Global Strategy
IMPROVING AG-STATISTICS

ACTION PLAN OF THE GLOBAL STRATEGY TO IMPROVE AGRICULTURAL AND RURAL STATISTICS






For Food Security, Sustainable Agriculture and Rural Development

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Food and Agriculture Organization of the United Nations
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PREFACE

The recent food crisis and the ongoing debates on food price volatility, the impact of climate change on agriculture and food security clearly highlight the weaknesses in the available agricultural data. They also highlight the urgent need for evidence on which to base implementation of the relevant effective policies at the global, regional and national levels. These data requirements are emerging at the same time that many countries, especially in the developing world, are lacking the capacity to produce and report even the minimum set of agricultural data needed to monitor national trends or inform the international development debate.

The *Global Strategy to Improve Agricultural and Rural Statistics* is a ground-breaking effort to strengthen agricultural statistics (World Bank, Food and Agriculture Organization of the United Nations and United Nations Statistical Commission, 2011). Development of the Global Strategy, which was initiated by the United Nations Statistical Commission (UNSC), is the result of an extensive consultation process with national and international statistical organizations, as well as the national statistics offices, agriculture ministries and the other government institutions producing statistics that fall under its scope. The Global Strategy is a framework for national and international statistical systems that will enable them to produce, and to apply, the basic data and information needed in the twenty-first century.

At its 41st session in February 2010, the UNSC endorsed the technical content and strategic directions of the Global Strategy. It also urged the rapid development of an action plan for implementation (hereafter Global Action Plan) that would begin with a detailed assessment of each country's statistical capacity. The Global Strategy was also endorsed by the 36th session of the FAO Conference (18-23 November 2009), the African Commission on Agricultural Statistics (AFCAS, 2009) and the Asia and Pacific Commission on Agricultural Statistics (APCAS, 2010). The Global Action Plan was to provide a comprehensive technical assistance and training programme and also contain a well-targeted research agenda to deal with unsolved methodological issues and implementation of the statistical methodology required by the strategy.

A worldwide consultation on the first drafts of the Global and African Action Plans (preparation of the Global Action Plan was carried out in parallel with development of the African Action Plan) was held at the Fifth International Conference on Agricultural Statistics (ICAS-V) in Kampala, Uganda from 13 to 15 October 2010. It was attended by about 300 senior experts from 77 countries. There, technical sessions focused on the country assessment framework, the technical assistance and training programmes, the methodological research agenda, and the governance mechanisms at the global, regional, and national levels.

A Roundtable Meeting of Donors held during ICAS-V resulted in strong support for the Global Action Plan by the donors present, who expressed a willingness to consider funding for its implementation. Several activities have also been undertaken to involve regional partners in the Global Action Plan, including the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), Asian Development Bank (ADB), United Nations Economic Commission for Latin America and the Caribbean (ECLAC), Inter-American Development Bank, United Nations Economic and Social Commission for

Western Asia (ESCWA), Islamic Development Bank, and Interstate Statistical Committee of the Commonwealth of Independent States (CISSTAT) in close collaboration with the regional offices of the Food and Agriculture Organization of the United Nations (FAO).

A progress report on the preparation of the Global Action Plan was presented to the 42nd session of the UNSC in February 2011 and to the African Commission on Agricultural Statistics (AFCAS), which met from 30 November to 3 December 2011. The Global Action Plan was also presented at the 37th session of the FAO Conference held from 25 June to 2 July 2011, and received strong support from FAO member countries and institutions. At their meeting in Paris, 22-23 June 2011, the agriculture ministers of the G20 adopted an "Action Plan on Food Price Volatility and Agriculture," which states that the ministers of the G20 "support the *Global Strategy to Improve Agricultural and Rural Statistics* and invite international organizations to create synergies between this Global Strategy and AMIS (Agricultural Market Information System)" (Group of 20, 2011). Finally, the 43rd session of the UNSC, which met from 28 February to 2 March 2012, fully endorsed the Global Action Plan and its governance arrangements.

The implementation of the Global Strategy will take into account lessons learned from decades of technical cooperation. In particular, it will be aligned with the international consensus on the new approach to capacity development grounded in the five principles of the "Paris Declaration on Aid Effectiveness" (OECD, 2005) and in the "Accra Agenda for Action" (OECD, 2008).

The new approach to capacity development calls for a systemic perspective that addresses three dimensions: (1) enhancing individual technical capacity; (2) strengthening institutions and organizations; and (3) creating an enabling environment instead of focusing only on a single aspect (FAO, 2010a). It also recommends embracing flexible planning to adapt to specific country contexts, supporting national processes of knowledge creation instead of knowledge transfer, supporting national staff instead of hiring external consultants to undertake activities, and applying a long-term perspective instead of quick fixes (FAO, 2010a).

The Global Action Plan provides a Global Logical Framework and governance structure that will lead to the establishment of improved national statistical systems, supported by global and regional coordinated statistical capacity-building efforts through technical assistance, training and research. The plan takes into account that other statistical capacity-building and development activities are already under way in many countries, and in those cases the efforts will be coordinated. Moreover, the plan foresees synergies and complementarities with other initiatives, such as the *Agricultural Market Information System* (AMIS) recently adopted by the G20 ministerial meeting. AMIS focuses more on a limited number of data items for selected food crops related to monitoring the global food market, mainly in the G20 countries and few developing countries. By contrast, the Global Strategy concentrates on long-term statistical capacity building in developing countries for key basic food and agricultural statistics.

As noted, preparation of the Global Action Plan has been carried out in parallel with development of the African Action Plan. Africa is the first region to initiate the implementation of the Global Strategy, and it has done so by putting in place a well-developed plan. A conference of the main stakeholders, held at FAO in Rome in September 2010, served as one source of input for the African Action Plan. It is recognized that not every region will develop a detailed implementation plan similar to Africa's, but rather a regional activity programme based on the Global Action Plan. Therefore, the Global Action Plan defines the steps to be taken and the overall responsibilities at the global, regional and national levels, with the

understanding that each region will need different levels of support. The requirements spelled out in the Global Action Plan are in harmony with those in the African Action Plan.

Implementation of the Global Action Plan will be country-driven. Therefore, the focus of the plan described in this report is on the technical and training support to be made available.

Organization of This Report

This report begins with a description in chapter one of the goals and purposes of the Global Action Plan. Chapter two provides the proposed global, regional and national governance structures, and then the report moves in chapter three to a review of the interdependent linkages of the technical components of the Global Action Plan, which are described in more detail from chapter four to seven (the country assessments, the technical assistance plan, the training plan and the research plan, respectively). Chapter eigh outlines the process, assessment of resources, and timeline that will be required for technical assistance, training, and research to implement the Global Strategy. The report concludes in chapter nine with an overview of the monitoring, evaluation and reporting requirements.

Eight appendixes complement the report. Appendix A provides the minimum set of core data from the Global Strategy. Appendix B is an analysis of the stakeholders' requirements, thereby ensuring that users' needs are met in implementation of the Global Action Plan. Appendix C is the results-based logical framework of the Global Action Plan, showing performance indicators, risks, and mitigation measures. Appendix D lays out the governance framework of the Global Strategy. It is followed by appendix E, which describes in detail the terms of reference for the Fund Administrator. Appendix F shows the relationship among the thematic domains, the research topics, and the pillars of the Global Strategy. The outputs of the research plan and corresponding activities are listed in appendix G. Finally, appendix H is a listing of the technical assistance and research activities that have already begun and that require limited resources to produce the highly needed technical guidelines (quick wins).

ACKNOWLEDGMENTS

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The FAO team worked under the supervision of Pietro Gennari, Director of the Statistics Division. The team was led by Naman Keita and included Elisabetta Carfagna (main contributor), Nancy Chin, Giorgi Kvinikadze and Mukesh Srivastava. The FAO team was supported by Trang Nguyen and Consuelo Senoret.

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[1] The Friends of the Chair Group on Agricultural Statistics is led by Brazil and includes Australia, China, Cuba, Ethiopia, Italy, Morocco, the Philippines, Russian Federation, Trinidad and Tobago, Uganda, and the United States. Eurostat and the World Bank participate as observers, and FAO and the United Nations Statistics Division serve as secretariat

ABBREVIATIONS

AMIS	Agricultural Market Information System
CAPI	Computer-Assisted Personal Interviewing
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GIS	Geographic Information System
GPS	Global Positioning System
ICAS-V	Fifth International Conference on Agricultural Statistics
IMF	International Monetary Fund
LSMS	Living Standards Measurement Study
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
NSDS	National Strategies for the Development of Statistics
NSO	National Statistics Office
OECD	Organisation for Economic Co-operation and Development
PARIS21	Partnership in Statistics for Development in the 21st Century
PDA	Personal Data Assistant
SSPARS	Sector Strategic Plan for Agricultural and Rural Statistics
UNSC	United Nations Statistical Commission

EXECUTIVE SUMMARY

Because three out of four poor people in developing countries live in rural areas, agricultural development is vital to achieving the Millennium Development Goals (MDGs) related to poverty, food security, and the environment. Today, the commitment to these goals has taken on growing urgency in the global context of the skyrocketing food prices and falling food reserves caused by droughts, higher oil prices and the use of food products to produce biofuels. Meanwhile, over the last two decades the quantity and quality of agricultural statistics have undergone a serious decline. Many countries, especially in the developing world, lack the capacity to produce and report even the minimum set of agricultural statistics required to monitor national trends.

The *Global Strategy to Improve Agricultural and Rural Statistics* provides the framework essential to meeting the current and emerging data requirements and the demands of policy makers and other data users so that they can fill these urgent needs. The conceptual framework presented in the Global Strategy brings together the economic, environmental and social dimensions of agriculture to monitor how the well-being of households is determined by the productivity of agriculture, the land they use and the environment they share.

At its 41st session, the United Nations Statistical Commission (UNSC) endorsed the Global Strategy. It urged the development of an action plan that would begin with a detailed assessment of each country's statistical capacity. The UNSC also directed that the action plan provide technical assistance and training programmes for building statistical capacity and a research agenda to deal with unsolved methodological issues.

The goal of the Global Action Plan is to contribute to greater food security, reduced food price volatility and higher incomes and greater well-being for rural populations through evidence-based policies in line with the first MDG 1: "Eradicate extreme poverty and hunger." In addition, improved policies will contribute to the sustainable use of land and water resources and the adaptation of agricultural activities to climate change to meet the challenges of MDG 7: "Ensure environmental sustainability."

The Global Action Plan provides the framework needed to rebuild a sustainable national statistical capacity to produce agricultural statistics and increase their use for better policy decisions. It also supports implementation of the methodology required to produce statistics to meet emerging data requirements and help restore the international support system for agricultural statistics.

The plan is centred on the three pillars of the Global Strategy: (1) establish a minimum set of core data; (2) integrate agriculture into the national statistical system; and (3) foster sustainability of the statistical system through governance and statistical capacity building.

The first pillar—a minimum set of core data—is based on the assumption that it is not possible to meet every data requirement every year. For example, the Food and Agriculture Organization of the United Nations (FAO) database includes over 150 crop items. However, the Global Strategy includes only eight as core data items. These items account for a major proportion of land use, food supplies, and value added from agri-

culture. Although the Global Strategy defines the core items, each country will work with data users and the principles outlined in the strategy to determine its minimum set. A most important concept underlying the minimum set of core data is that the data be collected in a way that allows cross-cutting data analysis to examine the linkages between policy decisions and the resulting outcomes.

The Global Strategy recognizes that a serious shortcoming of the current statistical systems in developing and many developed countries is that data are collected by sector using different sampling frames and surveys. Crop surveys are separate from livestock surveys, and both are separate from household surveys. In many countries, agricultural statistics are produced by the ministry of agriculture and may differ from those coming from the national statistics office. It is difficult, then, if not impossible, to gauge how a policy decision in one sector will affect the other sectors. It is for these reasons that the second pillar of the Global Strategy calls for the integration of agriculture into the national statistical system. The strategy points out that the integrated survey system needs to allow the linkage between the farm as an economic unit and the household as a social unit, and both with the land they use.

The third pillar of the Global Strategy is the governance framework that will support the integration of agriculture into the national statistical system by bringing together the multiple organizations that produce agricultural and rural statistics. The Global Strategy describes the framework for integration that builds off the strengths of each organization and provides a common focus on the data requirements for agricultural statistics. The third pillar also defines the statistical capacity requirements to implement the Global Strategy and to ensure that a sustainable system is put into place.

The main elements of the Global Action Plan are governance, country assessments, and technical components (technical assistance, training and research). The technical components are interlinked and well articulated to form a consistent capacity development programme. A summary of each component of the Global Action Plan and implementation of the Global Strategy follows.

Governance

The Global Action Plan introduces a governance structure that has three levels: global, regional and national:

Global

- **The Global Steering Committee (GSC)** will provide strategic guidance and oversight on the execution of the Global Action Plan to implement the Global Strategy. The GSC is the ultimate decision-making body for the use of the Global Trust Fund for implementing the *Global Strategy to Improve Agricultural and Rural Statistics* in compliance with the conditions stipulated in the agreements between the Fund Administrator (which will be FAO) and individual Resource Partners.

- **The Global Executive Board (GEB)** will serve as an executive committee of the GSC. The GEB will, between meetings of the GSC, represent the membership of the GSC, facilitate coordination among all GSC members, and facilitate the decision-making process of the GSC. The GEB will exercise functions delegated to it by the GSC. The GEB, in carrying out its functions, will be supported by the Global Office.

- **The Global Office (GO)**, hosted by the Statistics Division of FAO and led by the Coordinator assigned by FAO for this purpose, will ensure overall technical coordination of the implementation of the Global Strategy at the global level and within regions. The Global Office will act as secretariat of the GSC and the GEB.

- **The Inter-Agency and Expert Group on Agricultural and Rural Statistics (IAEG)** will bring countries and agencies together to develop and document good practices and guidelines on the concepts, methods, and statistical standards for food security, sustainable agriculture, and rural development. The IAEG will report every two years to the UNSC on its activities and will replace the Friends of the Chair Group on Agricultural Statistics and the Wye Group, which was a working group providing input about the statistics needed to monitor the well-being of households.

Regional

- **Regional Steering Committee (RSC).** This committee will be the decision-making body at the regional level. The RSC will provide guidance and oversight, within the framework defined by the GSC and consistent with the relevant funding agreements, for the implementation of the regional and country activities defined in the regional plan.

- **Regional Executive Board (REB).** Each RSC will evaluate the need to establish a REB. If this board is formed, it would serve as an executive committee of the RSC from which it would receive delega-ted authority to oversee the execution of decisions. The REB would meet more frequently than the RSC and would carry out the RSC's functions between meetings of the RSC.

- **Regional Office (RO).** The structure and size of the RO will vary by region, depending on regional resources and needs. It will have the major role of coordinating the country assessments and providing the integrated national statistical systems with training and technical assistance. The ROs would also liaise with other international, regional and subregional offices within their region to coordinate their support to countries, thereby avoiding duplication of efforts and ensuring that global standards are being followed.

National

- **National coordinating body.** Governance at the national level will build as much as possible on existing coordination mechanisms and structures. National governance of the agricultural statistical system entails the establishment, where it does not exist, of a sectoral coordination mechanism that brings together the national statistics office and the ministries responsible for agriculture, forestry, and fisheries, and any other institutions that collect agriculture-related data. This sectoral coordination mechanism should be part of the national statistical coordination mechanism, such as the national statistics council, which provides governance of the whole national statistical system.

Appendix D describes in detail the governance framework.

The responsibilities of each level in conducting the country assessments and implementing the technical assistance, training and research components within the frame-

work of the National Strategies for the Development of Statistics (NSDS) and the Sector Strategic Plans for Agricultural and Rural Statistics (SSPARS) are described below.

Country Assessments

This effort begins with the preparation of a questionnaire and accompanying guidelines, so that each country can provide an assessment of its statistical capabilities, including the data currently provided by source, frequency and indications of quality. A subsequent, more in-depth assessment will determine the national capability to produce the minimum set of core data on a sustainable basis, and in the longer term will provide the capability for analysis across the economic, social and environmental domains. On the basis of the country assessment, countries will prepare country proposals, driven by their own needs, to be submitted to the RSC for accessing funds raised for implementing the Global Strategy. Country proposals may include developing or updating the SSPARS component of the NSDS to facilitate integration of agricultural statistics into the national statistical system, to guide implementation, and to determine the requirements for technical assistance and training.

Technical Assistance

Technical assistance will be available in key areas, depending on each country's capabilities. The starting point will be technical assistance with the country assessments and guidance with the development or update of the sector strategic plans to produce the minimum set of core data. Technical assistance will include support and guidance for establishing the governance structure to integrate agriculture into the national statistical system, promoting the national statistical system, determining the methodology to be used and undertaking overall implementation. The documentation of statistical standards and guidelines to support in-country technical assistance is an important element as well.

The technical assistance should be coordinated at the regional and global levels to ensure that consistent methods are used, resulting in internationally comparable output. In addition, those offering technical assistance should be mindful of other development activities that may already be under way.

Training

Those involved in the training component face the need to improve the statistical capacity in many countries before they can move on to implement the methodology described in the Global Strategy. The different levels of core skills needed to produce official statistics will be defined and translated into theoretical and practical knowledge requirements to be met by training. The documentation of the statistical standards and guidelines described earlier will be used to prepare training materials, especially using e-learning tools. Curricula will be developed to enable regional centres to provide training on the more advanced topics such as sample design, estimation, and the use of new technologies. Training for agricultural statistics will have to be integrated with other sectors of the national statistical system. The training component will include a segment that will prepare managers to better explain to data users how they can use the information provided.

Research

The Global Strategy recognizes the problems faced by developing countries in estimating agricultural production. For example, small holdings and multi cropping practices pose problems for measuring crop area and production. Crop cutting methods are difficult to apply to root crops. In addition, the conceptual framework for agricultural statistics calls for linking the farm, household and land use, which points to the need to establish a sampling frame using new methodologies such as geo-referencing census records. These geo-referenced census records can then be linked to the land use furnished by remote sensing products. The Global Strategy also presents an opportunity to take advantage of the digital revolution and make use of other new technologies such as the global positioning system (GPS) and personal data assistant (PDA). The methodologies for some of these areas have been developed; the problem is determining how to apply them in developing countries. Therefore, the effort will focus on improving the cost efficiency of these methodologies and on adapting them to the specificities of developing countries rather than developing research capacity in each country.

Implementation

The Global Action Plan takes into account lessons learned from decades of technical cooperation. In particular, it will be aligned with the international consensus on the new approach to capacity development grounded in the five principles of the "Paris Declaration on Aid Effectiveness" (OECD, 2005) and the "Accra Agenda for Action" (OECD, 2008). It recognizes that the top-down approach adopted in the past for capacity building did not achieve the intended goals. The plan will be country-driven with a detailed assessment of countries' agricultural statistics systems as the starting point and basis for the formulation of country proposals, with priorities identified by countries to ensure ownership. The plan adopts a long-term perspective and promotes the predictability of resources through the establishment of a Global Trust Fund to support global, regional and national activities. The funding strategy also encompasses other types of resources such as bilateral agreements and in-kind contributions.

At the global level, the preparation of technical standards and guidelines to support the technical assistance and training programmes can begin. Work on the priority elements of the research agenda and pilot testing of the methodologies needed to meet the emerging data requirements can be initiated as well. These two elements are critical in ensuring successful, cost-effective implementation of the strategy.

