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INQUÉRITO CONTÍNUO AOS AGREGADOS FAMILIARES

The household budget and expenditure data collection module (IOF 2014/2015) within a continuous multipurpose survey system (INCAF)

Report from a fifth short term mission to the National Statistical Institute of Mozambique, Maputo Mozambique

24 November-12 December 2014

within the frame work of the

AGREEMENT ON CONSULTING ON INSTITUTIONAL CAPACITY BUILDING, ECONOMIC STATISTICS AND RELATED AREAS

between

INE and Scanstat

Lars Lundgren

INSTITUTO NACIONAL DE ESTATÍSTICA

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Contents

SUMMARY **3**

THE CONSULTANCY **4**

RECOMMENDATIONS FOR INCAF/IOF 2014/15 ..... **4**

Data quality 4

Data transactions and concatenation 5

Database management 5

Tabulation and dissemination 5

Multidimensional welfare/poverty 6

INCAF concept paper 7

Next mission 7

ANNEX 1: TERMS OF REFERENCE **8**

ANNEX 2: EXAMPLE OF A PRODUCTION TABLE FOR LABOUR FORCE STATISTICS (SEE EXECUTABLES IN SEPARATE FILE) **10**

ANNEX 3: MANUAL FOR DATABASE MANAGEMENT IN MS ACCESS (SEE SEPARATE FILE, 4 MB .DOCX) **11**

ANNEX 4: DRAFT QUESTIONNAIRE FOR A WELL-BEING MODULE **12**

ANNEX 5: DRAFT QUESTIONNAIRE FOR A TIME USE MODULE **15**

ANNEX 6: DRAFT CONCEPT PAPER FOR INCAF **16**

Design and methodology 17

From poverty to welfare and well-being 18

Hierarchical questioning 18

Mozambique 20

Summary

INE has modernised its household survey system by introducing a continuous multi-purpose survey (INCAF). The current INCAF has a household budget module IOF (Inquérito ao Orcamento Familiar), with an extended sample. The first quarter is surveyed and data can be analysed, to present some results but more to check the quality, improve the processes if needed and to prepare for coming tabulations and analysis.

Issues	Findings and recommendations
Data quality	The general quality is adequate in relation to the complexity of the survey. Some childhood problems were detected. The IT consultant will improve the controls within the field computers. In a future INCAF all data should be entered in the field with built in controls. One of the major reasons for a continuous survey is the possibility for continuous quality improvements.
Sample weights	The sampling design was not fully documented and the listing procedures (before INCAF) have unexplained problems in the implementation. The current weights were improved by using the official population projections.
Data transactions and concatenation	Handshaking and encryption is not used. Some problems have occurred, but original files could be recovered. The survey generates thousands of files that must be concatenated. The concatenation procedures seem to be safe.
Database management	The CSPro-files are manipulated in SPSS creating huge tables with much redundant information, e.g. a lot of administrative data. Much simplified tables for future cross-tabulations are recommended.
Tabulation and dissemination	The mission focused on labour force data, which are most important to release quarterly. A draft report has been developed after the mission as sampling weights were only available the last mission day. The first quarter includes several one-time modules that should be analysed and disseminated as soon as data are checked. This is particularly important for income data, being one type of welfare/poverty indicator.
Multidimensional welfare/poverty	Like previous IOF, the new survey will generate statistics in many areas relevant for welfare: employment, education, health, housing, services, possessions, etc. A “subjective well-being approach” focusing on service performance and quality of life (including good governance, human rights and participation). A module was designed together with main stakeholders.
INCAF concept paper	The donors have asked for a concept paper describing the benefits of INCAF. A draft was handed over, but should be further developed by INE.
Next mission	The next mission will check the quality of the second quarter and to analyse the labour force data for that quarter and changes from

	previous quarter, using panel data. But most of the time will be devoted to training in welfare analysis, using labour force, income and assets data.

The consultancy

The aim of the consultancy was to secure that the work goes along international standards. This and coming two missions are a continuation of previous missions. The main expected activities are:

1. Support the INE in the verification of the database to identify any potential problems that could hide within the data;
2. Support the INE in making tabulations plans both quarterly, semi-annual as well as yearly,
3. Support the INE with the procedures of data aggregation by quarter, semester and year, given the methodology of a panel survey;
4. Make recommendations for the coming quarters related to the problems encountered in the actual data base.
5. A second line of activities is to review and propose a solution of a possible integration between INCAF and the annual agricultural survey IAI.
6. The consultant will work closely with the Continuous Multi-propose Survey team at INE

This first mission focused on activities 1-2 and 4. Some recommendations are given on activity 3 and 5. Most parts of the data for employment were processed, but not all. Coding of occupation is a huge exercise and was not finalised within the mission. As soon as those data are finalised and sent to the consultant, they will be analysed and reported. Due to the late delivery of data and particularly the weights, it was not possible to do the analysis during the mission and therefore the activity 6 was limited. Training in welfare/poverty analysis will be the focus in the coming missions.

