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Global Strategy to improve Agricultural and Rural Statistics (GSARS)

(2nd Phase, 2021-2023)

Technical assistance packages of the GSARS2: objectives and content

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❖ Context

Background

The Global Strategy to improve Agricultural and Rural Statistics (GSARS) was designed as a blueprint for a coordinated and long-term initiative to address the relative decline in the agricultural statistical systems of many developing countries. The GSARS aims at providing framework that will enable developing countries to produce more and better agricultural statistics in the 21st century.

Results of the 1st Phase (2012-2018)

The implementation of Phase 1 of the Global Strategy (2012-2018) has had a significant positive impact on the agricultural statistical systems of many developing countries. It has also demonstrated its ability to respond to the needs of the evolving international and regional agendas.

Significant results include:

- (i) 50 methodologies, guidelines and corresponding training material have been produced, and endorsed and disseminated by FAO as official international statistical methods;
- (ii) Strategic Plans for Agricultural Statistics (SPARS) have been prepared in almost 40 countries, improving the governance and coordination of national statistical systems;
- (iii) A fast-track model for technical assistance was successfully implemented, with an emphasis on South-South Cooperation and direct work with sub regional partners;
- (iv) Concrete progress has been made in countries' overall statistical capacity, especially through the success of the postgraduate scholarships programme in the network of statistical training centres.

Main objectives and components of the 2nd Phase (2021-2023)

The overarching objective of the Phase 2 of the Global Strategy is to build stronger capacities in national agricultural statistical systems for accountability reporting and policy making, building on the foundations established during Phase 1. In this context, four main components have been identified:

Component 1 : Strategic Plan for Agricultural and Rural Statistics (SPARS)

Through the development of appropriate mechanisms for guaranteeing long term national statistical development.

Component 2: Training

Through an improvement in existing HR and management policies, strengthening of the technical capacities of statistical staff, improved graduate programs on agricultural statistics and facilitated access to scholarships.

Component 3: Cost-effective methods

Through the provision of technical assistance on cost-effective methodologies, most of which have been developed during Phase 1.

Component 4: Data analysis, dissemination

Through the increase in data analysis and dissemination capacities that will enable countries to compute indicators relevant for accountability reporting and policymaking.

Overview of proposed support

The table below shows the 15 packages distributed according to the four main components of GSARS2.

| COMPONENTS | PACKAGES | DESCRIPTION | RESPONSIBILITY |
|---|--------------------------------|---|----------------|
| Component 1 SPARS | SPARS | Designing or updating SPARS at country level | FAO |
| | ADAPT | Integrating the use of ADAPT in the SPARS assessment phase | P21 |
| Component 2 Training | HR POLICIES | Providing agricultural statistical institutions and their staff with adequate HR policies and related training | P21 |
| | LEADERSHIP, COMMUNICATION | Strengthening leadership and communications of agricultural statistical agencies for better agricultural policies | P21 |
| | SCHOLARSHIPS | Strengthening the capacities in agricultural statistics by providing 60 scholarships for 25 countries in Africa at master's level in the network of African Statistical Schools | UNECA |
| | BASIC TRAINING | Improving the skills in agricultural statistics of statistical officers through the provision of an extended training (3 weeks) covering data editing, cleaning and imputation, data management and preservation, tabulation and gender-relevant statistics | FAO and UNECA |
| Component 3 Cost-effective methods | AGPROD | Providing countries with the appropriate data collection and analytical tools to produce timely and reliable statistics on agricultural production | FAO |
| | FARMECO | Providing countries with the appropriate data collection and analytical tools to measure key economic aggregates, both at the farm and commodity-level. | FAO |
| | LOSSES | Providing countries with the appropriate data collection and analytical tools to measure harvest and post-harvest losses of agricultural commodities on the farm | FAO |
| | MSF | Providing support to countries in developing, using and maintaining master sampling frames for agricultural surveys | FAO |
| Component 4 Data analysis, dissemination | TOOLS | Training and support on the use of tools for data processing and analysis such as STATA, SPSS or R | FAO |
| | CAPI | Training and support on the use of Computer Assisted Personal Interviewing (CAPI) systems | FAO |
| | DISSEMINATION | Training and support on the dissemination of official statistics, including well-documented microdata | FAO |
| | INDICATORS and FARM TYPOLOGIES | Training and support on the computation of indicators (national, SDG, CAADP) and -for more advanced countries- on the development of farm typologies | FAO |
| | FBS | Training and support on the compilation of food balance sheets | FAO |

Target countries and regions

Twenty five African countries are targeted. It has been estimated that countries could receive a maximum of 5-6 packages to account for the time and capacity required to absorb new techniques and methodologies in a limited time frame. The packages have been conceived as separate - but interconnected - modules addressing different levels of technical expertise and capacities.