At the country level, the overall implementation will be under the auspices of the NSDS and the accompanying SSPARS. The first step for each country is to begin the country assessment and prepare a country proposal that contains the steps it will follow to develop or update its SSPARS and the technical assistance and training it will need to do so. The sector strategic plans will be the main tool for implementation of the Global Strategy at the national level, supported by technical assistance and training. Some countries will already have sector strategic plans in place that only have to be revised to meet the requirements of the Global Strategy. Those without sector strategic plans can receive technical assistance for developing their sector strategic plans as modules of the NSDS.

The Global Action Plan recognizes that the statistical capacity of countries will range from those already providing the set of core data from an integrated statistical system to those that essentially have no system in place. In between are the countries that are at various stages of statistical capacity and whose requirements for technical assistance

and training will likewise vary. A small subset of countries in various stages of development will be targeted to begin implementation. This pilot effort will provide the experience needed to determine how other countries should proceed.

Finally, this report provides an indicative budget that reflects the effort to implement the country assessment, technical assistance, training and research components that will support implementation of the Global Strategy. Although the Global Action Plan fosters sustainability of the agricultural statistical systems in the long run, significant external support and funding will initially be required to begin the process. It should also be noted that the Global Action Plan focuses on capacity development and not on funding actual data collection activities such as censuses and surveys. Therefore, additional funding from countries and partners is critical for supporting these data production activities. The plan has a target of supporting 90 countries during the next five years (Phase 1).

1

IMPACT AND OUTCOME OF THE GLOBAL ACTION PLAN

1 IMPACT AND OUTCOME OF THE GLOBAL ACTION PLAN

The recent food price crises have been accompanied by growing concerns about the effects of agriculture on the environment and issues related to climate change. At the same time, the quality and availability of agricultural statistics have seriously declined.

Agriculture is the primary source of food, clothing, and the materials used for fuel and housing for a growing world population. The challenge is to lift millions of people out of poverty and hunger, reduce the impact of agriculture on the environment and global warming, and sustain water and land resources. Three out of four poor people in developing countries live in rural areas, and most depend directly or indirectly on agriculture for their livelihoods. According to the World Development Report (World Bank, 2008), agriculture is recognized as a vital development tool for achieving the Millennium Development Goals (MDGs), and especially for contributing to food security, raising the incomes of the poor, facilitating economic transformation and providing environmental services.

The Global Strategy is a comprehensive framework for improving and ensuring the sustainability of agricultural and rural statistics (agriculture, in addition to crops, includes livestock, aquaculture, forestry production and small-scale fisheries). The strategy also addresses emerging data needs such as those stemming from the recent spikes in food prices, thereby pushing more people into poverty, and the growing concerns about the impact of agriculture on the environment and climate change. The emerging challenges will require implementing new methodologies and technologies.

The Global Action Plan, fully endorsed by the 43rd session of the United Nations Statistical Commission (UNSC), allows the Global Strategy to be put in place by describing in detail how it is being implemented. In fact, it is a detailed description of the technical activities to be conducted at the global, regional and national levels, as well as the corresponding governance structures. It also describes the articulation between the technical components that will contribute to capacity development at the country level.

The Global Action Plan directly addresses the three pillars forming the foundation of the Global Strategy:

1. Establishing a minimum set of core data that countries will disseminate on a regular basis to meet current and emerging demands (see appendix A);
2. Integrating agriculture into national statistical systems in order to meet the requirements of policy makers and other data users that statistical information be linked across the economic, social, and environmental domains;
3. Fostering the sustainability of agricultural statistical systems through governance and statistical capacity building.

The first pillar of the Global Strategy identifies a minimum set of core data intended to be the starting point in building agricultural statistics systems for the twenty-first century. Because data requirements exceed what can be provided at any one time, the starting point is to define a minimum set of core data that will be provided on a regular basis by all countries.

The second pillar represents the most significant recommendation in the Global Strategy—to integrate agriculture into the national statistical system. The conceptual framework for agricultural statistics calls for linking the farm as an economic unit and the household as a social unit and both with the land they occupy. The cross-cutting data requirements and the fact that agricultural statistics are not coordinated with other statistical programmes in many countries require the integration of agriculture into the national statistical system. However, in many countries the responsibilities for agricultural statistics are not coordinated across the national statistics offices (NSOs) and the statistics offices in the ministries of agriculture (MoAs)[2]. This is also true at the global level, with national statistics offices under the auspices of the UNSC and MoAs under the FAO.

The Global Strategy identifies the main tools for achieving this integration. One tool is a master sampling frame for agriculture that would serve as the foundation for all data collection based on sample surveys or censuses. The concept of integration across data domains would also be ensured by an integrated survey framework and integrated data management system for all official statistics related to agriculture.

At the same time, the basic statistical system needs to be rebuilt in some countries; in others it needs to be much improved. Thus the third pillar is the foundation of governance and statistical capacity building, which are needed to produce a sustainable agricultural statistical system.

Implementation of the Global Strategy will be country and user-driven. The three pillars will be implemented taking into account the specific country context, the level of statistical capacity, the technical assistance and training needs, as well as users' needs.

Impact, Outcome and Outputs of the Global Action Plan

The impact of the Global Action Plan is to improve evidence-based decision making for poverty reduction, increased food security, sustainable agriculture and rural development, in line with the MDG 1 to "Eradicate extreme poverty and hunger". In addition, improved policies will contribute to the sustainable use of land and water resources and the adaptation of agricultural activities to climate change to meet the challenges of MDG 7, "Ensure environmental sustainability".

The Outcome is to enable target countries to develop sustainable statistical systems for production and dissemination of accurate and timely agricultural and rural statistics, comparable over time and across countries. In order to achieve this outcome, four global outputs are identified as follow:

1. Effective governing bodies set up and functioning at global and regional levels;
2. Coordinating bodies of the national statistical system, legal frameworks and strategic plans established (by the countries) in the target countries, to enable the integration of agriculture into the national statistical system;
3. New cost effective methods for data collection, analysis and dissemination developed and disseminated;
4. Increased capacity of agricultural statistics staff in regional training centres (i.e. trainers) and target countries.

[2] The word agriculture is inclusive of the broader scope to include forestry, fisheries, and aquaculture as described in chapter two of the Global Strategy. The term ministry of agriculture is used to designate ministries dealing with the corresponding subsectors.

The Regional Outputs will be fit under these four Global Outputs in order to contribute to the implementation of the Global Strategy.

This Global Action Plan aims to enable national statistical systems to meet the needs of users as indicated in the stakeholder analysis table in appendix B. The assessment of users' needs will ensure that the data produced respond to the real needs of the users and will used.

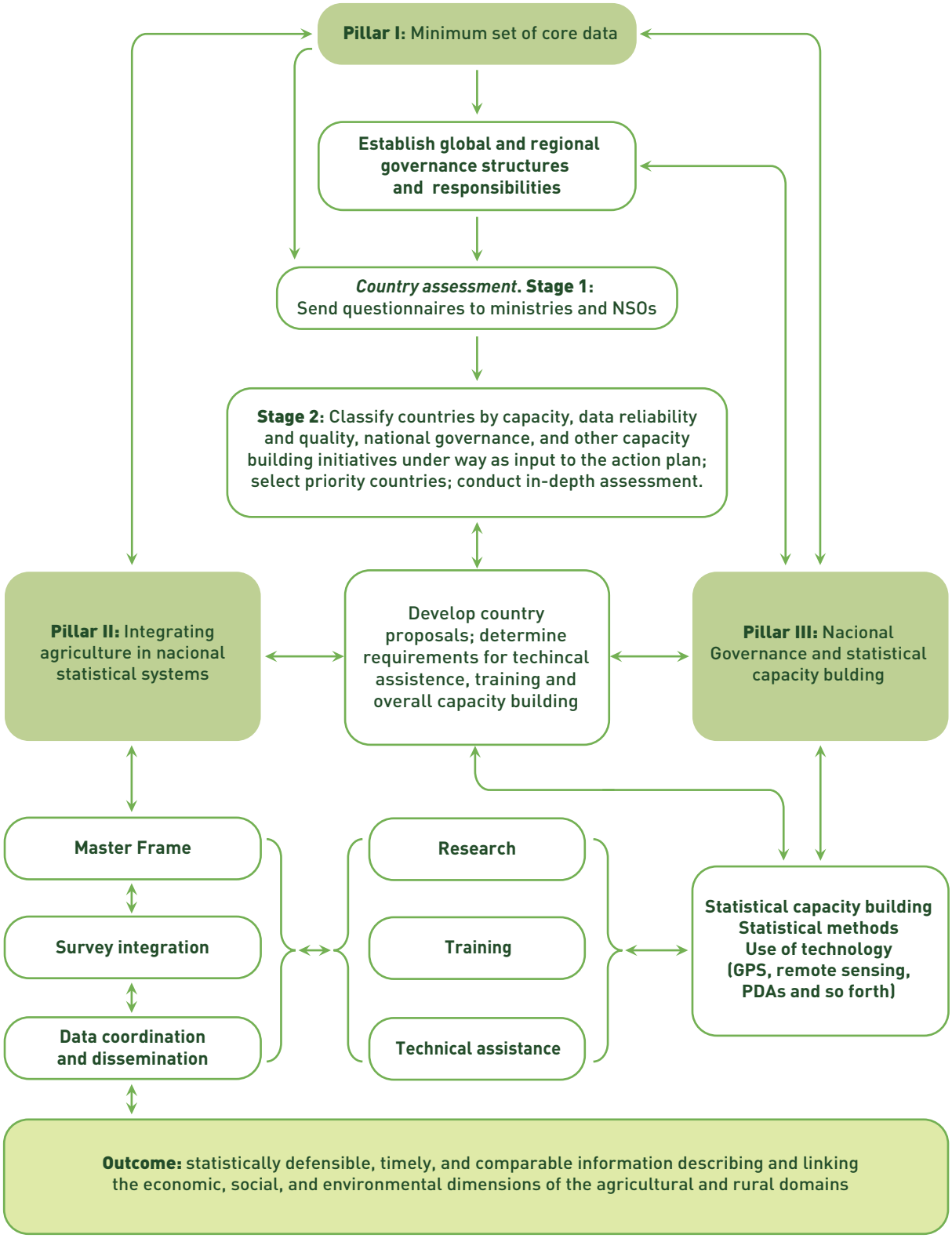
The detailed outputs and products of the Global Action Plan are:

- Advocacy materials and technical tools promoting the need for and use of statistics for effective decision and policy purposes;
- Technical assistance procedures developed and harmonized for improving the institutional, organizational and technical capacity of agricultural statistical systems at the global, regional and national levels;
- Guidelines prepared for development of SSPARS as a component of the NSDS to mainstream agriculture into the national statistical system and technical assistance provided to countries to apply the guidelines;
- New cost-effective methodologies in data collection, elaboration, analysis, and presentation developed by leading research institutes, with a synergic approach, avoiding duplication of efforts and technical assistance provided to countries to apply these methodologies;
- Methodological guidelines, norms, statistical standards and handbooks developed for disseminating the use of the new cost-effective methodologies and best practices;
- Training materials produced (public goods), including e-learning and used at regional and country levels;
- Systems in place in countries for easy access and dissemination of national and sub-national data such as CountrySTAT;
- A living database, which includes the relevant research projects and best practices for sharing knowledge and a roster of experts (names, contact details, areas of expertise, past projects);
- A network of agricultural statistics offices to exchange experiences and practice.

Implementation: An Overview

The Global Action Plan has a long-term perspective (10–15 years). The first phase will cover the five-year period 2012–2016. Figure 1.1 outlines the steps needed to implement the plan.

Figure 1.1 Overview of Steps to Implement the Global Action Plan



2

GLOBAL, REGIONAL AND NATIONAL GOVERNANCE

2 GLOBAL, REGIONAL AND NATIONAL GOVERNANCE

Agriculture across the world is defined by geographic, climatic, economic and cultural differences. In order to take these differences and the various levels of statistical development and operational issues across regions into account, and to ensure ownership by regional institutions, a regional approach to implementing the Global Strategy is being adopted. The Global Action Plan will set the global framework, establish norms and statistical standards that will avoid duplication of efforts between regional and national organizations, and facilitate the establishment of links and synergies with other global and regional initiatives. Because this Global Action Plan is viewed as part of the broader effort to improve statistical systems *per se*, close partnerships will be established with other organizations working in this field to maximize the impact of the plan. Moreover, the Global Action Plan foresees synergies and complementarities with other initiatives, such as the AMIS recently adopted by the G20 ministerial meeting. AMIS focuses more on a limited number of data items for selected food crops related to monitoring the global food market, mainly in the G20 countries and few developing countries[3]. By contrast, the Global Strategy concentrates on long-term statistical capacity building in developing countries for key basic food and agricultural statistics.

This chapter describes the general framework for a governance structure to guide implementation of the Global Strategy. A key element of the strategy is the integration of agricultural statistics into national statistical systems. This integration will require a significant effort in those countries in which agricultural and related statistics are collected and analysed by institutions outside the national statistical system. Even where agriculture has been integrated to varying degrees, the re-engineering effort and required capacity building could still have an impact. For these reasons, a governance structure reflecting responsibilities at the global, regional and national levels will be established.

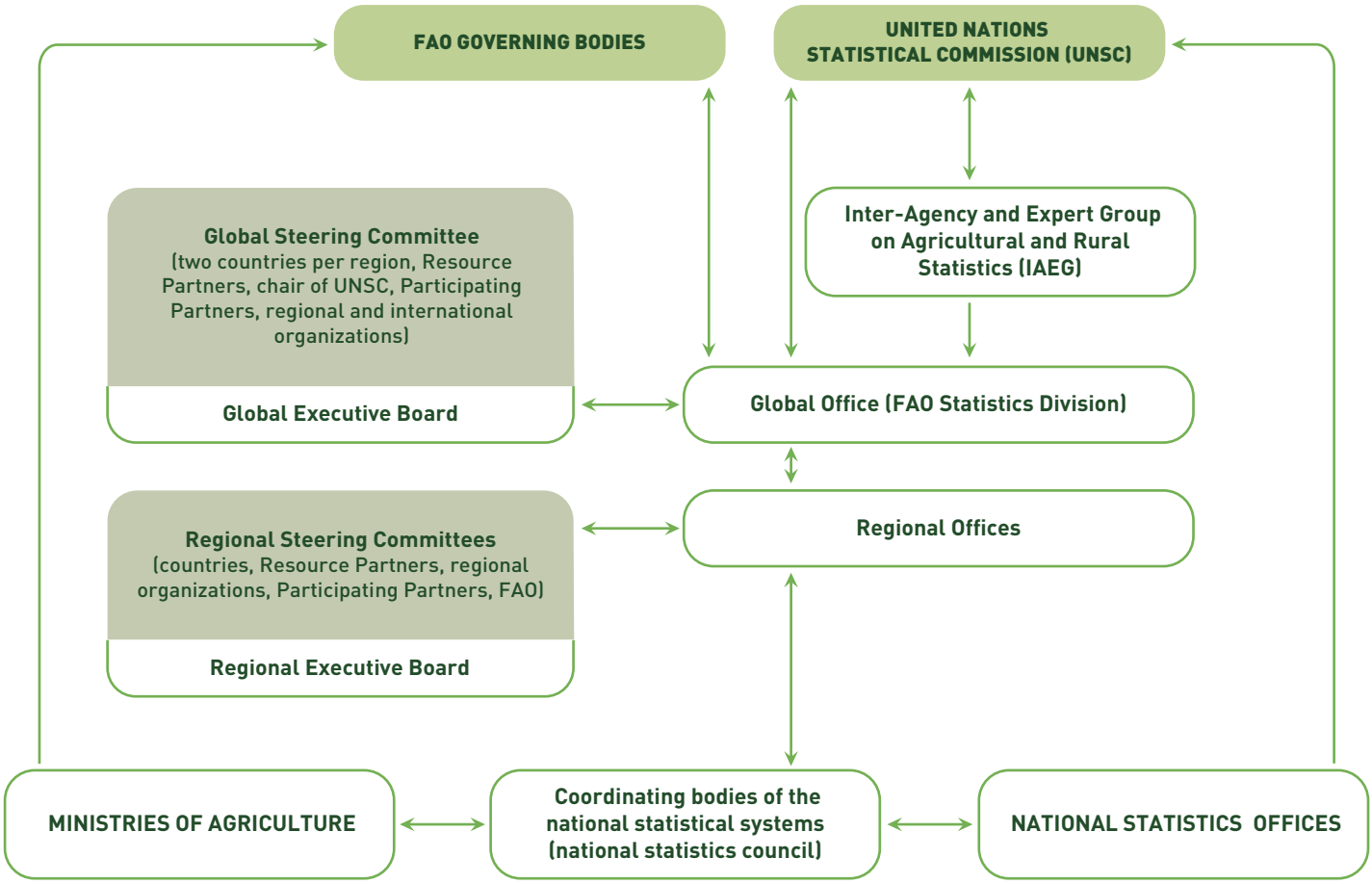
Governance Structure

The integration of agriculture into national statistical systems begins at the global level. The apex statistical body is the UNSC, which by design includes national statistical organizations. Agriculture is represented in the UNSC only if it is already fully integrated into the activities of a national statistics office. MoAs are members of FAO governing bodies—namely, the FAO Council and the Committee on Agriculture (COAG). The Global Office will report on implementation of the Global Strategy to the UNSC and to FAO governing bodies, which is the first step in integration.

Figure 2.1 is an overview of the governance structure, which is described in the sections that follow. A more detailed description appears in appendix D.

[3] Five food crops are targeted by AMIS: rice, soybeans, corn, cassava, and sugarcane. The main data items are production, stocks, consumption, and trade (export and import). Country coverage is the G20 and eight main export/import countries

Figure 2.1 Global, Regional and National Governance Structure



Global Governance Framework

Global Steering Committee (GSC). The GSC will provide strategic guidance and oversight for the execution of the Global Action Plan to implement the Global Strategy. The GSC is the ultimate decision-making body for the use of the Global Trust Fund for implementing the *Global Strategy to Improve Agricultural and Rural Statistics*, in compliance with the conditions stipulated in the agreements between the Fund Administrator (which is FAO) and individual Resource Partners.

The GSC will meet at least once a year to monitor progress in implementation of the Global Strategy, evaluate its impact, and make decisions on the strategic allocation of Global Trust Fund resources based on the contributions committed by all Resource Partners.

The GSC will be composed of the chair of the UNSC, country representatives of the Regional Steering Committees (two per region), representatives of international and regional organizations, the Resource Partners, farmer associations, and other key users, as well as the key technical partners and FAO. The GSC may review its composition to include new members as required.

The members of the GSC will elect two co-chairs, who will serve for a term of two years.

The co-chairs will preside at meetings of the GSC and exercise any other functions required to facilitate its work.

Global Executive Board (GEB). The GEB will be an executive committee of the GSC. Between meetings of the GSC, the GEB will represent the membership of the GSC, facilitate coordination among all GSC members, and facilitate the decision-making process of the GSC. The GEB will exercise the functions delegated to it by the GSC. The GEB, in carrying out its functions, will be supported by the Global Office. The GEB will give instruction to the Fund Administrator to disburse funds to Participating Partners in line with the strategic allocation decided by the GSC.