Full ToR are found in annex 1.

Recommendations for INCAF/IOF 2014/15

Data quality

This is the most complex survey INE performs, even more complex than the IOF 2008/09. It is therefore expected that some childhood errors occur. Typical errors like too many or too few zeros were found on values and quantities. Codes with e.g. 99999998 for unknown values still remain in the data files. The parallel IT consultant will check and improve the computerised controls both in the field computers and those used for central data entry. Often the interviewers and supervisors have more information than central staff to replace an unknown value and **it is recommended that those codes are removed in the field.**

The general quality is adequate in relation to the complexity of the survey.

The use of paper questionnaires for the expenditures is a risk for quality problems, as central data entry usually is a significant source of errors and delays. In a future INCAF all data should be entered in the field with built in controls.

One of the major reasons for a continuous survey is the possibility for continuous quality improvements.

Sample weights

The sampling design was not fully documented and the listing procedures (before INCAF) have unexplained problems in the implementation, which is explained by the sampling consultant. Weights had to be improved by using the official population projections and final weights were only available at the last working day.

The use of projections introduces assumptions and makes the data less adequate for population statistics. **It is recommended to publish averages and percent distributions rather than count of households and people**.

Data transactions and concatenation

Data are transferred by Bluetooth from the interviewers to the supervisors and from the supervisors to both regional offices (as back-up) and to INE HQ as RAR-files. Handshaking and encryption is not used. Some problems have occurred, but original files could be recovered. The survey generates thousands of files that must be concatenated. The concatenation procedures seem to be safe, but the IT consultant will check in more details and make the process safer if possible.

Database management

There are mainly two ways to produce tables, either by making a tabulation plan and order the final tables from the IT staff or to make new production tables for further easy cross-tabulation by the statistician. Currently the CSPro-files are manipulated in SPSS creating huge tables with much redundant information, e.g. a lot of administrative data.

Much simplified tables for future cross-tabulations are recommended. They should only include variables that are needed for all standard tabulations. An example for labour statistics is attached as annex 2.

Such production tables should be managed in a systematic way, so further updates and corrections will be included. If they are handled as separate files it is a risk that they are distributed and without reach for updates. If a statistician detects an error any change should be done in a central database. The best would be to manage all data in relational database, such as SQL or its daughter MS Access, where all data can be linked without repeating redundancies. Weighting and other manipulations of the data can either be done before storing them (as now in SPSS) or more safe within the database program.

Following steps are proposed:

1 Data entry files (CSPro) should be saved as back-up before any manipulations;

2 Relational database (Access or SQL) should be the core database with final data and latest updates;

3 Output database (Access or Excel) for easy cross-tabulations and decorations.

A manual for creating and use of a database (now for labour force statistics) was developed (see annex 3).

Tabulation and dissemination

The survey started in August, one month later than planned. Occupation is not fully coded and not all expenditure data are entered and edited. The mission focused on labour force data, which are most important to release quarterly. A draft report has been developed (annex 4) after the mission as sampling weights were only available the last mission day.

The first quarter also includes several one-time modules that should be analysed and disseminated as soon as data are checked. This is particularly important for income data, being one type of welfare/poverty indicator. Possession of goods (asset welfare/poverty) can be compared with previous IOF and INCAF. Access to water, electricity and hygiene and reading

ability can also be analysed already on the first quarter. The food share of the total budget (Engel's law) is probably the most robust indicator on economic welfare and can probably be analysed on quarterly base and compared with earlier data from IOF and INCAF.

Multidimensional welfare/poverty

Like previous IOF, the new survey will generate statistics in many areas relevant for welfare: employment, education, health, housing, services, possessions, etc. It is up to the analysts to decide if those data can be combined into a composite index. The main problem is the lack of weights. Composite indices are often disputed because different opinions on the weights.

As MPD is responsible for poverty analysis, INE should present some indicators on the whole welfare spectra, where poverty is part.

A better alternative than a "welfare index" is to use a subjective well-being approach focusing on service performance and quality of life (including good governance, human rights and participation).

Statistics Sweden is using a well approved method to measure service performance in most parts of public sector and also the citizens' satisfaction with local governments and the living conditions in the community.

The method has also been used in many of Statistics Sweden's project countries and together with the Swedish Children's Ombudsman in six countries to track children's well-being as they perceive it themselves, different from many problem-oriented surveys of children.