An in-depth analysis of needs will be made at the beginning of the implementation of the grant, based on information gathered during the 1st phase of GSARS and information to be collected at national level. It is expected that countries with low capacities will be proposed basic packages (AGPROD, TOOLS, INDICATORS) in priority whereas more advanced countries or countries having benefitted from TA in the first phase of GSARS would have access to more advanced packages (FARMECO, LOSSES, DISSEMINATION).

The 25 targeted African countries cover three economic communities - ECOWAS¹, COMESA² and SADC³ - which will directly benefit from certain TA activities and also contribute to the implementation of certain activities in the countries.

¹ Economic Community of West African States (ECOWAS)

² Common Market for Eastern and Southern Africa (COMESA)

³ Southern African Development Community (SADC)

❖ Component 1: SPARS

Package – SPARS

Implementing agency: FAO

Rationale: While the methodology for Strategic Plans for Agricultural Statistics (SPARS) has been developed during Phase 1 and implemented in almost 40 countries, efforts must still be put in providing technical assistance to countries wishing to design a SPARS or update an existing one. Indeed, the demand for support remains high and many countries have now embarked on plans for preparing a second generation of SPARS, such as Tanzania, Mozambique, Senegal or Burundi, among others.

Objectives:

- Provide support to target countries in designing a SPARS at country level or updating an existing one in line; with existing statistical and policy frameworks, through the integration of the ADAPT software;
- Assist target countries in budgeting statistical activities planned in SPARS and to mobilize the resources through a well-designed advocacy strategy, an aspect which has not sufficiently addressed during Phase 1.

Activities and results:

- Better planning and resource-mobilization for national agricultural statistical systems through the design of SPARS in target countries;
- Target countries have implemented a sustainable approach for funding their SPARS;
- The ADAPT module is used in target countries and for one sub-region.

Relationships with other Packages: The training and roll-out of the ADAPT software (*see Package – ADAPT*) will contribute to improve the relevance and quality of the SPARS, as this software will help countries in identifying data gaps and aligning data production to the needs of policymakers.

Relationships with other initiatives: Particular attention will be paid on the integration of other programmes such as 50x2030 Initiative as a cornerstone activity of the national agricultural statistical system and the inclusion of RESAKKS focal nodes in the participatory process of design.

Pre-requisites: Training received on ADAPT.

Human resources requirements: Availability of the SPARS country focal point. The members of the technical working groups on agricultural statistics (when it exists) would be required to convene several times during the technical assistance.

References:

-Guidelines: <http://gsars.org/wp-content/uploads/2014/07/SPARS-final-3007.pdf>

-Brochure: <http://gsars.org/wp-content/uploads/2018/10/SPARS-Brochure-2018-EN-02-FINAL.pdf>

Package – ADAPT

Implementing agency: Paris 21

Rationale: Despite the numerous calls for evidence-based policymaking and data-driven development planning, the mismatch between statistical production, policy priorities and reporting schemes at national and regional/global levels (SDGS, CAADP) remains important in many low- and middle-income countries. Innovative tools such as ADAPT (Advanced Data Planning Tool), developed by PARIS21, can address some of these gaps by improving the alignment of data production to the needs of policymakers. This tool, used in about 20 countries, identifies informational gaps (coverage, level of detail, etc.) and estimates the financial resources needed to bridge them. ADAPT is therefore a useful tool for national statistical services in the planning and budgeting of the statistical activities that aim at addressing the needs of national, regional and global reporting or accounting frameworks.

Objectives:

The support in the use of ADAPT aims at better aligning the production of statistics to the needs of key national, regional (such as CAADP) and global (such as the Agenda 2030) frameworks. To maximize the benefits of this package, ADAPT will be used during the SPARS development process. After tailoring it to the specificities of the agricultural sector, ADAPT will be proposed as a standard tool for improving the quality of the assessment phase and to guarantee that demands in terms of indicators will be matched with the different statistical operations covered in the SPARS.

Activities and results:

- New ADAPT functionalities and reports implemented to tailor the software to the agriculture sector;
- FAO staff and other relevant global partners of the GSARS trained on ADAPT;
- ADAPT is used in one sub-regional organization, in particular to identify potential data gaps related to the CAADP results framework;
- Countries have installed and been trained on ADAPT, which is used to accelerate and improve the design of SPARS in these countries, to support its implementation, its monitoring and to ensure that a sustainable approach for funding is implemented;
- ADAPT is used by national authorities to continuously monitor data demands and data gaps for key sub-national, national, regional and global agricultural policies and frameworks.

Relationships with other Packages: As this package is used as a tool to improve the development of the SPARS, the two packages must be combined.

Relationships with other initiatives: none.

