

# International Technical Support

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## Editorial

This latest issue of the International Technical Support newsletter includes a special report on recent cooperation activities by INSEE in Haiti, via an international project.

This includes an interview with Danilia M. Altidor, Director General of the Haitian Institute of Statistics and Computer studies (IHSI), and also two articles describing the innovative nature of the project, and a household survey carried out after the terrible earthquake that struck Haiti in 2010. At that time the international community was mobilised to bring aid to the country and it was in this way that INSEE became involved, cooperating with the equivalent body in Haiti, IHSI, in a project to assess the economic and social impact of the quake.

We needed to establish a reliable assessment of the post-quake situation, especially regarding household living conditions and the labour market. Such an assessment is essential if appropriate economic and social policies are to be implemented. Funded by the French National Research Agency in partnership with the World Bank, this project was piloted by DIAL, a joint research unit from the Institute for Research and Development (IRD) and Paris Dauphine University.

This edition of the newsletter also includes several articles on technical support offered by INSEE to countries in Eastern Europe, the Maghreb and Sub-Saharan Africa.

For example, last autumn, INSEE collaborated with Rosstat, the Russian NSI, on profiling. Our multilateral cooperation with Turkstat, the Turkish Statistics Institute is also ongoing, covering a range of issues such as the seasonal adjustment of time series, business registers and the activity of foreign affiliates.

Our Institute is also continuing its partnership with the Moroccan High Commission for Planning to provide support with a new Time Use survey. This includes more detailed questions than the previous one, with modules on family life and subjective items on respondents' feelings, and for the first time it is addressed not only to women, but also to men and children.

At the end of 2013, INSEE offered a dozen experts from Afristat and the Maghreb an advanced training course in sampling methods, and of particular interest to participants were the production of small-area estimates and balanced sampling.

Finally, the newsletter contains 30 news-in-brief articles covering the latest on INSEE's international cooperation between September 2013 and January 2014. Enjoy your reading!

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# Household survey after the earthquake in Haiti

Households in Haiti were surveyed at the end of 2012, almost three years after the earthquake that struck the country in January 2010. The data collected were used to produce an evaluation of living conditions after the quake, and more specifically to isolate the impact of the earthquake on household situations, and to look at how people have integrated the labour market and their coping strategies.

The earthquake that rocked Haiti on 12 January 2010 was one of the four most deadly tremors felt in the world since 1990 and the most violent that the country had experienced for over two centuries, leaving tens of thousands dead and hundreds of thousands injured and homeless. The international community was mobilised from March 2010 with the International Donors Conference in New York pledging more than \$5 billion of aid for reconstruction. However, after the extreme emergency of the humanitarian situation, which had been eased by the many aid programmes that had been set up, we needed to be able to assess the situation in Haiti, post-earthquake.

To provide an overview of the situation in economic and social terms, and assess what international aid has been provided, the EISHA project was set up (Evaluation of the Impact of the earthquake in Haiti). It is coordinated by a DIAL<sup>1</sup> research team, in partnership with the Haitian Institute of Statistics and Computer studies (IHSI) and supported by INSEE and ADETEF<sup>2</sup>. EISHA<sup>3</sup> is one of the eight projects selected and funded by the French National Research Agency (ANR) through "Flash Haiti", a call for project proposals.

The full force of the earthquake was borne by the urban area around the capital, Port-au-Prince, where one quarter of the total population was concentrated (Haiti has about 10 million inhabitants), destroying many homes and public buildings. Six months after the catastrophe as many as 1.5 million people were sheltering in more than 1,500 temporary camps.



From left to right: Philippe Cuneo (INSEE), Javier Herrera (DIAL) and Nathalie Lamaute-Brisson (IHSI) during a conference held in Paris in January 2014 four years after the Haiti earthquake.

Four years later, and 150,000 people were still living in 270 camps, according to the latest count by the International Organisation for Migration (IOM, December 2013).

Since then, the situation in Haiti has improved very little. The country is faced with many structural problems, it is also regularly hit by hurricanes and severe flooding, and to these problems was added a cholera epidemic, declared in 2010. And furthermore, coordinating international contributors – non-governmental organisations (NGO), donors<sup>4</sup> – is a difficult task.

It was in this very unstable context, and with a fluid population living in camps for displaced persons (some returned to their homes, some were living partly in the camps and partly in housing), that a household survey (ECV-MAS - National survey on post-earthquake household living conditions) was carried out towards the end of 2012, as part of an EISHA project and in collabo-

ration with the World Bank. Apart from the practical challenges of the project (see box below), based on comparison with a 2007 survey on employment and the informal economy by IHSI with support from DIAL, the first analyses produced the following results:

- Emergency housing and vulnerability of structures (and hence of the inhabitants): one out of ten Haitians has spent some time in one of the camps for displaced persons, and a third of these people were still living there at the time of the survey. Only 2% of households whose homes were severely damaged have received aid to demolish, and 7% have received aid for reconstruction. The scale of destruction is very closely linked with the very precarious nature of buildings in Haiti, and the homes that were destroyed belonged primarily to the least well-off populations. The vulnerable nature of the buildings did indeed heighten the effects of the earthquake, a result that goes against the rumour seized on at

<sup>1</sup> DIAL (Development, Institutions and Globalisation) is a joint research unit run by the Societies Department of the Institute for Research and Development (IRD) and the Development and Globalisation centre of LEDA (Economics Department at Paris Dauphine University).

