

Needs and Capabilities of Demographic Centres in the World



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This policy paper is the result of a survey conducted in May-June 2005 by CICRED across population institutions in the world. This study covers several aspects of the present capabilities and needs of demographic centres in 54 different countries. As CICRED is presently launching new programmes that are intended to refocus its activities towards capacity development, this survey offers a detailed analysis of the contemporary institutional landscape and it will complement previous studies devoted to training and population professionals.

Preliminary results of the survey were presented during the CICRED General Assembly held in Tours on 20 July 2005 during the XXV IUSSP International Population Conference. This more detailed analysis was prepared by Mathieu Rocchi (research assistant with CICRED) and the CICRED secretariat. A version in French is also available from CICRED's website.

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NEEDS AND CAPABILITIES OF DEMOGRAPHIC CENTRES IN THE WORLD

Mathieu Rocchi and CICRED secretariat

1. Introduction

The growing interest in the evolution of social development indicators in the developing countries puts the demographic research institutes in a privileged position, making it possible today for them to play a central role in the evaluation and monitoring of the social policies pursued in the countries of the world. The expertise of specialists in population (statisticians, demographers, researchers, etc.) is in fact at the centre of competencies required to better describe and understand the social and geographic disparities in human development and to analyze the recent changes and the factors involved therein. However, the belated development of the low-income countries is directly reflected in the institutional weakness among their study or research organizations. These organizations can thus suffer from difficulties in payment, dilapidated equipment, the employment of obsolete techniques for analysis or the collection of information, etc.

For nearly a decade, international mobilization, illustrated in particular by the Cairo Conference and the Millennium Development Goals (MDGs), have very certainly directed efforts towards targeted goals to be achieved in the years to come and potentially created an important niche for demographic research institutions. It can however be observed that this

growing need for information of a highly demographic character¹ does not always profit local demographic institutions, which are sometimes inadequately equipped to respond to the demand of national or international agencies that monitor the progression of human development indicators. On the contrary, private research consultancies, ad hoc organizations or institutions without prerequisite specialization in demography, or bodies coming from the non-EC countries are often seen to be better equipped to respond to these demands. In particular, they have better mastery of communication tools and rely on more flexible structures that are able to react more rapidly to opportunities as they are presented. This situation is a paradoxical illustration of the effects of international mobilization on the institutional infrastructures.

It is in this context that we are concerned with the capacities and abilities of demographic institutions. CICRED is an association that brings together approximately 700 demographic centres throughout the world. Their size, their institutional nature and the orientations of their activities can certainly vary (university departments, statistical units, private research institutes, etc.) and their geographic distribution is very broad, because nearly two thirds are located in the less developed countries. CICRED has conducted and followed-up surveys in the past on institutional infrastructures of its members,² inasmuch as it is precisely the mission of CICRED to contribute to and reinforce the capabilities of demographic organizations. In order to bring the present institutional panorama up to date, CICRED undertook in May 2005 an initial examination of the needs and capabilities of its members, above all directing its interest towards three dimensions: the condition of infrastructures, priority needs and presently available abilities. This report provides a summary of the most salient survey results and diagnostic elements for a prospective analysis of capacity development in the years to come.

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¹ The MDGs, for example, set numerical objectives directly involving demographic measurement, like the decline of maternal mortality levels or of the prevalence of AIDS.

² The most detailed of these surveys, conducted between 2000 and 2002, resulted in a detailed study published in 2003. See F. Gendreau and S. Huix-Adamets, *Institutional and Scientific Overview of Population Research in the World*, CICRED, Paris, 2003.

2. The Survey

The survey project was initiated by CICRED in April 2005. The questionnaire that was designed aimed above all at providing the first diagnostic elements on a sample of centres and did not constitute a detailed survey with an exhaustive intention, on the model of the earlier RIERDEN survey that was carried out over a period of several years. It is thus a matter of a short survey over a brief period of time so as to enable a rapid analysis of the results. The schedule of the main stages of its progress is as follows:

- April 2005: Conception of the questionnaire and translation into three languages
- May-June 2005: Web-based survey, with an information campaign via e-mail and complementary sending of questionnaire papers addressed to the centres
- July 2005: Preliminary results were presented at the CICRED General Assembly at Tours (IUSSP International Population Conference)
- October-December 2005: Final processing of the data and report preparation

One of the innovations of this sample survey is without doubt its diffusion by electronic means, in which the questionnaires (in English, French and Spanish) were made directly accessible as a web page. The response to the survey consequently necessitated an Internet connection and the questionnaires, after having been validated by the survey, were directly transmitted to CICRED by e-mail. In this manner, a considerable amount of time was gained in the diffusion of the questionnaire (sending and returning) and the final processing of the information. On the other hand, the setting up of the technical measures was more difficult and the interlocutors poorly equipped in terms of Internet found themselves penalized. For this latter reason, a questionnaire on paper was also diffused by CICRED, but few centres chose this option, which tends to validate this survey method via the Web for the future.³

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Details of the survey are provided in the appendix. The multilingual survey questionnaire is not reproduced here, but may be consulted on the CICRED website: http://www.cicred.org/

The final results, after elimination of the questionnaires that could not be processed (duplicates, errors, etc.), involve 98 respondents spread in 54 countries. The geographic representation of these institutions is quite balanced, with 21 African centres, 11 North American centres, 12 South American centres, 33 centres in Asia and Oceania and, finally, 21 European centres. The European respondents are slightly under-represented in the survey (10%), whereas the Asian respondents are somewhat overrepresented (18%). While the large countries such as India, the USA or Brazil have the largest representation in the sample, one observes the near absence of questionnaires from China or CIS countries, which are sometimes more vulnerable to linguistic barriers. The details of this distribution and its mapping are shown in the appendix (Map 1). In the case of China, we have observed a very restrictive political anti-spam blockage that prevented a large number of Chinese centres from receiving our questionnaire by e-mail. On the other hand, the lack of responses from China perhaps reflects the linguistic barrier already noted.

