *Principles and Recommendations*, met also to identify and discuss in broad terms census regional priorities so as to guide UNESCAP in setting a regional census programme for the next years. Furthermore, the EGM Bangkok endorsed the idea carrying out a survey addressed to countries of Asia and the Pacific in order to obtain precise information on their census-related needs and on the available expertise within the region, to enable UNESCAP to fine-tune its regional census programme and act as the focal point for coordinating supply and demand of expertise in census operations within the Asia-Pacific region.

3. UNESCAP carried out such a survey on the basis of a simplified version of a model questionnaire earlier developed by UNECE. Given obvious differences between the census-related issues affecting Europe and North America on one hand and Asia and the Pacific on the other hand, the original UNECE questionnaire was simplified and redesigned to cover especially those issues identified as the most relevant for Asia and the Pacific by the EGM Bangkok. The survey was carried out from March to June 2005. Survey results, initially scheduled to be fully codified and entered in a purpose-designed database by the end of June 2005, were recently added information supplied by one further country, thus bringing the total number of surveyed countries and areas to 29.

Review of the United Nations Principles and Recommendations for Population and Housing Censuses

4. The EGM Bangkok decided to review four selected parts of the *Principles and Recommendations* deemed to be the most important for the needs of the Asia-Pacific region. EGM Bangkok's recommendations and comments about these four parts are complemented by a summary of relevant results from the UNESCAP survey.

Review topic "Geographical and Internal Migration Characteristics"

5. In reviewing chapters of the *Principles and Recommendations* related to "Geographical and Internal Migration Characteristics", the EGM Bangkok commented and recommended that:

- Those countries which had used the *Principles and Recommendations* for the 2000 round of censuses had found it useful, with the exception of the sections on "Locality" (paragraphs 2.49, 2.50 and 2.51), which may be deleted as they add little value to the document.

- More concise definitions and criteria for determining "usual place of residence" should be provided, especially with respect to the duration of stay. Some countries used six months, whereas others used one year, as the minimum duration of stay in a place for it to be considered a usual residence of a person. Elaboration was needed on when and how to

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[1] The proceedings, documentation and report of the EGM Bangkok are available at http://www.unescap.org/stat/meet/census2004/index.asp

count "*de jure*" and "*de facto*" population and how they may be combined to determine total population.

- The section on internal migration should begin with a paragraph or two about the importance of migration statistics and how they can be derived from the census;

- The topic of "floating populations", and how to define and identify them should be included. Problems associated with mega-cities had necessitated the need for data on the "floating population" and commuting patterns, and a number of countries, including the Islamic Republic of Iran, Indonesia and Republic of Korea, were looking at the census as a source. Unfortunately, there was no standard definition for "floating population" and countries had used and applied the term in different ways.

- Guidelines should be provided on the enumeration of hard-to-reach population subgroups including illegal migrants. For example, Macao, China was considering measuring the number of illegal migrants in the next census and was likewise seeking guidance on how to get better estimates. In the past, the measurement of illegal migration using census data was indirect, that is, by comparing the total volume of migration obtained from the census with administrative data on the number of migration permits issued. Improvement in the approach was being sought.

- Guidelines should be provided on whether migration data can be collected on a sample basis and if so what sampling scheme should be used to provide reliable estimates of migration.

6. Table 1 and table 2, provide a summary of country replies to selected questions of the UNESCAP survey dealing with migration-related issues.

Table 1. Geographical and internal migration characteristics

availability of questions in census questionnaire by census round

Round of Census	Presence of type of question in census questionnaire	Yes	No	N/A
2000	Place of usual residence	25	4	0
	Place where present at time of census	22	6	1
	Place of birth	27	2	0
	Duration of residence	20	8	1
	Place of previous residence	18	10	1
	Place of residence at a specified date in the past	20	6	3
2010	Place of usual residence	22	2	5
	Place where present at time of census	19	3	7
	Place of birth	23	1	5
	Duration of residence	20	3	6
	Place of previous residence	19	3	7
	Place of residence at a specified date in the past	15	5	9

Table 2. International migration characteristics

availability of questions in census questionnaire by census round

Round of Census	Presence of type of question in census questionnaire	Yes	No	N/A
2000	Country of birth	22	7	0
	Citizenship	18	11	0
	Year or period of arrival	14	15	0
2010	Country of birth	21	4	4
	Citizenship	17	6	6
	Year or period of arrival	15	8	6

7. Firstly, the "N/A" ("Not available") modality, which means that a definite answer to the question was either not given or that, given a preceding answer, the question was not context-relevant, shows higher frequencies for the current (2010) round of censuses, rather than for the past (2000) one: several countries have not finalized yet which questions to include, and probably how to include them, in their census questionnaires.