<sup>2</sup> ADETEF is the Agency for international technical cooperation of the Economic and Finance Ministries.

<sup>3</sup> All relevant documents are available at: <http://www.desastres-naturels.fr/fr>.

<sup>4</sup> International partners funding the developing countries, such as the World Bank, the United Nations Development Programme (UNDP), etc.

the time by the Haitian press, that buildings constructed with solid materials were those that suffered the most destruction.

- A weakened labour market and young people without work: the unemployment rate is 14%, a 3-point drop compared with 2007. If we apply a broader definition of unemployment<sup>5</sup> and include those who are discouraged by the search for work, the wider unemployment rate concerns almost three out of ten Haitians at national level, and for young people (aged 10-24)<sup>6</sup> from the metropolitan area they are suffering a record unemployment rate (57%). Apart from the intrinsic problem that such figures represent in a country without unemployment benefits, such a high rate says a great deal about the low level of mobilisation on the part of labour power towards reconstruction. The vast majority of those in work have jobs in agriculture (47%) and the informal sector (45%). The formal private sector (8% of the working population) and the public sector (3%) are much less significant. The quality of jobs deteriorated considerably between 2007 and 2012, with massive under-employment and very low incomes leading to a dramatic increase in inequality, which was already among the greatest in the world.

- International aid not always sufficiently well targeted, but partly compensated by inter-household aid: the temporary camps were originally set up as a short-term response, and they were indeed the most visible response to the catastrophe. Although the metropolitan area was hardest hit, the rest of the country was by no means spared. However, aid and reconstruction policies focused primarily on the capital, whereas most of the refugees were taken in by households in other parts of the country. Mutual help and household solidarity, even in cases of considerable social inequalities, were able to relieve some of the effects of the earth-

quake and to take over from institutional aid, which was often inadequate.

Originally, the survey was to cover only the urban area of Port-au-Prince, given the budget that was available through the ANR. Further funding from the World Bank eventually meant that it was possible to cover the entire country. This new arrangement brought considerable changes to the different stages of the project and to the resources used, both in terms of materials and assistance:

- revision of the original questionnaire, to include the objectives of the World Bank regarding indicators of monetary poverty associated mainly with household consumption;
- updating the survey respondent base, especially considering the population in the camps;
- introducing tablet computers for data collection, instead of the paper questionnaires originally planned;
- translation of the questionnaire into Creole;
- training offered to staff in the field, both on the topics being covered and on using the tablets;
- two test surveys carried out before upgrading to the full-scale survey operation;
- writing computer programmes to process the data collected, etc.

Directing this type of survey required considerable efforts of coordination from the partners, especially as they were located far apart geographically (Port-au-Prince, Washington and Paris). There was also a great deal of investment in terms of days worked to carry out the project. In addition to monitoring work carried out in the field, skill transfer continued with statisticians from IHSI making several visits to France at different stages in the survey.

These first results were presented to the Haitian authorities in September 2013, and also at a specially organised seminar in Port-au-Prince, with more than 200 participants. In

January 2014, in France, at the commemoration of the fourth anniversary of the earthquake, the Ministry for Foreign Affairs, the Ministry for the Economy and Finance and the IRD organised a conference-debate in Paris: "Four years after the earthquake in Haiti: the impact for the population and the consequences for public policies?". This event brought together over a hundred participants from the scientific community (researchers, statisticians, economists), NGOs, leaders from administrations and civil society. The statistical presentations and the discussion that followed on "Post-catastrophe: what tools to use for better effectiveness?" were a useful springboard for discussions on the role of official statistics and international cooperation and the means at our disposal in situations of acute crisis, humanitarian disaster and social upheaval.

Official statistics, with their criteria for comprehensiveness, homogeneity and representativeness, are invaluable for a reliable and professional assessment. The experience gained from the ECVMAS survey has provided food for thought concerning a "statistics kit" that can be made quickly operational in the case of a crisis situation; this was an idea brought up at the conference-debate in January 2014. The other issue which can guide public policies concerns the coordination of international institutions which all focus on their own objectives and often monopolise the best managers from the public administrations of the country concerned. Strengthening the skills of the Haitian statisticians was therefore an important part of the EISHA project (see interview below). This long-standing collaboration between IHSI and IRD-DIAL and INSEE should continue, notably in a support project with the Haiti Institute on national accounting, for which INSEE's expertise has been sought.

► *Constance Torelli*

<sup>5</sup> As defined by the International Labour Office (ILO), an extension which it calls "halos of unemployment".

<sup>6</sup> In surveys of employment and unemployment in developing countries, it is generally considered that the working-age population consists of those aged "10 or over", in order to take into account the not inconsiderable phenomenon of child labour.

# The ambitious and innovative nature of EISHA

The EISHA project (“Evaluation of the impact of the earthquake in Haiti”) has raised several methodological questions since the experimental framework was first devised.

First, with the destruction of many homes as a result of the earthquake, the usual reference points that are essential when carrying out a traditional household survey are now obsolete. How do we define the notion of “residence” and “household” in such a context? How can we take into account the partial presence of people whose place of residence is divided between the camps and their homes?