Three modules were developed in close cooperation with MPD, UNDP and UNICEF. The World Bank also participated and emphasised the importance that any extra modules have very limited impact on the already complex survey.

The first module is following the approach described above, but adjusted to national needs for multidimensional welfare/poverty/well-being. This will also provide weights for other multidimensional indices (see draft in annex 5). A second module is similar but for children.

The second module is a much simplified Time Use module (see draft in annex 6).

Both modules are easy to administrate and can be filled in by the respondents themselves if they can read. The extra burden on the survey is when the interviewer has to read the questions, but each module should not take more than 15 minutes. It is proposed that only one sampled person in the household (having the nearest coming birthday) answer one module.

These types of modules need only a sub-samples (2 000-3 000 people) for national and some provincial indicators. It is recommended to implement the well-being modules in one sub-sample with one adult and one child in each household and to implement the time-use module in a separate sub-sample.

The modules should be administrated on paper, not to make changes in the field computers and also so most people can fill them in themselves. The data entry can be done either at central INE or be outsourced, e.g. using scanning.

Analysis of well-being can be done using the Excel add-in program XLSTAT-PM.

The modules are easy to answer and more popular than most other modules, as people have a chance to give their opinions. The many visits to the household should make it possible to implement the modules at visits with less other data collection. The main costs for INE (or MPD) should be printing of questionnaires, distribution, data entry and data editing. The modules need limited interviewer training, which would be best to do together with any other gathering of the interviewers or it can be done in two steps training the supervisors who will train the interviewer. The content of the well-being module should not be explained by the interviewer. Respondents

should be advised to answer more by feeling than thinking. The indicators can have many aspects and the interviewer should not advice to a specific one, only explain/translate a word that is not understood.

INCAF concept paper

The donors have asked for a concept paper describing the benefits of INCAF. A draft (annex 7) was handed over, but should be further developed by INE.

Next mission

The next mission will check the quality of the second quarter and to analyse the labour force data for that quarter and changes from previous quarter, using panel data. But most of time will be devoted to training in welfare analysis, using labour force, income and assets data.

Annex 1: Terms of Reference

October 2014

TERMS OF REFERENCE

for 3 short-term missions on

INCAF/IOF
the Household Budget module of the Continuous Multi-purpose Survey

23 November – 20 December 2014,
23 February – 20 March 2015 and
12 October – 6 November 2015

within the

AGREEMENT ON CONSULTING IN INSTITUTIONAL CAPACITY BUILDING,
ECONOMIC STATISTICS AND RELATED AREAS
between INE and Scanstat.

Consultant: Lars Lundgren through Statistics Sweden

Counterparts*:* Arão Balate and the INCAF team at INE

Background
The National Statistics Institute of Mozambique (INE) has re-designed the household budget survey Inquérito sobre o Orçamento Familiar (IOF) to function as a module of the continuous multi-purpose survey (INCAF) which covers the seasonality in household income and expenditures over a period of 12 months. The International Sampling Consultant will provide technical assistance and training to INE on the INCAF/IOF sampling and estimation procedures. This consulting assignment will take place in three separate missions planned for November 2014, February 2015 and September 2015 and the consultant will coordinate the work with other Scanstat consultants working in the same field.

Main reasons for the mission
The INCAF/IOF has been going on since July 2015 and results are obtained each quarter. There is a need for oversight, assistance and further advice on how to best go forward.

Objective
To secure that the work goes along international standards.

Activities
This is a continuation of previous missions and the Consultant is responsible for the following activities during each of the missions:

7. Support the INE in the verification of the database to identify any potential problems that could hide within the data;
8. Support the INE in making tabulations plans both quarterly, semi-annual as well as yearly
9. Support the INE with the procedures of data aggregation by quarter, semester and year, given the methodology of a panel survey;

10. Make recommendations for the coming quarters related to the problems encountered in the actual data base.
11. A second line of activities is to review and propose a solution of a possible integration between INCAF and the annual agricultural survey IAI.
12. The consultant will work closely with the Continuous Multi-propose Survey team at INE

Expected outputs

The consultant will prepare a written documentation of the above activities;

Beneficiaries of the mission

The mission will benefit INE and the whole National Statistical System of Mozambique including users of statistical information.

Tasks to be done by INE to facilitate the mission

- Elaborate ToR for the missions
- Prepare and supply the consultant with necessary documents and information, like the new visual identity of INE
- Supply good communication conditions for the consultant.