8. Secondly, we may also see that, albeit some not yet finalized plans, many countries have already decided to include in their census questionnaires questions to measure internal and international migration. A last comment: part of the regional census programme should consist in properly advising countries of Asia and the Pacific, especially the ones which have not yet finalized the structure of their questionnaires, about how to include and the value of including migration-related questions.

Review topic "Census products and Data Utilization"

9. Specific parts (pages 117-134) related to "Census products and Data Utilization" of the *Principles and Recommendations* were reviewed by the EGM Bangkok:

- It was recommended that the interrelations between the early phases of census planning and the subsequent development of census products and future data utilization should be clarified in the chapters of the *Principles and Recommendations* dedicated to census planning.

- Similarly, with regard to census products, how to identify users' needs in the early phases of census planning should be explained. Countries should be guided to design census products according to different groups of users, e.g. the central government, the general public, academia, media, particular subgroups like children, and the private sector, according to their current and foreseeable future country circumstances.

- The *Principles and Recommendations* should be expanded in those chapters which guide the production of custom tabulations for meeting more focused thematic as well as geographical data needs.

- The Expert Group recommended that the *Principles and Recommendations* should provide more guidance related to the provision of samples of microdata for academic research.

10. Table 3 shows how respondent countries of Asia and the Pacific experienced in general terms census planning, including by executing pilot surveys, and more specifically by how much a data dissemination strategy, which is linked to also early planning and design of the census, was dealt with.

Table 3. Early phases of census planning (2000 round)

Execution of pilot surveys and availability of census planning skills and of a dissemination strategy

	Yes	No	N/A
Pilot survey	24	5	0
Available skills for census test	22	3	4
Dissemination strategy	18	6	5

11. It is interesting to note that Cambodia, Fiji, and Mongolia responded to have carried out a pilot survey in their previous census, but they also responded that they lack census planning skills. On the other hand, Georgia, New Caledonia, Niue, Thailand, and Turkey did not carry out a pilot survey in their previous census, but responded positively about the availability of census

planning skills. Table 5 shows how countries perceive their in-house availability of various skills which are broadly related to planning census products.

12. The number of months needed to disseminate the first preliminary results after the reference date and the number of months needed to disseminate the final results, are useful proxy variables to illustrate skills related to plan and disseminate census products. To obtain preliminary results, an average of approximately 4.3 months was needed, whereas to obtain the final results this time grew to an average of 16.1 months. These average times were computed on the basis of 25 country responses. Of course, there are large variations from country to country.

13. The used dissemination media, shown in Table 4, also affect to possibility of offering customized outputs and products. In this regard, while paper-based products are used or intended to be used (Timor-Leste had not yet disseminated its census results, but plans to do so in a variety of ways) by all respondents, the large majority of countries disseminates its census products by using several media. When the Web, which is the most flexible of all dissemination media, is not used, this happens in countries (Indonesia, Lao PDR, Marshall Islands, Tajikistan, and Tonga) where there are either problems of capacity or of connectivity. With the exception of Lao PDR, those which do not use the Web also do not use CD-ROMs for disseminating their census products. A few countries disseminate census results also through public meetings, newsletters, leaflets, government newspapers, and the radio.

Table 4. Dissemination media
2000 census round

	Yes	No
Paper	29	0
CD-ROM	23	6
Internet (web)	24	5
Other	5	24

Note: Timor-Leste has not yet disseminated its census results. However, because it intends to do so also by paper, CD-ROM, web and other electronic media, it was counted as "yes".

