Scientific Advisory Committee (SAC)
Meeting of the Global Strategy to Improve Agricultural and Rural Statistics

Meeting Minutes

3-4th November 2014,
Nigeria Room, FAO Headquarters
3-4 NOVEMBER 2014, NIGERIA ROOM, FAO HEADQUARTERS

DATE: 3-4th NOVEMBER 2014
VENUE: Nigeria Room, FAO Headquarters

MEMBERS PRESENT

Fred Vogel (Chair)
Vijay Kumar Bhatia, Seghir Bouzaffour, Ray Chambers, Jacques Delince, Miguel Galmes, Cristiano Ferraz, Anders Wallgren

MEMBERS NOT PRESENT

Sarah Nusser, Ben Kiregyera

DAY 1

Meeting opened with remarks by FAO-ESS Director Pietro Gennari

FAO’s appreciation for the SAC member’s participation was expressed. Furthermore, it was emphasized that the SAC continues to play an important role to ensure the quality of GS outputs through expert comments and advice on technical papers.

- it was highlighted that the SAC is now in its third meeting, and actual members have completed their 2-year term. Therefore, membership is due to be renewed. Suggestions, and modalities to facilitate selecting new SAC members should be discussed.

Presentation was given by C. Duhamel, Coordinator of the Global Office of the Global Strategy (GS), on the progress of the GS.

- Mr. Duhamel gave an update on the progress of implementing the GS and included details on the establishment and functions of global and regional governance structures. Furthermore, an overview of resource mobilization, and funding gaps was given.

Main questions for the SAC:

- How to mobilize resources to help countries collect data, and implement methodologies included in GS materials?
- How to mobilize resources for implementing GS in LAC, Near East, and CIS?
- What type of mechanisms or channels can be established so that urgent country needs can be addressed as soon as possible in the GS’s research agenda?

CONCLUSIONS AND RECOMMENDATIONS

- In order for data collection at country level to be sustainable, countries should support the implementation of GS methods with their own resources and not only rely on donor or outside support. The GS provides a framework which can facilitate resource mobilization at country level by focusing efforts on clearly defined priorities and methods. Also, implementing partners should take the lead.
- There are regional initiatives that can be leveraged to mobilize resources to the regions that have yet to receive funds for implementing the GS.
Regional commission and GS regional governance meetings might can serve as channels which can facilitate the exchange of information between the Global Office and countries to update the GS's research agenda.

Presentation was given by N. Keita, Interim Research Coordinator of the GS on the progress of the research program
Mr. Keita gave a brief description on the progress made across all 10 of the GS’s research themes, and discussed specific accomplishments in the areas of statistical sampling and frames and data collection methods and tools. The presentation was concluded by mentioning procurement and human resource related challenges.

CONCLUSIONS AND RECOMMENDATIONS

The GO office should seek ways of expanding the distribution of its publications. Perhaps, FAO should approach well known academic journals to publish GS technical papers in special editions.

The GS should think of ways to monitor the uptake of GS methods at country level.

Connecting and understanding conflicting sources of agricultural statistics in countries should be a research priority of the GS (i.e. ‘connecting the dots’).

Attention should be paid to research areas in high demand such as crop forecasting and early warning, but the GS should give higher priority to basic statistical methods such as sampling, estimation, etc.

Presentation was given by F. Vogel on the Master Sampling Frame Handbook
Mr. Vogel gave a brief overview of the contents of each chapter of the Draft Master Sampling Frame Handbook.

In general the Handbook is proceeding in the right direction.

CONCLUSIONS AND RECOMMENDATIONS

Care should be taken to remain relevant to developing countries. Some members expressed their doubts that the US’s example of high level of non-response may be relevant for developing countries because the reasons of non-response are different. Non-response is less of a problem because of the influence of the government, and the publicity that a survey or census usually receives motivates respondents to comply.

The overall organization of the Handbook should be reviewed. The book seems to skip between topics lacking sometimes logical flow. The level of practical detail varies.

It is important to provide the recommendations from practical experience not just the theoretical knowledge.

There is a varying amount of statistical knowledge required to follow the Handbook, so clear definitions and explanations should be provided. Definitions should be consistent throughout the Handbook.

The statistical unit of the MSF should be clearly defined. The statistical unit will vary with country context, in some the household and farm are the same, so clear explanations and how to link statistical units should be addressed. Should households be included? For rural statistics? The MSF covers many units of enumeration so guidance is needed on what is the unit or units of interest and how to connect these. How to connect the agricultural frame and the household frame.