The GEB will be entitled to allocate the additional resources received by the Global Trust Fund after the last and before the next meeting of the GSC. This allocation will be endorsed at the next meeting of the GSC.

The GEB will have seven members. They will be appointed by the GSC from GSC members, including two country representatives representing beneficiary countries, two representatives of regional partners, two representatives of Resource Partners of the Global Trust Fund, and a representative of FAO (ex officio). The chair of the GEB will be elected for a term of two years by the GSC.

Global Office (GO). The GO, hosted by the Statistics Division of FAO and led by the Global Coordinator assigned by FAO for this purpose, will ensure overall technical coordination of implementation of the Global Strategy at the global level and with regions. The GO will act as secretariat of the GSC and the GEB, providing recommendations on the indicative allocation of funds between activities at the global and regional levels and among regions. The Statistics Division of FAO is the Participating Partner given the task of under-taking the normative and technical coordination work, establishing standards, and providing centralized technical and practical guidance on cross-regional issues.

Inter-Agency and Expert Group on Agricultural and Rural Statistics (IAEG). The 43rd session of the UNSC endorsed the proposal to establish an interagency and expert group that brings together countries and agencies to develop and document good practices and guidelines on concepts, methods and statistical standards for food security, sustainable agriculture and rural development. The IAEG will report back to the commission on its activities every two years and will replace the Friends of the Chair Group on Agricultural Statistics and the Wye Group.

The IAEG will be composed of high-level experts in statistics for food security, sustainable agriculture and rural development from national governments and international organizations. The membership will ensure regional representation and a broad range of experience drawn from countries, international agencies, academia and other subject matter experts. The IAEG may consider establishing task teams on specific topics.

The secretariat of the IAEG will be hosted by FAO. The IAEG will meet at least once a year and present a biennial report to the UNSC on the progress made in its activities.

Regional Governance Framework

Regional Steering Committee (RSC). The RSC will serve as the decision-making body at the regional level. It will provide guidance and oversight, within the framework defined by the GSC and consistent with the relevant funding agreements, on the implementation of the regional and country activities defined in the regional plan.

The RSC will meet at least once a year to monitor progress in the implementation of the regional plan and evaluate its impact.

The composition of the RSC will typically include representatives of countries, Resource Partners, regional organizations, regional Participating Partners and FAO, as well as selected experts.

Regional Executive Board (REB). Each RSC will evaluate the need to establish a REB, which is an executive committee of the RSC from which it receives delegated authority to oversee the execution of decisions. If implemented, the REB will meet more frequently than the RSC and will carry out the functions of the RSC between its meetings.

Regional Office (RO). The RO structure and size will vary by region, depending on regional resources and needs. It has the major role of coordinating the country assessments and providing training and technical assistance to the integrated national statistical systems. A RO should also liaise with the international, regional and subregional offices within its region to coordinate their support to countries, thereby avoiding duplication of efforts and ensuring that global standards are being followed.

National Governance Framework

Governance at the national level will build as much as possible on existing coordination mechanisms and structures. National governance of the agricultural statistical system entails the establishment, where it does not exist, of a sectoral coordination mechanism that brings together the national statistics office and the ministries responsible for agriculture, forestry and fisheries and any other institutions that collect agriculture-related data. This sectoral coordination mechanism should be part of the national statistical coordination mechanism, such as the national statistics council, which provides governance to the whole national statistical system.

Appendix D describes in detail the governance framework.

Implementation at the Global, Regional and National Levels

Table 2.1 is a detailed review of the activities needed at the global, regional and national levels to support statistical capacity building and efforts to implement the Global Strategy. It also recognizes that considerable capacity building is needed before implementation begins. The table spells out specific activities for governance, country assessment, technical assistance, training and research.

Table 2.1: Overview of Activities at the Global, Regional and National Levels

Global	Regional	National
Governance		
• Establish Global Steering Committee (GSC). • Establish Global Office to carry out, lead and coordinate research activities, to provide standards and guidelines for technical assistance and training, and to act as secretariat of the GSC.	• Where needed, establish Regional Steering Committees (RSCs). • Where needed, develop regional action plans to implement the Global Strategy. • Establish Regional Offices to carry out country assessments, to provide technical assistance and training, and to act as secretariat of the RSC.	• Form national statistics councils and prepare country proposals and memoranda of understanding between the ministries of agriculture, national statistics offices (NSOs) and other stakeholders.
• Support resource mobilization with major international donors.	• Support resource mobilization at the regional level.	• Support resource mobilization at the national level.
• Prepare advocacy materials for resource mobilization and inclusion of stakeholders and users.	• Supplement advocacy materials to meet regional needs and involve regional stakeholders and users.	• Prepare a resource mobilization plan to put national statistical system on a sustainable basis.
Country assessment		
• Design and test the country assessment questionnaires and develop guidelines for an in-depth country assessment in close collaboration with regional partners.	• Test the country assessment questionnaires and add specific questions as required to ensure regional issues are included in assessments. • Organize and coordinate the country assessments. • Support ministries and NSOs in the country assessments; collect and process the completed questionnaires.	• Have ministries and NSOs carry out the assessment. • Ensure that the relevant stakeholders are represented in completing the questionnaire.
• Develop criteria for categorizing countries by statistical capacity, data availability and quality, national governance, and so forth in close collaboration with regional partners.	• Contribute to development of criteria for categorizing countries. • Prepare country profiles of capacity, strengths, weaknesses and possible entry points into implementation of the strategy.	
• In close collaboration with regional partners, prepare guidelines for the preparation of country proposals and ensure agriculture is included in National Strategies for the Development of Statistics (NSDS).	• Contribute to the preparation of guidelines on country proposals. • Assist countries with the preparation of country proposals. • Support countries in the identification of their technical assistance and training needs.	• Prepare country proposals for implementation of the Global Strategy, including technical assistance and training needs based on in-depth country assessment.
Technical assistance		
• Develop standards for technical assistance in consultation with regional partners and countries.	• Supplement and adapt standards for technical assistance to ensure regional specificities are taken into account.	• Carry out technical assistance according to developed standards.
• Develop guidelines for sector strategic plans for integration of agriculture into NSDS.	• Assist countries with the preparation of NSDS, integrating sector strategic plans.	• Develop sector strategic plan for agriculture or update NSDS to include sector strategic plan, with assistance of the ROs.

Table 2.1: Overview of Activities at the Global, Regional and National Levels (cont.)

Global	Regional	National
Technical assistance		
• Prepare guidelines for statistical laws, confidentiality issues, and establishment of national statistics councils.	• Adapt guidelines to meet regional specificities.	• Establish statistical legislation or, if available, amend if needed to reflect the integration of agriculture into the national statistical system, with the assistance of the ROs.
• Prepare technical standards and guidelines to produce statistics on crop area and yield, livestock and poultry, prices and trade, employment and labor, land use, and fishery and forestry production.	• Adapt guidelines to meet regional specificities if needed. • Disseminate documentation and ensure standards are widely used. • Assist countries.	• Develop countries' capacities to produce statistics on crop area and yield, livestock and poultry, prices and trade, employment and labor, land use, and fishery and forestry production through technical assistance on how to apply prepared technical standards and guidelines.
• Prepare technical standards and guidelines for coordination of agricultural censuses with population censuses.	• Adapt standards to reflect regional requirements. • Assist countries.	• Develop countries' capacities to coordinate agricultural censuses with population censuses through technical assistance on prepared technical standards and guidelines.
• Prepare guidelines based on good practices and findings of research for development of master sampling frame, integration of surveys, improved estimation practices, and use of administrative data.	• Collect good practices for development of master sampling frame, integration of surveys, improved estimation practices and use of administrative data. • Adapt guidelines to meet regional requirements. • Disseminate documentation and ensure standards are widely used. • Assist countries.	• Improve countries' capacities to develop master sampling frame, integrate surveys, improve estimation practices and use administrative data through technical assistance on prepared statistical standards.
• Prepare guidelines based on good practices and findings of research for use of remote sensing, global positioning systems, statistical software and portable data entry devices.	• Collect good practices for use of remote sensing, global positioning systems, statistical software and portable data entry devices. • Adapt guidelines to meet regional requirements. • Assist countries.	• Improve countries' capacities through technical assistance on good practices and findings of research for use of remote sensing, global positioning systems, statistical software and portable data entry devices.
• Prepare guidelines based on good practices and findings of research for sample design, data collection, estimation and analysis.	• Collect good practices for sample design, data collection, estimation and analysis. • Contribute examples from region.	• Contribute examples of best practices from country. • Develop countries' capacities in data collection, estimation and analysis, through technical assistance on guidelines developed.
• Document, develop and support implementation of standards for data harmonization and dissemination using proven systems such as CountrySTAT.	• Adapt standards to meet regional requirements. • Assist countries.	• Through technical assistance, improve countries' capacities to implement standards for data harmonization and dissemination using proven systems such as CountrySTAT.
• Document current and advanced analytical methods to add value to data and incorporate economic, social and environmental dimensions.	• Adapt documentation of analysis methods to meet regional requirements. • Assist countries.	• Improve countries' capacities to use current and advanced analytical methods, to add value to data and to incorporate economic, social and environmental dimensions through technical assistance.

Table 2.1: Overview of Activities at the Global, Regional and National Levels (cont.)

Global	Regional	National
Technical assistance		
• Prepare guidelines for technical assistance on cost-effective advanced methods developed by research.	• Contribute to the preparation of guidelines for technical assistance. • Assist countries.	• Contribute examples of best practices from countries. • Develop countries' capacities to adopt cost-effective advanced methods developed by research through technical assistance.
• Document how analysis of data from the economic, social and environmental dimensions can be used for policy purposes.	• Adapt documentation to meet regional requirements. • Assist countries.	• Improve countries' capacities to use data for policy purposes. • Promote and strengthen use of data through partnerships and specific workshops with data users, including planning institutions, the private sector, research institutes and academia.
• Enhance collaboration and networking between regions: establish a network of agricultural statistics offices and exchange of good practices.	• Contribute to networking between regions. • Collect good practices. • Develop technical assistance alternatives such as twinning arrangements. • Develop partnerships with stakeholders.	• Participate in networking and benefit from and contribute to examples of best practices.
• Enhance coordination and collaboration with other providers of statistical technical assistance and the international statistical community.	• Enhance coordination and collaboration at the regional level with other providers of statistical technical assistance and the regional statistical community.	• Coordinate statistical technical assistance at the national level.
• Develop and maintain a roster of experts.	• Contribute to the roster of experts.	• Contribute to the roster of experts.
• Ensure effective coordination, quality assurance, and overall monitoring and evaluation of technical assistance deliverables.	• Ensure effective coordination, quality assurance, and monitoring and evaluation of technical assistance deliverables at the regional level.	• Monitor and evaluate technical assistance deliverables at the national level.
Training		
• Develop standards for training.	• Adapt standards to meet regional requirements. • Apply developed standards.	
• Document knowledge and experience requirements for the different levels of core skills required to produce basic official statistics and for implementing the master sampling frame, integrated survey and coordinated data system. • Provide training materials.	• Assist countries in identifying gaps between core skill requirements and the qualifications of the statistical staffs and plan training programmes accordingly.	• Identify gaps between core skill requirements and the qualifications of the statistical staffs of the country.
• Develop questionnaire for identifying the training needs of countries during an in-depth country assessment.	• Assess the training needs for implementing a strategy within region, taking advantage of ongoing or completed training needs assessments.	• Assess the training needs of the country, taking advantage of ongoing or completed training needs assessments.

Table 2.1: Overview of Activities at the Global, Regional and National Levels (cont.)

Global	Regional	National
Training		
• Coordinate the assessment of training needs with the requirements of other sectors of national statistical systems.	• Liaise with institutes providing training to other sectors.	
• Develop questionnaires to create an inventory of courses provided by training providers.	• Contribute to questionnaire development and obtain information from regional training centres and evaluate the capabilities of each.	• Provide input about the capabilities and quality of training provided by institutes in the country.
• Develop materials for e-learning and short in-service training that will support rebuilding the required knowledge levels and actions of the Global Strategy.	• Compile, according to identified country needs, training programmes based on the material created at the global level. • Organize training in regional training centres. • Promote e-learning by informing about and facilitating the use of e-learning materials.	• Select candidates for training centres. • Organize short in-service training courses. • Ensure access to websites with e-learning materials.
• Develop training materials to cultivate communication skills for data users, especially policy and decision makers. • Develop training material to support specific workshops with data users, including planning institutions, the private sector, research institutes and academia.	• Organize the corresponding training of the midlevel and top management of statistics agencies in regional training centres. • Organize specific workshops with data users, including planning institutions, the private sector, research institutes and academia.	• Determine the relevant issues in the country.
• Promote the exchange of skills, expertise and experience between training centres across regions by compiling and documenting good practices in the design and delivery of training programmes and establishment of twinning arrangements.	• Promote the exchange of skills, expertise and experience between training centres within regions by compiling and documenting good practices in the design and delivery of training programmes and establishment of twinning arrangements.	• Contribute examples of good practices from the country in the design and delivery of training programmes.
• Provide resources and standards to upgrade regional training infrastructures.	• Upgrade the training infrastructure (computer hardware and software, audiovisual equipment and associated items, material for libraries) of training centres in the regions.	
• Prepare training material on the cost-effective advanced methods developed by research. • Provide resources to support advanced learning opportunities.	• Support scholarships and the participation of nominated staff from agricultural statistical agencies in approved training courses on the cost-effective advanced methods developed by research. • Organize training in regional training centres.	• Nominate staff for scholarships and participation in approved training courses on the cost-effective advanced methods developed by research.
Research		
• Assess whether the specific research needs of regions are already covered by a research plan. • Take into account the specific research needs of regions.	• Collaborate with the Global Office to ensure that the specific research needs of regions are taken into account.	• Collaborate with the Global Office to ensure that the relevant research needs of countries are taken into account.

Table 2.1: Overview of Activities at the Global, Regional and National Levels (cont.)

Global	Regional	National
Research		
• Collect information on ongoing or already completed research activities on prioritized topics.	• Provide information on ongoing research projects in the region.	• Provide information on the state of the art in the country and on ongoing research projects.
• Identify potential partners.	• Contribute to identification of potential partners. • Inform the Global Office about potential partners in the region.	
• Facilitate contacts and the exchange of information among universities, other research institutes, statistical offices, and ministries of agriculture and other relevant agencies.	• Collaborate with the Global Office in facilitating contacts and the exchange of information.	
• Review the relevant literature.		
• Perform gap analysis.		
• Identify the remaining methodological issues.		
• Design and conduct empirical studies; process and analyse results.	• Contribute to the conduct of empirical studies.	• Provide assistance in carrying out pilot surveys at the country level.
• Develop methodological solutions for the prioritized research topics, building synergy and avoiding duplication of effort.	• Provide inputs to the development of methodological solutions.	
• Validate developed methodological solutions.	• Contribute to the validation of developed methodological solutions.	• Contribute to the validation of developed methodological solutions.
• Prepare methodological publications on the results of research.	• Provide inputs to the preparation of methodological publications.	
• Organize dissemination workshops with countries and other stakeholders.	• Contribute to the organization of dissemination workshops.	• Participate in dissemination workshops.
• Disseminate the findings on the Web.		
• Facilitate access to and the sharing of knowledge and reduce duplication.	• Contribute to facilitating access to and sharing of knowledge at the regional level.	• Contribute to facilitating access to and sharing of knowledge at the national level.
• Contribute to the preparation of guidelines and handbooks for advanced technical assistance and textbooks for training based on the results of research.	• Provide technical inputs to the preparation of guidelines.	

Initial Activities for Immediate Implementation

Implementation of the Global Action Plan will build on the ongoing capacity building and research activities being conducted by several agencies at all levels. Although the country assessments are under way, several aspects of technical assistance, training and research can be launched. The following activities of the Global Action Plan could start immediately:

- Preparing technical standards and guidelines for producing statistics on crop area and yield, livestock and poultry inventories and production, prices and trade, employment and labor, land use, fisheries, and forestry;
- Pilot testing the approaches and methodologies for satisfying the emerging statistical demands in an initial set of countries;
- Developing standards and materials for face-to-face and e-learning training;
- Detecting the best practices for urgent statistical problems in agricultural statistics (e.g., yield estimation) and assessing whether and how they can be adapted to other regions;
- Initiating collaboration with the lead partners for developing new, cost-effective methodologies and tools in data collection, elaboration, analysis and presentation for urgent topics and quick wins.

In some countries, activities for improving agricultural and rural statistics in line with the recommendations of the Global Strategy are ongoing (see box 2.1).

Box 2.1 Ethiopia: New Approaches to Producing Agricultural Statistics as Recommended in the Global Strategy

Ethiopia has a coherent system for data production to meet policy needs in line with the Global Strategy. The following new approaches are producing successful results:

- Developing a master sampling frame for the National Integrated Household Survey Programme (NIHSP) as the foundation for the integrated survey framework;
- Replacing ad hoc surveys with an integrated survey framework to provide a coherent package of data— socioeconomic, demographic and agricultural—on a continuous basis;
- Using the integrated survey framework to provide comparable data over time and across countries by means of an annual survey of selected core items;
- Implementing new approaches to generating crop area, yield, and production estimates and forecasts using area and list frames (multiple frame) and employing new technologies and tools (e.g., GPS, remote sensing, PDAs) to generate crop area estimates that substantially reduce the cost of surveys, improve the quality of data, and make the results available in a more timely manner. For example, use of a GPS to measure crop area reduces by as much as 60 percent the time needed for the traditional methods.

3

INTERDEPENDENT LINKAGES OF COMPONENTS OF THE GLOBAL ACTION PLAN

3 INTERDEPENDENT LINKAGES OF COMPONENTS OF THE GLOBAL ACTION PLAN

An evaluation by FAO in 2008 pointed out that a most pressing need in national statistical systems is to improve the basic capacity for producing agricultural statistics; in fact, the report described the need as a re-emerging one (FAO, 2008a). Therefore, the Global Action Plan considers the need to rebuild statistical capacity, while also providing the technical support to implement the methodologies included in the Global Strategy. A main purpose of the Global Action Plan is to contribute to this capacity-building effort by offering technical assistance and training as determined by the country assessments and based on methodological research. This chapter is an overview of the linkages between these technical components.

Need for Country Assessments, Technical Assistance, Training and Research

The first pillar of the Global Strategy aims at enabling countries to produce and disseminate on a regular basis a minimum set of reliable core economic, social and environmental data. These data should be comparable over time and across countries to sustainably meet the current and emerging data needs on food security, sustainable agricultural development and their interaction with the environment and climate change.

The availability of these data will allow farmers to make better farming and marketing choices and national and international policy makers to develop better policies (particularly for reducing the risk of food shortages) and to monitor their implementation more effectively. The lack of adequate technical tools, a statistical methodology and a survey framework to support data production efforts has been identified as one of the main reasons for the insufficiency and poor quality of data on the agriculture sector.

From the 1950s through the 1980s, important efforts were made to develop tools and methods to address some of the specific challenges facing agricultural statisticians. FAO, along with the World Bank, was at the forefront of these efforts[4]. The methods and tools for estimating crop area, yield and production were largely inspired by the research on objective measurement and crop cutting conducted in India in the 1940s and 1950s by the teams led by Mahalanobis (1946). The efforts resulted in publication of some basic methodological guidelines and practical handbooks on collecting agricultural statistics in developing countries that are still widely used by agricultural statisticians in African countries, even though the guidelines and handbooks do not reflect modern realities.