Table 5. Availability of skills related to planning census products

	Yes	No	N/A
Census Management	24	1	4
Census Planning	23	2	4
Questionnaire design	23	2	4
Tabulation	21	4	4
On-line dissemination	12	12	5

14. The need for technical assistance in various areas was a specifically surveyed issue. Respondents were given the opportunity to write exactly what were their needs. In that regard, 23 out of 29 respondents affirmed to be in need of technical assistance for the next census round. By extracting and coding commonly emerging needs, Table 6 shows how data dissemination in general, but also tabulation plan, IT for dissemination, and questionnaire design constitute areas of need for technical assistance in Asia and the Pacific.

Table 6. Lack of skills related to planning census products

	Areas of need			
	General data dissemination	Tabulation plan	IT (including GIS) for dissemination	Questionnaire design
Armenia	Yes			
Cambodia		Yes		
Georgia			Yes	
Hong Kong, China			Yes	
Malaysia			Yes	
Marshall Islands		Yes	Yes	Yes
Mongolia	Yes			Yes
Russian Federation				Yes
Sri Lanka	Yes			Yes
Tonga	Yes			

Review topic "Demographic, social and disability characteristics"

15. Issues related to "Demographic, social and disability characteristics" of the *Principles and Recommendations* were also reviewed as follows by the EGM Bangkok:

- The option of using both current sex and sex at birth should be considered. As a matter of fact, it was expected that this concept would face some operational difficulties with increasing transsexual cases in a number of countries. The group agreed to pay due attention to this new but non-negligible issue in the 2010 world programme.

- A conversion table from the 'animal year' into the 'calendar year' should be developed. The rationale for this recommendation was that some population groups reported their births based on the 'animal year', rather than the 'calendar year' and enumerators had problems in conversion from one system to another.

- The age group "85 years and over" should be further refined and three digits should be used instead of two for the age variable in the census questionnaire and suggested tabulations.

- The EGM Bangkok recommended considering use of a new category of 'consensual union' since consensual unions outside of marriage are becoming common in many societies. It also emphasized the need to collect data on the number of marriages not only in polygamous societies but also in other societies to account for marital patterns. In addressing this issue, the group recognized that special cultural practices should be taken into account in the census (e.g., Cambodia reported emerging practices of couples reportedly married, but not living together; in Catholic societies 'marriage annulment' is increasing).

- The *Principles and Recommendations* should address how censuses could be used to count people holding multiple citizenships. A discussion should be included on the use of such sensitive data as religion and ethnic group. The concept of indigenous groups should be elaborated and harmonized at global level.

- Censuses should be used to collect to the extent possible data on fertility and mortality to improve incomplete estimates from vital registration and other sources. Due to limited space in the census questionnaire, a separate form on fertility is required. Additionally, rider surveys could be used.

- The EGM Bangkok recommended that paragraph 2.145 in the Principles and Recommendations, which defines literacy, should include the clause 'in any language'. Functional literacy should be considered as a refinement, and national data collections should use the definition developed by UNESCO. There is need to study relationships between mental disability and literacy to see how to classify a mentally disabled person with formal education. The same concern was also raised for persons using sign languages only.

- The *Principles and Recommendations* should elaborate on how to make distinctions between formal education and traditional forms of education provided by religious authorities, communities or indigenous groups. Post-secondary education should be better explained and the inclusion of vocational training should be considered.

- The section on disability should be updated according to the WHO's International Classification of Functioning, Disability and Health (ICF).

Review topic "Relationship between population and housing censuses and other statistical activities"

16. The last area of issues of the *Principles and Recommendations* reviewed by the EGM Bangkok was about to "Relationship between population and housing censuses and other statistical activities":

- It was recommended that the *Principles and Recommendations* highlight the analytical advantage of conducting population and housing censuses simultaneously as this would permit an integrated analysis of demographic and social data along with data on human settlements.

- The EGM Bangkok noted that population and housing censuses could be used for providing sampling frames for agricultural and establishment censuses and surveys, if a few questions on agricultural and economic activities were included in the census questionnaires.

- If sampling techniques were used in the design of a census, it was recommended that information be provided on standard errors to let data users assess the reliability of such estimates.

- The EGM Bangkok urged NSOs to scrupulously follow the *Fundamental Principles of Official Statistics* in the conduct of censuses and in handling census data in order to safeguard the NSOs' independence in the eyes of respondents and users. Furthermore, the EGM Bangkok advised NSOs to be cautious in conducting a population census at the same time as activities related to registering the population for citizenship purposes.