Pre-requisites: none.

Human resources requirements: Availability of the SPARS country focal point. Officers involved in policy-making and/or reporting initiatives (e.g. CAADP, SDGs) will be involved punctually (e.g. in the trainings).

References:

-ADAPT: <https://adapt.paris21.org/auth/login>

❖ Component 2: Training

Package – HR POLICIES

Implementing agency: Paris 21

Rationale: In many low- and middle-income countries, statistical systems are often understaffed, do not offer sufficient on-the-job training to their employees and are subject to high turnover. As a result, highly skilled employees capable of collecting, producing, disseminating and communicating official statistics are scarce. Systemic aspects can further hinder the development of a quality workforce in statistical offices, such as the decentralized structure of statistical systems which can confine career development for statisticians to their ministerial department, reducing career mobility, and the existence of gender inequalities or other discriminations leading to an unbalanced work environment. The development and implementation of a comprehensive human resource strategy aiming at attracting and retaining a highly skilled workforce is therefore needed in many countries and would substantially contribute to reinforce statistical systems.

Objectives: The objective of this package is to support managers from national statistical services in evaluating organizational human resources, capacity development needs, and in establishing adequate HR management policies. This support will help equip agricultural statistical units and/or their parent administration with human resource policies that allow them to hire, develop and retain the skilled employees needed to deliver their missions in modern data ecosystems.

Activities and Results:

- Preparation of a baseline study of HR policies in NSOs and agricultural statistical agencies in Africa;
- Development of a set of training materials (e-learning and face-to-face) on HR policies for statistical agencies, with an emphasis on the specificities of agricultural statistics;
- Conduction of national and regional trainings on HR policies for mid-high management and HR directors involving target countries;
- Remote coaching and peer exchanges;
- Design or improve HR policies in target countries, with an emphasis on gender, training and career development;
- Support the adoption of these HR policies in these countries;
- Design/improve training programmes in additional countries;
- Design a new organigram with revised job descriptions for agricultural statistical agencies in a limited number of target countries.

Relationships with other Packages: This package is connected with the *Leadership* and *Scholarship* packages, as they address aspects related to on-the-job and pre-recruitment training. This package is also related to the packages *Basics*, *Capi* and *Tools* as they could be included in proposed training programs.

Relationships with other initiatives: the material proposed in this package will need to be consistent with existing national initiatives on HR policies for NSOs or the public sector at large, when they exist.

Pre-requisites: None.

Human resources requirements: Availability of 1 HR Officer and of the chief of HR. The trainings will involve other mid and high-management officers.

Package – LEADERSHIP AND COMMUNICATION

Implementing agency: Paris 21

Rationale: Effective communication ensures that data and statistics reach the desired audience and are interpreted as intended. How well a statistical institution communicates with its audience impacts both the relevance of the statistical outputs and the trust placed in them. The role of national statistical agencies as a trusted interlocutor working for the public good is now even more vital as agricultural statistics become more complex, with a proliferation of actors and non-traditional data sources such as weather data services, smart meters, sensors, drones, satellite imagery and connected farming equipment. To thrive in this more complex and competitive data ecosystem, agricultural statistical agencies need to improve their capacity at securing limited financial resources from to establish partnerships with data providers and users, including from the government, academia or private sector. In this context, reinforcing communication and leadership skills in NSOs is key.

Objectives: Strengthen leadership and communication skills in national agricultural statistical agencies, both at organizational and individual levels, to ensure that organizations are better managed, and that policies and citizen are better informed by an improved use of data. To maximize the impact of this package, the training materials, reports and other outputs will be disseminated through the Paris 21 Academy.

Activities and Results:

- Design and develop training materials to complement the existing learning resources, separately for top and mid-management, with a special focus on agricultural specificities;
- Conduct a series of virtual and face-to-face training courses on leadership separately for top and mid-management of agricultural statistical agencies / units in target countries;
- Conduct a baseline study on leadership and communication skills covering target countries, disseminate the report among the national statistical system, development actors and government. The dissemination of the findings will also be facilitated by the organization of a webinar;
- Organization of data communications bootcamps with data producers, data users and journalists;
- Organization 1 regional peer-learning learning workshop on effective communication.

For national statistical agencies in a limited number of target countries:

- Conduction of a stakeholder analysis and a review of internal communication practices and products;
- Development of training materials, templates and processes, and provision of mentoring and training to improve their communications strategy;
- Support the design of new or improved communications strategies;
- Support the development of one communication product on agricultural statistics (such as a social media video, news article or factsheet).

Relationships with other Packages: This package is connected with the *HR package*, as the development of on-the-job training material will include modules on leadership and communication.

Relationships with other initiatives: None.

Pre-requisites: None.