Second, the type of approach used in this survey, called ECVMAS (National survey on household living conditions after the earthquake), was really very new: the intention was to interview households in the refugee camps at the same time as we interviewed a traditional housing sample (to give a representative total of 5,000 households surveyed); in addition, the questionnaire included questions on the past (situation in 2010 just after the earthquake) as well as more topical questions about the period when the survey was carried out (2012); as for the topics covered, most of these were also very original: household composition before and after the earthquake, trauma suffered, assessment of aid, perception of households, transfers between households, etc.

Alongside this ECVMAS survey, the EISHA project also hoped to put together a panel of households and individuals who had already been interviewed in 2007 for a survey on employment and the informal sector, by the Haitian Institute of Statistics and Computer studies (IHSI) with support from DIAL, the intention being to survey them again in

2012 using the same ECVMAS questionnaire. As this panel represented a sample that was distinct from that in the national survey, problems related to household weighting had to be dealt with separately. Although this panel was limited to people living in the capital, which made it more straightforward to monitor than for a national panel, the following two questions did arise: how could we minimise the usual phenomenon of attrition<sup>1</sup>, which was further accentuated by the post-earthquake situation in Haiti? And what system for monitoring (also called tracking) individuals surveyed in 2007 should be put in place?



*A view of the building which accommodates the Haitian Institute of Statistics and Informatics in Port au Prince*

The expertise of INSEE and the Institute for Research and Development (IRD) was called on from the start of the project, to discuss which survey and sampling techniques to use, and in particular to update the ECVMAS sampling frame (the last survey in Haiti dated from 2003). Analysis of satellite images by a cartographer from IRD, helped by advice on survey methods from experts at INSEE, enabled the project to move on to a qualitative phase in the field for a feasibility study. Importantly, this phase included a visit to the refugee camps to see how households were arranged (women on their own or with children at the entrance to the camps, young single people at the back,

etc.), information which was important for knowing how to take samples within a camp.

INSEE’s expertise was required in several ways: use of a reserve sample; survey of the neighbourhood for tracking in order to limit the effects of non-responses; drawing samples in camps of displaced persons; distributing weighting for individuals present in several places. Also, discussion over a paper presented at a conference on sampling, organised by INSEE in 2012, contributed a great deal to the issue of the methodology to be used for the post-earthquake study, and some methods were subsequently implemented.

The project team also brought in the expertise of a manager from the INSEE international Technical Support division because of his experience in the previous 2007 survey in Haiti, and he carried out support missions with IHSI.

Lastly, the third challenge arising from the investigation concerns the way in which data are collected. While introducing tablet computers (using CAPI<sup>2</sup> with GPS<sup>3</sup>) has helped with better tracking in real time and has given improved data quality, investment in strengthening the abilities of those conducting the survey has been considerable, as shown by the five weeks’ training they were able to receive. As well as producing some original results on the situation after the earthquake, the EISHA project also wanted to develop tools and other instruments that could be used in other contexts where such catastrophes are likely to happen (including the statistics kit mentioned in the previous article).

► *Constance Torelli*

<sup>1</sup> Attrition is the loss over time of some panel members (through death, moving home, refusal to respond, etc.), a phenomenon that, as well as reducing the sample size, may cause a possible bias in the survey results.

<sup>2</sup> CAPI or Computer Assisted Personal Interviews.

<sup>3</sup> GPS or Global Positioning System.

# Interview with Danilia M. Altidor, Director General of the Haiti Statistical Institute

## Why is it important for the Haiti Statistical Institute (IHSI) to know the living conditions of households in the wake of the earthquake?

To provide help with decision-making for economic and social policies, IHSI has taken it upon itself to carry out surveys on several aspects of living conditions in Haiti. There was the survey of household living conditions (ECVH) in 2001, and the survey on employment and the informal economy (EEEI) in 2007.

The earthquake on 12 January 2010 resulted in a great deal of loss of life and injury, as well as considerable deterioration in public and private buildings and housing. It was important to take stock of the impact of the earthquake on living conditions overall: firstly, to see where the breaks and continuities would be; and secondly, to provide all decision-makers with a post-earthquake state of play, at the time of transition from the period of emergency management to the point where structural development actions for the long term would once again prevail.

Hence the setting up of the survey on post-earthquake household

living conditions (ECVMAS), with financial and technical support from the World Bank and the EISHA project on Evaluation of the impact of the earthquake in Haiti. The latter was supported by the National Agency for Research (ANR), and by the Institute for Research and Development, via its Development, institutions, globalisation department (DIAL), with the collaboration of INSEE.

## What is your assessment of the partnership with DIAL and INSEE?

The partnership with DIAL and INSEE has been a very profitable one and our exchanges have been extremely useful. The commitment shown by the French team has been remarkable: as well as support with the ECVMAS survey, collaboration also covered identifying and surveying a sample of households and individuals from the metropolitan area who had completed the EEEI survey in 2007. The purpose of this panel, which is part of the original EISHA project, was to study individual trajectories between 2007 and 2012. All the work required a strong presence of French experts in the field. Young technicians at IHSI have therefore benefited from this

sharing of skills both in the preparatory work and in field work. The welcome given to IHSI staff who went to France in 2011 and 2013 for study visits, and the distance support provided at the various stages of the project have helped to strengthen our collaboration.