In the 1990s and 2000s, methodological research activities and the preparation of standards and guidelines for essential statistical activities declined. Still, some important

[4] See the contributions of Narain (1955); Zarkovich (1963); Panse (1964); Sukhatme and Sukhatme (1970); Casley and Lury (1981); FAO (1986); and Kish (1989)

publications were produced, such as the decennial *World Census of Agriculture* (FAO, 2000, 2010b), the multiple frame methodology (FAO, 1996, 1998), and working documents on crop forecasting, enumeration of nomadic livestock, and estimation of root crop production. But these efforts—now over 10 years old—fell short of addressing all the challenges of producing accurate agricultural statistics in developing countries. This lack of research to support the documentation of methodological guidelines adversely affected efforts to provide countries with the technical assistance and training needed to sustain their statistical systems. Thus a comprehensive, integrated methodological research programme is needed to support the documentation of statistical standards for efforts to improve agricultural statistics.

In view of the current technological advances, particularly the use of geospatial information and geo-referencing devices, alternative and more efficient methods and tools relevant to developing countries need to be developed and implemented for improving the cost efficiency of data collection systems and for better data quality. In addition, the rapidly changing nature of agriculture and the emergence of new issues make the available data and some current methods obsolete. For example, information is seldom collected on biofuel production and use, the impact of agriculture on the environment, and climate change adaptation and mitigation practices, as well as the impact of climate change on poverty, and little is known about the methods and best practices on how to obtain that data.

In order to improve agricultural and rural statistics significantly, and on a sustainable basis, all these problems will be addressed in a synergic approach. In that approach, the existing operational tools and data collection methods will be validated and updated. In some cases, the feasibility of adapting the methods adopted in developed countries to the specificities of developing countries will be explored. And in others, new cost-efficient, sustainable methods will be developed, taking into account the technological progress. The result of these activities will be methodological publications, norms and statistical standards for data collection, analysis and dissemination that will serve as inputs for both the training and the technical assistance components.

The Technical Components and Their Interlinks

The Global Action Plan contains four technical components that were identified by the UNSC to be developed by FAO in collaboration with the UNSC Friends of the Chair working group: country assessments, technical assistance, training, and research. The requirements for each are reviewed in detail in the following chapters. These technical components are also interdependent and articulated in a capacity-building programme.

FAO is providing the overall coordination and a secretariat for the Global Action Plan so that it is coherent and consistent with regional activities.

Most research, training and technical assistance topics call for expertise in specialized areas that are difficult to maintain in many regions. The Global Action Plan will face these challenges, which will require a concerted effort by all stakeholders. Meanwhile, the plan will guarantee full integration among the technical components. This integrated approach will also apply to the phased implementation, and it will prevent duplication of effort.

Technical assistance and training requirements will be determined by assessment of national capacities. At the same time, the priority research topics will be addressed. Outputs from the research component will be the basis for innovative technical assistance

and training. The technical assistance activities put in place for developing the statistical capacity of countries will require training and research.

Table 3.1 focuses on the linkages among the technical assistance, training and research activities. Because technical assistance is the basic instrument for developing the capacity of countries, the training and research activities are designed to feed the technical assistance efforts.

Table 3.1 Linkages among Technical Assistance, Training and Research

Technical Assistance	Training	Research
• Provide assistance for the country assessment.	• Train the analysts conducting the country assessment.	
• Develop standards for technical assistance.		
• Develop and apply guidelines for the Sector Strategic Plans for Agricultural and Rural Statistics (SSPARS) in order to integrate agriculture into the National Strategies for the Development of Statistics (NSDS).		• Conduct research on how to mainstream agriculture into the NSDS.
• Prepare and apply guidelines for statistical laws, confidentiality issues, and establishment of a national statistical council.		• Conduct research on creating an appropriate framework for the development of an integrated agricultural statistics programme.
• Prepare and apply technical standards and guidelines on area statistics, yield forecasting, and estimation; livestock and poultry inventory and production estimates; prices and trade; employment and labor; censuses; land use; and fishery and forestry production.	• Translate standards into training materials. • Provide training.	• Improve data collection methods. • Improve methodology for data analysis. • Improve methodology for market statistics. • Identify appropriate indicators and collection methods for small-scale fisheries.
• Prepare and apply statistical standards for coordination of agricultural censuses with population censuses.		
• Document and apply statistical standards for development of master sampling frame, integration of surveys, estimation practices, and use of administrative data.	• Provide training materials for validation and reconciliation of data from different sources.	• Identify the most appropriate master frame for an integrated survey. • Develop more efficient and more robust methods for using administrative data to improve agricultural statistics.
• Develop and apply guidelines based on good practices and findings of research for use of remote sensing, global positioning systems (GPS), statistical software, and portable data entry devices.	• Contribute to the translation of current and advanced practices into training materials. • Train specialized staff in using geographic information systems (GIS) and remote sensing data.	• Improve methods for using GPS, GIS, and remote sensing to set up a master sampling frame for an integrated survey.
• Develop and apply guidelines based on good practices and findings of research for sample design, data collection, estimation, and data analysis.	• Contribute to translation of current and advanced practices into training materials. • Train specialized staff.	• Improve data collection methods. • Improve methodology for data analysis.

Table 3.1 Linkages among Technical Assistance, Training and Research (cont.)

Technical Assistance	Training	Research
• Document, develop and support implementation of standards for data harmonization and dissemination using proven systems such as CountrySTAT.	• Provide training materials and train specialized staff in validation and reconciliation of data from different sources and implementation of data management and dissemination systems.	• Improve methods, standards, and systems to implement integrated database for data management and dissemination.
• Document and apply current and advanced analysis methods to add value to data and incorporate economic, social and environmental dimensions.		• Improve the methodology for data analysis. • Identify the appropriate indicators and collection methods for agri-environment.
• Prepare and apply guidelines for technical assistance on the cost-effective advanced methods developed by research.	• Prepare handbooks for training on the cost-effective advanced methods developed by research.	• Contribute to the preparation of guidelines and handbooks on the cost-effective advanced methods developed by research.
• Prepare and apply guidelines on how analysis of data from economic, social and environmental dimensions can be used for policy purposes.	• Prepare training materials to support joint workshops for statisticians and policy makers and other data users on uses of data.	• Improve methodology for determining users' information needs for decision making.
• Enhance collaboration and networking between regions; establish a network of agricultural statistics offices for exchange of best practices.	• Encourage more advanced countries to provide training to other countries.	
• Enhance coordination and collaboration with other providers of statistical technical assistance and the international statistical community.	• Ensure coordination of technical assistance and training.	
• Develop and maintain a roster of experts.		
• Ensure effective coordination, quality assurance, and overall monitoring and evaluation of technical assistance deliverables.		

4

COUNTRY ASSESSMENTS

4 COUNTRY ASSESSMENTS

The country assessments, the starting point of implementation of the Global Strategy, will be carried out in two stages. The first stage will establish baseline information on a country's statistical capacity, using a globally standardized questionnaire developed by the global team. The information generated will be used for designing the second, more in-depth stage of the country assessment, which will be the basis for preparation of a country proposal for technical assistance and training based on the choice of the appropriate methodology and technology for implementation.

First Stage

The questionnaire used in the first stage will collect information from the national statistics offices and statistical offices in the ministries of agriculture and other institutions producing agricultural statistics using the well-established channels of the regional statistical commissions of FAO or similar bodies. This survey will provide information on each country's institutional framework for agriculture statistics, the extent to which each country is producing the minimum set of core data, who is providing what in the country, the frequency of the data produced, and its quality. This information will allow categorization of countries by their capacity to produce the minimum set of core data. The level of statistical development in a country, as measured by the results of this questionnaire, will be one of the criteria for the selection of priority countries.

The questionnaire for the first stage of the country assessment will include the following elements:

- The existing institutional infrastructure for agricultural statistics and the key statistical activities in the country, including elements such as whether there is a legal framework for agricultural statistics, and, if so, the organization(s) to which it relates, and the status of the preparation of the NSDS and whether they encompass agriculture.
- The national capability to provide the minimum set of core data on a sustainable basis. The questionnaire will determine what items in the minimum set of core data are being provided, the frequency with which they are available, and by whom they are provided, recognizing that more than one institution may be providing data for the same items. If more than one institution is currently providing data on items in the minimum set of core data, the information will be obtained from each.
- The timing and scope of major statistical activities in the agricultural sector—for example, whether an agricultural census has been conducted and, if so, when; its scope of production (crops, livestock, fishery and aquaculture, forestry); and the coverage of the country.
- The sampling frames and statistical methods used for key statistical activities—for example, whether the list frames or area frames are used.
- The current donor support for statistical operations. Each reporting institution will be asked to describe these efforts, as well as provide information about the technical assistance and training being provided by donors. Key donors in each country will be identified.

- The national statistical infrastructure and use of technology. Other questions about the national statistical infrastructure will be about the use of technology such as remote sensing, GPS and PDA devices.
- Status of the most recent population census, when it was conducted, who conducted it, and whether it included information about agriculture. There will be questions about the compilation of national accounts, the adoption of international classifications, and the preparation of price indexes such as those for consumer and producer prices.
- The resources (national budget, number of people and their level of training) available for providing statistics. Questions about the structure of the national statistical system will focus on whether there is a coordinating body such as a national statistical council and advisory committees representing data users.
- Data dissemination strategies and support to users.
- Critical constraints in the system in order to help identify a country's priority needs.

Because of the regional variations in the organization of statistical activities in the subsectors of agriculture, the regional implementing agencies will have flexibility in administering the questionnaire at the country level, while maintaining the core characteristics of the standard questionnaire for international comparisons.

A major benefit of this questionnaire will be the opportunity it presents to learn from those countries whose stage of statistical development includes many of the principles described in the Global Strategy. For example, countries that have formed a national statistics council to coordinate the collection of agricultural statistics can provide lessons learned for other countries that need to take the same step. Countries that have included questions related to agriculture in their population census or who use a master sampling frame or have experience with remote sensing will provide valuable input about the choices of methodology. The questionnaire will also identify which countries have the capacity to provide input into the research agenda by assisting with or conducting pilot surveys.

At the other end of the statistical development spectrum are the least developed countries, where there may be little or no capacity for any statistical programmes, including agriculture at the start of the process. Some may not even have the capacity to prepare a national strategy or to carry out basic statistical activities. In these cases, implementation of the Global Strategy will have to be carried out in harmony with development of the statistical system in general. An overall technical assistance and training programme coordinated with other sectors will be needed in such countries.

Not all countries will begin implementation of the Global Strategy at the same time, nor will they use the same methodology or take the same amount of time. The country assessment will determine when the implementation should begin, the time frame in which it will take place and the statistical methodology to be employed and the most critical areas for priority intervention.

The country assessment also will provide information on what other statistical development activities are under way at the country level. For example, donors providing technical support for household surveys should be asked to coordinate these efforts with the implementation plan to improve agricultural statistics and, in particular, the establishment of a master sampling frame.

The first stage (questionnaire) of the country assessment should provide the global and regional coordinators with the information they need to finalize development of the statistical standards and guidelines for the technical assistance and training programmes. It will also identify countries in which assistance will require developing a basic infrastructure that includes the preparation of statistical laws and regulations. The findings of the first stage should be provided to donors who have interests in specific countries or types of countries based on their statistical capacity.

Second Stage

The first stage of the country assessment and the resulting statistical capacity-building indicators will allow the regional and global coordinators to mobilize the appropriate consultants to provide technical assistance and training for the second stage of the assessment, which will be preparation of the country proposal. But before this second stage, countries will have to demonstrate the political will and commitment needed to implement the three pillars of the Global Strategy. This second stage will also determine the human and financial resources a country needs to seek in order to build a sustainable statistical system. This stage should also produce a work plan that will lead to preparation of the SSPARS for implementation of the Global Strategy. This work plan will determine the capacity-building requirements and when they should occur. Periodic reassessments using the standard questionnaire will serve as a tool for monitoring the growth in country capacity arising from the interventions made during implementation of the strategy.

5

TECHNICAL ASSISTANCE PLAN

5 TECHNICAL ASSISTANCE PLAN

Technical assistance is the main driver of the Global Action Plan; it will enable countries to improve their agricultural and rural statistics.

One of the main challenges in the delivery of technical assistance has been its effectiveness, and particularly the sustainability of many of the interventions. In the past, interventions have been directed at meeting urgent short-term data needs, especially to inform the donor-supported implementation plans and programmes rather than to meet national needs and longer-term development of a sustainable capacity for statistics. There has also been a lack of coordination and prioritization of technical assistance. In some countries, technical assistance did not meet one important objective—transferring know-how and technical expertise to counterparts. And it did not always focus on the need to enhance the effective demand for data at political levels in order to enlist adequate funding and other forms of commitment from national governments and avoid under-resourcing the production and development of statistics.

The initiatives for statistical capacity building already exist. One of the most extensive is the Partnership in Statistics for Development in the 21st Century (PARIS21). Such initiatives have focused on the national statistics offices, especially in several areas of common interest such as improving survey programmes and increasing the use and value of survey data. This initiative also includes the preparation of NSDS.

Often, it is possible to expand the scope of these efforts to include agricultural statistics. In addition, there are several areas in which agriculture can be integrated into existing survey activities such as linking population and the agricultural census and using agriculture modules in household surveys (such as the Living Standards Measurement Study). Such integration opens new themes for data analysis and expanding information for users. To ensure greater coherence of capacity-building activities at the country level, the regional and national technical assistance programmes will identify which current activities can be linked to agricultural statistics. Where activities are ongoing in the region, the Global Office will establish a regular working procedure to liaise with development partners to incorporate agricultural statistics and sectoral agencies where possible and to ensure that the activities of all partners are consistent with the Global Strategy. The regional offices will be responsible for keeping track of partners' activities within the region, informing the Global Office, and carrying out the delegated liaison tasks.

The responsibilities at the global and regional levels for technical assistance have two components. The first, a major responsibility at the global level, is developing and documenting the statistical standards and technical guidelines for all aspects of the agricultural statistics system. Documentation of the technical standards will be the basis for much of the training programme that will be used by the experts providing on-site technical assistance, and directly by countries with the statistical capacity to do so.

The second component of technical assistance consists of the technical experts working directly with a country on implementing statistical methods. The statistical standards and guidelines ensure that the technical experts are applying the statistical methods in each country consistently. This task will be supported by the training of trainers in each

of the regions in the use of these guidelines. Other activities will be related to coordination, monitoring, quality assurance, networking and information exchange about technical assistance activities.

Technical assistance activities at the global, regional and country levels are shown in detail in table 2.1 in chapter 2. This table lists the areas in which detailed documentation of standards and guidelines is needed for the statistical capacity building and implementation of the Global Strategy.

At the regional level, technical assistance will enhance the implementation programme arising from the guidelines and documentation provided by the Global Office through a combination of knowledge transfer and direct country assistance. Based on the country assessment, countries will be classified according to their level of statistical capacity and grouped accordingly. Programmes will be developed for each group of countries to move them forward in a stepwise progression. Sustainability of structures and capacities will be of paramount consideration, as will national ownership of and commitment to the programme.

All Pillars

Technical assistance will be provided, as needed, for the following main areas affecting all pillars of the Global Strategy:

- The country assessment, the starting point for the programme, will address the following:
  - Establishing baseline information on the national capability to produce on a sustainable basis the core set of data advocated in the Global Strategy.
  - Determining the quantity and quality of the current data produced by source if multiple organizations produce the same data.
  - Evaluating the different sources of information and their reliability and accuracy.
  - Evaluating the weaknesses and strengths of the agricultural statistical system and ways to overcome weaknesses and leverage strengths.
  - Assessing the roles and responsibilities of the agencies involved in collecting, compiling, processing, analyzing, and disseminating agricultural and rural statistics.
  - Determining the current and future needs for capacity building such as training, technical assistance research, and methodologies.
  - Evaluating the extent to which integration of agriculture into the national statistical system takes place, as well as a country's ability to develop the agriculture master sampling frame, integrated survey framework and data management system.
  - Assessing the extent to which agricultural and rural statistics are incorporated in the current NSDS.

- Standards and guidelines will be established for all aspects of and requirements for a fully functioning national statistical system.

- The Global Office will monitor the development of new methods and technologies suitable for statistics by networking with other statistical agencies and through feedback from users. This knowledge will be widely shared. Technical assistance at

the regional and national levels will be closely coordinated with other agencies to ensure maximum impact. Cooperation among developing countries (South-South) will be used wherever possible for skills transfer.

- Statistical software packages are a powerful tool for data processing and analysis. Technical assistance will be required to support introduction of the appropriate statistical software packages. Because of the broader implications for the national statistical system, where possible capacity building will address the needs of the overall system and not just the needs of the agricultural statistics system.

Pillar I: Establishing a Minimum Set of Core Data

The establishment of a minimum set of core data that countries will collect to meet the current and emerging demands will require undertaking the following tasks:

- Assembling, reviewing, analysing and documenting good practices, as well as evaluating the existing agricultural data sets to determine the causes of inconsistencies and discrepancies in the agricultural data from different sources and to propose how these may be reconciled. This task can be carried out using the CountrySTAT system for easy access to national and subnational data and the Accelerated Data Programme (ADP), a PARIS21 satellite programme. The ADP assists countries in identifying weaknesses and making short-term improvements in the relevant statistical processes such as household surveys in order to quickly obtain or improve estimates of key indicators, including those for the MDGs.
- Verifying the accuracy and reliability of the agricultural production data series using information on, among other things, agricultural prices, export volumes and values, level and distribution of rainfall, and household consumption that could directly or indirectly explain the production levels and trends.
- Undertaking data analysis of the linkages among the economic, social and environmental domains.

Technical assistance will be needed to introduce the concept of a multidimensional approach and its implications for the statistical system. Follow-up at the national level will be required to fill critical skill gaps and to build capacity.

Pillar II: Integrating Agriculture into the National Statistical System

Countries will design and implement SSPARS in the framework of the NSDS to support the integration of agriculture into national statistical systems. Working closely with PARIS21 and other development partners supporting the NSDS initiative, those providing technical assistance will help countries prepare their sector strategic plans using guidelines issued by the Global Office.

A key element of developing an integrated statistical system is development of a master sampling frame. Countries will be introduced to the concept of a master sampling frame and receive assistance with its design and construction.

The data collection system for agricultural statistics will include data from all sources—censuses, surveys, remote sensing and administrative records. Within the framework of the Global Strategy, countries will receive help in designing an integrated survey

framework that (1) provides an annual work programme that is consistent from year to year, (2) minimizes the required scope of censuses, (3) recognizes that some data need to be collected more often than annually because of the seasonal nature of agriculture and the crop and livestock production cycles, and (4) takes into account the additional data sources that need to be included in the overall framework such as administrative data, remotely sensed data and community surveys. This effort will engage data users to ensure their changing priorities are being met.

Assistance will be provided for integrating the agricultural census with the population census, applying the modular approach, and introducing new areas such as aquaculture, as advocated in the FAO's *World Programme for the Census of Agriculture 2010* (FAO , 2010b). All are highly relevant to implementation of the Global Strategy.

Integration of the survey process, including sample design, questionnaires and methods of data collection, analysis and estimation will also be supported by technical assistance.