Source of Funding

Project: MPD-2008-0006 – Inquérito Sobre Orçamento Familiar – IOF
PAAO14 – 1.2.2 Inquérito Contínuo aos Agregados Familiares
PAAO15 – 1.2.2 Inquérito Contínuo aos Agregados Familiares

Timing of the mission

Three missions on four weeks each, as written above. Number of workdays for each mission: 18 days in Maputo (6 days x 3 weeks) and a further 6 days of remote work.

Place

The premises of INE in Maputo with possible allocations to the provinces.

Language

English.

Report

The consultant will prepare a short final report to be discussed with INE before ending assignment. Statistics Denmark as Lead Party will publish the final version on www.dst.dk/mozambique within 3+ weeks of the end of the mission. The structure of the report should be according to Scanstat format.

Approved by Arão Balate, INE/DCI

Day / / .....

Confirmed by Leia Gimo Macamo, INE/DARH and Contract Manager for the INE – Scanstat Contract

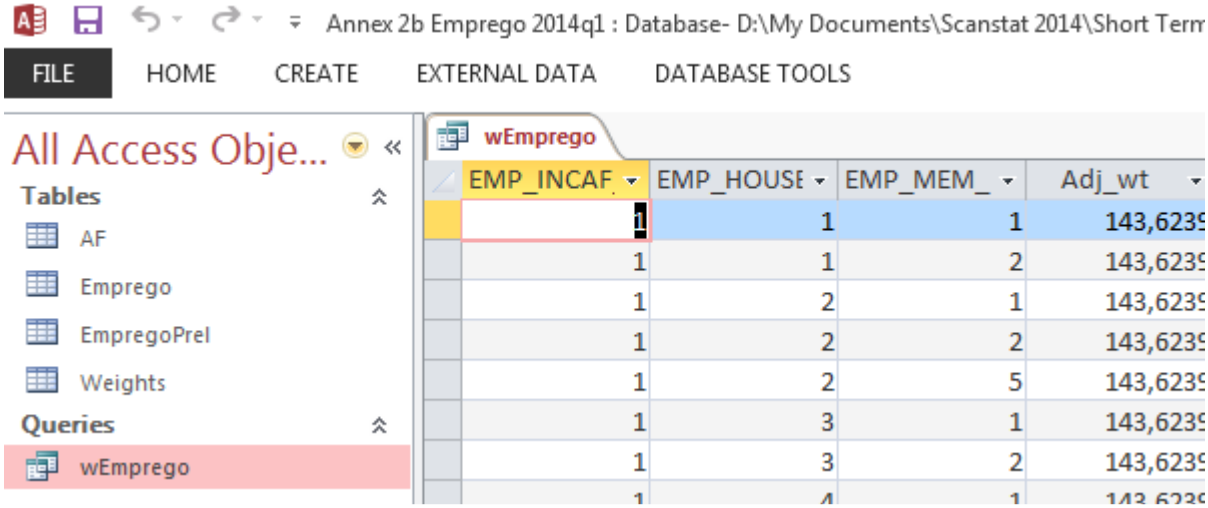
Day / / .....

Annex 2: Example of a production table for labour force statistics (see executables in separate file)

2a Excel version:

Sum of People	Column Label											
Row Labe	1	2	3	4	5	6	7	8	9	10	11	Grand Total
0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	4%	4%	6%	2%	3%	2%	4%	3%	4%	10%	11%	5%
2	3%	2%	2%	1%	1%	1%	3%	2%	2%	3%	4%	2%
8	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
(blank)	93%	95%	92%	96%	96%	97%	93%	95%	94%	87%	85%	93%
Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

2b Access version:



<See separate files.>

Annex 3: Manual for database management in MS Access (see separate file, 4 Mb .docx)