The respondents naturally belong to the most active CICRED members, those which most regularly appear in our activities (seminars, participation in elections and in general assemblies, etc.). It should be mentioned that many of the affiliated centres are establishments that in fact are not very active in the demographic field, for a variety of reasons. This has created a bias in the survey towards the most dynamic centres, but also towards those that are the most concerned by the objectives of our survey. Sixty-eight percent of the questionnaires were filled out by the directors of the centres, followed by individual researchers in 27 percent of the cases. Finally, it will be noted that numerous centres belong to a larger institution (section within a department, university department, etc.) and for this reason benefit from a larger number of shared infrastructures.

3. Infrastructure and Staff

The size of the staff (Figure 1) is an initial indicator of the nature and volume of the activities of the population institutions affiliated with CICRED, even if some of the employees may have particular statuses, such as temporary or part-time workers. A majority of the demographic centres involved in the survey are composed of more than 15 persons (51%). The

⁴ By the same token, members of the centres sometimes have tasks distinct from research, such as teaching or training.

smaller organizations (less than 5 persons) represent only 23 percent of the centres questioned. As has been noted, the bias in response to the survey is shown by an over-representation of the largest centres. At the time of the RIERDEN survey in 2002, half the centres had less than 7 researchers and less than 20 ancillary staff.

60
40
20
All staff
Research staff

Figure 1: Number of staff

Source: all the figures and tables that follow come from the 2005 CICRED survey.

The institutions with a large staff are noticed mainly in the least developed countries (LDCs) and the developing countries (DCs),⁵ where the large organizations represent on average 60 percent of the centres, as opposed to 36 percent for the developed countries (see also Figure 2). Comparing these results with the more exhaustive figures of the RIERDEN survey, it is inferred that size is a crucial factor for the mobilization of the centres in the developing countries, but that the latter correspond also more often to organizations having a large staff. This is above all the case for our responding institutions from Africa and Latin America, in which nearly two thirds have more than 15 staff members.

An examination of the number of researchers⁶ completes this analysis. While it is seen that researchers are fewer in number (35% of the respondents have more than 15 researchers), this is particularly striking in

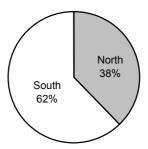
countries of the South for the DCs and LDCs.

We follow here the classification of the United Nations into developed or industrialized countries (**ID**), developing countries (**DC**) and least developed countries (**LDC**). We will also speak of the countries of the North for the IDs and

⁶ The definition of the research staff (versus administrative or technical staff) is problematical, as for example in the case of teachers belonging to a university department.

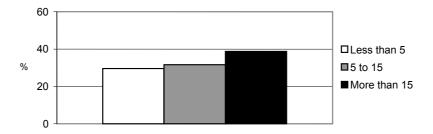
the least developed countries, which have otherwise large numbers of personnel. These institutions thus have a large non-scientific staff (administrative employees, engineers, enumerators, technicians, etc.), in distinction to the countries of the North, where the staffs are above all composed of scientific personnel.

Figure 2: Proportion of centres with more than 15 staff members



The size of the premises (Figure 3) of course reflects the volume of the number of employees and infrastructures (which will be examined below).

Figure 3: Number of rooms



The distribution of the respondents according to the number of available offices is close to that of the size of staff. However, for organizations counting more than 15 staff members, the proportion of the number of centres having more than 15 rooms is less high. This phenomenon appears mainly in the case of the LDCs, in which 59 percent of the centres have more than 15 salaried employees, but only 31 percent have more than 15 rooms (Figure 4). The size of the premises is in fact closely linked to that of

the research staff properly speaking, who generally speaking have better working spaces.

Figure 4: Proportion of centres with more than 15 office rooms

60 40 %

20

0

ID

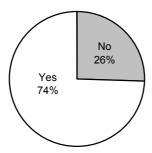
60

DC

The institutions in the DCs and the LDCs are moreover proportionately somewhat more numerous in having an independent library as shown in Figure 5. This to be correlated with an own computer network or department (see below), but the availability of these infrastructures also increases with the size of the centres. However, only 53 percent of respondents in Sub-Saharan Africa possess their own library. It would be necessary to have more information on the documentation centres, which can range from a mere bookshelf in the corridor to genuine libraries (reading room with qualified personnel).

LDC

Figure 5: Proportion of centres with library facilities

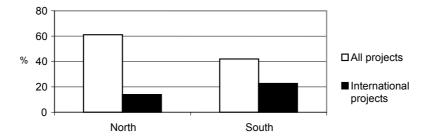


Another indication of the activity of the surveyed institutions comes from the questions on the hosted projects (Figure 6), while the latter can of course be of varying duration or importance.⁷ The projects are few in number for all the demographic centres in our sample, as is seen in the Figure below. Fewer than 5 financed projects are counted in the majority of the demographic organizations (51%). These are institutions in which the activity is more regular (teaching, periodical surveys, etc.). But this proportion rises to 60 percent for the LDCs (Figure 7) and 71 percent for Sub-Saharan Africa.