Technical assistance will support the establishment of a data management system that fulfills three functions: (1) access to official statistics for dissemination purposes; (2) storage and retrieval of survey results; and (3) access to farm, household, and geo-referenced data for research. The system should be able to support the dissemination of data both within and across countries.

As a FAO-based system, the introduction of CountrySTAT at the country and regional levels will require specific technical assistance, which more generally will be needed to implement internationally comparable databases (see box 5.1).

Box 5.1 CountrySTAT

CountrySTAT (http://www.countrySTAT.org) is a Web-based information technology system for food and agricultural statistics at the national and subnational levels. It allows countries to better organize, harmonize, and standardize statistical data from multiple sources and integrate them into a common platform (a one-stop centre). Easily accessible online, it enables researchers, policy makers, development organizations, and the private sector to design and implement better policies.

Through national and regional CountrySTAT projects, FAO has been able to build partnerships with statistical offices and ministries of agriculture, fisheries, and forestry, among others, to introduce the system and develop the national capacity to implement it. In each country, the national government makes a substantial contribution to ensure deployment of the system and continued training and maintenance.

The Philippines was one of the first countries to establish a CountrySTAT system. The government now funds and maintains the system, and it provides other developing countries with expertise—indeed, expertise from the Philippines was used to develop CountrySTAT in Bhutan. Data from 1990 onward are available, updated monthly. Farmers and policy makers can track current prices at the farm gate and in the wholesale and retail markets.

With the support of the Bill and Melinda Gates Foundation (BMGF), the CountrySTAT system has been installed in 17 Sub-Saharan Africa countries in three years, with a budget of US$6.4 million. The system is also being expanded to other African countries and other regions. The West African Economic and Monetary Union has adopted the CountrySTAT system for all of its member countries and regional headquarters and has provided the additional funding needed to cover three countries not covered by BMGF funding .The same approach is being taken by the East African Community with funding from Italian Cooperation. The Southern African Development Community has also expressed its interest in adopting the system. And there are increasing numbers of requests from other countries in Latin America, Asia, and the Near East

Pillar III: Fostering Sustainability of the Statistical System through Governance and Statistical Capacity Building

The sustainability of the agricultural statistics system will be achieved through governance and statistical capacity building. To this end, the technical assistance programme will address the following issues:

- Assessing the institutional and organizational structures supporting the rural and agricultural statistics system and the roles and responsibilities of the agencies involved to determine whether a memorandum of understanding is needed between these agencies to formalize their respective roles.
- Promoting statistics and statistical development outside the NSO in sectors that produce statistics related to agricultural and rural development.
- Enabling statistical legislation.
- Mainstreaming statistics in sector development policies, programes, and budgets.
- Enhancing coordination, collaboration and networking.

The final point is that technical assistance will be provided for statistical capacity building, not to implement specific statistical methodologies. For example, those providing technical assistance will enable a country's statisticians to implement and maintain the methodology being used or introduced; they will not do the work of data collection for the statisticians.

The outcomes of the technical assistance component will be the following:

- More coordinated technical assistance between Resource Partners and stakeholders in the national statistical system.

- A greater focus on longer-term technical assistance to develop statistical systems that are sustainable by ensuring that all participants in the national statistical system benefit from the knowledge transfer.

- An improved ability to meet the data needs for policy use by adopting a greater focus on data analysis in the country, timing activities appropriately and disseminating the data adequately.

6

TRAINING PLAN

6 TRAINING PLAN

One of the challenges facing implementation of the Global Strategy is that the personnel in charge of agricultural statistics in many countries (at both the management and technical levels) lack the appropriate knowledge and skills.

Limited data are available on the demand for training in agricultural statistics in developing countries, the potential supply of training centres and the gaps between the supply of training and the demand for training. Analysis of the available information, based on FAO surveys in 2005, 2007 (FAO, 2008b), and 2009 (unpublished results), as well as information provided by countries, mainly from the NSDS, suggests that the following concerns and issues need to be addressed for improving statistical data production:

- In many developing countries, some members of the statistical staff lack even the core skills and competencies needed to produce quality statistics.
- There are insufficient short in-service training courses available to enable existing staff to upgrade their skills and knowledge, especially in new and emerging areas.
- There is a need to develop new courses and to modify the curricula for courses that are already offered that lead to first and postgraduate degrees in statistics and related topics.
- The capacity of the existing training centres already offering specific training courses in agricultural statistics should be strengthened, and a process should be supported in which their experience and expertise can be networked and made available to other training organizations.
- There are not sufficient funds in many countries to meet the costs of both short- and long-term training.
- The existing coordination mechanisms should be strengthened to ensure that information about training needs is made available to providers and information about the supply of training is accessible to statistical agencies.

Along with improving the production of agricultural statistics, the training component will have to tackle another issue: the lack of skills among medium and top-level statistical staff to communicate with data users, especially policy and decision makers, in order to both understand what their data needs are and help them understand the importance of the data that statisticians can produce for evidence-based policy and decision making.

Developing such skills, along with periodic user-producer workshops and user training on the use of data, will increase policy makers' awareness of the importance of good statistics in their work, which in turn will positively affect the sustainability of the statistical system by ensuring the appropriate budget allocations for producing policy-relevant data.

The training component defines a unified and structured approach for training, supports and strengthens the regional and national programmes, and, at the same time, addresses the training challenges that cut across regions. The training component will have global regional and country-level elements. Their interrelationship is described in table 2.1 in chapter 2.

Global Responsibilities

The Global Office will provide a description of the core competencies (basic skills) and the corresponding qualifications required to produce agricultural and rural statistics. The level of training required for the various positions, ranging from clerical worker to senior mathematical statistician, will be identified. The Global Office will also prepare face-to-face and e-learning training materials to be used by regional training centres and national statistics offices. The training process itself will actually be implemented at the regional level and in the countries. The training materials will cover all the three pillars of the Global Strategy:

- **Pillar I.** Training materials will focus on the methods for collecting reliable data on the minimum set of core items. Special attention will be given to issues such as treatment of mixed crops, enumeration of livestock in nomadic areas, measurement of livestock production, and the new issues resulting from the expanded scope of agricultural statistics (social, food security, environmental, forestry and fishery). This material will cover the training of a wide range of personnel, from enumerators to midlevel management.

- **Pillar II.** Training materials will focus on issues related to integrating agricultural statistics into the national statistical system, creating the master frame, designing the integrated survey system (survey design, sampling theory, estimation, estimation errors), and developing data management systems (maintaining the databases, validating and reconciling data from different sources, and disseminating data).

- **Pillar III.** Training materials will focus on developing and strengthening the institutional and organizational capacities to ensure the sustainability of the agricultural statistics systems (drafting statistics-related legislation, formulating projects and action plans, managing skills, identifying and monitoring training needs). Training materials will be developed to improve communication and interactions with data users, especially policy and decision makers. This material will cover the training of top and midlevel management.

Special emphasis will be placed on e-learning as a powerful, cost-effective modern training tool. A strong effort will be made as well to liaise with training programmes planned or under way in related areas of statistics to ensure consistency of terms, concepts, and methodologies.

The preparation of training materials will begin by applying specially developed questionnaires to countries to identify their training needs and to selected training centres to assess their capabilities to provide training. Universities will be widely involved in this process. The gaps between training needs and what is available will be filled by developing training materials on the basis of the available research materials and technical assistance guidelines and new findings from the research component.

Along with preparing training materials and e-learning tools, the Global Office will facilitate access to training by maintaining and publishing information about the training courses available at major training centres and websites with e-learning materials. The Global Office will promote an exchange of skills, expertise and experience between training centres across regions by means of twinning arrangements and will compile, document and disseminate good practices in the design and delivery of training programmes. The Global Office will also organize the training of resource persons (trainers) for regional training centres

Regional Responsibilities

At the regional level, activities will include the following:

- Assessing training needs during the second stage of the country assessment. This information will be used to group countries according to the levels of core skills and competencies of their statistical staffs. Depending on the training needs, training programmes will be developed for the regional centres based on materials created at the global level.
- Adapting the standards for training developed by the Global Office to meet regional requirements.
- Ensuring that countries are aware of and know how to use the e-learning materials.
- Promoting through networks established between the national statistics offices and sectoral agencies the sharing of training programmes and knowledge transfer for statistical skills that cut across sectors.
- Supporting technically and financially on-the-job (in-service) training in the countries.
- Selecting regional training centres and strengthening them by identifying gaps in their training programmes and upgrading the skills and capacities of their staffs.
- Upgrading the training infrastructure of regional centres, including providing computer hardware and software, audiovisual equipment and associated items, as well as material for libraries and organizing short courses to be conducted by training centres.
- Supporting scholarships and participation of staff from statistics agencies in the approved short courses.

Country Responsibilities

Activities at the country level will mostly entail identifying training needs; contributing examples of good practices in the design and delivery of training programmes; selecting the staff to attend regional training centres, as well as for scholarships and short-term courses; organizing in-service training; and guaranteeing access to e-learning materials.

Specifically, countries will ensure that training needs are identified during the second stage of the country assessment. In addition, they will ensure that staff have access to websites containing e-learning materials, select candidates for training in training centres, organize short in-service training courses, and nominate staff for scholarships and participation in approved advanced training courses.

The outcomes of the training component will be the following:

- More staff trained to produce, analyze and disseminate agricultural and rural data as required by the Global Strategy. In particular:

    - Core skills and competencies will be restored.
    - The current statistical staff will gain the appropriate educational foundation for the positions they are occupying.
    - Statistical staff will gain access to new, specialized knowledge in different areas, including in the design and management of agricultural surveys, sampling theory, geographic information systems and food security statistics.
    - Statistical staff will be trained in new methods and procedures in agricultural statistics such as the processing and analysis of agricultural data.

  - The skills of managers will be strengthened, especially in areas such as human resource management, training needs analysis and strategic planning.

- More effective training centres equipped with standard courses, curricula, materials, facilities and that have access to expertise and related resources and are networked with partner institutions.

- More sustained training programmes that are able to address the needs identified by an assessment of knowledge and skills and more scholarships and fellowships that are aligned with the existing competencies.

- More effective interactions between the users and producers of statistical information, resulting in policy makers' and decision makers' greater awareness of the importance of good statistical data. That awareness will benefit the sustainability of agricultural statistics systems by ensuring the appropriate allocations in national budgets.

7

RESEARCH PLAN

7 RESEARCH PLAN

The goal of the research plan is to contribute to a significant improvement in the quality, reliability and cost-effectiveness of agricultural statistics in developing countries. This goal will be achieved by providing a framework for the coordinated efforts of experts in various regions to address the most important methodological issues and gaps surrounding the effective collection, processing and dissemination of data. The research activities described in this chapter will be led by the Global Office, and the results will be made available to the national statistical systems.

Research Topics

Through a long process, including a survey of key stakeholders in agricultural statistics at various meetings[5], some research topics have been prioritized according to their links to the main pillars of the Global Strategy and their technical relevance for developing countries.

The FAO Statistics Division also presented to the Joint Research Centre (JRC) of the European Commission a proposal on the research topics to be included in the Global Action Plan and the strategy for conducting the research. The main purpose of the presentation was to discuss and receive feedback from the JRC on the relevance of the proposed topics and existing research gaps. The relevance of the research topics was recognized, and it was suggested that improved methods for estimating postharvest losses and the use of pesticides be added to the list of prioritized research topics. The research topics and the strategy for implementation were also discussed with some FAO divisions and other institutions.

The research topics were grouped into thematic domains, which are described in the following sections.

Creating an appropriate reference framework. The second pillar of the Global Strategy is the integration of agriculture into national statistical systems. Guidelines on developing an integrated agricultural statistics programme will be prepared. They will identify and address policy makers' needs and develop the organizational and legal framework that best fits the characteristics of countries. Guidelines on the development of SSPARS for mainstreaming agriculture into the NSDS will also be prepared. The guidelines will address the difficulties that can be faced when different organizations have to cooperate to mainstream agriculture into the national statistical system and to develop an integrated agricultural statistics programme. Finally, technical solutions for the integrated survey framework will be developed and the corresponding guidelines prepared. The strategies and good practices already adopted by some countries will be considered in order to identify the appropriate solutions, taking into account the specificities of countries and stakeholders.

[5] The meetings were held in Tunis in February 2010 and at FAO headquarters in Rome in September 2010

Identifying the most appropriate master frame for the integrated survey. The integration of agriculture into the national statistical systems will begin with the development of a master sampling frame for agriculture that will be the foundation for all data collection based on sample surveys or censuses. The master sampling frame must provide the basis for the selection of probability-based samples of farms and households with the capability to link the farm characteristics with the household and then connect to both the land cover and use dimensions.

Research will be conducted on how to improve the use of GPS, GIS and remote sensing in setting up a master sampling frame for an integrated survey for the various categories of countries according to the landscape, economic structure, size of farms, spatial distribution of important crops and livestock species, and kinds of data sources available in the country. The development of a master sampling frame will duly take into account the data and information from population and agricultural censuses, particularly the enumeration area information used by many countries as primary sampling units. The research will also identify the most appropriate list frame, multiple frames or area frame for the different categories of countries (point frame, square segments, segments with physical boundaries, size of the segments and so forth). Finally, it will focus on improving methods for linking area frames with list frames.

Improving data collection methods. A satisfactory solution has not yet been found for many data collection problems. Research efforts seek accurate, cost-effective methods for improving estimates of crop area and yield, particularly in the presence of mixed crops, repeated cropping, continuous cropping and for root crops.

Attention will also be directed toward developing methods for estimating postharvest losses and for measuring the use of fertilizers and pesticides—major inputs that have environmental consequences.

Research will be devoted as well to improving methods for collecting data on livestock, including cattle, sheep, pigs, goats and poultry, because livestock production is a major contributor to food supply and income. Consumption of livestock products increases as countries develop, thereby resulting in higher consumption of grain by livestock and higher methane emissions.

Accurate estimations of livestock numbers and production are a challenge in many countries, and particularly in Africa (FAO, 1992) because of the nomadic and semi-nomadic livestock systems. Social constraints also create difficulties in obtaining accurate numbers of livestock in pastoral societies and in estimating livestock products, especially those related to small animals.

Many of the considerations just mentioned for methodology also apply to fisheries and aquaculture, which are an important source of food security, nutrition (especially protein and trace nutrients) and livelihoods in many countries. The collection of data on inland fisheries and aquaculture (both commercial and subsistence) will depend on developing the appropriate methods for data collection and estimation (FAO, 1997, 1999).

New technologies such as GPS, PDAs, remote sensing using satellites and aircraft, as well as geographic information systems, will play an important role in developing cost-effective data collection methods. Research will be conducted on assessing their effectiveness and cost-efficiency in developing countries.

The improvement of data collection methods and analysis of irrigated areas and use of water for irrigation will be pursued as well.

The activities will include taking stock of the methodological work being conducted by several institutions such as FAO and the World Bank in order to build synergy and complementarities. The table in appendix H is a list of some activities largely developed by FAO that need to be completed. The World Bank's Living Standards Measurement Study (LSMS) is also aimed at improving data collection methods through the addition of an agriculture module to the surveys being conducted in several African countries.

Improving the methodology for food security data and indicators. The social dimension of the Global Strategy covers the need to reduce risk and vulnerability, especially for food security. The quality of supply utilization accounts and of food balance sheets is linked to the quality of food availability data, mainly production, trade and stocks. Because the quality of data on food stocks is very low in many countries, research is needed to identify strategies (survey designs, sample designs, estimators, and so forth) for producing more reliable data. Moreover, because of the influence of food stocks on international prices, better methods of estimating stocks will allow better forecasts of the onset of food price crises.

Edible forest products are an important element of the diets of some populations. Thus estimates of the quantities harvested are needed to avoid a downward bias in the estimates of food available—an essential input in estimates of the prevalence of undernourishment.

This research will also analyse the possibility of improving the methodology adopted by FAO for estimating the prevalence of undernourishment, taking advantage of other data sources such as household surveys (e.g., the LSMS) and nutrition indicators.

The activities in this thematic area will be well coordinated with ongoing work under way by the FAO and World Food Programme to develop Information Systems for Food and Nutrition Security (ISFNS).

The recent FAO/WFP Joint Strategy on Information Systems for Food and Nutrition Security includes an important component on developing standards, tools and methods for generating food and nutrition security information and statistics. Partnership with other key agencies is also promoted through the newly established Food Security Information Network for developing standardized methods.

The development and use by countries of sound methods to produce reliable basic data on food availability (production, stock, trade) will support the development of food security information systems and indicators.

Improving the methodology for market statistics*.* Market information affects agricultural activities and farmers' decisions. In addition to the data collection efforts described earlier, attention will be devoted to improving the methods for estimating farm gate prices; for collecting data on agricultural commodity prices at rural and border market; and for estimating informal cross-border trade data. Factors and product markets affecting agricultural activities will also be analysed, as well as the impact of biofuels on the market.

This research will complement and support the activities planned under the AMIS, which was recently established under the auspices of the G20 with FAO designated

as secretariat. Methodological improvements in collecting market-related data will support AMIS, which focuses on selected crops and countries.

Improving the methodology for data analysis. Understanding and monitoring agriculture sector development issues depend on careful analysis of basic information. Reconciliation of census data with survey data, determination of users' information needs for decision making, and the use of small-area estimation methods for improving agricultural statistics are particularly important in this domain. Methods for data analysis need to be developed or improved to inform policy decisions and monitor their impact on household incomes, rural development and the environment.

Policy makers need statistics on small domains. A broad set of literature is available on small-area estimation methods. Small-area models are strongly dependent on the kind of variable to be estimated and on the kind of auxiliary variable available. Research will be conducted on improving estimation methods for agricultural variables in small domains, taking into account the possible kinds of auxiliary variables. Many systems for crop forecasting and early warning have been developed over the last decades because they can be vital in some developing countries. However, most of them tend to produce reliable results only under ordinary conditions, not extreme conditions, which is particularly important for policy issues. Thus a significant improvement is needed in the analysis of various sources of data (remote sensing data can be one of these sources) and in the development of models.

Improving the methodology for using administrative data. In developed countries, government interventions such as subsidies, regulation and legislation often require agricultural holders to report production information. Land ownership and cadastral surveys provide useful information for constructing registers. Many references can be given on the use of administrative data for agricultural statistics—see, for example, Selander et al. (1998); Wallgren and Wallgren (1999, 2007, 2009); Lavallée (2005); ESSnet ISAD (2008); and Carfagna and Carfagna (2010). However, more research is needed to identify where, how and under which conditions administrative data can be used for producing agricultural, rural and agri-environmental statistics, with particular reference to developing countries. In many developing countries, administrative data must first be improved and specific guidelines will be created for this purpose.

Identifying appropriate indicators and collection methods for gender-related data and indicators. Recent studies show that considerable differences exist in the levels of use of inputs and other means of production and consequently in the yields and economical sustainability of farms managed by women and men. Several organizations are collecting data and undertaking analysis on this topic. Ongoing and completed projects will be analysed and specific research will be conducted in order to identify the appropriate indicators, the corresponding data to be collected and survey designs.