17.   In the past census round nearly all respondents carried out simultaneously a population and housing census, with only four countries (Hong Kong, China; Nepal; Russian Federation, and Turkey) which did not do so. Table 7 shows coverage of housing variables among respondents:

Table 7. Housing censuses and other statistical activities

Round of Census	Presence of type of question in census questionnaire	Yes	No	N/A
2000	Building (type of)	23	6	0
	Construction material of outer walls	17	12	0
	Year or period of construction	12	17	0
	Location of living quarters	17	12	0
	Type of living quarters	21	8	0
	Occupancy status	18	11	0
	Ownership (type of)	24	5	0
	Number of rooms	19	9	1
	Floor space - useful and/or living	11	18	0
	Water supply system	24	5	0
	Toilet and sewerage facilities	24	5	0
	Bathing facilities	13	16	0
	Cooking facilities	16	13	0
	Lighting - type of and/or electricity	19	10	0
	Solid waste disposal - type of	7	22	0
	Occupancy by one or more households	18	8	3
	Occupants (number of)	21	8	0
	Tenure	21	8	0
	Rental and owner-occupied housing costs	9	19	1
	Asset ownership (e.g., TV, refrigerator, vehicle, etc.)	11	18	0
2010	Building (type of)	22	2	5
	Construction material of outer walls	16	8	5
	Year or period of construction	13	9	7
	Location of living quarters	17	6	6
	Type of living quarters	18	5	6
	Occupancy status	18	5	6
	Ownership (type of)	21	2	6
	Number of rooms	18	5	6
	Floor space - useful and/or living	9	13	7
	Water supply system	20	3	6
	Toilet and sewerage facilities	20	3	6
	Bathing facilities	10	12	7
	Cooking facilities	15	8	6
	Lighting - type of and/or electricity	17	6	6
	Solid waste disposal - type of	13	10	6
	Occupancy by one or more households	15	7	7
	Occupants (number of)	18	6	5
	Tenure	18	5	6
	Rental and owner-occupied housing costs	9	13	7
	Asset ownership (e.g., TV, refrigerator, vehicle, etc.)	12	11	6

18. The most collected variables were "Toilet and sewerage facilities", "Water supply system", "Ownership (type of)". Of a certain importance were also "Building (type of)", "Tenure", "Occupants (number of)", and "Type of living quarters". Then a number of other housing variables followed with gradual decreasing presence in census questionnaires. Although plans for inclusion of housing variables for the 2010 census round are not finalized yet, the pattern of included variables seems very similar to that of the previous round.

Priorities for capacity building in population and housing censuses for Asia and the Pacific

19. The EGM Bangkok identified four areas which should be the subject of specific regional working groups with the aim of orienting countries of the Asia-Pacific region to further

developing their own census capacity. As extensive reference to the discussion held on the four areas is already available in the EGM Bangkok report, here we will present just a structured summary of issues recommended for further consideration (boxes 1 to 4), accompanied by results of the survey.

Effective use of IT and GIS for census operations

20. This area covers cross-cutting issues in the use of IT tools, such as Computer Aided Personal Interviewing (CAPI), Intelligent Character Recognition (ICR), Optical Character Recognition (OCR) and Optical Mark Recognition (OMR). The contribution of digital mapping techniques and Geographical Information Systems (GIS) to census operations should also be covered. The issue of outsourcing IT operations has also been discussed with the view that countries need exchange their experiences with contractual issues and on how to conduct evaluation and feasibility studies.

Box 1. Summary of EGM discussion on "Effective use of IT and GIS for census operations"