100 80 □Less than 5 60 ■5 to 15 40 ■ More than 15 20 0 All projects International projects

Figure 6: Proportion of centres with funded projects

Figure 7: Proportion of centres with more than 5 projects



It is also observed that 80 percent of these responding institutions conduct less than 5 international projects, which suggests a limited degree of openness to international activity. The developed countries are not exempted from this phenomenon, since 86 percent of them carry out less than 5 international projects, as opposed to 81 percent for the LDCs (88% in Sub-Saharan Africa) and 73 percent for the DCs. While the developed

We did not want to introduce a question as to the working or research budgets, a question that would have caused numerous difficulties in terms of survey and analysis.

countries all in all have more financed projects, the centres in the developing countries host more international projects, which indicates both their financial dependency as well a their considerable openness to external collaboration.

Among the main fields of activity of the centres, it will be noted that teaching was not directly approached in the course of this survey, although numerous centres provide courses (notably at the level of masters or PhD) or are closely associated with training centres.⁸ On the other hand, the training potential is concretely examined in the module devoted to training capabilities. According to the RIERDEN survey, 60 percent of the organizations on which the CICRED members mainly depend have a teaching and/or research mission.

4. Computer Infrastructures

It is interesting to observe that the great majority of the respondents now have their own website (76%) and an internal computer network or Intranet (81%) as indicated in Figure 8. The result concerning websites of the centres is to be compared with the earlier figures from the RIERDEN survey: 20 percent had a website in 1999, 46 percent in 2001, 66 percent in 2003 and 76 percent in 2005. This is a steady progression, and if it appears to have slowed down since 2003, this would above all be due to the fact that from that time onwards a saturation level was approached.

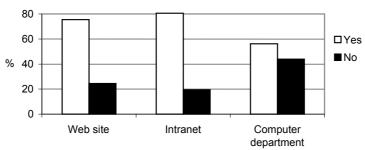


Figure 8: Information technology indicators

See on this point J. Menken, A.K. Blanc and C.B. Lloyd, eds., Training and

Support of Developing-Country Population Scientists. A Panel Report, Population Council, New York, 2002.

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The situation of the least developed countries appears however to be quite different, because 44 percent of these respondents do not have institutional websites (see Figure 9). Their international presence is very naturally reduced and the information that concerns them is inadequately relayed on other sites. Thirty-one percent of them are also without an internal computer network (41% in Sub-Saharan Africa) and thus function by means of individual computers; this is paradoxical because these institutions very often have a specific computer department, although this is less true in Sub-Saharan Africa where 47 percent of the surveyed centres have no such department. The absence of an Intranet constitutes an obstacle to team work and to the sharing of information and resources, particularly by means of the Internet.

100 80 60 40 20 0 ID DC LDC

Figure 9: Proportion of centres with web site

These differences among regions of the world are seen once again in the computer operating systems shown in Figure 10. While, taken together, 52 percent of the respondents use the Windows XP system, which is the most recent world standard, 64 percent of the centres in the developed countries make use of that system. The DCs and the LDCs use this system in 47 percent and 44 percent of the cases, respectively. But 38 percent of the centres in the least developed countries still use Windows 95-98 (as opposed to only 17% in the developed countries), which indicates an old infrastructure that often has a limited capacity to adapt to new communication facilities.

From the quantitative point of view, the computer equipment of the demographic centres questioned was the subject of two questions (see Figure 11). It is first observed that more than half the respondents have more than 15 computers. The distribution of these numbers of computers is

relatively correlated with the size of their staff, even if it can be said that not all personnel avail of a computer.

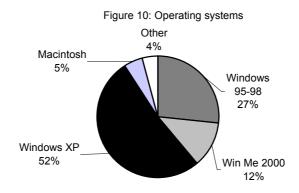
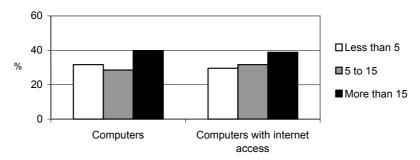


Figure 11: Number of computers per centre



Another question pertained to computers that had access to the Internet, the number of which was markedly less high, as is shown in Figure 12. A large number of computers are therefore without an Internet connection and this is borne out most particularly for the DCs and the LDCs. Thus, 67 percent and 44 percent of the centres in these two regions, respectively, have more than 15 computers, 9 whereas only 53 percent and 28 percent have more than 15 computers with an Internet connection. These figures bring to light a

⁹ This proportion decreases to 29 percent of centres with more than 15 computers in Sub-Saharan Africa.

rather clear gap between the available computer equipment and the connectivity of this equipment to the Internet. Conversely, the developed countries have for the most part of the cases an Internet connection on all the computers of their centres.

80 60 □ Computers % 40 ■ Computers 20 with internet access 0 DC LDC

Figure 12: Proportion of centres with more than 15 computers

Complementing this information on the number of computers connected to the Internet, we also considered the mode of connection, which determines above all the regularity of Internet connectivity as well as the possible volumes of exchange. The results shown in Figures 13 and 14 indicate that the large majority of the respondents (68%) are equipped with a broadband connection, which means a nearly permanent access to the Internet and high throughputs. On the other hand, most of the centres in the least developed countries (62%) are connected by means of a modem, which implies an irregular and unstable connection that is incapable of transmitting or distributing large volumes. Modem users represent no less than 76 percent of all institutions in Sub-Saharan Africa.

Figure 13: Internet access

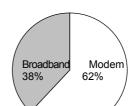
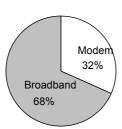


Figure 14: Internet access in LDCs



ID

5. Needs for Resources and Equipment

An important module in the survey corresponded to the evaluation of the needs of the centres. The questionnaire asked if the resources available for each field were adequate, insufficient or very insufficient. It was consequently a matter of qualitative appraisal expressed by the respondent, and these questions were by their nature subject to numerous potential biases. The manifestation of needs is not always commensurate with the nature and urgency of the needs, and that will be particularly true between regions, because the most advanced countries are sometimes the most demanding.