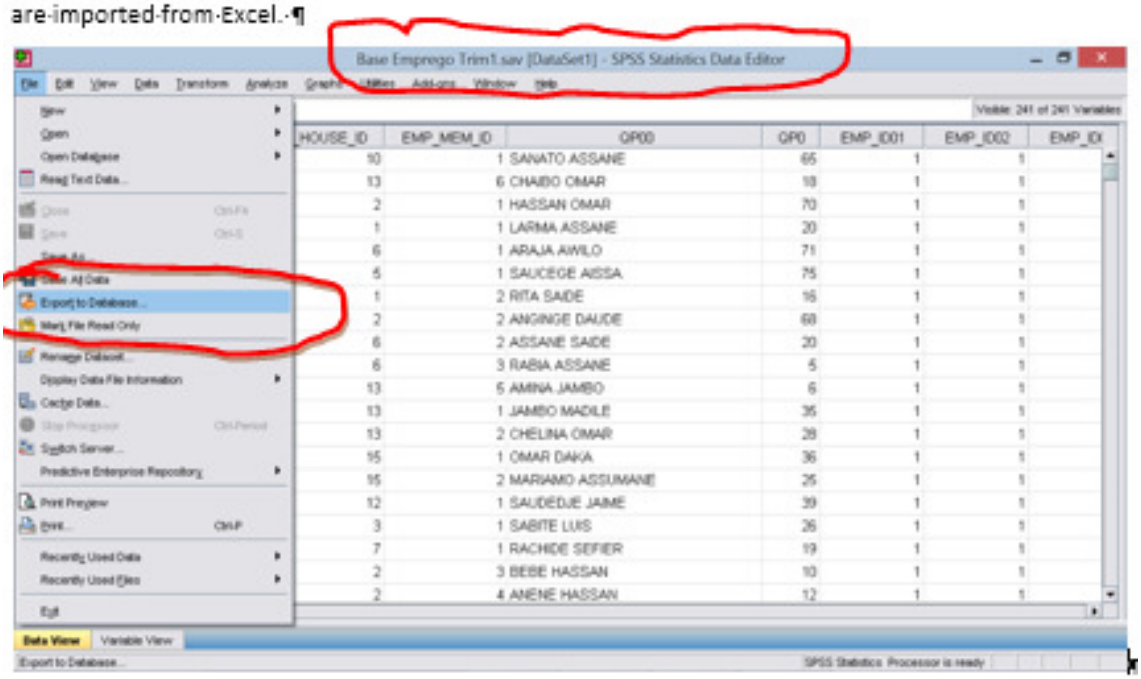
INCAF-IOF socio-demographic database

Manual: How to manage a database and cross-tabulate the data in less than 30 steps.

Creating the database

1. Create a new database in MS Access 2007

Export or import the data to the database. Here the data are exported from SPSS and the weights are imported from Excel.



… <Continues in separate file.>

Annex 4: Draft questionnaire for a Well-being module

Household No.	Person No.	First name

Living & Environment Condition Index

The questions refer to your own personal conditions during the last year. Please rate the different conditions/ circumstances on a scale from one (1) to ten (10). One means *not at all satisfied* and ten means *extremely satisfied*. If you have no experience of a question, circle "*?*" in the last column.

Answer more by feeling and without further explanation.

OVERALL WELFARE **How satisfied are you with your life…**	*For INE*	*not satisfied* ☹ 😐 ☺ *very satisfied*	Don't know
- as a whole?	*A*	1 2 3 4 5 6 7 8 9 10	?
- as compared to what you expected one year ago?	*B*	1 2 3 4 5 6 7 8 9 10	?
- as compared to your neighbours?	*C*	1 2 3 4 5 6 7 8 9 10	?
FOOD - How do you rate your…		☹ 😐 ☺	
- current food situation?	*D*	1 2 3 4 5 6 7 8 9 10	?
- food situation during the last year?	*E*	1 2 3 4 5 6 7 8 9 10	?
- drinking water situation?	*F*	1 2 3 4 5 6 7 8 9 10	?
HEALTH - How do you rate…		☹ 😐 ☺	
- your health situation?	*G*	1 2 3 4 5 6 7 8 9 10	?
- your ability to see (with or without glasses)?	*H*	1 2 3 4 5 6 7 8 9 10	?
- your ability to hear (with or without a hearing aid)?	*I*	1 2 3 4 5 6 7 8 9 10	?
- your ability to walk or climb stairs?	*J*	1 2 3 4 5 6 7 8 9 10	?
- your ability to do daily activities, such as dressing yourself?	*K*	1 2 3 4 5 6 7 8 9 10	?
- ability to be understood by others?	*L*	1 2 3 4 5 6 7 8 9 10	?
- ability to remember or concentrate?	*M*	1 2 3 4 5 6 7 8 9 10	?
- the nearest public health services?	*N*	1 2 3 4 5 6 7 8 9 10	?
- the public health service you mostly use?	*O*	1 2 3 4 5 6 7 8 9 10	?
EDUCATION - How do you rate…		☹ 😐 ☺	
- your capability to read and write?	*P*	1 2 3 4 5 6 7 8 9 10	?
- your professional skills (in farming or other type of work)?	*Q*	1 2 3 4 5 6 7 8 9 10	?
- your access to good education?	*R*	1 2 3 4 5 6 7 8 9 10	?
- your child's access to good education?	*S*	1 2 3 4 5 6 7 8 9 10	?
HOUSING AND ENVIRONMENT - How do you rate the…		☹ 😐 ☺	
- standard of your house?	*T*	1 2 3 4 5 6 7 8 9 10	?
- sanitary standard in your house?	*U*	1 2 3 4 5 6 7 8 9 10	?
- energy situation for lighting and cooking?	*V*	1 2 3 4 5 6 7 8 9 10	?
- general environment around your home?	*W*	1 2 3 4 5 6 7 8 9 10	?
- forest status in your environment?	*X*	1 2 3 4 5 6 7 8 9 10	?
TIME, LEISURE AND TRAVEL - How do you rate…		☹ 😐 ☺	
- the distribution of work/duties within your household?	*Y*	1 2 3 4 5 6 7 8 9 10	?
- your available time for leisure activities such as sports, radio, TV, newspapers, books, movies ?	*Z*	1 2 3 4 5 6 7 8 9 10	?