## What are the prospects for the future as a result of this partnership?

In the immediate future, we hope that our collaboration with DIAL will continue in the matter of exploiting and analysing the ECVMAS data. A conference is planned for December 2014 to review the different projects on Haiti currently funded by the ANR, which includes the ECVMAS. IHSI has confirmed that it will participate in organising this conference in its role as Member of the Scientific Steering Committee.

INSEE will also provide IHSI with technical assistance this year in the field of national accounts. And finally, we would also like to have support from DIAL and INSEE for our next household budget and consumption survey.

► *Interviewed by Constance Torelli*

### List of abbreviations used in the Haiti special report

- ADETEF: Assistance for the development of economic and financial technical exchanges, Agency for international technical cooperation of the economic and finance ministries
- ANR: National Agency for Research
- CAPI: Computer Assisted Personal Interviewing, technique whereby responses to survey questionnaires can be entered into the computer in real time, and which sends the survey worker to other sections of the questionnaire, according to the responses given to earlier questions
- DIAL (Development, Institutions and Globalisation) is a joint research unit of the Societies Department of IRD and the Development and Globalisation centre of LEDA (Economics Department at Paris Dauphine University)
- ECVH: Haitian survey on household living conditions
- EEEI: Haitian survey on employment and the informal economy
- EISHA: Evaluation of the impact of the earthquake in Haiti
- ECVMAS: National survey on post-earthquake household living conditions
- GPS: Global Positioning System, geolocation by satellite
- IRD : Institute for Research and Development
- IHSI : Haitian Institute of Statistics and Computer studies
- IOM: International Organisation for Migration
- NGO: non-governmental organisation
- UNDP: United Nations Development Programme

## Cooperation with Russia on profiling

**Two experts from INSEE travelled to Moscow to work with Rosstat on a profiling method that will make it easier to assess Russian economic enterprise groups.**

In the area of business statistics, Rosstat, the Russian State Statistics Service, has maintained a business register of legal units for the last twenty years. A file of economic groups was set up during cooperation with Destatis and Statistics Finland, but it only contains information on the financial links between these groups. Company accounting information, on the other hand, has scarcely been used until now, in contrast to INSEE, where these data are widely used for business statistics and as an information source for the national accounts.

During the mission in mid-December 2013 by two experts from the business statistics department, the following issues were addressed:

- business statistics in France and the way they are used;
- organising enterprise groups and determining their economic activity;
- profiling (see box) in France and Europe.

The INSEE experts presented statistical units, also sources and practices for managing business registers in France, and the European Groups Register. They also presented the profiling methods used in France and the progress made in this area, along with profiling work done by the European ESSnet Profiling working group. Rosstat contributes to some cooperation programmes with INSEE and to others with the European Union, and our visitors very much appreciated this presentation of the work done in France and in Europe.

In terms of accounting, the IFRS<sup>1</sup> standards, which are applied in the European Union (EU) for listed groups, are used in Russia, and the large Russian groups publish reference documents that comply with this standard. It was therefore possible to examine with the Rosstat statisticians the accounts of the two major oil groups, Rosneft and Gazprom, using the method applied in European profiling<sup>2</sup>. The way in

which these groups present themselves was analysed according to the IFRS 8 standard and this was followed by discussion about which definition of enterprises should be adopted, based on this segmentation in the context of profiling. The main variables published by the groups were also examined and lastly, flows between segments were studied.

The example of the Russian oil groups is particularly interesting for an initial view of profiling by our Russian colleagues. As ESSnet Profiling has recently been completed, a selection of the documents produced in English (recommendations, methodological reports) will be sent to them. They will then be able to analyse their groups in accordance with the methods used in the EU.

► *Emmanuel Héry*

<sup>1</sup> International Financial Reporting Standards (standard no. 8).

<sup>2</sup> This method was introduced at the presentation seminar for ESSnet profiling in November 2013.

<sup>3</sup> After validation and publication first by Eurostat.

### What is profiling?

Profiling is an area of business statistics that analyses groups in order to define enterprises within them, over and above their organisation into legal companies, according to an economic relevance criterion. To do this, different legal enterprises are grouped together, which are in the same decision-making unit and compete in the same economic activity.

Thus the groups are partitioned into "enterprises" with a certain autonomy, so that instead of a legal overview, they can have an economic overview of the production system. In addition to being more meaningful from an economic point of view (greater relevance of the staff employed, the effective share of certain sectors, etc.), this approach is also more coherent with that of the non-specialist public and the companies themselves.

In addition, profiling means that information collection can be improved, by a more personalised dialogue with representatives from the largest groups. Profilers at INSEE do often meet their contacts within these groups (usually from the accounts departments) in order to define with them the companies in the group. The starting point is often the segments (sometimes also called operational divisions) that the groups identify in their reference documents, especially by applying standard IFRS 8.1

The tasks of collecting accounting data and responding to surveys are now at enterprise group level and this can therefore mean a considerable reduction in the statistical burden imposed on them. Many of the companies (in the sense of legal units) that belong to these groups are no longer questioned, as they are no longer considered in isolation, but as part of an enterprise group.

# INSEE continues its multilateral cooperation with Turkstat

In the European project **Upgrading the Statistical System of Turkey**, INSEE is cooperating with Turkstat on a very wide range of issues: seasonal adjustment of time series, business registers, statistics of foreign affiliates, etc.

Since 2013, INSEE has contributed to the European project **Upgrading the Statistical System of Turkey phase III (USST III)**, which aims to support Turkstat, the Turkish national statistics institute, in producing statistics that comply with European standards.