The use of the MSF is not as detailed as building one.

Will the institutional arrangements be addressed – who is the focal point for build and maintaining it and who will use it?

There was some discussion about labelling EAs as an area frame so the definitions to be clear.

There was discussion on the reliance on PHC and AC. It was said this is not always in place should not over rely on this, registers could be considered but during the discussion there was concern about
becoming too broad and it was felt that the focus on these two sources was okay. Updates can happen later to include other sources.

- The Handbook should be a tool of integrating agricultural data collection into the larger statistical system.
- Countries are very different and have different resources available for building MSF. The Handbook should try to include as many approaches as possible and testing should be done in countries with varying degrees of existing information.
- There was some discussion about the EA data. The frame is maintained at EA level as PSU not secondary sampling unit level.

**Presentation was given by C. Ferraz on his paper on Improving Methods for Linking area frames with list frames in agricultural surveys**

Mr. Ferraz gave a very practical presentation explaining the differences between list frames and area frames. He proceeded to provide methods for linking the two frames types, recommended an estimator to be used in the dual frames approach, discussed operational aspects of the dual frame approach, and concluded with an overview of sample size allocation and the use of auxiliary information in sampling.

**CONCLUSIONS AND RECOMMENDATIONS**

- Whether the proposed estimator is appropriate for the MF approach as recommended by FAO, i.e. to sample Enumeration Areas from an AF and then use the LF to identify individual units in the sampling.
- Can this method reach agricultural households that are not farms?
- How to handle large operations that have multiple sites (links between area and units are not one to one but are many to one or one to many). There is agreement that big farms are selected from LF and other holdings from the AF.
- Which frame should be built first in countries that have no frame?
- What is the cost of access, i.e. the cost of identifying actual links (and which could be high)? It was suggested that survey questionnaire be designed in a way that helps in identifying links between units of different frames. This is especially important because the biggest source of non-sampling error is in the linkage.
- What are the relative maintenance costs of an AF and a LF?
- When would a country be at a suitable stage to adopt a MF?
- How to capture rare crops or crops that are concentrated in small areas?
- It was mentioned that agricultural censuses frames are often incomplete, and how to address under-coverage should be mentioned.
- It was suggested to explore available on-line material on dual frames used outside of Agricultural Statistics.

**Presentation was given by R. Arcaraz on the concept of developing an Agricultural and Rural Integrated Survey (AGRIS)**

Mr. Arcaraz presented the concepts behind AGRIS, the linkages with the GS’s Minimum Set of Core Data, and various sampling strategies.

Naman Keita specified that the AGRIS is still at the stage of a concept note. It will be an instrument to encourage data collection efforts during non-census years on essential information, i.e. the minimum set of core data. It will be flexible enough to adapt to different country contexts.

**CONCLUSIONS AND RECOMMENDATIONS**

- AGRIS currently focuses only on agriculture, and should include data collection for rural statistics, including households which are not agricultural producers.
• The periodicity of the surveys/data collection frequency should not be set in stone, it must be flexible depending on the country. Methods to reduce sampling variation such as replicated samples should be discussed.
• There should be some discussion which covers the survey calendar, providing models of a survey calendar, cost effectiveness and what to collect.
• Must include Pros and Cons of various sampling strategies (i.e. panel, cross-section, etc.) and sample designs.
• Information on how to collect livestock data should be expanded.
• The final document must be harmonized with other GS publications pertaining to sample design, frames, linkages, etc.
• Deepen definitions and description of core module. The focus should be the content of the core and the modules. Information on sampling can be lightly covered, and can make reference to other GS publications which cover sampling.
• Consider including information on migrant and seasonal workers.
• The core should satisfy national accounts needs.
• The core set will differ by country.
• Problems arising from seasonality should be addressed.
• The 10/90 should be considered (i.e. emphasis on the 10 crops that account for 90% of production).

Presentation was given by J. Castano on the World Programme for Census of Agriculture 2020 and its linkage with the GS Research Programme
Jairo Castano gave a presentation on the main features and changes in the World Census of Agricultural 2020 (WCA 2020) with an emphasis on links to the GS. Notably, in volume 1 which focuses on “Programme, Definitions, and Concepts”, clear links are made with the GS by references in Chapters 3, 4 and 10. Volume 2 will also make reference to GS publications.

A brief discussion took place regarding the number of countries which actually have completed an agricultural census under the 2010. J. Castano specified that 108 have already completed the census, but 10% of those were based on samples. It is expected that 120 countries will complete the census by the end of the period.