- your access to leisure activities?	*AA*	1 2 3 4 5 6 7 8 9 10	?
- your contact with relatives and friends?	*AB*	1 2 3 4 5 6 7 8 9 10	?
- your social life?	*AC*	1 2 3 4 5 6 7 8 9 10	
- your possibilities to go to other places?	*AD*	1 2 3 4 5 6 7 8 9 10	?
SOCIAL SECURITY - How do you rate the…		*not satisfied* ☹ ☺ *very satisfied*	Don't know
- public safety net (pensions, social transfers, free services)?	*AE*	1 2 3 4 5 6 7 8 9 10	?
- support from other organisations (NGO's, church, etc)?	*AF*	1 2 3 4 5 6 7 8 9 10	?
- support from other sources (relatives, employers etc)?	*AG*	1 2 3 4 5 6 7 8 9 10	?
PERSONAL SAFETY - How do you rate…		☹ ☺ ☺	
- your safety from thieves and/or pickpockets?	*AH*	1 2 3 4 5 6 7 8 9 10	?
- your safety from physical violence?	*AI*	1 2 3 4 5 6 7 8 9 10	?
- your safety from corruption/extortion?	*AJ*	1 2 3 4 5 6 7 8 9 10	?
- the ability of local police to prevent crimes and punish criminals?	*AK*	1 2 3 4 5 6 7 8 9 10	?
ECONOMIC OPPORTUNITIES – How do you rate…		☹ ☺ ☺	
- your possibilities to get decent job?	*AL*	1 2 3 4 5 6 7 8 9 10	?
- your access to market to sell products?	*AM*	1 2 3 4 5 6 7 8 9 10	?
-your access to market to buy products?	*AN*	1 2 3 4 5 6 7 8 9 10	?
- your access to means for production (tools, fertilisers, etc)?	*AO*	1 2 3 4 5 6 7 8 9 10	?
- your access to arable land?	*AP*	1 2 3 4 5 6 7 8 9 10	?
- your access to water for agriculture?	*AQ*	1 2 3 4 5 6 7 8 9 10	?
- the legislation and regulations for doing business/farming?	*AR*	1 2 3 4 5 6 7 8 9 10	?
PARTICIPATION - How do you rate your possibilities to…		☹ ☺ ☺	
- participate in community decisions?	*AS*	1 2 3 4 5 6 7 8 9 10	?
- improve public services?	*AT*	1 2 3 4 5 6 7 8 9 10	?
- express your opinion in public meetings?	*AU*	1 2 3 4 5 6 7 8 9 10	?
- improve your living conditions?	*AV*	1 2 3 4 5 6 7 8 9 10	?
- influence decisions in your work environment?	*AW*	1 2 3 4 5 6 7 8 9 10	?
- participate in social gatherings?	*AX*	1 2 3 4 5 6 7 8 9 10	?
- organize social gatherings?	*AY*	1 2 3 4 5 6 7 8 9 10	?
WORKING CONDITIONS - How do you rate…		☹ ☺ ☺	
- your current wage/income?	*AZ*	1 2 3 4 5 6 7 8 9 10	?
- safety in the working environment?	*BA*	1 2 3 4 5 6 7 8 9 10	?
- the quality of your land / machamba?	*BB*	1 2 3 4 5 6 7 8 9 10	?
CONFIDENCE - How do you trust the…		☹ ☺ ☺	
- community leaders?	BC	1 2 3 4 5 6 7 8 9 10	?
- national politicians?	BD	1 2 3 4 5 6 7 8 9 10	?
- police officers?	BE	1 2 3 4 5 6 7 8 9 10	?
- teachers?	BF	1 2 3 4 5 6 7 8 9 10	?

- public health care professionals?	BG	1 2 3 4 5 6 7 8 9 10	?
- other public service professionals?	BH	1 2 3 4 5 6 7 8 9 10	?
- people in your community?	BI	1 2 3 4 5 6 7 8 9 10	?