Issue	Problem	Recommended	Other recommendations
IT tools and specifically CAPI	*Security:* 1) Risk of exposing individual data beyond legitimate users. 2) Problems for operation in difficult locations. *Economic:* 3) Maintenance costs 4) Potential under-utilization of hardware resources after census	-	Exchange of experiences.
Intelligent Character Recognition (ICR), Optical Character Recognition, (OCR), and Optical Mark Recognition (OMR),	*Economic:* 1) Large initial investments for initial adoption of these technologies	Yes	Exchange of experiences. Need to undertake adequate feasibility studies and market research about possible alternative technologies.
GIS		Yes	Exchange of experiences.
Contracts for outsourcing IT operations	*Economic:* Need to introduce safeguards linking payment to performance. *Technical:* Overall failure of outsourcing.	Yes	Exchange of experiences. Clear attribution and retention of control and responsibilities by the programme management.
Emerging technologies: Internet web sites for online data-entry, downloadable e-forms for off-line filling, use of mobile phones to send digitized maps to enumerators, linking different databases	*Technical:* Although individual countries may wish to consider adopting these technologies, the overall level of maturity and lack of experience in the region does not suggest their general adoption in Asia and the Pacific.	No	

21. The survey provided a quantitative measure about the status of adoption of IT in the region and problems were highlighted in the adoption and use of IT solutions.

22. Just 12 out of 29 (40%) of the respondents used some sort of project management software for managing census operations. Among this group, most of the countries used self-developed solutions based either on a combination of commercial project management packages (mostly Microsoft project) or on off-the-shelf database packages. Slightly more used are software solutions for monitoring the quality of census operations: 16 countries (55%) performed

quality control of their census operations by using software which, in most of the cases, were self-developed, sometimes customizations of existing packages (IMPS).

23. There is not uncertainty about data entry solutions adopted in the past census round: most of the data entry was done by keyboard only, as 16 countries (55%) replied. Some other 13 countries (45%) used only either optical/intelligent or mark reading technologies. Other data entry or data collection tools (web-based or others, like through hand-held devices) in the past census round were experimented just by a couple of countries. The above numbers, relative to the past census round, tell us that data entry practices were characterized by different adoptions of digital technologies.

24. Several data entry software solutions have been used in the region. Very popular was the choice of non-commercial packages (IMPS) and of self-developed systems, based mainly on combinations of high-level languages and off-the-shelf database systems. One commercial software seemed to be used by more than a country for optical reading.

25. As far as coding is concerned, of those countries which used manual coding the vast majority (with the exception of Cambodia, Republic of Korea and Turkey) did not use any computer-assisted or automatic coding support. In other cases there was a mix of coding practices: among these cases, as table 8 shows, eight countries used computer assisted coding, and four used automatic coding solutions.

Table 8. Coding systems in data processing
2000 census round

	Yes	No	N/A
Manual	22	7	0
Computer assisted	8	21	0
Automatic	4	25	0
Other *	1	28	0

* The unique "yes" given to the "other" category does not really reflect any significant alternative with respect to the three categories identified above.

26. With regard to computer-supported editing, most of the countries did use software for editing of census data, with IMPS being the most popular of the solutions reported. Generally, statistics on imputation rates were also generated.

27. Microdata, as table 9 shows, are managed by the majority of countries by using server-based or PC-based relational database management systems (various versions of SQL Server, Oracle, Sybase, DB2 and MS Access, FoxPro), followed by commercial statistical packages (SAS, SPSS). Some other solutions are used but in very few cases.

Table 9. Microdata management systems
2000 census round

	Yes	No	N/A
High-level (server-based RDBMS)	12	12	5
PC-based RDBMS	10	13	6
Statistical software	6	17	6
Demographic	4	19	6
Other software	5	18	6
None	1	22	6

28. Table 10 provides a summary of how cartography and mapping technologies were used, whereas table 11 shows how many countries underlined problems with these technologies. Generally, Asia-Pacific countries suffered from lack of expertise and the non-availability of digitized maps. Furthermore, problems were also introduced by not adequately precise maps.

Table 10. Cartographic and mapping technologies
2000 census round

	Yes	No	N/A
Use of GIS technology	16	13	0
of which			
use of digital maps	11	17	1
digital maps self-produced?	2	7	18
Use of GPS technology	3	25	1
Use of other digital technology	2	26	1

Table 11. Technology-related problems
2000 census round

	Yes	No
Cartography or Mapping	12	17
Use of new technologies	14	15
Data processing	12	17

29. Other difficulties with the use of new technologies were properly identified and could be categorized as being of technical or financial nature. Technical issues dealt mainly with the use of scanning technologies and with wrong character recognition, difficulties in customizing ICR software, and inadequate support from vendors. Financial problems are those of insufficient funds for purchasing new equipment and software.