Human resources requirements: Head of the Communications department and several Communication officers. In addition, the trainings will also involve several officers from mid and top management (e.g. heads of departments).

Package – SCHOLARSHIPS

Implementing agency: UNECA

Rationale: Training centres offering high-quality programs on official agricultural statistics are scarce in Africa. Those wishing to specialize in this field are often forced to choose short or long-term trainings abroad, which they have to finance on their own resources and/or through the sponsorship of their employers. During the implementation of the first phase, the global strategy has directly contributed to set-up long- and short-term training programs in agricultural statistics, building the capacity of statistical training centres in offering agricultural statistics training programs. To facilitate the access to these programs, the Global Strategy supported an ambitious scholarships program: 79 scholarships were given to students across 40 countries to study agricultural statistics in one of the regional statistical schools. This initiative was a success: 84 percent of the students went back to their workplace after completion of the program and 81 percent indicated that they were able to use the knowledge and skills learned in their current work. To ensure that a critical mass of agricultural statisticians is trained and available to work at country-level, this initiative will be pursued and strengthened in the second phase of the Global Strategy.

Objectives: Ensure that relevant and up-to-date training programs on agricultural statistics are available and accessible to interested students across Africa, through the provision of support in developing and updating curricula and the creation of a new scholarships program.

Activities and Results:

- Revision of the existing curricula to ensure that up-to-date methods and techniques in agricultural statistics are covered;
- Strengthening the capacities of African Statistical Schools in developing and implementing the graduate programs on agricultural statistics, building the knowledge of trainers on the topic and helping promote the program internally and externally to attract candidates;
- Provision of scholarships for 25 countries in Africa to fund the participation of students to the Master's level program in agricultural statistics offered by the network of African Statistical Schools.

It is expected that at least 80 percent of the students will return to their countries to work in the national statistical system after completion of the graduate program.

Relationships with other Packages: This package is connected with the *HR package*, as the participation to the graduate program in agricultural statistics may be one component of the recruitment and/or continuous development policy of statistical offices or agricultural statistics units.

Relationships with other initiatives: None.

Pre-requisites: None.

Human resources requirements: Persons in charge of graduate programs in the African Statistical Schools. Training activities may include administrative and financial officers involved in the management of the scholarships, communication officers as well as in-house professors (the latter for the subject-matter trainings).

Package – BASIC TRAINING

Implementing agency: UNECA and FAO

Rationale: Building the knowledge and skills of individuals involved in the production and dissemination of agricultural statistics will continue to be a priority in the second phase of the Global Strategy. The support provided will build on the results of the first phase in terms of (1) developing curricula and syllabi for short-, medium- and long-term training, (2) setting up agricultural statistics training programs in key regional training institutions and (3) providing training to staff working in agriculture statistical services. To maximize the benefits of this package, the technical assistance will focus on statistical officers from countries with low statistical capacity.

Objectives: Provide basic theoretical knowledge and skills in agricultural statistics to data producers, in particular to statisticians with no or limited background in agriculture statistics, and to economists or agronomists with basic knowledge in statistics. The training will cover the entire data-cycle, including data sources, statistical units, data collection methods, frames and sampling techniques, questionnaire design, data validation, processing, analysis and dissemination. The trainees will also be introduced to the Generic Statistical Business Process Model (GSBPM). This package will contribute to build a critical mass of statistical officers that will be engaged in data collection on the agricultural sector.

Activities and Results:

- Full revision and update of the training module developed in the first phase of the GSARS: extension to a three-weeks module and inclusion of data processing and dissemination;
- Organization of several regional trainings for targeted countries to strengthen the capacities of their staff in basic agricultural statistics.

Relationships with other Packages: This package is connected with the *HR package*, as the training proposed may be one component of the continuous development policy of statistical offices or agricultural statistics units.

Relationships with other initiatives: In line with the 'gender commitments' made by the 50x2030 Initiative, this training provides an overview of the minimum set of gender indicators and sex-disaggregated data that can be mainstreamed in agricultural survey programme.

Pre-requisites: The recipient organizations, with the support of the implementation agencies, will need to identify the profiles of the potential trainees and to pre-select the staff that may benefit from such trainings. The recipient organization and the trainees will have to commit to work on or contribute to agricultural statistics after the training.

Human resources requirements: The training will require the availability of 2-3 persons per country during 15 working days (the duration of the training).

References:

-Basic Training on Agricultural Statistics: <http://gsars.org/en/basic-training-on-agricultural-statistics-english/#more-3763>

-Guidelines of gender statistics: http://gsars.org/wp-content/uploads/2017/10/GENDER-FINAL_Guideline_May2017-Completo-10-1.pdf

❖ Component 3: Cost-effective methods

Package – AGPROD

Implementing agency: FAO

Rationale: While the demand for accurate data on agricultural production is high given its importance for food security, for constructing basic policy-relevant indicators such as productivity or value-added and for reporting purposes at different levels (CAADP, SDG), agricultural production surveys are still conducted irregularly in many developing countries or with a limited scope due to constraints in resources and statistical knowledge.