Turkey is presently involved in the process of accession to the European Union and USST III is the latest step in a series of major funding aimed at strengthening the capacities of the Turkish NSI.

Turkstat has a €4 million European subsidy to organise training actions for its staff.

Using this grant, two study visits were organised with INSEE during the second quarter of 2013, one on the European survey on the activities of the foreign affiliates of groups (OFATS, or Outward Foreign Affiliates Statistics), the other on business registers – and also a training session on issues linked with the seasonal adjustment of time series.

The work on business registers covered many subjects, including the working of the inter-administrative register, SIRENE, the demography of businesses, the new statistical business register SIRUS, the working of the SINE survey (Information system on new enterprises),



*Headquarters of Turkstat, the Turkish statistics service, Ankara*

also the work carried out in association with the Bank of France and monthly publications. In particular, this visit was the opportunity for a well-appreciated contribution from the department of Business Demography and local units at the Lorraine regional headquarters.

During the study visit covering the statistics of activities of foreign affiliates a presentation was given of INSEE's work in this area, from the definition of the statistical sources used to the application of the OFATS survey: dealing with joint ventures, value added, imports and exports of goods and services (including intra-group imports and exports of affiliates located abroad), breakdown of turnover by geographic area of affiliate location, dealing with non-response and rectification.

Finally, with training in seasonal adjustment, a dozen statisticians from Turkstat have been able to perfect their technique in this area while learning how to use the Demetra+ software.

Cooperation with Turkstat in the context of USST III will normally continue into 2014, with a study visit on statistical coordination and a training session on turnover indices.

► *Emmanuel Héry*

## Time Use survey by the High Commission for Planning (Morocco): a successful partnership around a difficult subject

The High Commission for Planning decided in 2011-2012 to launch a survey on Time Use by men, women and children, asking questions that would give an interpretation by gender of the way Moroccan society works. INSEE regularly carries out this type of survey, and was able to provide its own technical support from the start of the project, which consisted of three phases: preparation of the questionnaire and definition of the protocol to be followed by the interviewers; processing the responses and exploiting the data; publishing the results. At the beginning of 2014, the Moroccan team was working on bringing out the first tables. The survey results, which are eagerly awaited in Morocco, should be published in the course of the year.

The purpose of Time Use surveys is to gather information on the way individuals spend their time. They enable us to analyse aspects of the way a society functions that are generally difficult to

perceive: family organisation (e.g. childcare arrangements), balance between time spent on work, leisure and family life, domestic production, etc. In France, these surveys have been carried out

about every ten years since 1974 by INSEE, with the last one dating back to 2009-2010.

In Morocco, a survey of time use by adult women was carried out in

1997-1998. At the beginning of the 2000s, the High Commission for Planning (HCP) decided to launch a new operation in 2011-2012 and to extend the field to men and also to children of both sexes, to give a more comprehensive and gender-based view of the way Moroccan society functions.

In many respects, this was the first time such a difficult subject had been studied, as it touched on private aspects of family life and the subjective dimension was very important (time spent: “pleasant or not”). Questions had to include subjective aspects on respondents’ feelings and cover topics that were similar to the “decisions made by the couple” module in the corresponding survey in France.

The sample of 9,200 households was selected according to an area probability sample. To eliminate seasonal aspects, data collection was spread over twelve months, from 1st October 2011 to 30 September 2012. For each household, time use diaries were kept for a period of twelve days.

There are methodological difficulties inherent in these surveys, which have to reconcile the rigour required by the survey procedure while respecting the private life of the respondents, and also the new aspects of part of the questionnaire, which was the reason the HCP sought a partner to provide assistance. As INSEE had expertise in this field, especially from the last operation in 2009-2010, it was able to provide this support.

Work was divided into three phases. Before the start of the survey (March 2010), an expert from INSEE travelled to Rabat to work with the HCP team on the questionnaire and the protocol for the interviewers. Next, when data collection was going on (July 2012), Moroccan statisticians came to INSEE for a study visit when they focused on analysing the data. Finally, another INSEE expert provided technical

support in producing the results, with two missions in June and October 2013.

The work mainly involved looking at the best way of adapting the protocols to Moroccan society. This covered:



*Hassan Tower, Rabat (Morocco)*

- The interviewing method – As the first person was selected at random, it was suggested that, in order to maximise the number of cases where both spouses were questioned, priority should be given to ensuring that the second person should be the husband or wife of the first. To ensure the truthfulness of the responses, two interviewers of different sexes were used for each household surveyed, as quite a number of those questioned preferred to answer questions from an interviewer of the same sex.

- Internal household organisation – For this module, the Moroccan survey was partly based on the financial organisation of the household in the French survey.

- Keeping the diaries - The principle is the same in France and Morocco, as the variables that are covered are similar. Discussions focused mainly on how to ask about the times that activities started and finished. In the Moroccan

survey, the diary was filled in by the survey worker, and it was decided that an American-style protocol would be used (“What were you doing at ... o’clock?”, then “What did you do next?”) rather than the European style (where the hours of the day are broken down into sections representing 5 or 10 minutes). It was thought that the former would be more useful for studying activities that were very short, but which occurred frequently (e.g. prayer).