Annex 5: Draft questionnaire for a Time Use module

Household No. |__|__|__|__|__|__|	Person no |__|__|	Date 15 |__|__|__|__| yymmdd

Start with waking up yesterday
End with waking up today

How much time did you use yesterday for…

Activity	Hours	Minutes
…eating and drinking		
…personal care		
…school		
…homework		
…work as employed |__|__|*		
…occasional work |__|__|		
…own business work |__|__|		
…farming |__|__|		
…construction |__|__|		
…shopping/getting service		
…weaving, sewing, textile care		
…cooking		
…domestic work		
…care for children/adults/elderly		
…walking		
…travelling		
…watching TV		
…reading		
…sitting with family		
…exercising		
…social visits		
…practicing hobbies		
…other, specify…		
...sleeping and resting		

* Codes for activities

Annex 6: Draft Concept paper for INCAF

2014-12-20

Permanent system for household statistics

Not another survey

History	Future
Ad hoc surveys or survey programs with e.g. employment statistics each five year.	Permanent survey with employment and consumption statistics every quarter.
Recruitment and training for each survey with limited quality improvements from survey to survey.	Permanent staff with limited re-training and continuous quality improvements. Stable incomes for the interviewers. Standardized processes.
Integration of many subjects in the same interview with heavy response burden and quality limitations. All background variables are repeated for each survey.	Distribution of subjects over time by quarterly visits and rotating modules returning every 3-10 year. Background variables are only collected when new households are selected.
Short period for measurement of consumption or longer period in the same season with high risk for misclassification of poverty.	Representation of all seasons and each type of weeks I the month for improved poverty classification of each household.
Paper questionnaires and separate data entry.	Computer assisted personal interviews (CAPI) with path-guiding and built in controls.
Not integrated software for data entry, database management and tabulation. Limited integration between surveys.	Automatic management of data from entry to storage in a relational database for easy access to all data.
Report on the full survey, often long delayed.	Quick updates of core indicators on the homepage and later more comprehensive thematic reports. Increased user awareness when regular dissemination.
Intensive planning and testing for each survey with limited flexibility during the implementation.	Planning only when major changes and flexibility to add on questions for ad hoc needs.
Expensive ad hoc activities, mainly donor dependent.	Easier for the government to fund permanent staff than ad hoc activities with big differences in cost.

From surveys when funded - towards statistics when needed

Design and methodology

The core of a permanent system should be limited to data that need to be monitored quarterly and annually. Other data should be collected through add-on modules rotating over time and be collected from sub-samples when a smaller sample is adequate. The core survey should take around 30 minutes to complete. Each add-on module should also be limited to around 30 minutes.

Employment and consumption are two important indicators that are worthwhile to measure annually and even quarterly.

Possible rotating modules are:

- Health (similar to the Demographic and Health Survey - DHS)
- Employment (similar to LFS)
- Education
- Migration
- Housing
- Assets
- Income and transfers
- Service Performance and Quality of Life (Satisfaction/well-being)
- Household related agriculture
- Household related business ("Informal sector")
- Time use
- Food intake
- Tourism
- Resilience to shocks
- Other

Time use and Food intake are changing very slowly and can be measured each ten year. Housing could preferably be measured between the population and houses censuses.

Time use, Food intake and Service Performance do not vary so much in the population, so fairly small sub-samples can be used (1 000 households or more).

Employment, Informal sector, Time use and Food intake can be seasonally dependant and should therefore be measured during a full year.

A permanent system can easily facilitate many different needs, but not everything at the same time. The core questionnaire should be kept fairly clean and not being contami-nated by odd or "good to know" question.

In agriculture dependent countries with seasonal differences it is much better to have data for four weeks spread over all four quarters to limit the risk of misclassification. In a similar way it is important to allocate the weeks for each household so each week number in "a" month (but not the same month) is represented for each household, to avoid that salary dependent households are classified as rich if sampled the week after the payday, but poor if sampled before the payday (also mentioned as *4x4 method*).

Household related agriculture and businesses are important activities both for employment and household as well as national economy. The formal parts are measured by the economic statistics with samples from the business register, while the household related activities are based on household samples and therefore can be integrated in a household statistics system. Structural

data can be collected in rotating modules, while employment and production data can be collected quarterly.

From poverty to welfare and well-being

Due to the millennium development goals most of the focus has been on poverty monitoring and analysis. Beyond 2015, the focus should shift to welfare and well-being. Policy makers should need more information about why people get better off and not only related to consumption (money-metrics) but also encounter health, education, employment, housing, security, participation, etc. Welfare is usually measured as access to resources, but there is more and more interest in monitoring well-being/happiness (*backed up by the UN Resolution **65/309:** Happiness: towards a holistic approach to development*).