Objectives: The main objective of this package is to help countries with limited capacity and experience in agricultural statistics to produce timely and reliable statistics on the country's agricultural production. Specifically, the assistance aims to build the minimum level of statistical capacity to generate basic agricultural data, mainly on land-use and production. The assistance encompasses the entire data cycle, from questionnaire design to data dissemination. It will also extend to the better use of administrative data sources in the estimation of agricultural production.

Activities and Results:

- Development of and training on hands-on tools to produce quality data on annual crop and livestock statistics;
- Enhanced country capacity to develop survey tools for agricultural surveys and to use administrative data to improve the coverage and quality of production statistics.

Relationships with other Packages: This package is closely connected to the CAPI package, as the use of CAPI software will be encouraged for the pilot data collection exercises. It is also connected to the other data activities, such as the FARMECO and LOSSES packages: in case the latter are also part of the technical assistance plan for the beneficiary country, a coordination between the development of data collection and analysis instruments will be needed to avoid overlaps and ensure consistency.

Relationships with other initiatives: The 50x2030 Initiative requires a certain level of statistical capacity in order to adequately collect, analyse and disseminate the data. This package will therefore prepare the countries that will also participate in this initiative to reach the minimum level of capacity required.

Pre-requisites: None.

Human resources requirements: This activity will require the availability of a focal-person, typically the officer in charge of agricultural statistics, during 8-12 months to participate in the development of the tools, their testing and to attend the different trainings proposed. The availability of 1-2 additional officers, for example persons in charge of field activities, of validating and publishing the data, etc. will also be required to participate in the different activities.

References:

-Guidelines, Technical Documents and Trainings developed in the framework of the GSARS: <http://gsars.org/en/resource-center/>

Package- FARM ECO

Implementing agency: FAO

Rationale: The availability of reliable and comparable information on the profitability and productivity of agricultural activities is essential to design cost-efficient public incentives in the sector, such as price support mechanisms or input subsidies, which are still widespread in many of the sub-Saharan African countries that are covered by the GSARS.

Objectives: The main objective of this package will be to provide countries with the appropriate knowledge on data collection and analytical tools to measure key economic aggregates, both at the farm and commodity-level. These aggregates include incomes, cost of production and agricultural productivity.

Activities and Results: Enhanced country capacity to develop and implement data collection and analytical tools on socio-economic aspects through the conduction of the following activities:

- Analysis of existing tools;
- Proposal of indicators and data collection strategy;
- Technical trainings and preparation of the survey tools;
- Pilot-data collection;
- Data analysis;
- Restitution workshop.

Relationships with other Packages: Activities for this package will include data collection and data analysis, so this package is linked to some packages related to cost effective methods for data collection (AGPROD) and to data dissemination packages (TOOLS, CAPI, DISSEMINATION, INDICATORS).

Relationships with other initiatives: The 50x2030 Initiative (FAO) also includes a survey module that aims to collect socio-economic variables from farming households. The technical assistance on this package will therefore greatly improve the capacity of countries that will also be involved in this initiative to collect this type of information.

Pre-requisites: Existence of an agricultural survey conducted on a regular basis.

Human resources requirements: This activity will require the availability of a focal-person, typically the officer in charge of agricultural statistics, during 8-12 months to participate in the development of the tools, their testing and to attend the different trainings proposed. The availability of 1-2 additional officers, for example persons in charge of field activities, of validating and publishing the data, etc. will also be required to participate in the different activities.

References:

-Guidelines, technical documents and field-test reports on agricultural costs of production in the context of the 1st phase of the GSARS: <http://gsars.org/wp-content/uploads/2016/07/ACPS-WEBFILE-310516.pdf>

-Questionnaires (paper and electronic) and calculation procedures developed in the context of the 1st phase of the GSARS.

-Training courses on the measurement of agricultural costs of production prepared in the context of the 1st phase of the GSARS <http://gsars.org/en/training-course-on-agricultural-cost-of-production-cop-english/>

Package- LOSSES

Implementing agency: FAO

Rationale: The reduction of losses in food chains is amongst the top priorities of the sub-Saharan African countries covered by the GSARS. Recognizing the relevance of food losses for the agricultural sector and the urgency of increasing the data availability, the phase I of the GSARS had developed guidelines, tools and training material on this topic.