- Correcting for non-responses – After checking about one hundred diaries, it could be seen that non-response was in fact very marginal (less than 0.05% of time described). It was therefore decided that no correction would be applied, but that the original code for non-response would be attributed.

- The value of household activities - This discussion was particularly interesting, covering notions of “delegation” and “what it would cost to have someone else do it”. Two evaluations were made, one which equated the time spent on household tasks with the minimum hourly wage, and the other according to informal practices that are commonly applied in many households.

- A contribution to discussion about topics for future publications (domestic production, well-being, the couple, leisure, children, parenting tasks, influence of Ramadan on time use, etc.).

At the start of 2014, the survey files were verified and the Moroccan team was working on bringing out the first tables. The survey results, which are eagerly awaited in Morocco, should be published in the course of the year.

► *André Rémy*



# Advanced training course in sampling methods offered by INSEE to experts from Afristat and the Maghreb

In November 2013, experts from Afristat and statisticians from the Maghreb took part in an advanced training course on sampling methods used at INSEE. To meet their specific needs, INSEE devised a custom-made training programme.

The main role of Afristat, the Economic and Statistical Observatory of Sub-Saharan Africa, is to develop common methodologies which are standardised in terms of economic and social statistics for all Member States and to support the national statistics institutes of these countries in applying these tools.

For household and business surveys, statisticians from these NSIs are faced, as is the case everywhere, with questions related to survey techniques and sampling methods. Afristat experts are able to help NSIs with these issues, but the Afristat Directorate General nevertheless wanted their managers to take advantage of an advanced training course in this field, in order to improve the quality of their actions in the member States.

In the developing countries, even more than elsewhere, updating the sampling frames is an essential step when carrying out a sample-based survey. When population censuses date back many years, and this problem is accentuated by large movements of population, especially in the major African cities (new housing schemes, extension of unplanned districts, etc.), then census maps can very quickly become obsolete. In addition, budget constraints in funding allocated to statistical operations beg the question of sample size and hence of the reliability and precision of estimates. And finally, the use of combined surveys (which cover both households and businesses), or the study of atypical units, requires robust sampling strategies and recovery methods.

In order to meet all these expectations, the Methodology, Statistical Coordination and International Re-

lations Directorate (DMCSI) at INSEE prepared a custom-made training course for the experts from Afristat. NSIs of the Maghreb (Morocco, Algeria and Tunisia) that face the same problems as the Sub-Saharan countries were also invited to this training session, which took place over five days in Paris in November 2013. From INSEE, there were contributions from a dozen experts in sampling techniques (DMCSI) and survey techniques (demographic and social statistics directorate).

The introduction covered the general concepts and principles of probability sampling methods: simple random sampling or unequal probability sampling, multi-stage sampling, indirect sampling, weight sharing and balanced sampling (see box), also rectification methods (post-stratification, adjustment for total or partial non-response, etc.). Each method

was then covered in detail in a theoretical presentation, followed by a practical application to demonstrate the properties.

Small-area estimation, which was dealt with next, is a technique used when studying geographic areas that are small in size or small sub-populations for which the traditional estimators are very imprecise because there are so few individuals in the sample.

The presentations on post-collection processing covered adjustment techniques used to correct any non-response bias in the context of reweighting methods. Other imputation methods based on behaviour models were looked at next. The Household Wealth survey conducted by INSEE in 2010 was then used to illustrate simple rectification techniques (random hot-deck) or more sophisticated techniques (regression models).



Participants at this training course in survey sampling, with Constance Torelli, manager for this geographic region (3rd from left)

While most of the methods presented were well-known to participants and were methods that they used, others like small-area estimation, indirect sampling, weight sharing and balanced sampling were of particular interest. Some of the participants put to use software applications immediately, such as the rectification method using the SAS Calmar macro produced at INSEE.

Notes from the courses and a

bibliography were provided for the trainees. The presentations sparked many questions of a technical nature, and on the choice of method to use and how to adapt it to the context of the different countries, which was not always straightforward. Despite a very full programme, best practices were able to be shared.

This training course was part of the three-year programme to strengthen the capabilities of Afristat ex-

perts (2013-2016), and was funded by the CESD fund managed by Adetef, the Agency for international technical cooperation of the economic and finance ministries.

► *Constance Torelli*

<sup>1</sup> Computer programme SAS Calmar Macro (for calibration on margins).

<sup>2</sup> CESD fund: endowment from the European Centre for Training Statisticians and Economists from the developing countries, created in 1962 with support from INSEE and the European Community.

### **Indirect sampling, weight sharing and balanced sampling**

The survey of the homeless, carried out by INSEE on people using homeless shelters and soup kitchens, provided the ideal material to demonstrate the indirect sampling method and weight sharing in this training course.

The principle behind indirect sampling is as follows: the population targeted in the survey is by definition absent from all sampling frames; we must therefore look for an intermediary (service provided by a reception structure) to ensure maximum coverage of the targeted population. First, these intermediate units are selected; then the individuals (final units) are interviewed, those who “consume” the services sampled. An individual who consumes a large number of these services will stand more chance of being surveyed.

As a result, the weighting method used in this case is called the weight sharing method. It consists of taking into account the number of times that each individual may be selected, in theory and the number of times they are actually selected in practice. In the survey of the Homeless, the weighting of the final units depends on that of the intermediate units used to obtain them.