Identifying appropriate indicators and collection methods for small-scale fisheries, including subsistence fisheries. In a large number of developing countries, capture fisheries (inland and marine) are major contributors to food and income for rural households. Small-scale fisheries are also an important source of food supply and income generation. However, reliable estimates are rarely produced because of difficulties in frame identification and data collection (see de Graaf et al., 2011). The problems in estimating subsistence fisheries will be addressed with particular reference to the following topics:

- Identification of the frame.

- Development of methods for appropriate data collection (e.g., integration of fisher-ies in the population census or agriculture census or both—see FAO,1999).

- Estimation of self-consumption.

Better integration of geographic information and statistics. The research agenda will address the need for better integration of geographic information and statistics. In particular, it will propose new, more effective and more robust methods for the use of maps to produce more accurate agricultural and rural statistics, especially to connect economic and social indicators to land use. In addition, more efficient methods will be studied for area frame construction, stratification and calibration and especially for improving models for small-area estimation using geographic information as auxiliary variables. Research is also still needed on developing robust and statistically based methods for spatial disaggregation and for integrating various kinds of geographical information and geo-referenced survey data, which is essential for crop forecasting and early warning.

Improving the methodology for using remote sensing. The development of more efficient and more accurate methods is needed for using remote sensing for crop area and yield estimation, crop forecasting and early warning, forestry and deforestation and land use and land cover monitoring (e.g., automatic change detection and quality control and validation of land cover databases). For methodological contributions, see, for example, Gallego (2004); Carfagna and Gallego (2005); and Carfagna and Marzialetti (2009a, 2009b).

Remote sensing data have been used for producing vegetation indexes that show overall crop conditions, providing valuable early warning of the impact of events such as droughts or floods. Other satellite imagery provides information on changes in land use and land cover. The literature in these fields is broad. For a recent review, see Doraiswamy et al. (2005); Dorigo et al. (2007); Hannerz and Lotsch (2008); and Gallego, Carfagna, and Baruth (2010).

A document on best practices for crop area estimation with remote sensing has been prepared by the Global Earth Observation System of Systems (GEOSS, 2009). Remote sensing data can be used for estimating the cultivated area of countries or improving the precision of estimates for specific crops. In this field, the research activities will be devoted to the development of more efficient statistical methods and the assessment of their cost-effectiveness in developing countries.

A major topic for research is improving the methods for integrating remote sensing data and ground surveys. Other research topics are the use of AFRICOVER or more detailed land use/land cover databases for stratification, the use of remote sensing data for small-area estimation, an assessment of the most appropriate area frame for specific landscape types and study of the possibility of combining households surveys with remotely sensed data (see FAO, 1988; Carfagna and Gallego, 2005; Gallego, Carfagna, and Baruth, 2010).

Identifying appropriate indicators and collection methods for agri-environmental data. The agri-environmental topics have been debated for a long time in developed countries with much focus on what scientists would like to know and little on what can be measured or estimated. Thus much research is still needed in order to define the indicators to be adopted and consequently the guidelines on the data to be collected, the most appropriate sample units and sample design, the interactions among the

variables to be investigated, the precision to be reached and so on. Researchers will analyse the existing literature and contact the organizations and the institutions working on this topic in order to identify the research gaps (see, for example, Selenius, 2010). The Italian Ministry of Agriculture is carrying out some research activities in this field, mainly devoted to delimitation of high nature value farmland, which is an estimate of the distribution patterns on the basis of land cover and biodiversity data.

Researchers will also investigate the interaction among climate change, environment and agriculture, devoting particular attention to the impact of biofuels and the use of genetically modified organisms (GMOs) on biodiversity and the environment.

Deforestation has a very strong impact on the climate and the environment, particularly in some areas of the world. Thus methods for monitoring deforestation and in general land cover, have to be improved and made available for developing countries. In fact, a fundamental way in which to evaluate the impact of agriculture on the environment is to monitor changes in land cover and use.

Appendix F shows the prioritized thematic domains, the corresponding research topics, and the pillars of the strategy related to each research topic.

Implementation of the Research Plan

The main research activities to be developed at the global, regional and country levels are described in table 2.1 in chapter 2. The Global Office will promote, coordinate and undertake the research on the relevant topics. It will facilitate contacts and the exchange of information among the relevant divisions of FAO, universities, other research institutes, statistics offices and ministries of agriculture in order to build synergies and avoid duplication of efforts in developing cost-effective advanced methodologies, tools and guidelines. Networking will be an important element of the implementation strategy. The living database created will include the ongoing relevant research projects conducted worldwide in order to facilitate access and sharing of knowledge. This database will be complemented by an inventory of the best practices based on the results of the relevant research projects. The inventory and the database will be an instrument for transmitting knowledge and best practices not only from developed to developing countries, but also among developing countries.

The outputs expected from the research plan and the corresponding activities to be undertaken are described in appendix G. The Global Office will work with the most qualified regional and international structures for decentralized implementation. Subcontracts will be assigned on a tender basis or on a comparative advantage basis (whenever possible to institutions located in developing countries), depending on the topic. A Scientific Advisory Committee will advise on the implementation of the research plan, including the identification of the best implementing partners.

Mobilizing resources and setting the administrative arrangements for the Global Action Plan will take time. Many issues identified as priority could be implemented as soon as the corresponding resources are available with minimum administrative arrangements. In fact, work is already under way on some of the topics (quick wins) by various institutions, including FAO, and what is presently needed is to finalize the activities and produce the guidelines. Other topics require limited resources to produce highly needed technical guidelines (see appendix H for a list of these topics).

The outcome of the research plan will be cost-effective advanced methodologies, tools and standards developed and disseminated for use by agricultural statisticians in developing countries. They will be in the form of methodological publications that will be the basis for the guidelines, handbooks and documentation of good practices in priority research topics needed to foster the production of reliable statistics. Specific outputs are the following:

- Reports, including for each priority research topic:
    - Ongoing or already completed research activities.
    - Review of the relevant literature (state of the art).
    - Gaps analysis and identification of the remaining methodological issues.
    - Potential partner technical institutions.
- Empirical studies, where needed, designed and field-tested by the relevant technical partner institutions.
- Methodological publications and technical reports on findings, standards and recommendations for possible solutions to methodological issues, prepared, peer reviewed and validated by experts. These publications will be the basis for developing training material, guidelines and handbooks on innovative methods.

8

PROCESS TO IMPLEMENT THE GLOBAL STRATEGY, INDICATIVE BUDGET AND TIMELINE

8 PROCESS TO IMPLEMENT THE GLOBAL STRATEGY, INDICATIVE BUDGET AND TIMELINE

This chapter presents an overview of the work plan, timeline and expected costs for implementing the global, regional and national activities identified in the Global Action Plan. It took decades for the quality and availability of agricultural statistics to decline to the current situation. And so it will take many years to rebuild the system for agricultural statistics and also to prepare it to deal with emerging data requirements. The Global Strategy provides the overall framework for rebuilding the national statistical systems while choosing from many kinds of methodology. Not all methodologies will be needed in every country. It will be up to each country to make the choices and establish the priorities for implementation. In view of these points, the Global Action Plan should include steps to pilot test implementation strategies in a small set of countries with varying degrees of statistical capacity in order to:

- Obtain a quick assessment of the steps needed to implement the different methodologies, prioritize the implementation stages and determine the associated costs.
- Develop an overall scalable, flexible implementation plan that can be adjusted for changes in funding support.

Process to Implement the Global Strategy

The sections that follow describe the activities that will unfold in a parallel fashion as implementation proceeds.

The roll-out of the Global Action Plan has begun by setting up both a Global Office at FAO and a Global Steering Committee (GSC). The Global Office will coordinate and support the preparation of detailed regional programmes, in cooperation with selected regional institutions where such programmes have not been prepared.

The Global Office will directly support implementation of the regional-level activities. It will be responsible for the preparation of technical standards and guidelines to support the technical assistance and training programmes, which can begin while the country assessment is under way in some regions. Work on the priority elements of the research plan and testing of the methodologies needed to meet the emerging data requirements can also begin. These elements are critical to ensuring successful, cost-effective implementation of the strategy.

Regional Offices and Regional Steering Committees (RSCs) will be established as well. The Regional Offices will begin by coordinating and supporting the country assessment activities. Those activities will be followed by those devoted to grouping countries, selecting a set of target countries for in-depth assessments, and preparing country proposals for funding.

Selection of Pilot Countries

In order to launch the first-year activities without having to await completion of all country assessments, the Global Office will use the information available from international agencies such as FAO, the World Bank, and other partners to select a small subset of 18–20 countries. Because a capacity-building effort of this magnitude has never before been attempted, much remains to be learned about the steps to implement the Global Strategy. These pilot countries will be targeted for an in-depth assessment that will provide more information on the needs for technical assistance and training.

To ensure successful implementation and the conditions needed for sustainability, the pilot countries will meet the following criteria:

- **Political will and commitment** to improving the country's agricultural statistics and to providing the required government contributions in cash or in kind. The country should also demonstrate a willingness to build an integrated system of agricultural statistics involving all the data producers and data users, in particular the national statistics office and the ministry of agriculture and other line ministries concerned. In fact, strong, explicit commitments by governments to continue to support the activities undertaken under the Global Strategy are essential for sustainability;

- **Active donor interests** in the country willing to support the implementation of activities;

- Possible complementarities with the relevant **ongoing planning activities** such as the National Strategies for the Development of Statistics process, which will facilitate the integration of agricultural statistics into the national statistical system;

- Complementarities with other relevant **ongoing or planned** *large-scale statistical activities* such as population censuses, agricultural censuses or household surveys, which could serve as the foundation of the statistical system and offer cost-effective solutions in choice of methodology. A population or an agricultural census is an opportunity to build master sampling frames to support ongoing surveys.

In addition, the selection of the pilot countries will be based on the following considerations:

- **Importance of agriculture.**
  - For the national economy—percentage of agricultural value added to the total gross domestic product (GDP);
  - Contribution of the country to global food production—share of the country's cereal production to world cereal production.

- **Share of rural population.**

- **Level of statistical development**.

Those selecting pilot countries will give priority to countries in which agriculture is important in the economy and the country contributes significantly to global food

production. However, the pilot countries must also include countries at different levels of statistical development with a mix of low and higher-level countries.
The 18–20 countries selected for the pilot study during the first year of the strategy will correspond to an average of three to four countries in each of the four regions and five to eight countries in Africa region. The pilot countries will be fast-tracked through the implementation steps, to be followed by all other countries as described shortly. Country proposals for funding training and technical assistance will be prepared for those in the pilot study.

During this period, all remaining countries will benefit from the activities being conducted at the global and regional levels to produce public goods such as methodological guidelines and training materials.

The following sections provide more details on the implementation steps and how they lead to the requirements for funding support and implementation of activities.

Country Assessments

During the first year and in parallel with the implementation of activities in the 18–20 pilot countries, country assessments will be carried out in all countries by means of a standard country assessment questionnaire (CAQ). The information collected will be used to compile standard indicators for grouping countries and the selection of target countries for the second-stage in-depth assessment described shortly.

Groupings of Countries

Based on the results of the country assessment, countries will be classified in the following broad categories in order to determine the extent of assistance required and the expected costs:

- **Level 5.** Country is supplying more than 80 percent of the minimum set of core data on a regular basis and recently conducted an agricultural census or population census with questions on agriculture. Country has an existing NSDS with an agriculture component and a functioning coordination system in place. Country has elements of a master sampling frame from the completion of an agricultural census or use of area frames.
- **Level 4.** Country produces 50–80 percent of the core data items and has over two-thirds of the other elements noted for level 5 in place.
- **Level 3.** Country produces 30–50 percent of the core data items and has about half of the level 5 elements in place.
- **Level 2.** Country produces less than 30 percent of the core data items and has less than a third of the level five elements in place.
- **Level 1.** (fragile and post conflict countries). Few if any core data items are available, and little or no statistical infrastructure is in place. Resources are very limited or nonexistent.

Countries at level 5 and some at level 4 may have the statistical capacity to implement the Global Strategy directly using the documentation provided for technical assistance and training. Some may need short-term technical assistance to address a specific problem in their system, but in general can proceed at their own pace to implement the elements of the Global Strategy appropriate for their country.

The rest of the countries at level 4 and many of the countries at level 3 will be the ones for which most of the country-level activities will be applicable.

At the other end of the spectrum (the remaining countries at level 3 and the countries at levels 2 and 1), the focus will be on building a national statistical system and advocacy for making adequate resources available. In other words, technical assistance and training can contribute little to implementing technical activities if there is insufficient staff and infrastructure. Many of these countries will be on a timeline extending many years beyond that needed for the level 4 and 5 countries.

As the countries mostly in levels 1–3 complete the first stage of the assessment and become ready to begin the steps to implement the Global Strategy, they will have to be individually assessed to determine the entry points into the Global Action Plan and the technical assistance and training required. The cost estimates that follow are based on the assumption that not all target countries will be able to begin the implementation steps at the same time or proceed at the same pace.

Each country's response to the first stage of the country assessment will be reviewed by the regional and global coordinators in order to group countries in the categories just described and to identify candidates for the first phase of the implementation. The target for that phase is to include 90 countries (40 countries in Africa and 50 countries in the other regions) during the first five years.

Identification of Countries for the First Phase

The main requirements for identifying countries are spelled out in the first four criteria used to select pilot countries. In particular, all countries will be asked to confirm and demonstrate their willingness to participate and their commitment to supporting implementation of the Global Strategy. They will also need to demonstrate their political will and commitment to seeking the necessary resources to ensure sustainable development, as demonstrated by implementation of a SSPARS showing the resources coming from the national system or adequate budgetary provisions for implementation of agricultural statistics activities. This condition is essential to the success of the Global Action Plan. In fact, the plan focuses on capacity building, and countries will be responsible for providing the resources needed to conduct data collection activities to produce the minimum set of core data.

Countries' responses to the first phase of the assessment and their desire to begin implementation will be used to determine the first set of countries for an in-depth assessment.

In-depth Assessment and Preparation of Country Proposals

After the first phase of the country assessment, an in-depth evaluation will be conducted by means of country visits by the regional coordinators. This second stage of the country assessment will include a review of the quality of the data currently being provided, the needs of users, and an analysis of gaps and the improvements needed. The regional coordinators will assist countries in identifying their priority assistance needs and prepare country proposals for funding that describe the work plan and requirements for technical assistance and training. The country proposals, with cost estimates, will be submitted to the RSC for approval and disbursement of funds by the regional PP. The output of the pilot study will provide input for this stage.

Once the country proposals have been accepted for funding support, the Global and Regional Offices will ensure that funding is provided for technical assistance and training to support the implementation efforts.

Implementation of Country Activities

At the country level, overall implementation will be articulated in the NSDS. Development of the SSPARS will be a major activity in many countries, supported by technical assistance and training. Some countries will already have sector strategic plans in place, which only have to be revised to meet the requirements of the Global Strategy. Those without sector strategic plans will face a lengthy wait for implementation because they will also need to mobilize resources to maintain their statistical programmes at a sustainable level. However, depending on the country situation, activities to strengthen capacity and improve the methods, availability, and quality of statistics can take place in parallel with preparation of the sector strategic plans.

Indicative Budget to Implement the Global Action Plan

The estimated funding requirements for the Global Action Plan build from the overview of responsibilities shown in table 2.1 in chapter 2. These estimates are for funding requirements for country, regional, and global level activities and were endorsed by the GSC.

Table 8.1 lists the estimated costs at the country, regional and global levels for governance, country assessment, technical assistance, training and research. The cost estimates are shown for the first phase of five years, which is broken down into an initial period of three years and a second period of two years. The costs for the first phase of five years include an estimate of start-up costs for pilot testing in the 18–20 countries and conducting priority methodological research activities (about US$15 million)[6].

Table 8.1 Estimated Funding Requirement to Implement the Global Action Plan

U.S. DOLLARS, THOUSANDS

	TOTAL
Country level activities	34,715
Regional level activities (regional training and technical assistance activities)	24,610
Global level	19,022
Subtotal	**78,347**
Administrative costs	5,484
Total	**83,831**

[6] All dollar amounts are U.S. dollars.

The GSC endorsed also the estimated funding requirement to implement the Global Action Plan in each region. The cost estimates are shown in table 8.2:

Table 8.2 Estimated Funding Requirement for Each Region and at Global Level

U.S. DOLLARS, THOUSANDS

	Regional level activities	Number of countries	Country level activities	Subtotal	Administrative costs	Total
Africa	9,106	40	15,190	24,296	1,701	25,997
Asia and the Pacific	5,311	20	7,595	12,906	903	13,809
Latin America and Caribbean	5,376	20	7,595	12,971	908	13,878
Near East	2,438	5	2,168	4,605	322	4,927
Commonwealth of Independent States (CIS)	2,380	5	2,168	4,548	318	4,866
Total regions	24,610	90	34,715	59,325	4,153	63,478
Global level activities				19,022	1,332	20,354
Total				**78,347**	**5,484**	**83,831**

Cost of Country-Level Activities

The estimation process began by costing the country activities listed in chapter 2. The estimates are based on FAO's and the World Bank's experience in implementing similar activities (average costs are used). The main activities are the following (depending on country needs):

- Assessing and preparing country proposals based on national priorities;
- Strengthening national governance;
- Developing the SSPARS as a component of the NSDS;
- Harmonizing and disseminating data;
- Applying new, cost-effective methods;
- Training.

The next step was to estimate the amount of ongoing technical cooperation funding likely to already be available in countries. This estimation was carried out by calculating the support for agricultural statistics provided by members of the Partnership in Statistics for Development in the 21st Century based on PARIS21's *Partner Report on Support to Statistics: 2010 Round* (PARIS21, 2010). The partners provided about US$2.9 million a year in agriculture-related support and US$1.6 million in NSDS support for non-Africa regions, for a total of US$4.5 million (average of about US$45 000 per country per year). These figures do not cover multiregional projects, which include those in Africa. They also do not cover multi-domain projects, which include agricultural statistics as well as other statistics. However, the figures provide an order of magnitude of past support, and it is assumed that the same level of support will likely be provided in the future. The

budget estimates that follow are for the additional funding required, taking into account the amounts supporting work already under way.

It is proposed that 90 countries be covered during the first phase of implementation, with an initial period of three years (including the initial pilot phase), followed by two years in which implementation will be accelerated.

The estimated cost of implementing country-level activities is $34.715 million.

Cost of Regional-Level Activities

The main activities at the regional level will be as follows:

- Supporting the country assessments and preparation and submission of national funding proposals;
- Providing and coordinating technical assistance to countries;
- Supporting twinning arrangements, organizing study tours, facilitating exchanges of experience between countries;
- Contributing to research efforts;
- Adapting advocacy materials prepared at the global level to regional conditions;
- Organizing regional workshops, training of trainers, and so forth;
- Adapting new methodological guidelines, including use of digital technology to regional requirements, and developing the corresponding curricula;
- Supporting improvements in the capabilities of the regional training centres;
- Supporting implementation of training programmes and scholarships;
- Monitoring and evaluating of country and regional activities and reporting on them.