CONCLUSIONS AND RECOMMENDATIONS

• The SAC mentioned that countries are exploring the use of administrative data or data collected from farm registers to replace some of the data collections in the Population and Housing Census. There was interest in whether any of these approaches can be applied to the Agriculture Census, and to which type of countries these apply.
• Countries are exploring the use of administrative registers or sample based Population Censuses? How will this affect the agricultural census?
• The importance of the Agriculture Census to provide the building blocks in terms of the frame of holdings for use with other surveys was stressed. The role of AGRIS in providing data on non-structural variables was highlighted.
• Support was expressed for the Agriculture Census as in many countries it is often one of the few agricultural statistics which receives substantial financing.
• Attention should be paid to the length of the survey. The modular approach should be promoted as way to focus the census on the core items.
• A clear distinction should be made between supplementary items and sample frame items. The WCA 2020 clearly sets out the frame, essential and supplementary items.
• The use of CAPI should be encouraged for conducting census and surveys. It often allows for sampling in the field which is not otherwise possible with PAPI.
• Under-coverage issues and adjustments should be thoroughly covered in Volume II of the WCA.
• Why were agricultural services excluded from the agricultural census?
• If traditional census are being phased-out, will 2020 be the last agricultural census? If so, how will the WCA continue afterward? What are the alternatives?
• What is being measured on the farm labor force (i.e. hired vs. family labor)?

DAY 2

Presentation was given by C. Obst on the progress of Guidelines for System of Environmental-Economic Accounting for Agriculture, Forestry, and Fisheries (SEEA-AFF)
Mr. Obst provided a status report on the SEEA-AFF line of research. He noted that the first draft of the Guidelines has been completed, an Expert Meeting has already been held, and that field test are underway. Furthermore, he provided an overview of the analytical and policy issues, as well as showed the accounting framework and described the basic data needs. Mr. Obst concluded with the technical challenges and next steps.

Overall Assessment from SAC
The document is too general, and perhaps exceeds the scope of the GS. The framework is advanced even for developed countries. The report should be more focused by providing clear examples, and specific instructions that a statistician can interpret such as what to measure and how to measure it. In its current state, a statistician would find it difficult to produce the data that is required for building a SEEA-AFF.

CONCLUSIONS AND RECOMMENDATIONS
• The document devotes a lot of text to the integration of forestry and fisheries, and should perhaps expand the text on the environment. Furthermore, agriculture should be thoroughly covered.
• Few if any developing countries collect the required data, and hence implementation of SEEA-AFF will be an extremely difficult task.
• Examples are needed so that statisticians can clearly understand the data requirements.
• Chapter 4 should be split into two chapters. The new Chapter 5 should focus on the basic needs including what must be measured, how to measure it, and how to collect the data.
• The document should recognize the difficulties in implementing this framework in countries where farm level accounts and economic accounts for agriculture are not available. Additionally, the data required for its implementation cannot come from a single survey.
• The document refers to data collection from farms, food industry, and trade. All of these parts should be integrated to make the document relevant to policy makers.
• The document should clarify its role in the Global Strategy, to provide a consistent reference as a framework for the environment component including the development of agri-environmental indicators and its integration with the economic component. Accordingly, it illustrates the data needs, it does not prescribe countries to collect the data.
• Clear links should be made with other GS publications such as the Handbook on Measuring Cost of Production.

Presentation was made by S. Dubey and F. Cachia on Improving Cost of Production Statistics
Ms. Dubey presented the major outputs, work flow, time line, and overall status of research program. Mr. Cachia focused on ongoing field tests, and results. They concluded the presentation by asking for specific advice from the SAC.

Main questions for the SAC:
• Content of Handbook: How to present allocation matrices? How to present and link data collection methods and general statistical questions? How to present the issue of financing sources for collecting of production data?
Field test: How to incorporate results in Handbook?
Training Material: How to develop it? Are there best practices? How much to tailor to country specificities?