The computer equipment and the software (Figure 15) were adequate for the majority of the respondents, as well as the office space. The responses are positive in more than half of the centres that responded to the survey, with in particular a relatively good satisfaction as regards computer equipment (hardware and software). Institutions in Sub-Saharan Africa are once again in a different position as a majority among them regards their resources as inadequate.

premises 80 60 □ Very insufficient 40 ■ Insufficient 20 ■Adequate 0 Computer Demographic equipment software

Figure 15: Opinion of centres on computer equipment and

It is to be noted that, while the developed countries and the developing countries are on average to 80 percent satisfied with their computer resources, nearly 40 percent of the respondents in the LDCs report insufficient or very insufficient material (see Figure 16). The level of satisfaction is still lower in this group of countries as regards software: 44 percent and 75 percent, respectively, of the centres considered that their

general software and population-related software resources were insufficient. A geographic analysis shows the particularly disadvantaged situation of the African institutions in this respect, where 82 percent of the respondents consider their software equipment insufficient.

100 80 60 □Usual software 40 Demographic 20 software Λ DC LDC ID

Figure 16: Proportion of centres with a software equipment deemed adequate

The respondents estimate on average that the insufficiency of their centres resides mainly in the budget and in the total external funding shown in Figure 17. The financial aspect naturally seems to be the most visible problem with which the demographic organizations are confronted. The budget is thus insufficient or very insufficient for 81 percent of the centres in the LDCs (100% in Sub-Saharan Africa) and for 75 percent of the organizations in the DCs. Along the same lines, the total external funding is also insufficient or very insufficient for 72 percent of the DCs and for 88 percent of the LDCs (100% in Sub-Saharan Africa). Only the institutions in the developed countries seem on average to be satisfied with the financial inflow (Figure 18).

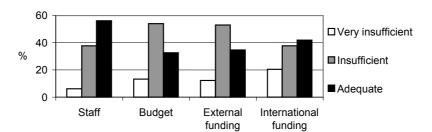


Figure 17: Opinion of centres on staff and funding

As was seen earlier, international projects are also a matter of concern for the DCs and the LDCs, for which 45 percent of the centres judge the number of projects to be insufficient. However, the developed countries are to 67 percent satisfied with these projects.

80
60
% 40
20
North
South

Figure 18: Proportion of centres with budget deemed adequate

As concerns their staff, a majority of the population institutions are satisfied with their situation (except for African respondents). Faced with difficult questions of finances or technical infrastructures, it is again seen to which extent the staff of the centres represents a separate resource, which appears to be generally better provided and does not raise the same difficulties as do other resources. The respondents in the countries of the South, moreover, express the same needs as do the centres in the North. But on this regard, institutions in Sub-Saharan Africa appear to be clearly underprivileged compared to other centres.

6. Training Needs of the Centres

The following questionnaire module concerns the training needs expressed in a qualitative manner by the respondents. The response was once again classified according to three categories of needs: not required, useful, essential.

The Figures below make it possible for us to compare the training needs expressed by the demographic centres in our sample. The first questions relate here to the "traditional" fields of demographic activity: analysis, survey and processing of databases (Figure 19). These fields of course cover very diverse sectors of activity, also including new approaches that are still not widely diffused within the scientific communities.

The demographic centres have a training need in demographic and statistical analysis that was judged to be useful by more than 70 percent of the surveyed institutions. It is perhaps as regards training needs in survey techniques properly speaking that the needs are less acute, because more than 35 percent judged such a training to be not required. Nevertheless, between 60 percent and 75 percent of the centres consider training in each of these fields to be useful or essential.

60 □Not required 40 ■ Required % 20 ■ Essential 0 Demographic Survey methods Database analysis & management statistics

Figure 19: Need for training in demographic techniques

The distribution according to region once again shows appreciable differences, because the respondents in the least developed countries manifest systematic needs (Figure 20). The share of these centres that express an absence of training needs is reduced to 13 percent, 19 percent and 9 percent for demographic analysis, survey techniques and the database management, respectively. The need as regards demographic analysis is judged to be "essential" in the majority of these countries.

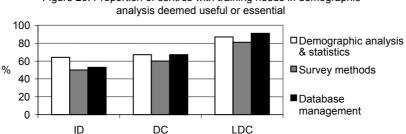


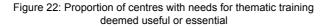
Figure 20: Proportion of centres with training needs in demographic

Apart from technical matters, a more difficult area to approach concerns contemporary demographic questions because they vary greatly from the thematic point of view (Figure 21). We have first of all identified questions relating to the MDGs (Millennium Development Goals), which must be of direct concern to demographers, without however detailing them in the questionnaire. The needs expressed are real, but rarely are they perceived as indispensable: 20 percent of all the centres – as compared with 34 percent in the LDCs and 38 percent in Africa – categorize these needs as essential as reported in Figure 22. The latter result may be surprising, in particular considering the actual mobilization for attaining the social development goals in the least developed countries. It is difficult to know whether it is a matter of a need that has already been met and of a sufficient level of information regarding the MDGs or, on the contrary, whether there is a lack of awareness regarding the nature and the issues specific to the millennium goals.