In the case of a sampling plan, a sample is said to be balanced when its structure conforms to that of the population in relation to a set of qualitative or quantitative auxiliary variables that describe the population. This method can only be used if the sampling frame contains a certain number of variables describing the individual characteristics of the units observed. In some instances, balancing enables stratification to be generalised. For example, this technique is used at INSEE to sample groups of rotation in small municipalities (or statistical block) for the population census.

# News in brief from September 2013 to January 2014

## Croatia

As part of a European contract on business statistics, an expert from INSEE visited the Croatian NSI in October to discuss the topic of service producer price indices. This mission covered data linking procedures to produce these indices and recent developments.

## Poland

Continuing relations between the INSEE regional directorate in Lille and the regional statistics office in Bydgoszcz in Poland, in December, two experts from INSEE took part in a seminar held in Torun, in Poland. They were there to present the French statistical system and describe how regional statistics are used by regional public actors. In addition, the joint publication comparing the regions of Kujawsko-Pomorskie and Nord-Pas-de-Calais, which had been presented the previous year as a working document, was distributed officially in its definitive layout.

## Albania

In December, a delegation from INSEE carried out an exploratory mission to Tirana to study needs and consider the possibility of cooperation with the Albanian NSI.

## Macedonia

In the context of a twinning arrangement currently carried out in Macedonia by Destatis, the German NSI, a mission was organised in January on problems linked with sustainable development indicators (green growth, quality, etc.) in accordance with European recommendations. The delegation included an expert from INSEE and an expert from the Ministry of Ecology, Sustainable Development and Energy.

## Serbia

### European system of accounts 2010

In 2014 the Statistical Office of the Republic of Serbia (SORS) hopes to apply the accounting standard of the European System of Accounts (ESA) 2010. This was the reason

why Serbian national accountants came to INSEE in December to discuss with their French colleagues the main changes that this new system will bring about. In particular, discussion focused on the following points: the systematic procedure developed by INSEE, definition of a calendar and establishment of a steering committee and a project group committee, a concrete approach to a breakdown of financial intermediation services indirectly measured (FISIM) between the different branches of the economy; dealing with the informal economy.

### Organisation of regional statistics

SORS is faced with a triple constraint: pressure on its resources, the requirements of the European Union, and increasing demand from Serbian local authorities. This NSI therefore hopes to rationalise production in its 14 regional offices, and develop local dissemination, as well as relations with the media. To help with this, a study visit was organised at INSEE in November, to show the SORS management team what measures are used to organise regional statistics in France. This will be followed up in 2014 by technical support from INSEE on setting up decentralised analysis and study facilities.

## Turkey

With funding from Upgrading the Statistical System of Turkey (USST) phase III, three cooperation actions were organised on various topics in December 2013 and January 2014 in Paris. First, there were two study visits, one on outward foreign affiliates statistics (OFATS) and the other on business registers; after this a training session on the seasonal adjustment of time series was organised for a dozen Turkish statisticians (see the article on p.7). And in November, INSEE attended a conference on USST III, held in Ankara.

## Russia

Between September and December, three cooperation actions were organised between France and Rosstat. Two experts from our Institute travelled to Moscow at the end of 2013 for two missions on statistical confidentiality – related in particular to questions of resolving conflicts between legislations – and profiling (see the article on p. 6). A study visit by Russian experts had taken place earlier at the Bank of France, on the subject of financial accounting.

## Ukraine

Through its bilateral cooperation with the Ukrainian NSI (SSSU or State Statistical Service of Ukraine), INSEE organised action in January to provide support for SSSU in understanding the code designating a company's principal activity (APE). The goal was to improve determination of a company's principal activity, in accordance with the NACE Rev. 2 methodological framework.

## Algeria

In December, two INSEE experts provided support for the national accountants at the Algerian NSI in integrating their national accounts (which until then had been in Excel format) into ERETES. Using this software to prepare national accounts enables them to store data from previous years securely, and to produce accounts for the current year using this statistical tool directly.

## Morocco

### Communication of individual data

From 2014 onwards, the High Commission for Planning (HCP) hopes to make available to potential users some or all individual data from the main household socio-economic surveys. A study visit to INSEE in December was the opportunity to present the legal and technical aspects to the Moroccan experts, and the reasons why INSEE adopts a position that is considerably more restrictive than in most European countries.

### Permanent database of local facilities

The HCP also wants to put in place a permanent system for producing an inventory of community facilities, which will be based on population census returns, and is planned for September 2014. A study visit in October provided the opportunity for the Moroccan delegation to discover our permanent database of facilities (BPE) which is constantly supplied with data from bodies that manage facilities and local services. In the opinion of the HCP delegation, the general framework of a Moroccan BPE could draw inspiration from the French model.



*The High Commission for Planning, Rabat (Morocco)*

### Time Use survey

In October, an expert from INSEE completed a mission in Rabat to analyse the results of the Moroccan Time Use survey, carried out between September 2011 and October 2012 (see the article on p.7).

### Microsimulation model of pension policies

A project team from the HCP, working on a microsimulation model of pension policies, made a study visit to INSEE in December. There were two purposes behind this cooperation action: first, to finalise the module relating to demographics and second, to begin work on the labour market and pension modules. The aim of the cooperation that will be put in place in 2014 is to enable the Moroccan team to become totally familiar with the techniques involved in producing this type of statistical tool.