Objectives: The objective of this training is to provide countries with the appropriate data collection and analytical tools to measure harvest and post-harvest losses of agricultural commodities on the farm. This training package will propose strategies covering the entire data cycle, adapted to each country, including the description of the data collection approach, of the measurement method(s) used, the aggregate indicators constructed and associated calculation procedures.

Activities and Results: Enhanced country capacity to develop and implement data collection and analytical tools on farm losses through the conduction of the following activities:

- Analysis of existing evidence and program drafting;
- Data collection strategy and indicators;
- Technical trainings and preparation of the survey tools;
- Pilot-data collection;
- Data analysis;
- Restitution workshop.

Relationships with other Packages: Activities for this package will include data collection and data analysis, so this package is linked to some packages related to cost effective methods for data collection (AGPROD) and to data dissemination packages (TOOLS, CAPI, DISSEMINATION, INDICATORS, FBS).

Relationships with other initiatives: The 50x2030 Initiative (FAO) also includes a survey module that aims to collect information on losses from farming households. The technical assistance on this package will therefore greatly improve the capacity of countries that will also be involved in this initiative to collect this type of information.

Pre-requisites: Existence of an agricultural survey conducted on a regular basis.

Human resources requirements: This activity will require the availability of a focal-person, typically the officer in charge of agricultural statistics, during 8-12 months to participate in the development of the tools, their testing and to attend the different trainings proposed. The availability of 1-2 additional officers, for example persons in charge of field activities, of validating and publishing the data, etc. will also be required to participate in the different activities.

References:

- Guidelines, technical documents and field-test reports on post-harvest losses prepared in the context of the 1st phase of the GSARS (<http://gsars.org/en/guidelines-on-the-measurement-of-harvest-and-post-harvest-losses/>).
- Questionnaires (paper and electronic) and calculation procedures developed in the context of the 1st phase of the GSARS.
- Training package on the measurement of harvest and post-harvest losses for grains prepared in the context of the 1st phase of the GSARS.

Package- MSF

Implementing agency: FAO

Rationale: A Master Sampling Frame (MSF) is a sampling frame that allows to select samples for several different surveys or different rounds of the same survey, as opposed to building an ad-hoc sampling frame for each survey. FAO is recommending the use of MSF as a cost-effective approach to implement integrated agricultural surveys.

Objectives:

- train national experts on Master Sampling Frame (including its cost effectiveness and operational procedures) and sampling design for agricultural surveys;
- undertake an in-depth diagnosis of the quality of the sampling frames used in the countries for surveys on the agricultural sector (agricultural production surveys, livestock survey, rice survey...);
- Support the country in the elaboration of methodology including operational procedures for the development of Master sampling frames for quality and integrated agricultural statistics in the country;
- Support on the development of sampling design for integrated agricultural surveys.

Activities and Results:

Enhanced country capacity to develop an MSF:

- Analysis of existing evidence and program drafting;
- Technical training and national workshop on MSF and sampling design.

Hands-on tools to produce quality data on losses on farm:

- Development of the MSF and sample selection procedures;
- Pilot-data collection;
- Data analysis and restitution workshop.

Relationships with other Packages: MSF package includes data collection and data analysis activities, so this package is linked to some packages related to cost effective methods for data collection (AGPROD, FARMECO, LOSSES) and to data dissemination packages (TOOLS, CAPI).

Relationships with other initiatives: 50x2030 Initiative (FAO).

Pre-requisites: Selected countries should have a critical number of technical staff with the basic knowledge necessary to understand complex survey methods as well as data processing.

Human resources requirements: Two focal point involved in the design and implementation of agricultural surveys.

References:

<http://gsars.org/en/tag/mastersamplingframe/>

❖ Component 4: Data analysis, dissemination

Package- TOOLS

Implementing agency: FAO

Rationale: Despite the vital role played by data processing and management software in statistics, the staff of many National Statistical Agencies still lack the basic software skills needed and often do not meet the minimal requirements in terms of statistical literacy needed. Empowering partner countries on the use of modern statistical software will be beneficial not only to agricultural statistics and the implementation to the NSS as a whole.

Objectives: The main objectives of this package will be to provide countries with the basic/Intermediate technical knowledge of statistical software required to:

- produce basic descriptive statistics and graphic representations (e.g. maps, charts, etc.) using agricultural survey data;
- edit, clean, impute and process survey microdata;
- analyze and aggregate survey microdata.

Activities and Results:

- Hands-on tools for data processing and analysis:
 - Technical training - Introduction to descriptive statistics with the aid of a statistical software (SPSS, STAT, or R);
 - Technical training - Data editing, cleaning and imputation with the aid of a statistical software;
 - Technical training - Estimation and analysis using survey microdata with the aid of a statistical software.