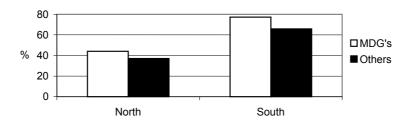
% 20 Not required Required Essential

Others topics

Figure 21: Needs for thematic training



MDG-related topics



The training needs related to other themes are appreciably less manifest,

because they are seen to be not required in nearly 45 percent of the sample, although the disparities are enormous (73 percent in North America, compared with 29 percent in Africa). This is a paradoxical situation because the rapid renewal of themes considered by demographers (domestic violence, health status of populations, environmental questions, clandestine migrations, etc.) will necessitate adapted thematic training. However, it is probable that the nature of this question, which gives no particular thematic examples, gave rise to more neutral responses. Moreover, some respondents wished to identify a large number of specific themes or techniques. Among the latter, we will mention GIS and mapping, econometric analysis, longitudinal analysis, population policies and legal questions, gender studies and environmental questions, public health and epidemiology. It would be useful to more precisely classify these different themes in order to better identify the training needs.

Two questions concern the areas of more applied skills, frequently mentioned by researchers (Figure 23). The first is connected with the need for training regarding the preparation and submission of projects, which more than 60 percent of the centres judged to be useful. The percentage is low in the developed countries (47%), but distinctly higher elsewhere. Thus, in the LDCs, nearly 80 percent of the respondents thought that such training is useful or essential as results in Figure 24 illustrate.

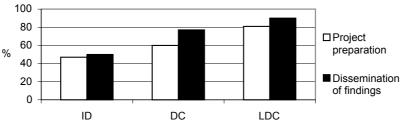
% 20 Not required Required

Project preparation Dissemination of findings

Figure 23: Need for training in project preparation and dissemination

The interest in support regarding dissemination is even greater, once again with a relative lack of interest in the developed countries, in which half the centres judged such an initiative as "not required". On the other hand, in the other countries the expressed needs are very high, as for example among the least developed countries, in which 56 percent of the respondents considered these needs to be essential.

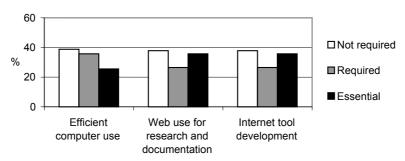
Figure 24: Proportion of centres with training needs in project preparation and dissemation of finding



The notion of dissemination is very broad, ranging from contact with the press to the publication of scientific findings in increasingly varied media; the idea also partially covers the needs pertaining to new information technologies, which are examined in the following questions.

Another area examined is that relating to computing tools and the Internet, a domain that is itself very influenced by the degree of awareness of different scientific organizations. The following figure (Figure 25) compiles the results of three different questions on this theme.

Figure 25: Need for training in computer and internet technology



On the whole, the centres thought that the training needs in information technology and the Internet are less necessary than training in other areas. This is particularly true regarding the very general question on training needs pertaining to the effective use of information technology, which nearly 40 percent viewed as not required. The picture is appreciably different in the LDCs, in which 38 percent think that such training is useful and 38 percent essential (see also Figure 26).

The two other questions reflect the state of know-how and, to a lesser extent, the degree of awareness concerning new information technologies. Thus, more than 50 percent of the IDs and DCs consider training in the use of the Web for research and documentation purposes or in Internet tools to be superfluous, proportions that fall to 9 percent and 2 percent, respectively, in the least developed countries, where the demand is considerable. For certain isolated countries, the Internet tool makes it possible in particular to in part fill the information gap by enabling of a more rapid access to information and resources shared on the Internet.

100
80
60
40
20
Web use for research and documentation

LDC

DC

■ Internet tool

development

Figure 26: Proportion of centres with needs for computer and internet training deemed useful or essential

In the pioneering area of the development of Internet tools (data sharing, simulation tools, web-based survey, interactive mapping, etc.), it will be noted that the greatest demand comes from the Asian continent, including the less underprivileged countries, and this doubtlessly expresses the high mobilization in this part of the world around the scientific issues of the development of new technologies. The willingness to make the results of surveys and research available via these new media no doubt motivates these new needs.

7. Existing Training Facilities

ID

This module of the survey is devoted to more concrete questions regarding the infrastructures that are already available and that can be involved in the organization of sessions. Its aim is in particular to identify the institutions availing of equipment facilitating the organization of training. The first question therefore concerns the capability the demographic centres have for hosting trainees in general, without detailing the periods of time and other hosting modalities (Figure 27).

An appreciable share (more than 20%) of the respondents said they were not in a position to host trainees, and this proportion is, moreover, slightly higher in developed countries (28%). Moreover, a large number of centres can host on average only 1 to 5 trainees. On the whole, 43 percent of the respondents can host more than 5 and 26 percent more than 15. The DCs and the LDCs can host on average more trainees and this phenomenon is in part linked to the generally larger size of these institutions in terms of premises or staff, as we have observed earlier.

80
60
% 40
20
Maximum number of Number of accommodations trainees for trainees

Figure 27: Training capacity of centres

As concerns the accommodation of the trainees, more than 70 percent of the centres do not provide this service. On the other hand, it is observed that these accommodation capacities are relatively frequent in Asia, in which more than 50 percent of the respondents offer such possibilities (as compared with 20% on average elsewhere).

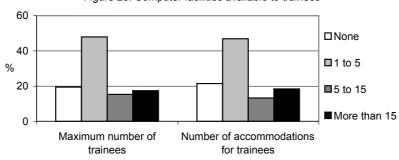


Figure 28: Computer facilities available to trainees

The infrastructure for training was then described in Figure 28 in terms of computers rather than premises. The survey counted the computers

available for training in the centres and in particular those that had an Internet connection (see the Figure above).