Because of the gradual process just described for implementation, the staff in the indicative budget for the various regions will be limited. The indicative budget endorsed by the GSC foresees the following staff:

1. in Africa, a regional office coordinator, a statistician for technical assistance, a statistician for training, a monitoring and evaluation officer, an operational and administrative assistant and a finance officer;
2. in Asia and the Pacific, a regional office coordinator, a statistician for technical assistance and training, a monitoring and evaluation officer (shared with Latin America and the Caribbean) and an operational and administrative assistant;
3. in Latin America and the Caribbean, a regional office coordinator, a statistician for technical assistance and training, a monitoring and evaluation officer (shared with Asia and the Pacific) and an operational and administrative assistant;
4. in Near East, a regional office coordinator (who will also provide technical assistance and training in the region), a monitoring and evaluation officer (shared with Global Office and CIS) and an operational and administrative assistant;
5. in CIS, a regional office coordinator (who will also provide technical assistance and training in the region), a monitoring and evaluation officer (shared with Global Office and Near East) and an operational and administrative assistant.

The estimated cost of implementing regional-level activities is $24.610 million.

Cost of Global-Level Activities

The activities at the global level will support the regional offices in the development of their detailed activity programmes and the implementation of those programmes. The support will include:

- Organizing meetings of the GSC;
- Supporting preparation of regional programmes;
- Preparing standards and guidelines;
- Training the trainers;
- Organizing global-level workshops;
- Preparing advocacy materials;
- Facilitating cross-regional exchanges and so forth;
- Coordinating and implementing the methodological research component using centres of excellence;
- Carrying out interregional coordination and overall monitoring and evaluation of the Global Action Plan.

The Global Office will be in charge of these activities. The office will comprise a global office coordinator, a research coordinator (senior statistician) responsible for research activities, a statistician for technical assistance and training, a monitoring and evaluation officer (shared with CIS and Near East), a programme officer and a technical assistant for research.

FAO will provide support staff as in-kind contribution. In addition, FAO will arrange for the director of the FAO Statistics Division and a principal officer to support the work of the Global Office on a part-time basis. The FAO in-kind contribution with staff time is estimated at US$1.74 million.

The estimated cost of implementing global-level activities is US$20.354 million, including administrative costs.

The overall cost for the five years (including the administrative costs of US$5.484 million) is estimated at US$83.831 million. The estimations are summarized in table 8.1.

During the last years, a considerable amount of work has been carried out on preparing the Global Strategy and the Global Action Plan. FAO and the World Bank have contributed staff time and consultants. The overall FAO contribution for preparation is estimated at about US$1 million, and the World Bank contribution is estimated to be over US$0.5 million.

As specified earlier, the budget to implement the Global Strategy does not include the funding to conduct data collection activities and is mainly aimed at the preparation of global and regional public goods and supporting country capacity development. Partner support to countries through direct assistance or other modalities, as well as country commitment and support, will be critical for conducting data collection activities to produce the minimum set of core data.

Funding Strategy and Administration of the Global Trust Fund

Funding Strategy

The objective of the funding strategy is twofold: (1) to enhance the availability, transparency, efficiency, and effectiveness of the provision of substantial additional financial resources; and (2) to strengthen international cooperation to support and complement the efforts of both developing countries and countries with economies in transition in the implementation of the Global Action Plan.

The Funding Strategy encompasses different types of resources:

- Voluntary contributions to the Global Trust Fund;
- Bilateral agreements between resource partners and FAO or Regional Partners (in case the funds do not contribute to the Global Trust Fund;
- Bilateral agreements between resource partners and countries;
- Agreements between developing countries (South-South cooperation agreements);
- FAO or regional organization own resources - for example FAO Technical Cooperation Programme (TCP) projects and direct assistance - dedicated to implementation of the Global Strategy.

To ensure that regional and country activities will be consistent with the general framework, the regional organizations will report on technical and financial aspects to the Global Office (more detail follows).

Administration of the Global Trust Fund

Global Trust Fund. The Global The Global Trust Fund for implementing the *Global Strategy to Improve Agricultural and Rural Statistics* has been established to consolidate the Resource Partners' contributions and ensure a stream of funding to support implementation of the Global Strategy at the global, regional, and national levels. The Global Trust Fund will be managed by the Fund Administrator for funding activities to be implemented by the Participating Partners (PPs).

Fund Administrator. Through consultation with key partners, it was agreed that FAO will serve as Fund Administrator.

FAO, in its capacity as Fund Administrator, will hold in trust, as a legal owner, and administer the funds contributed by Resource Partners to implement the Global Strategy and will be accountable to the GSC for the performance of its fiduciary responsibilities.

The FA accepts this appointment with the understanding that the PPs will assume full programmatic and financial accountability for the funds disbursed to them by the Fund Administrator and will be directly accountable to the GSC in accordance with the PP's own fiduciary framework, policies, guidelines and procedures.

Appendix E describes in detail the Fund Administrator's terms of reference.

Participating Partners. The PPs will prepare their workplans and budgets which will be submitted to the RSC for approval. Once the workplans and budgets are approved by the Global Executive Board, the PPs will receive funds from the Fund Administrator in

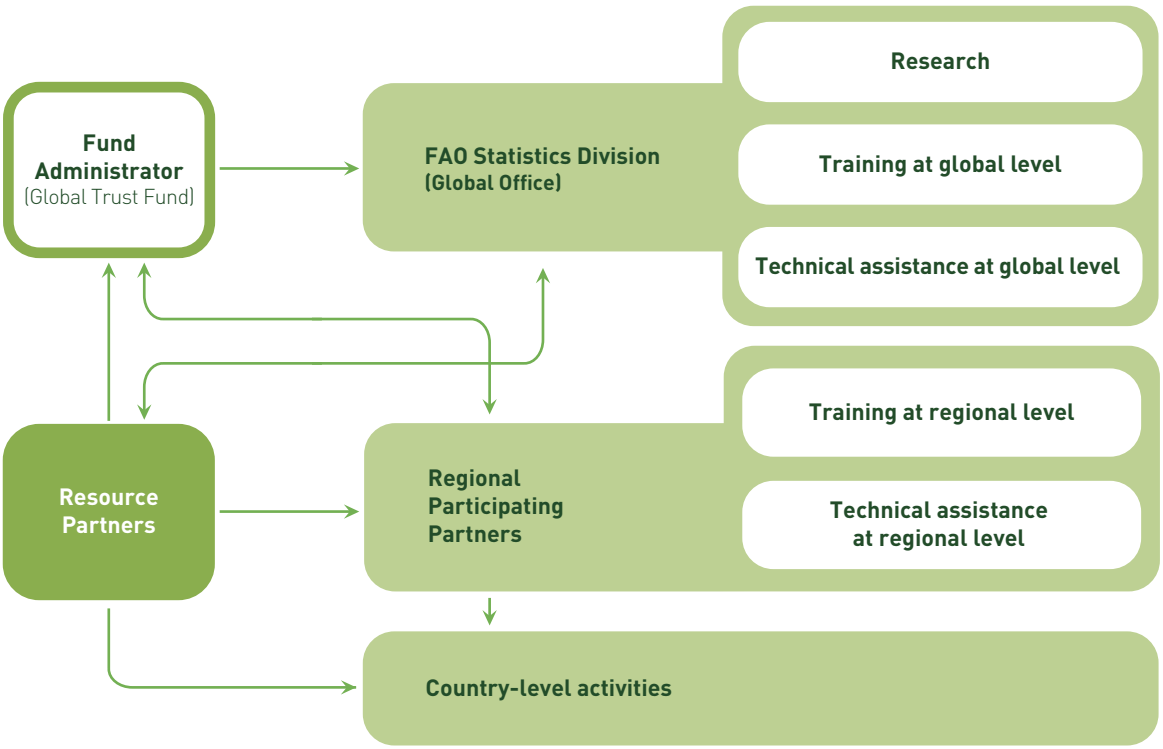
line with the instructions described in the manual of procedures for disbursing funds to PPs. Each PP will implement the activities described in the approved workplan and will be fully accountable for the use of the funds received for implementing the activities.

Each PP will prepare the narrative and financial progress reports, according to the templates and timing set in the manual of procedures.

The FAO Statistics Division will be the PP for global activities, as agreed on by the GSC, and it will receive funds from the Fund Administrator accordingly.

A clear delineation, including distinct reporting lines and an accountability framework, will be established and maintained within FAO between its functions as Fund Administrator and its functions as PP.

Figure 8.1 Flows of Funds to implement the Global Action Plan



Indicative Timeline

Table 8.3 is an indicative timeline for developing and implementing the Global Action Plan in various regions. In the regions, a more detailed programme will be prepared, as required, in close collaboration with the regional institutions that will also play a key role in the implementation process.

Table 8.3 Indicative Timeline for Implementation of the Global Action Plan, 2012–2016

	2012	2013	2014	2015	2016
Global plan	Global Action Plan completed and endorsed by UNSC				
Regional programmes	Regional programmes for Africa, Asia and the Pacific completed	Regional programmes for Latin America and Caribbean, Near East, and CIS and non-European Union (EU) countries completed			
Global governance	Global Office, GSC established				
Regional governance	Africa Regional Office, Africa RSC established	Other regions			
Country assessments	Assessments conducted in Africa, Asia and the Pacific, Latin America and Caribbean, Near East, and CIS and non-EU countries	Continue assessments	Continue assessments	Continue assessments	Continue assessments
Establishment of trust fund	Global Trust Fund				
Country plans and proposals for funding	Guidelines created for preparation of country proposals	Selected countries	Africa, Asia, Pacific, Latin America and Caribbean, Near East, CIS and non-EU countries	Africa, Asia, Pacific, Latin America and Caribbean, Near East, CIS and non-EU countries	Africa, Asia, Pacific, Latin America and Caribbean, Near East, CIS and non-EU countries
Methodological research	Quick wins	Technical guidelines prepared	Technical guidelines	Technical guidelines	Technical guidelines
Training	Guidelines	Training material prepared and training activities in countries under way	Training material and training activities in countries	Training material and training activities in countries	Training material and training activities in countries
Technical Assistance	Guidelines	Technical assistance to countries under way	Technical assistance to countries	Technical assistance to countries	Technical assistance to countries
Countries develop/update/ revise NSDS, SSPARS		Pilot countries	Remaining countries per their action plans	Remaining countries per their action plans	Remaining countries per their action plans
Countries begin implementing the strategy per their SSPARS		Pilot countries	Remaining countries per their action plans	Remaining countries per their action plans	Remaining countries per their action plans

9

MONITORING, EVALUATION AND REPORTING

9 MONITORING, EVALUATION AND REPORTING

The Global Office will ensure overall technical coordination of the implementation of the Global Strategy activities funded by the Global Trust Fund at global and regional level. As described in Appendix D, the GSC will provide strategic guidance and oversight for the execution of the Global Action Plan to implement the Global Strategy. It will monitor progress in the implementation of the activities funded by the Global Trust Fund. The Governance also indicates that the Global Executive Board (GEB) that will be responsible for reviewing the monitoring and evaluation reports consolidated by the Global Office. These reports will be approved by the GSC.

Monitoring, Evaluation and Reporting

The Global Logical Framework (Annex C), has been prepared considering the three pillars and outputs of the Global Strategy in order to ensure a coherent results framework. This Global Logical Framework has been endorsed by the GEB and will serve as the basis for robust monitoring and evaluating the implementation of the Global Strategy.

The Global Office and each Regional Office should prepare an individual logical framework that fits into the Global Logical Framework. This will enable the implementation of the Global Strategy to be monitored as a whole as progress in each region can be consolidated under common outputs, therefore giving a view of the overall implementation.

The Global Office will be responsible for monitoring and supervising the implementation of the Global Strategy at all levels. It will also provide technical oversight of the programme and will ensure that the programme's activities are carried out within the permitted timeframes.

The Global Office may commission, independent lessons-learned and review of its activities. This will serve the purpose of capturing the lessons learned and good practices. It will also identify the challenges and risks that may affect the achievement of the Global Strategy's overall purpose and identify ways to address them.

At regional level, the Regional Office will be responsible for monitoring and evaluating the implementation of the Global Strategy within the region. It will submit the consolidated annual regional financial and narrative reports to the Global Office and will closely monitor the contribution of the regional outputs against the global outputs.

In addition the country assessment will serve as an objectively verifiable tool for monitoring the growth in country capacities derived from the implementation of the Global Strategy. It is the data source for several indicators in the Global Logical Framework. It will gather country level information on the legal and institutional infrastructure, statistical activities, resource deployment and data availability using a standard questionnaire. The response to key questions will be converted to a suite of indicators which will reflect countries capacity on agriculture statistics. This information will provide an objective baseline and means of verification to monitor the performance of the project.

Evaluation

The project as well as any activity falling under it will be subject to evaluation in accordance with established rules and procedures set out by the FAO Evaluation Service.

Reporting

Standard formats for reporting at global and regional level have been prepared and will serve as a monitoring tool as they allow for assessment of the contribution of each component towards the achievement of the Global Logical Framework. They have been prepared to allow for reporting of the global results framework. This includes monitoring of the indicators of the results framework at regional level, which can then be aggregated to report on outputs at the global level.

The standard formats facilitate the analysis and aggregation of quantitative and qualitative results information in order to report against the Global Logical Framework.
The guidance on the reporting procedures, timelines and requirement (and disbursement of funds) is provided in the Manual of procedures to Participating Partners, prepared by the Global Office.

Communication and Visibility

Raising awareness is an important component of the Global Strategy. A dedicated website for the Strategy has been established. This website will be used as the main mode for disseminating information related to progress in implementation of Global Strategy such as news and progress reports. The global website will contain sections for reporting on regional implementation which can provide links to information on individual regional pages. The web site will also serve as a portal for disseminating outputs of research activity and other technical documents intended to be used by all countries as Global Public Good.

Communication brochures and other material will be regularly developed, updated and disseminated to partners.

Special efforts will be made to disseminate best practices and lessons learned during the project implementation. This information will be shared among countries and partner organizations to strengthen their overall statistical capacity.

CONCLUSION

The Global Action Plan is the largest statistical capacity-building initiative ever undertaken to improve agricultural statistics. Because the capacity-building effort supports the integration of agriculture into national statistical systems, it will profoundly affect other sectors as well.

The Global Action Plan's framework for capacity building will work best if the development partners who also provide technical support to countries for data collection and other capacity development coordinate their efforts with this initiative. This initiative also needs to become a part of the household survey network as it relates to rural households.

Great effort is being put into the design and formulation of the Global Action Plan in order to generate a long-term impact on national statistical systems in the most cost-effective way, thereby ensuring value for money. Attention is being given to output—the minimum set of core data—in order to focus plans and prioritize actions. However, even greater attention is being given to processes and institutional capacity building to ensure that countries have the appropriate technical tools and methods needed and integrate agriculture into their national statistical systems.

This long-term programmatic approach should produce stronger, more sustainable and more coherent agricultural statistical systems worldwide that will be able to adapt to ongoing and new data needs with a diminishing need for assistance in developing countries.

APPENDIXES

APPENDIX A

Minimum Set Of Core Data

GROUP OF VARIABLES	KEY VARIABLES	CORE DATA ITEMS	FREQUENCY[a]
ECONOMIC			
Output	Production	Core crops (e.g., wheat, rice, etc.) Core livestock (e.g., cattle, sheep, pigs, etc.) Core forestry products Core fishery and aquaculture products	Annual
	Area harvested and planted	Core crops (e.g., wheat, rice, etc.)	Annual
	Yield/births/productivity	Core crops, core livestock, core forestry, core fishery	Annual
Trade	Exports in quantity and value	Core crops, core livestock, core forestry, core fishery	Annual
	Imports in quantity and value	Core crops, core livestock, core forestry, core fishery	Annual
Stocks	Quantities in storage at beginning of harvest	Core crops	Annual
Stock of resources	Land cover and use	Land area	
	Economically active population	Number of people in working age by sex	
	Livestock	Number of live animals	
	Machinery	Number of tractors, harvesters, seeders, etc.	
Inputs	Water	Quantity of water withdrawn for agricultural irrigation	
	Fertilizers in quantity and value	Core fertilizers by core crops	
	Pesticides in quantity and value	Core pesticides (e.g., fungicides herbicides, insecticides, disinfectants) by core crops	
	Seeds in quantity and value	By core crops	
	Feed in quantity and value	By core crops	
Agro processing	Volume of core crops/livestock/fishery used in processing food	By industry	
	Value of output of processed food	By industry	
	Other uses (e.g., biofuels)		
Prices	Producer prices	Core crops, core livestock, core forestry, core fishery	
	Consumer prices	Core crops, core livestock, core forestry, core fishery	
Final expenditure	Government expenditure on agriculture and rural development	Public investments, subsidies, etc.	
	Private investments	Investment in machinery, in research and development, in infrastructure	
	Household consumption	Consumption of core crops/livestock/etc. in quantity and value	
Rural infrastructure (capital stock)	Irrigation/roads/railways/communications	Area equipped for irrigation/roads in km/railways in km/communications	
International transfer	ODA[b] for agriculture and rural development		

GROUP OF VARIABLES	KEY VARIABLES	CORE DATA ITEMS	FREQUENCY[a]
SOCIAL			
Demographics of urban and rural population	Sex		
	Age in completed years	By sex	
	Country of birth	By sex	
	Highest level of education completed	One digit ISCED by sex	
	Labor status	Employed, unemployed, inactive by sex	
	Status in employment	Self employment and employee by sex	
	Economic sector in employment	International standard industrial classification by sex	
	Occupation in employment	International standard classification of occupations by sex	
	Total income of the household		
	Household composition	By sex	
	Number of family/hired workers on the holding	By sex	
	Housing conditions	Type of building, building character, main material, etc.	
ENVIRONMENTAL			
Land	Soil degradation	Variables will be based on above core items on land cover and use, water use, and other inputs to production.	
Water	Pollution due to agriculture		
Air	Emissions due to agriculture		
GEOGRAPHIC LOCATION			
GIS coordinates	Location of the statistical unit	Parcel, province, region, country	
Degree of urbanization	Urban/Rural area		

Source: Global Strategy to Improve Agricultural and Rural Statistics.

[a] The frequency for the items not specified will be established by the framework provided in the Global Strategy to determine the national priorities for content, scope, and frequency. The frequency requirement will also be considered in the establishment of the integrated survey framework where the data sources will be defined.