Hierarchical questioning

A standard Household Budget Survey (HBS) is asking about expenditure on a relatively detailed level. This can easily be achieved by using the tablets in a different way and with limited extra costs. Instead of asking about food for specific items, it can be asked on a group level, e.g. fish. If the household hasn't bought any fish during the past seven days, the program will automatically skip to the next group. If they have bought fish, a list of fish types is visible for selection and the interviewer ask the value paid and other possible details. In the end, the interviewer asks if the household has bought any other fish.

Example of question for food expenditure

Did anyone in the household buy any *fish or shellfish* during the past seven days?	**No**
If yes: **What type was it?**	1 Fresh, chilled or frozen fish 2 Fresh, chilled or frozen seafood 3 Dried, smoked or salted fish and seafood 4 Other preserved or processed fish and preparations
How much did you pay?	Mt
Was it for…	1 …household consumption 2 …ceremonial/ritual event 3 …resale 4 …input to agriculture activities
Did the household buy any other fish?	**Yes** **No**

Own produced food and gifts received in kind should be asked separately from the expenditure and separately from each other. It is not easy for anyone to keep them in mind when asked about each item, if they are not mentioned all the time. Common items are much fewer than the purchases and they are partly different for own produced and gifts.

Gifts could be asked for past seven days (or past three months if infrequent).

Own produced food could be asked only for yesterday instead of past seven days. Own produced consumption varies between seasons and regions but marginally between days in a week. It is

not easy to try to remember and add together what was consumed day by day and also think about when those seven days started. The reliability will increase with a shorter period and with small variability the standard error will not increase much. Nutrition surveys often have a one day period.

Example of question for own produced food:

Did your household use any own produced or fetched food yesterday? *Not processed.*	**No**	
If yes: **What type was it?**	1 Rice 2 Maize 3 Sorghum 4 Other cereals 5 Meat 6 Poultry 7 Fish 8 Milk 9 Egg 10 Fruit 11 Berries 12 Tubers 13 Vegetables 14 Mushrooms 15 Honey 16 Jam, marmalade	
How much did you use?		1 kg 2 litre 3 … or use pictures
Did the household use any other own produced?	**Yes**	**No**

Following these recommendations INCAF will turn to a full scale continuous IOS, according to international recommendations and best practices. Quantities of purchased food can be added, but is not recommended because of limited data quality and limited or no use.

Experience so far is that data management is a bottle neck, due to the use of old fashioned data entry programs and transferring of data between different statistical programs. It is highly advisable to have a relational database approach with data collection with tablets or smartphones, sending the data automatically to a well-designed but flexible data base with easy access.

Mozambique

INCAF was built on previous IOF and LFS following international recommendations and best practices, but with some modernisations (e.g. computerised field work) and improvements (e.g. the 4x4 method). The current IOF is in turn built on experiences from INCAF and includes the INCAF core questions with more questions on the labour force and health. Following table gives an overview of main methods and used and differences between the surveys.

	IOF 2008/09	INCAF 2013/14	IOF 2014/15	INCAF 2016+
Sample design	2 stage	Similar but fewer households/EA	Similar as INCAF	Same as INCAF
Efficient ample size	10 832	8 635	11 518	7 200?
Reference periods				
Non-durables	1 week	(4)x1 week	4x1 week	4x1 week
Semi-durables	3 months	(4)x3 months	4x3 months	4x3 months
Durables	12 months	12+(9 months)	4x3 months	4x3 months
Own-produced	1 week	(4x1) week	4x1 week	4x1 day
Sample x period	10 832 weeks	(34 540 weeks)	46 072 weeks	28 800
Content	Roster Housing Health Education Migration Employment Resilience to shocks Income Transfers Consumption & expenditure Tourism Subjective poverty	Same as IOF, but employment is expanded	Same as INCAF, but resilience is expanded	Roster Employment (reduced) Consumption & expenditure Modules
Visits/households	2-7	4x1	4x(1-7)	4x1
Data entry	Central with CSPro	CAPI with CSPro	CAPI with CSPro	CAPI with new software
Data manipulation and storing	SPSS and finally stored in Access	SPSS files	SPSS and Access	Access
Dissemination	Final report	Quarterly (and annual) 6 month after last period	Quarterly, annual and thematic	Quarterly, annual and thematic
Total number of visits	30 000	35 000	552 000	28 800
Budget		4.7 MUSD		

"Sample x period" is a rough proxy for quality and "Total number of visits" is a rough proxy for the survey cost. *INE should make a minimal budget for INCAF 2016.*