The available computers are generally fewer in number than the hosting capability measured in the number of trainees who can be hosted. This is above all true in the less developed countries. Thus, 33 percent of the DCs and 28 percent of the LDCs estimate that they can host more than 15 trainees, whereas there are respectively only 20 percent and 16 percent that can make more than 15 computers available. Connectivity is slightly less frequent, notably in the centres in the least developed countries. The developed countries have numerically limited hosting capacities, but avail of a better computer and Internet infrastructure.

Other questions pertain to the other institutions that have already hosted training for staff of the surveyed centres as well as to the institutions able to host other training. The results of these open questions make it possible to identify the most visited (or the most mentioned) institutions and their mapping is presented in the appendix (Map 2). The following table indicates the centres that were mentioned at least four times for training.

Centre	City, country	Number of times mentioned
East-West Center	Honolulu, USA	7
International Institute for Population Sciences (IIPS)	Mumbai, India	6
Australian National University	Canberra, Australia	6
Cairo Demographic Centre	Cairo, Egypt	5
Centre for Population Studies, Chulalongkorn University	Bangkok, Thailand	4
Institute for Population Research, Mahidol University	Bangkok, Thailand	4
CELADE	Santiago, Chile	4

It will be observed that different regions or countries are absent from this table, such as CIS countries, China and South Africa.

Further spatial analysis allowed us moreover to identify "regional clusters" by comparing the surveyed centres and the centres mentioned for training. The map shows centres with reported training activities with arrows starting from respondents that mentioned them during the survey. Map 2 in the appendix identifies several of these clusters such as the USA, Western Europe or Australia. In the developing world, several distinctive clusters also emerge in South America, West Africa, South Asia and South-East Asia while Hawaii appears to serve several different geographical zones. These groupings should help in conceiving of an efficient manner of setting up future training by favouring regional networks that are already functioning.

8. Training Capabilities of Staff in the Centres

The following questions pertain to the training competencies available in the centres and constitute the counterpart of the questions relating to training needs. The questionnaire no longer collects here the needs (the demand) according to the type of training, but the available offer in the centre on the basis of its researchers. The figures below summarize the expressed state of the capabilities of the centres, distinguishing three levels: not competent, competent, expert.

In the first area of classical demography (see Figure 29), a majority of respondents thought they were quite competent in demographic analysis, followed by survey techniques. It is observed that many centres express at the same time needs and competencies in the same sector, indicating both a potential in, and the need for, internal training.

However, more than 40 percent of the respondents said they were not competent in database management, 50 percent of which were centres in the LDCs. The latter, on the other hand, said in 75 percent of the cases that they were competent in survey techniques, a figure higher than in the rest of the world, showing in particular their commitment to the collection of data. We therefore perceive a significant difference between the processes of gathering information and its treatment, which reflects in part the geographic division of tasks among demographic institutions: the least

developed countries are still deprived of solid statistical apparatuses in the demographic or health field and devote more energy to the acquisition of information than to its processing or diffusion.

Figure 29: Training capacity in demographic methods

The questions relating to training of a thematic character show very different results as shows Figure 30, because more than 40 percent of the centres are seen not to be competent and less than 10 percent stated that they were expert in these areas. Regarding the MDGs, it is interesting to note that the institutions in the DCs seem to be the most competent, and this is no doubt due to an already established practice in following the MDGs in these countries.

Figure 30: Thematic training capacity

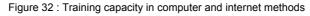
This favourable situation may appear paradoxical in view of the magnitude of needs expressed in the writing or dissemination of projects, as our survey showed earlier. But once again, some centres that were already experienced intend to continue to strengthen their competencies in a field that is a growing issue in demographic research, for the mobilization of funds as well as for the diffusion and sharing of results. A significant share of

respondents (around 30%) also remains without any competence in these areas (Figure 31).

In the matter of information technology, the results once again reflect the disparities among centres, but also the low number of respondents declaring that they are "experts" in Figure 32. The lack of competence increases from the usual information technology to documentation techniques by means of the Web, and the development of Internet tools is the sector that is least mastered by the centres. The state of competencies for training is particularly weak in the least developed countries and moreover reflects the state of the expressed needs. Thus, more than 80 percent of the LDCs are not competent as regards the development of Internet tools, as compared with on average 60 percent for the more developed countries.

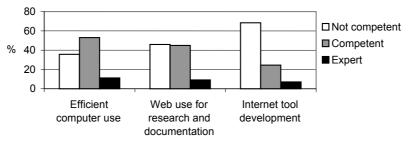
% 20 Not competent

Figure 31: Training capacity in project preparation and dissemination



Dissemination of findings

Project preparation



A more exhaustive analysis would be necessary to establish a link between the state of needs and the supply of competency that were collected in the different modules of this survey. These two sections of the questionnaire most often correspond to each other in an inverse manner (more needs and fewer competencies). Often, the training needs can greatly exceed the capabilities in the LDCs on the regional scale because of the absence of centres having acquired the requisite competencies in different areas. This is particularly true as regards new technologies. But some countries say that both their competence and their interest are limited, as for example regarding the thematic of the MDGs in the IDs. Other centres are also weakly mobilized around the new techniques that are available, whereas the potential needs are genuine.

9. Synthesis and Conclusion

The different sections of the survey can give a somewhat dispersed image of the state of needs and capabilities among the centres. Consequently, we have constructed synthetic indices in different areas. ¹⁰ These indicators have as mean value 0 (and a standard deviation of 1) and the positive values correspond to the results that are higher than the mean of the sample. The following table sums up the differences of the various indicators observed according to the development level of the countries.