Relationships with other Packages: This training package is useful for any activity related to data cleaning or data analysis. So, it is linked to some packages related to cost effective methods for data collection (AGPROD, FARMECO, LOSSES, MSF) and to data dissemination packages (DISSEMINATION, INDICATORS).

Relationships with other initiatives: 50x2030 Initiative (FAO).

Pre-requisites: This cross-cutting training module should be delivered in combination with other thematic TA modules on cost-effective methods for data collection (e.g. 4- AGPROD; 4 -FARM ECO, 4-MSF, 4- LOSSES).

Participants should be selected among people that will be in charge of data processing and analysis in the National Institution.

Human resources requirements: For the full success of the activity, the intensive training should be provided to small groups of participants (up to a maximum of 5/6 people).

References:

-Existing training material to be consolidated, updated and tailored to this TA. One package of training material for each software should be prepared by selected experts. The time needed to develop and review such packages would be approximatively of 2-3 months.

Package – CAPI

Implementing agency: FAO

Rationale: Computer Assisted Personal Interviewing (CAPI), a set of approaches to data collection based on technologies using mobile devices, has proven to reduce data collection costs over time while improving the quality and timeliness of statistical products. One of the main barriers to the adoption of CAPI is the specific skills required to develop and manage electronic surveys. During the first phase of the Global Strategy, training material (including an e-learning module) has been developed on the use of Survey Solutions (SuSo), a free-access CAPI solution developed by the World Bank, and many countries supported. Given the demand from countries, the second phase of the Global Strategy will pursue this support and expand to other CAPI solutions, such as the Census and Survey Processing System (CSPPro) a free and widely used software used for data collection development by the US Census Bureau.

Objectives: Train and support countries in developing, implementing and maintaining CAPI-based surveys to improve data quality and cost-efficiency of their agricultural surveys.

Activities and Results:

- Two sets of training material will be developed or updated, one for SuSo and one for CSPPro;
- Regional trainings will be conducted for the interested countries, based on the material developed;
- Targeted practical support will be provided to the countries in the framework of the data collection activities foreseen under packages AGPROD, FARMECO and LOSSES).

Relationships with other Packages: This package is closely connected to the data collection activities under packages AGPROD, FARMECO and LOSSES. Indeed, the pilot data collection exercises proposed in these packages will be implemented in most cases using CAPI, for which the countries will receive specific applied support. It is therefore important that the basic CAPI trainings be organized before the pilot data collection activities.

Relationships with other initiatives: Countries participating in the 50x2030 initiative will be strongly encouraged to adopt CAPI systems. The trainings and support provided by the Global Strategy will therefore contribute to prepare the ground for the successful and sustainable implementation of data collection activities within the 50x2030 initiative.

Pre-requisites: The recipient organizations, with the support of the implementation agencies, will need to identify the profiles of the potential trainees and to pre-select the 2-3 staff that may benefit from such trainings.

Human resources requirements: The training will require the availability of 2-3 persons per country during 5 working days (the duration of the training). Ideally, the country team should be composed of 1 person involved in data entry and/or validation processes, 1 person directly involved in the conduction of the agricultural survey and 1 person from the IT services (for questions related to servers, integration with existing systems, etc.).

References:

- Training course on CAPI (English): <http://gsars.org/en/training-course-on-capi-english/>
- Training course on CAPI (French): <http://gsars.org/en/training-course-on-capi-french/>

Package-DISSEMINATION

Implementing agency: FAO

Rationale: Dissemination of official statistics, including well-documented microdata, is one key mandate of the agencies of the National Statistical System (NSS) as underlined by in the first principle of the UN Fundamental Principle of Official Statistics. Data produced within the NSS should be considered as a public good and be made accessible to the users to enable research, policy analysis and monitoring, and evidence-based decision-making. Increasing access to data and statistics through well-planned dissemination programs provides multiple advantages to NSOs.

This technical assistance module will prepare the ground for the setting up and implementation of an effective dissemination program by the agency in charge of agricultural statistics in the context of the 50x2030 Initiative.

Objectives:

- develop awareness on the importance of designing and adopting statistical dissemination policies for national statistical offices (NSO);
- build the essential knowledge and technical skills on the many aspects associated with the setting up and the implementation of a comprehensive data dissemination and preservation programs.

Activities and Results:

- Hands-on tools for data dissemination:
 - Releasing statistical tables and main agricultural indicators;
 - Setting up a microdata dissemination program;
 - Data dissemination and preservation policies and strategies.

Relationships with other Packages: The dissemination package is useful for any activity related to data analysis. So, this package is linked to other thematic TA modules on cost-effective methods for data collection (AGPROD; FARMECO, MSF, LOSSES).

Relationships with other initiatives: 50x2030 Initiative (FAO).