30. Other issues highlighted by the survey were related to low availability of skills in data processing. In particular, activities related to editing, tabulation, verification and the lack of supporting technologies and experienced staff in these areas are issues of concern for selected Asia-Pacific countries. Table 12 shows available skills in specific technology-related areas.

Table 12. Availability of technology-related skills

	Yes	No	N/A
Technology management	19	6	4
Cartography	15	10	4
GPS/GIS	14	11	4
Data capture	20	5	4
Data editing	21	4	4
Coding	23	2	4
Development of software	10	15	4
Database management	14	11	4

Using the census for measuring new and emerging priority issues

31. Events and characteristics which, because of their rarity, were not well captured in sample surveys, for instance, health and human functioning or issues like maternal mortality and adult mortality might benefit from being covered by censuses in selected countries/territories. The census might also provide valuable information on poverty through the use of proxy indicators such as type of housing, tenure status, access to water, asset ownership, etc. Other examples of emerging issues of concern were ageing, migration, religion, ethnicity and race. Censuses also provided data which were useful for planning in smaller geographical areas on all the above characteristics.

32. The EGM Bangkok stressed the importance of sharing experiences in collecting information on these new and emerging issues in censuses, so that others could benefit and learn from both positive and negative results. Building a tested knowledge base on these matters was not only a way of saving resources, but could be used to withstand political pressure to collect information on issues for which the census is not a suitable vehicle, e.g. income.

Box 2. Summary of EGM discussion on "Using the census for measuring new and emerging priority issues"

Issue	Problem	Recommended	Other recommendations
Health and human functioning; Maternal and adult mortality; poverty proxies.	*Economic/technical:* 1) Rare or other events not well captured by sample surveys	Yes	Exchange of experiences.
Ageing, migration, religion, ethnicity and race	*Technical/political:* 1) Issue of emerging concern 2) Political pressures to collect unsuitable information	Yes	Exchange of experiences. Build a tested knowledge base.

Planning and financing the next censuses

33. Among the issues proposed for discussion by the EGM Bangkok were how to make the government see the value of censuses and how to raise supplementary resources needed to cover the increasing costs of censuses. It was recognized that appropriate statistical legislation was of the highest importance for census planning and financing. The need for statistical laws and regular census taking was not fully understood by many governments. The EGM Bangkok therefore requested UNESCAP/UNSD and other international agencies to sponsor a census advocacy drive and to assist national statistical offices in making governments see the value in good statistical legislation and regular data collection. The EGM Bangkok noted that countries in the region, especially those in the Pacific, considered favourably the mutual provision of technical cooperation, particularly in the form of exchange of staff for short periods and study visits, and recommended that the Global Trust Fund for censuses be used also to facilitate these sorts of initiatives.

34. Although recognizing that census taking was the responsibility of national governments, the EGM Bangkok appreciated that countries in difficult circumstances and smaller countries were often not able to ensure that censuses were undertaken regularly, either because of lack of funding or because of lack of expertise. It was recommended that UNESCAP, UNSD, UNFPA, UNDP and aid agencies provided assistance to these countries to carry out their censuses.

Box 3. Summary of EGM discussion on "Planning and financing the next censuses"

Issue	Problem	Recommended	Other recommendations
Statistical legislation.	*Economic/technical:* 1) Need of supplementary resources to cover increasing costs of census taking 2) Irregular census rounds	Yes	Advocacy of census and statistical legislation with own government. Census advocacy drive.
Exchange of staff (especially in the Pacific)	*Economic/technical:* 1) Cost of travel/accommodation	Yes	*Need to consult with SPC*

35. Funding is by far the most important of non-technological problems with about 52% of the respondents declaring difficulties with it. In particular, they have clear expectations from UNFPA and other international agencies. They also suffered from low, untimely released

funds, or even fund cuts during census operations, with difficulty to provide for wages and for logistical aspects.

36. Whereas, the second most important source of problems (34% of cases) related to the recruitment of enumerators which, in addition to their difficult retention during the census, owing to low wages, are not experienced enough or not sufficiently trained.