Synthetic indicators	IDs	DCs	LDCs	Total
Synthetic indicators	N=36	N=30	N=32	N=98
Size (staff, space)	-0.29	0.58	-0.22	0.00
Training infrastructures	-0.18	0.22	-0.00	0.00
IT and Internet	0.46	0.33	-0.83	0.00
Evaluation of resources	0.86	-0.02	-0.95	0.00
Evaluation of training needs	-0.81	-0.45	1.33	0.00
Training capabilities	0.17	0.07	-0.27	0.00
Net needs*	-0.99	-0.52	1.60	0.00

^{*} Net needs = training needs - training capabilities

¹⁰ These indices are calculated by factorizing different variables.

It may be seen first that the size of the institutions (staff, offices, etc.) varies greatly, the DCs in our sample having on average a clearly larger size than the others. This is directly reflected in their infrastructures for the organization of training, which are often better than elsewhere.

All of the other indicators denote a hierarchy between the advantaged IDs, the DCs positioned intermediately and, finally, the least developed countries, which are systematically less well placed. Examining these results more closely, it will be observed that the DCs are often closer to the IDs than the LDCs, where the institutions stand distinctly apart. This, for example, is the case for computer equipment and Internet connections, which are particularly deficient in the LDCs, but this is also expressed as regards training needs.

A *net index of need* is represented in the last line of the table, correcting the gross index of needs expressed by the centres pertaining to training capability. This indicator clearly summarizes the differences in the world and shows how the population institutions in the LDCs are in an extremely different situation from the rest of the world.

In conclusion, it should be remembered that this survey has a few insufficiencies. First, it only involved one hundred respondents and would have to be more exhaustive to provide a detailed geographic balance and more reliable local situations. Second, in order to facilitate the survey through the Web, we have employed only a limited number of modules in our questionnaire. This is in particular the case in the evaluation of needs, which sometimes disregards centres with possibly modest capabilities, but that still have great difficulty in simply identifying their needs for the future development of their activities. Therefore, in order to establish a policy supportive of capabilities, it will be important to design a more detailed questionnaire and a survey method devoted to a more active follow-up (with telephone reminders, etc.), making it possible to cover in-depth more institutions.

Findings from this first survey do however shed light on the institutional infrastructure in the area of demography and update some of the conclusions reached by the RIERDEN survey. In short, the results show that countries with the weakest demographic infrastructures are precisely those where the issues of social development are most urgent. Consequently, these countries are the least prepared to respond to requests for information pertaining to their socio-demographic situation. The development level of

the countries to which each institution belongs proves to be the first indicator of its institutional capability, as indicated by our various analyses, by clearly separating the centres located in the least developed countries and revealing the weaknesses intrinsic to each sector of activity.

These institutional weaknesses apparently do not stem from the size of the population centres, which sometimes benefit from a large staff (notably in the non-scientific personnel), notwithstanding the financial difficulties the economies in question may be facing. The problems of financing the institutions have repercussions less in the recruitment of personnel in institutions that remain "labour intensive", as in the belated development of their capabilities. The demographic organizations in the underprivileged countries often have obsolete equipment in limited quantities and their infrastructural and human resources are insufficient. Moreover, their research staff is in dire need of thematic training. Many demographers and other population professionals have been trained in demographic analysis and techniques, with so far little exposure to the new issues that are high on the demographers' agenda such as the Millennium Development Goals.¹¹ Cross-disciplinary subjects such as poverty, environment, gender or AIDS studies borrow most of their substance from other disciplines and demography per se may prove insufficient to address these issues. Capacity building activities should therefore help also to bridge the gap between artificially segmented domains of knowledge by widening the contents of a demographic approach.

Through our survey conducted in 2005 we wanted to give a particular place to the development of information technology capabilities between institutions throughout the world. This capacity for communication and exchange in the broad sense – whether scientific, institutional or technical – is widely known to be insufficient in numerous centres that were questioned, and this is manifested most particularly in their Internet connectivity: with bad Internet connections or old-fashioned tools, the researchers of these institutions can hardly take advantage of today's resources made available on the Web, whether these resources be institutional or technical. But other indicators pertaining to institutional

E. Hanauer, the International Institute of Education, San Francisco, 2004.

Developing Countries, report and directory prepared by J. Hendrickson, T. Haas and

¹¹ A complement to this institutional survey may be found in the recently published directory of population experts from developing countries: *Population Experts in*

websites or to needs regarding the drawing up of projects or dissemination of findings also show that the capability of these institutions to communicate and make their work known is wanting. This is a question of recent expertise and new competencies that did not belong to the training the researchers originally received. Their absence deprives some institutions of any international visibility, with the consequence of limited participation in the increased exchanges among demographers and access to resources mobilized for major contemporary demographic issues.

It will be noted in this regard that the participation of the CICRED centres in an Internet survey, though based on a new technology and unequally available access, was rapid and mobilized centres throughout the world, including the least equipped countries among the LDCs. This shows a genuine state of awareness of the issues of renewal of information technologies among a large part of the centres affiliated with CICRED. This mobilization justifies optimism about the responses to the planned activities to support the development of demographic research in the more underprivileged countries. The results of this survey have now made it possible at present to trace the contours of capacity building activities that must be initiated in order to achieve this objective.

Appendix

Definitions

IDs: industrialized or developed countries

DCs: developing countries

• LDCs: least developed countries

MDGs: Millennium Development Goals

Other surveys (available online from CICRED website)

 Population Experts in Developing Countries, report and directory prepared by J. Hendrickson, T. Haas and E. Hanauer, the International Institute of Education, San Francisco, 2004.