CONCLUSIONS AND RECOMMENDATIONS

- It was recognized that these Guidelines are one of the most important outputs of the GS.
- A brief chapter should be added on considerations for sampling. Specifically, the Guidelines should mention stratified cluster analysis and other alternatives to sample surveys and panels to compute the averages of farms’ main attributes. Reference should also be made to the Handbook on Master Sampling Frame as a more in-depth source.
- Providing calendars to farmers to record the purchase and use of inputs could be a way to collect more reliable data.
- Specialized surveys on major export crops, and generic cost of production surveys for household farmers should be clearly differentiated.
- Regarding the typical farm approach, farm typologies will vary greatly by country. Accordingly, the Handbook should recommend identifying policy issues, and farm typologies before designing the survey.
- Handbook should be clear about issues including single vs. separate questionnaires by crop and how to identify who is growing what crop.
- The Handbook should provide instructions for how to address issues such as time and allocation, family labor, and land rental.
- Text on unpaid labor and production for self-consumption should be more detailed and expanded.
- Handbook should explore the uses and limitations of cost of production data.

Presentation by J. Gee on the Guidelines on the Collection of Structural Fishery and Aquaculture Statistics through Censuses and Surveys
Ms. Gee gave an overview of her and Sachiko Tsuji’s work on developing the above referenced guidelines. Ms. Gee prepared specific questions for the SAC members regarding sampling strategies.

Main questions for the SAC:
- What advice should the guidelines provide to countries on sampling strategies for collecting data on fisheries and aquaculture?

CONCLUSIONS AND RECOMMENDATIONS

- The Guidelines should clearly note that its focus is on small scale fishing and aquaculture for household subsistence. It is complementary to data collection efforts on off shore fishing such as monitoring of fleets, and use of remote sensing data. The title should be changed to the initial title of the topic in the GS document.
- There were questions raised about how to develop the sampling frame. This also relates to the discussion on what unit should be covered by the survey. It was suggested than an area frame could include water bodies used for fishing, and perhaps remote sensing could be used to identify aquaculture facilities. Furthermore, there could be specific questions on fisheries included in the PHC that could be used for a list frame of fishing households.
- There were concerns raised on how to develop a frame for community surveys. The guidelines should include the scope of the frame, and define what kind of community should be covered and accordingly the specific criteria to determine if a community is a ‘fishing village’.
- There was discussion regarding how to separate agriculture, aquaculture, and fishery holdings. The Guidelines should provide clear definitions.
- The Guidelines should clearly specify the unit of enumeration. Is it households engaged in fishing, household solely engaged in aquaculture, what about households engaged in both?
• If a household is engaged in both aquaculture and fishing, how can overlap between the frames for aquaculture and fishing be identified?
• The Guidelines should clarify if this data is to be collected as a separate survey, or if it is a module of a household survey or agricultural census.
• The Guidelines should clearly define which variable should be collected at the household level, and what variables should be collected at the community level. And what is the relationship between the household survey and the community survey.

A Presentation was given by N. Keita on the next steps in the GS’s research program and activities planned for 2015
Mr. Keita’s presentation begin by reminding the SAC members that the objective of the GS’s research is to develop cost-effective methods for improving statistics which will serve as inputs into guidelines and training materials. He noted that the work of the last two years has largely focused on a framework for agricultural statistics, sampling frame and survey methods, and remote sensing. The next steps will focus more on data collection methods and analysis across a variety of domains (crops, livestock, fisheries, forestry, etc.). He then included information on the modalities of implementation and went through each research activity planned for 2015 and major outputs. Mr. Keita concluded with specific requests for comments from the SAC.

Main requests for comments, and the responses of the SAC:

• Comments for research activities in 2015
  o Make a clear distinction between the research on Integrated Survey Framework, and the Agricultural and Rural Integrated Survey
  o Remove the word ‘Improved’ from titles of publications because many of the methodologies are not new.
  o Include in chapter on remote sensing of MSF Handbook what cannot be done with remote sensing, as well as what can be done.
  o Be sure that the information on remote sensing is up to date, as the tools and resources are rapidly changing.
  o When starting the research on forestry statistics, the FAO Forestry Department Forest Resource Assessment (FRA) should be reviewed and Forestry Staff in should be consulted.

• Advice on institutions/experts that can contribute to accelerated implementation
  o A roster of experts in areas of GS research should be compiled.

• Advice for improving next SAC meeting
  o Documents should continue to be made available to the SAC as early as possible.
  o The role of the SAC needs to be more clearly defined.
  o GS should continue the practice of asking specific SAC members to provide inputs on only a subset of documents. It is not reasonable to expect all SAC members to comment on all documents.
  o The term of the SAC has ended, and P. Gennari, Director of ESS, will be in touch with the SAC members to suggest new members. However, only some members will change, there is a need for some continuity within the SAC.

SAC members expressed their appreciation that documents were received in advance of the meeting and enough time was allocated for the discussions for each topic.