### Statistics and satellite accounts for forests

In Morocco, as in all countries where there are forests, these play a key role: protection of soils against erosion, preservation of water resources in catchment basins, reduction of silting at dams and protection of downstream infrastructure. A visit by experts from Morocco was organised in September by the office of statistics and studies at the ministry of Agriculture, in order to gather information on the French statistics system and explore the possibility of cooperation, so that Morocco too could eventually produce its own satellite accounts for the forest sector.

### Tunisia

In November, two experts from INSEE went to the Tunisian NSI to help prepare for the upcoming change of base year for the national accounts. Tunisia is currently using base 1997 in accordance with the System of National Accounts (SNA) 1993, and wants to move to SNA 2008 with 2012 as the reference year. Two departments in this NSI were concerned, business statistics and national accounts.

### Maghreb

The Moroccan and Tunisian NSIs are in the process of revising their nomenclatures of professions and diplomas. The aim is two-fold: they want a tool that can be adapted to the current social context and they want to be able to codify information collected on professions and diplomas ahead of the next census planned for 2014. During a study visit to Paris in November delegations from these two NSIs were shown the procedures used at INSEE to update these grids.

### Maghreb and French overseas territories

In September, the usual annual introductory training course on the use of ERETES was held in Paris. As well as two national accountants from the Maghreb (Moroccan High Commission for Planning and the Tunisian NSI), six INSEE staff members also attended, who hold posts in French Overseas Department (Reunion Island, Mayotte and

Guadeloupe) and two staff from the Institute of Statistics and Economic Studies in New Caledonia.

### Palestine

In September, the head of methodology and statistical and international coordination at INSEE attended an international conference in Ramallah, organised by the Palestinian Central Bureau of Statistics (PCBS). The conference was entitled "Efficient statistical information system for the State building", and marked the 20th anniversary of the PCBS and also the launch of the national strategy for developing Palestine's statistics 2014-2018. INSEE chaired one of the four sessions, on the theme of "Integration of statistical systems: monitoring systems, administrative records, metadata, national strategy 2014-2018".

### Forum of Euro-Mediterranean statisticians

In October, INSEE was represented by a statistician from the statistical and international coordination division at the second meeting of the Forum of Euro-Mediterranean statisticians, held in Brussels (Belgium). After formal approval of the terms of reference (ToR) of the Forum then of the ToR and the mandate for the working groups, the business statistics and business registers working group and the quality working group were discussed. The announcement by Europ-

Aid of possible funding for a future regional programme following Medstat III was welcomed very enthusiastically by all countries.

### Afristat

#### National accounts seminar

In October, Afristat organised a national accounting seminar in Douala (Cameroon) on the theme of "Best practice and main uses – Strategy for implementing the system of national accounts (SNA) 2008". Four experts from INSEE spoke about

recording of production damage insurance services, and also dealing with outside processing.

### **Survey sampling methods**

In November, an advanced training session in survey sampling methods was held in Paris for experts from Afristat, as part of the ongoing work to strengthen their capacities in this area. Three statisticians from the Maghreb also joined the workshop (see the article on p.9 in this issue).

### **Economic analysis and forecasting**

In October and November, an expert from INSEE attended economic analysis conferences organised in Cameroon and Burkina Faso by Afristat, UEMOA and CEMAC (see the article on this subject in Newsletter no. 2 December 2013). Several types of economic analysis were presented, with particular focus on regional dynamics and national particularities.

### **Economic and international Nomenclatures**

In November, an expert from INSEE co-chaired with Afristat a workshop organised in Togo by the Economic Commission for Africa, on the implementation of economic and international nomenclatures. About twenty technical staff atten-

ded from the NSI of four Afristat member countries (Burundi, Comoros, Gabon and Togo), and from three other countries (Morocco, Djibouti and the Democratic Republic of the Congo).

### **Quality procedure**

In October, with a view to planning a training session on quality implementation, the deputy Director-General of Afristat met the expert in charge of implementing this procedure at INSEE.

### **Economic, Social and Environmental Council**

During the same visit, the deputy Director-General of Afristat was given a presentation of INSEE's work in the Economic, Social and Environmental Council (CESE). Discussions with the INSEE expert working at the CESE enabled him to clarify the ways in which Afristat could provide support in relation to an agreement with the Economic and Social Council in Gabon.

### **Ivory Coast**

As part of a bilateral cooperation with the Ivory Coast, started in January 2013, a support mission consisting of two INSEE experts was sent to the national accounts department of the Ivorian NSI in November. The mission had several goals: to monitor accounts pre-

pared with ERETES, to integrate sector accounts into the module and to put in place the work needed in order to update to the new base according to SNA 2008.

### **African continent**

In September, an expert from INSEE attended the first meeting of the continental steering committee for the African project on the implementation of the 2008 System of National Accounts (SNA), which was held in Addis Ababa (Ethiopia). This project is led jointly by the Economic Commission for Africa, the African Union Commission and the African Development Bank. These bodies requested INSEE's assistance because of its experience both in helping to develop statistics in Africa alongside Afristat, and in creating a shared production tool for national accounts (ERETES).

### **Haiti**

As part of the EISHA project (Evaluation of the impact of the earthquake in Haiti, see the article on p.2), there were several actions in September to evaluate the first survey results which were presented at seminars held in Haiti, and then at a conference-debate organised at the Ministry for the Economy and Finance in Paris in January 2014.

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