• Institutional and Scientific Overview of Population Research in the World, A report written by F. Gendreau, S. Huix-Adamets, Paris, CICRED, 2003, 99 p (also available in French).

• Training and Support of Developing-Country Population Scientists, A Panel Report, edited by Jane Menken, Ann K. Blanc, and Cynthia B. Lloyd, Population Council, New York, 2002.

Countries most represented in the sample

Country	Respondents
India	12
United States	6
Brazil	5
Vietnam	4
Germany	3
Canada	3
France	3
Tunisia	3

Web survey report

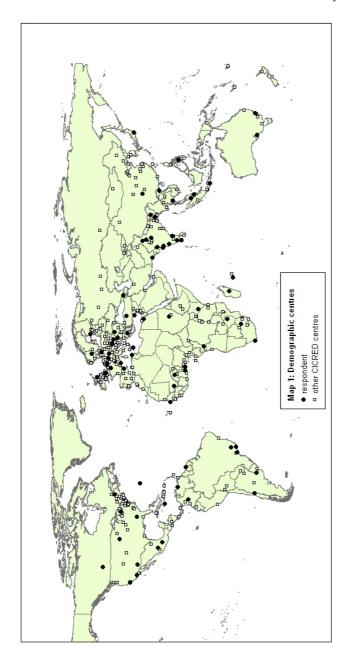
The nature of the survey, a web-based survey by means of a questionnaire available on the CICRED website, prompted us to examine the distribution

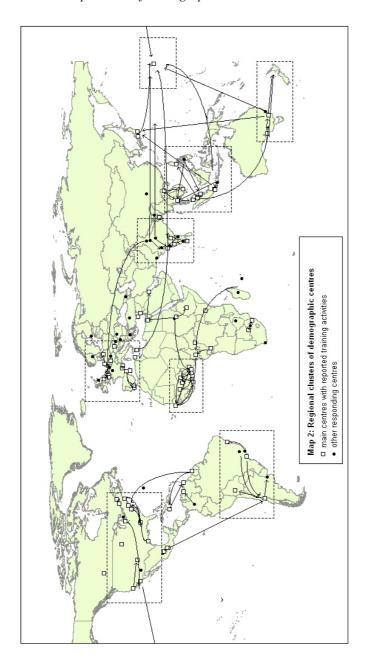
of the dates of the responses (transmitted instantaneously by e-mail). The Figure 33 that follows shows that nearly one third of the responses were received in the first week, whereas the reminder sent by e-mail after fifteen days led to a new peak of responses in the ten subsequent days.

35 30 25 20 15 10 27/05/05 03/06/05 10/06/05 17/06/5 24/06/05 01/07/05 08/07/05 week

Figure 33: Return of questionnaire by week

It is to be noted that the developed countries are much more responsive to follow-ups because nearly 50 percent of the mailings from these countries either took place at the start of the survey or in the follow-up week. As for the DCs and the LDCs, the returns are much more spread out over the period, which could be connected with the type of Internet access. As we noted previously, only three questionnaires reached us in traditional paper format before the deadline. A few more arrived at the CICRED office too late to be included in the dataset.





CICRED (Committee for International Cooperation in National Research in Demography) is a non-governmental association of several hundreds of research organizations dealing with population issues. It aims at developing cooperation amongst population research centres and encouraging innovative research in demography. Its publications in both English and French derive mostly from the seminars and research programmes launched by CICRED over the years.

Selected recent publications

Books and seminar proceedings

- Development, Spatial Mobility and HIV/AIDS, Bangkok, UNDP-CICRED, 2004, 96 p. (Workshop held in Paris, 1-3 September 2004).
- Social and Economic Patterning of Health among Women / Les facteurs sociaux et économiques de la santé des femmes, Arber S. and Khlat M., (eds.), Paris, CICRED, 2003, 511 p. (Seminar held in Tunis, 20-22 January 2000).
- Education, Family and Population Dynamics / Education, famille et dynamiques familiales, Cosio M. E., Marcoux R., Pilon M., Quesnel A., (eds.), Paris, CICRED, 2003, 363 p. (Seminar held in Ouagadougou, Burkina Faso, 15-19 November 1999).
- Poverty, Fertility and Family Planning / Pauvreté, fécondité et planification familiale, Cosio-Zavala M. E., (ed.), Paris, CICRED, 2003, 358 p. (Seminar held in Mexico City, Mexico, 2-4 June 1998).

CICRED monographs

- Population Dynamics, Land Availability and Adapting Land Tenure Systems: Philippines, a case Study, Office of Population Studies (University of San Carlos), Farm and Agriculture Resource Management Institute and Center for Social Research (Leyte State University), Gultiano S., Balbarino E., Saz E., Urich P. (coord.), Paris, CICRED, FAO, 2003, 201 p.
- Dynamique des populations, disponibilités en terres et adaptation des régimes fonciers: le Burkina Faso, une étude de cas, Institut National des Sciences des Sociétés (INSS), Institut National de la Statistique et de la Démographie (INSD), Drabo I., Ilboudo F., Tallet B. (coord.), Paris, CICRED, FAO, 2003, 114 p.

Directories of Demographic Research Centres

 Panorama institutionnel et scientifique de la recherche démographique dans le monde / Institutional and Scientific Overview of Population Research in the World, F. Gendreau, S. Huix-Adamets, Paris, CICRED, 2003, 99 p.

Policy Paper Series

 Policy Implications of Age-Structural Changes, Policy Paper Series, Paris, CICRED, 2005, 21 p.