Pre-requisites: The target audience will vary for different modules of the training package recognizing that officers from different departments (agricultural statistics team, communications, IT, etc.) and with various profiles and roles are involved in the dissemination program. Basic skills in statistical software's will be desirable.

In order to make the implementation of this TA program successful, this cross-cutting module should be delivered in combination with other thematic TA modules for data collection (e.g. 4- AGPROD; 4 -FARM ECO, 4-MSF, 4-LOSSES).

Human resources requirements: mid-level to higher-management of various departments within the NSO, IT and communication departments staff and junior- to mid-level staff that are actually involved in the various technical activities associated with dissemination will be required.

References:

<http://gsars.org/en/tag/datadissemination/>

Package-INDICATORS

Implementing agency: FAO

Rationale: Lack of indicators in agriculture using internationally agreed methodologies is a widespread issue, and at the same time it is a critical pre-condition for supporting processes of evidence-based decision making and investments needed to promote agricultural development. Developing countries need support not only for collecting good quality statistical data, but also to produce the indicators required for their national development policies and by international frameworks, such as SDG indicators and CAADP for Africa.

Objectives:

- provide TA assistance to countries in computing timely and reliable national, SDG's and CAADP indicators;
- propose TA on developing farm typologies for countries with more developed capacities.

Activities and Results:

- Hands-on tools for identifying gaps and computing relevant indicators:
 - Desk work and consultations with national counterparts;
 - Gap Analysis;
 - Elaboration of a workplan;
 - Technical training;
 - Restitution workshop.
- Hands-on tools for developing farm typologies (FT):
 - Desk work and consultations with national counterparts;
 - Elaboration of a workplan;
 - Technical training;
 - Restitution workshop.

Relationships with other Packages: Linked to data dissemination packages (TOOLS, DISSEMINATION).

Relationships with other initiatives: SDG indicators, 50x2030, CAADP for Africa.

Pre-requisites:

- Availability of basic production and economic data on agriculture;
- Mandate to compute and report national, SDG Goal 2 and/or CAADP (agriculture related) indicators;
- Basic knowledge for calculation of economic indicators.

Human resources requirements: government staff working for national statistical offices, who is expected to have responsibility for computing and reporting national, SDG and/or CAADP indicators in selected countries. Consultations with CAADP country focal points and teams and will be held to ensure that target audiences and materials are of relevance to national statistical agencies and policy frameworks.

References:

-Handbook on the Agricultural Integrated survey (AGRIS) <http://gsars.org/en/agris-handbook-on-the-agricultural-integrated-survey/>

-Methodological notes on SDG indicators developed by ESS, FAO.

-Guidelines on farm typology (<http://gsars.org/en/guidelines-for-development-of-a-classification-system-related-to-farm->

Package-FBS

Implementing agency: FAO

Rationale: A Food Balance Sheet (FBS) is an aggregated and analytical data set that presents a comprehensive picture of the pattern of a country's food supply and utilization during a specified reference period. FBS are built on the premise that within a given country in a given year, the sum of all aspects of the supply of a given food product must be equal to the sum of utilizations of that product. FBS provide estimates for every food item of per capita food available for human consumption in terms of quantity, calories (DES), protein and fat.

Objectives:

- compile their national FBS using the methodology developed during the 1st phase of GSARS;
- produce useful indicators for data-oriented food policies (DES, import dependence rate, calculation of the prevalence of undernourishment (PoU, etc.) at national level.

Activities and results:

- Countries have the capacity to compile FBS for at least one reference year:
 - Inception mission and gap analysis;
 - Technical training on FBS;
 - FBS compilation;
 - Restitution workshop.

Relationships with other Packages: Losses are one of the components of FBS, so, this package could be linked to Losses package.

Relationships with other initiatives: AGRA, SDG indicators.

Pre-requisites: Staff from the Unit in charge of agricultural statistics and/or food security analysis in NSO or in the line Ministry in charge of Agriculture. If there is no formal unit in charge of agricultural statistics or food security analysis, a formal assignment of experts to agricultural statistics and a commitment from the National Institution would be required prior to the start of the activities.

Human resources requirements: For the use of the FBS compilation tool (Shiny tool), it is required to have statisticians with at least an intermediate level in Excel and another statistical software. Agro-economist or agronome profiles are required for their knowledge of the value chain and technical conversion factors (extraction rate) of food items and for their potential capacity of analysis of FBS outputs.

References:

- Handbook on Food Balance Sheets (FAO, 2017) (<http://gsars.org/en/guidelines-for-the-compilation-of-food-balance-sheets/>).
- Training Course on Food Balance Sheets (<http://gsars.org/en/training-course-on-food-balance-sheets-english>).
- New Food Balances published on FAOSTAT for years 2014 to 2017.
<http://www.fao.org/faostat/en/#data/FBS>