Analysis, dissemination and utilization of census data

37. The EGM Bangkok underlined the need to conduct a discussion on how to make more extensive use of data for national planning and development, including the use of census data for small-area estimates for the benefit of local governments. The training of local officials on how to use such data without breaching confidentiality should also be discussed. It was also recommended that the problems connected with the use of census data for non-statistical purposes, e.g., voter registers, updating of administrative registers, etc. should be reviewed. A number of countries used census data for other than statistical purposes, which went against statistical laws concerning confidentiality in most countries. The methodology connected with outsourcing data dissemination to private business providers should also be discussed.

Box 4. Summary of EGM discussion on "Analysis, dissemination and utilization of census data"

Issue	Problem	Recommended	Other recommendations
Make more extensive use of data for national planning and development	*Technical/political:* 1) Use such data without breaching confidentiality. 2) Use of census data for non-statistical purposes.	Yes	Training of local officials. Use of census data for small-area estimates.
Outsourcing data dissemination to private business providers	*Technical:* 1) Methodology for outsourcing.	-	

38. Table 13 shows that countries about one third of respondents highlighted that they do not possess adequate skills to conduct statistical analysis and, in a slight reduced percentage, they do not have skills for setting a dissemination strategy of census data.

Table 13. Availability of analysis and dissemination skills
current availability

	Yes	No	N/A
Statistical analysis	16	8	5
Dissemination strategy	18	6	5

Concluding general lines for capacity building, modalities and expectations from regional and global players

39. The EGM Bangkok, the process of revising the *Principles and Recommendations*, the survey on population and housing censuses are all sources of information and elements to be considered in the design of plans for census capacity building in Asia and the Pacific. This paper as well as reports of other regional and subregional organizations should be taken into account when planning group activities. The database, which fully embodies the survey results, might be useful in planning individual country activities.

40. UNESCAP has been properly guided by its membership in the design of a regional census programme. Given the overall information available, the regional census programme should:

    i. Provide four technical workshops covering the priority areas ("Effective use of IT and GIS for census operations", "Using the census for measuring new and emerging priority issues", "Planning and financing the next censuses", and "Analysis, dissemination and utilization of census data") identified by the EGM Bangkok.

    ii. Organize, in conjunction with the Statistical Institute for Asia and the Pacific (SIAP), an additional workshop on the use of modern tools for training of census enumerators and supervisors, as recommended by the EGM Bangkok.

    iii. Provide, as soon as the revised *Principles and Recommendations* are finalized, adequate support for their overall discussion and adoption by countries of Asia and the Pacific.

    iv. Secure that countries with special needs be given the opportunity to receive dedicated advisory services. In that regard we will fully support advisory services conducted by UNSD and other offices in Asia and the Pacific.

41. Another modality for sharing experiences suggested by the EGM Bangkok was the creation of a "census newsletter": along the lines of similar technical newsletters, this might be a global or a regional exercise. UNESCAP sees the benefit of creating a global newsletter, with wide circulation among census practitioners of concerned national, regional and international statistical offices. The present meeting is invited to comment about this proposal and further discuss modalities for its implementation.

42. Web-based census materials and e-discussion groups are more and more accessible to countries in Asia and the Pacific although some of UNESCAP members still do not have enough connectivity and Internet infrastructure to fully benefit from such means of support. UNESCAP recommends that if and when such tools are set up for providing support to its members and associate members, contents are provided through low bandwidth consuming

web pages and light platforms, whether static or dynamic ones. Moreover, as SIAP has in its programme of work the development of Web-based training materials, it would be advisable that its expertise on the matter be taken into account.

43. Temporary exchange of experienced staff or bilateral study visits were suggested means for enhancing country census capacity. The EGM Bangkok clearly invited international agencies to support the mutual provision of technical cooperation. Results from the survey show that several developing countries in the Asia-Pacific region while in need of technical assistance would also be able to provide some in selected areas of competence and expertise. The meeting is thus invited to consider the use of Global Trust Fund for censuses for supporting this modality of technical cooperation.

44. The Global Trust Fund for censuses is a necessary source of funds for implementation of a variety of initiatives of technical cooperation. However, it is understood that, while the Fund will not be used for supporting census-taking, it can be used for technical cooperation activities. In that respect, there is a need to know the modalities of access to the Fund, which should be made known to agencies and offices as soon as possible, possibly on the Web, to allow the timely design and implementation of technical cooperation initiatives and projects.