[b] ODA = Official Development Assistance

APPENDIX B

Stakeholder Analysis For Agricultural Statistical Systems

STAKEHOLDERS	INTERESTS	LIKELY IMPACT OF DEVELOPMENT OF AGRICULTURAL STATISTICAL SYSTEMS ON STAKEHOLDER INTERESTS
Planning authorities (ministries of planning, planning departments in sectoral ministries—agriculture, health, education, labor, environment, water, etc.)	Accurate, timely, relevant statistics in order to: • Make good evidence-based policies and decisions; • Justify and illustrate the results of former policies and decisions, and so highlight successes; • Monitor implementation of poverty reduction strategies (PRSs) and other development programmes; • Track progress in key policy and development areas; • Build an accurate understanding of what is happening at the local, regional and national levels.	A strengthened agricultural statistical system will lead to: • Better diagnosis of development issues; • More informed policies, plans and programmes; • Better identification of vulnerable groups, especially the poor, disabled, women and children, and better targeting of interventions; • Better monitoring and tracking of progress in achievement of stated objectives, goals and targets.
Local governments	To influence ministries and central go-vernment in order to accelerate the transfer of resources to local governments; To plan, implement and monitor development at lower levels of government in countries.	Improved planning, implementation and monitoring of development at lower levels of government in countries.
Research and training institutions, including universities	To provide, analyse, and use the data that provide input to public policy; Likely to be involved in educating statisticians.	A strengthened statistical system will lead to: • Improved prospects in participating in various data collections at NSOs, line ministries, etc; • Availability of better data for analysis of developmental issues; • Better meeting the demand for cross-cutting analyses; • Improved access to data, and especially microdata when databases in line ministries are up and running; • More opportunities to train statisticians and data analysts; • Increased revenues from training and publication activities;

STAKEHOLDERS	INTERESTS	LIKELY IMPACT OF DEVELOPMENT OF AGRICULTURAL STATISTICAL SYSTEMS ON STAKEHOLDER INTERESTS
Private sector organizations	To receive accurate information in order to: • Assess product demand (population and income data are crucial); • Assess product supplies for early warning and marketing purposes; • Assess investment opportunities, risks and prospects in order to inform external interested parties about investment in a country; • Forecast economic factors—prices, supplies. May be prepared to pay for statistical products to the extent that they are relevant and up-to-date; Have no time to look everywhere for statistics; Keen on collecting statistics from one source that can be accessed with minimum bureaucracy.	A strengthened statistical system should lead to: • Better availability of official statistics; • Quicker access to official statistics, especially when the NSO sets up a national databank, line ministries develop accessible databases, and more statistics are disseminated via the Internet.
Bilateral and multi-partners (World Bank, IMF, UN agencies such as UNDP, UNICEF, FAO, UNFPA, UNESCO, WFP, UNAIDS, ILO) Regional institutions/organizations	• To give them an understanding of the main issues faced by policy makers in a country and to help them assess requirements for assistance or participation in development initiatives (how they should allocate their resources); • To monitor performance of the programmes they support; • To report on their activities in the country and for international and regional reporting (e.g., on progress toward the MDGs); • To build statistical capacity and effectiveness, very much in line with international and regional target-setting approach and the MDGs; • To achieve a national statistical system that is cost-effective and, if possible, developed in such a way so that it is internationally and regional comparable.	• A streamlined and better-coordinated statistical system will send the right signal to donors to provide assistance to the country in a coordinated manner; • The NSDS will provide a mechanism for coordinating donor responses to the challenges of statistical development in the country; • A strengthened statistical system will provide better statistics to donors so they can better assess the requirements for assistance and provide assistance in a coordinated and synergic manner.
Nongovernmental organizations (NGOs)	NGOs may wish: • To see the statistical system as a way of integrating the statistical production they have commissioned into the mainstream of government figures and evidence; • To attend stakeholder meetings and to possibly influence government and other agencies.	• A more systemic approach will help in finding correlations between different areas and also give NGOs better access to government and other agencies; • NGOs will have limited time and resources, and so may need to be led into the process.

APPENDIX C

Global Action Plan Results-Based Logical Framework

SUMMARY OF OBJECTIVES/ ACTIVITIES	OBJECTIVELY VERIFIABLE INDICATORS	BASELINE	TARGET	MEANS OF VERIFICATION	RISKS AND MITIGATION
IMPACT: Improved evidence-based decision making for poverty reduction, increased food security, sustainable agriculture and rural development	Average score on the use of statistics in the policy making process	Baseline 2010: 52.9	2014: 70	Paris21 PRESS Report Paris21 Scoring System on use of Statistics	
OUTCOME: Enable target countries to develop sustainable statistical systems for production and dissemination of accurate and timely agricultural and rural statistics, comparable over time and across countries	**Indicator 1:** Agricultural statistical capacity of target countries	Capacity Score (TBD from Country Assessment)	Capacity score of target countries improves in relation to baseline to x% (to be decided from AgStat capacity indicator being developed)	Country assessments	Risks: 1. Lack of national political interest in improving agricultural and rural statistics. 2. Ineffective institutional coordination at country level. 3. Global Strategy activities may not respond to country priorities. 4. Funds may not be mobilized and/or allocated in a timely manner. Mitigation Measures: 1. Committment of the target countries to support implementation of the Global Strategy is one of the selection criteria. 2. Promote joint trainings and activities in country; implement an effective communication plan. 3. Country assessment proposals and process identify country priorities. 4. Continued advocacy, including through the governing bodies; and develop and implement the Resource Mobilization Strategies.
	Indicator 2: Number of target countries that have agreed a minimum set of core data to be produced	TBD from country assessment	50%	Country assessments	
Output 1: Effective governing bodies set up and functioning at global and regional levels	**Indicator 1.1:** Regional Action Plans developed	1 (Africa)	5 (1 Action Plan per region)	Regional Action Plans	Risks: 1. Regional organizations face difficulties in developing the Regional Action Plans and the implementation is delayed. 2. Regional Action Plans are not consistent with the Global Action Plan. 3. Global and Regional governing bodies are not effective. Mitigation Measures: 1. Some seed money is allocated to the regions for developing the Regional Action Plans. 2. FAO supports the development of the Regional Action Plans and ensures regional logframes are well articulated with the Global Logical Framework. 3. Periodic revision and adjustment of the governing process.
	Indicator 1.2: Consolidated financial and narrative reports submitted to GSC/ GEB and Resource Partners by the Fund Administrator and Global Office	0	5 submitted on time (according to procedures specified in the Manual of Procedures)	Receipt by GSC/ GEB and Resource Partners	

SUMMARY OF OBJECTIVES/ ACTIVITIES	OBJECTIVELY VERIFIABLE INDICATORS	BASELINE	TARGET	MEANS OF VERIFICATION	RISKS AND MITIGATION
Output 2: Coordinating bodies of the national statistical system, legal frameworks and strategic plans established (by the countries) in the target countries, to enable the integration of agriculture into the national statistical system	**Indicator 2.1:** Proportion of target countries that have integrated agricultural and rural statistics into their NSDSs or national statistical strategies	Africa: xx countries Asia and Pacific: Latin America and Caribbean: CIS: Near East:	xx countries (70% of target countries)	Country Assessments	Risks: 1. Lack of national political interest in setting up the institutional and organizational structures. 2. Country proposals do not include mainstreaming agriculture into the National Statistical System. Mitigation Measures: 1. Commitment of the countries to support implementation of the Global Strategy is one of the selection criteria for target countries. 2. Technical assistance provided to ensure that country proposals include mainstreaming of agricultural statistics into the NSDS.
	Indicator 2.2: Total national budget for agricultural statistics	National budget for agricultural statistics in each target countries	Increase in national budget for agricultural statistics covers the cost of a minimum core data set in each target country[7]	Section 3.11 Country Assessments	
Output 3: New cost effective methods for data collection, analysis and dissemination developed and disseminated	**Indicator 3.1:** Number of guidelines and technical reports, produced by the Global Strategy programme on funded research topics	0	24 of the funded research topics (80%) to be featured in one or more guidelines or technical reports	FAO Guidelines, FAO technical reports	Risks: 1. New unfunded priorities emerge. 2. Insufficient high quality expertise on new methods and technologies. Mitigation Measures: 1. Appropriate resource mobilization strategy. 2. Advice from the Scientific Advisory Committee and open worldwide search for recruitment and contracting.
	Indicator 3.2: Number of publications in peer reviewed, internationally recognized scientific journals or meetings produced by the Global Strategy programme on funded research topics	0	24 of the funded research topics (80%) to be featured in one or more papers in internationally recognized scientific journals	Peer reviewed, internationally recognized scientific journals	
Output 4: Increased capacity of agricultural statistics staff in regional training centres (i.e. trainers) and target countries	**Indicator 4.1:** Regional training centres have permanent qualified trainers/staff in advanced agricultural statistics	One or two for each centre	Four for each centre	Training skills survey to be conducted	Risks: 1. Lack of sufficient high quality expertise on advanced agricultural statistics. 2.Trainees are not selected on the basis of needs. 3. High turnover of trained staff in the government. Mitigation Measures: 1. Advice from the Scientific Advisory Committee and open worldwide search for recruitment. 2. Specify basic requirements for trainees and provision of guidelines and training for human resource managers. 3. Request recipients of training grant to sign an agreement for serving in the Government for a minimum number of years.
	Indicator 4.2: Number of target countries with statistical staff having core statistical skills and one or more of the advanced skills below[8]	xx target countries with specified number of staff[9]	xx target countries with specified number of staff[10](at least 15 countries more than the baseline)	Country assessment	

[7] The cost of an agricultural survey is generally around US$200 000 to 300 000.

[8] Advanced statistical skills Output 4: Sample design and survey organization for food and agriculture sector; master sample frame: area frame, list frame, point sampling, multiple frame; Estimation of crop area, yield and production; Use of remote sensing, GPS and GIS in agricultural statistics.

[9] Each country will specify in the country assessments the number of staff required. The baseline will be the number of countries with the number specified.

[10] Small island developing states, such as the Pacific, can have a shared sub-regional, resource person, rather than staff in each country.

APPENDIX D

Detailed Governance Framework Of The Global Strategy

Global Governance Framework

Global Steering Committee (GSC). The Global Steering Committee (GSC) will provide strategic guidance and oversight for the execution of the Global Action Plan to implement the Global Strategy. The GSC is the ultimate decision-making body for use of the resources in the Global Trust Fund for implementing the Global Strategy to Improve Agricultural and Rural Statistics, in compliance with the conditions stipulated in the agreements between the Fund Administrator (FAO) and individual Resource Partners.

In addition, the GSC will seek to achieve coordination of activities and interventions that are not funded through the Global Trust Fund, but are of significant relevance to implementation of the Global Strategy. Interventions of this nature include all relevant interventions that are funded through bilateral arrangements, self-funding modalities, or any other activities outside the Global Trust Fund mechanism.

The GSC will meet at least annually to monitor progress in implementation of the Global Strategy, evaluate its impact, and make decisions on the strategic allocation of Global Trust Fund resources based on the contributions committed by all Resource Partners. Additional meetings of the GSC may be held if required. Countries or institutions may be invited to GSC meetings to present good practices and lessons to coordinate activities and interventions that have significant relevance for learned that could be shared globally.

Specifically, the GSC will:

a. Ensure coordination and promote integration between activities of the Global Strategy and other related initiatives of statistical capacity development for synergy, complementarities, and greater impact and will report annually to the United Nations Statistical Commission (UNSC), through the Global Office (GO), on the progress in the implementation of the Global Strategy.
b. Endorse the Regional Action Plans prepared by the regional organizations to ensure alignment with the Global Action Plan.
c. Decide, at a strategic level, on allocations from the Global Trust Fund to global activities and the various regions based on the integrated global budget and expected resources from donors.
d. Ensure a coordinated approach in the implementation of the regional Action Plans in consultation with the Regional Steering Committees (RSC).
e. Make recommendations on the implementation of the Global Strategy.
f. Approve the global annual workplans for global activities prepared by the GO.
g. Monitor progress in implementation of the Global Action Plan and provide recommendations to the Global Executive Board (GEB) and GO for improvements.
h. Review recommendations of the GEB and endorse the consolidated financial and

approve the annual narrative reports to be received from the Fund Administrator (FA) and individual financial reports from each Participating Partner (PP)[11] implementing components of the strategy and receiving funds.

i. Approve the global monitoring and evaluation reports submitted by the GEB and consider recommendations of the GEB in this regard.
j. Review the report of the external evaluation submitted by the selected institution and give recommendations to the relevant stakeholders.
k. Review and provide inputs into the terms of reference and reports of the periodic evaluations.
l. Appoint the members of the GEB and periodically review its mandate.
m. Support the mobilization of resources for the implementation of the Global Action Plan, including financial resources, in-kind technical support, and South-South cooperation.

Composition. The GSC will be composed of the chair of the Statistical Commission; country representatives of the RSC (two per region); representatives of international and regional organizations, Resource Partners, farmer associations, and other key users, as well as the key technical partners and FAO. The GSC may review its composition to include new members as required.

The members of the GSC will elect co-chairs (two), who will serve for a term of two years. The co-chairs will preside at meetings of the GSC and exercise any other functions required to facilitate its work.

Rules of decision. Decisions by the GSC will be made by consensus of its members. Consensus is understood to be a procedure for adopting a decision in which no participant in the decision-making process blocks a proposed decision. Consensus does not mean unanimity. A dissenting member who does not wish to block a decision may state a dissenting opinion by attaching a statement or note to the decision. However, if all efforts fail to reach a consensus as described here, decisions will be made by a simple majority vote, provided that decisions of the GSC that have a bearing on the Global Trust Fund are not made without the consent of donors to the Global Trust Fund.

Global Executive Board (GEB). The Global Executive Board (GEB) is an executive committee of the GSC. Between meetings of the GSC, the GEB represents the membership of the GSC, facilitates coordination among all GSC members, and facilitates the decision-making process of the GSC. The GEB exercises functions delegated to it by the GSC. The GEB, in carrying out its functions, will be supported by the GO. The GEB will give instruction to disburse the funds to the FA in line with the strategic allocation decided by the GSC.

The GEB will decide, if necessary, on the allocation of additional funds received by the Global Trust Fund, consistent with the strategic guidance of the GSC regarding expected resources.

The GEB will be entitled to allocate the additional resources received by the Global Trust Fund after the last and before the next meeting of the GSC. This allocation will be endorsed at the next meeting of the GSC.

The GEB will meet at least three times a year, when possible at the margins of suitable international meetings. If needed, additional consultations will be conducted via video-

[11] Organizations who participate in the implementation of the Global Action Plan.

conferencing, telephone, and email.

The specific responsibilities of the GEB are the following:

a. Follow up on implementation of the decisions made by the GSC.
b. Ensure that annual workplans at the regional and global levels are well coordinated and integrated.
c. After review by the GO, assess the consistency of regional annual workplans with the Global Action Plan.
d. Give instructions to the FA for disbursement, in line with the strategic allocation decided by the GSC.
e. Review and make recommendations to the GSC on annual reports and other important documents as required.
f. Review and make recommendations to the GSC on the agenda and papers for the annual GSC meetings prepared by the secretariat.
g. Review and make recommendations to the GSC on financial reports and review the budget situation on a regular basis.
h. Review the annual consolidated financial and narrative progress reports prepared by the FA and the GO respectively, as well as individual reports submitted by each PP on the implementation and make recommendations to the GSC.
i. Review the monitoring and evaluation reports consolidated by the GO and make recommendations to the GSC.
j. Review nominations for new GSC members and submit them to the GSC for approval.
k. Mobilize resources in support of implementation of the Global Action Plan, including financial resources, in-kind technical support, and South-South cooperation.
l. Undertake any other tasks delegated to it by the GSC.

Composition. The GEB will have seven members appointed by the GSC, from GSC members. The board will comprise two representatives of beneficiary countries, two representatives of regional partners, two representatives of Resource Partners of the Global Trust Fund, and a representative of FAO (ex officio). Members resigning from the GEB will be replaced as soon as possible by means of electronic consultation with the agreement of the GSC chair, and the appointment will be ratified at the next GSC meeting. The chair of the GEB will be elected for a term of two years by the GSC.

Rules of decision. Decisions of the GEB must be consistent with decisions of the GSC and will be made by consensus of its members. Consensus is understood to be a procedure for adopting a decision when no participant in the decision-making process blocks a proposed decision. Consensus does not mean unanimity. A dissenting member who does not wish to block a decision may state a dissenting opinion by attaching a statement or note to the decision. However, if all efforts fail to reach consensus as described here, decisions will be taken by a simple majority vote, provided that decisions of the GEB that have a bearing on the Global Trust Fund are not made without the consent of donors to the Global Trust Fund.

Global Office (GO). The Global Office (GO), hosted by the Statistics Division of FAO and led by the Coordinator assigned by FAO for this purpose, will ensure overall technical coordination of the implementation of the Global Strategy at the global level and within regions. The GO will act as secretariat of the GSC and the GEB, providing recommendations on the indicative allocation of funds among activities at the global and regional levels and between regions. The Statistics Division of FAO is a PP. It is given the tasks of

undertaking the normative and technical coordination work, establishing standards, and providing centralized technical and practical guidance on cross-regional issues.
More specifically, the activities of the GO will include:

a. Contributing to resource mobilization to support implementation of the Global Strategy.
b. Serving as secretariat of the GSC, servicing its meetings, providing recommendations on the allocation of funds and preparing the annual progress reports to the UNSC.
c. Reviewing the regional annual workplans for submission to the GEB, which will assess their consistency with the Global Action Plan.
d. Preparing the consolidated narrative progress report from the individual reports from each PP for submission to the FA and making recommendations to the GSC and the GEB.
e. Consolidating the monitoring and evaluation reports prepared by the regional organizations for submission to the GEB.
f. Providing the overall framework for ensuring coordinated implementation of the technical components of the Global Action Plan.
g. Providing the standards for technical assistance and training.
h. Providing overall coordination support for countries in regions that do not have a functioning regional coordinating body.
i. Leading, coordinating, guiding and supervising the methodological activities carried out by partner institutions, including universities and research institutes
j. Developing new, cost-effective statistical methods and preparing handbooks and guidelines.
k. Undertaking any other tasks that may be required to achieve the objectives of the Global Strategy.

Inter-Agency and Expert Group on Agricultural and Rural Statistics (IAEG). The 43rd session of the UNSC endorsed the proposal to establish an inter-agency and expert group that brings countries and agencies together to develop and document good practices and guidelines on the concepts, methods and statistical standards for food security, sustainable agriculture and rural development. The IAEG will report back to the commission on its activities every two years and will replace the Friends of the Chair Group on Agricultural Statistics and the Wye Group.

To achieve these objectives, the IAEG will focus on the following:

- Providing the GO with guidance on tools, standards and methodologies during implementation of the Global Strategy.
- Reviewing key initiatives and strategies on the development of food security, sustainable agriculture and rural development statistics.
- Reviewing and providing expert guidance on methodologies and identifying technical issues related to statistics on food security, sustainable agriculture and rural development.
- Facilitating the coordination and integration of statistics on food security, sustainable agriculture, and rural development with related international statistical standards from other statistical domains.

The IAEG will be composed of high-level experts in statistics on food security, sustainable agriculture, and rural development from national governments and international organizations. The membership will ensure regional representation and a broad range of

experience drawn from countries, international agencies, academia, and other subject matter experts. The IAEG may consider establishing task teams on specific topics. The secretariat of the IAEG will be hosted by FAO.

The IAEG will meet at least once a year and present a biennial report to the UNSC on the progress made in its activities.

Regional Governance Framework

For the Africa region, the terms used to designate regional governing bodies and the corresponding acronyms are slightly different from the ones used in the text that follows:

- Regional Steering Committee (RSC). Africa region: same term is used but the acronym is RSTC instead of RSC.
- Regional Executive Board (REB). Africa region: Regional Executive Committee (EC).
- Regional Office (RO). Africa region: Regional Implementation Secretariat (RIS).

Regional Steering Committee (RSC). The Regional Steering Committee (RSC) is the decision-making body at regional level. The RSC will provide guidance and oversight, within the framework defined by the GSC and consistent with the relevant funding agreements, for implementation of the regional and country activities defined in the regional plan.

In addition, the RSC will seek to achieve coordination of activities and interventions that are not funded through the Global Trust Fund, but are of significant relevance for implementation of the Global Strategy. Interventions of this nature include all relevant interventions that are funded through bilateral arrangements, self-funding modalities, or any other activities outside the Global Trust Fund mechanism.

The RSC will meet at least annually to monitor progress in implementation of the regional plan and evaluate its impact. Additional meetings of the RSC may be held as required.

Specifically, the RSC will:

a. Ensure coordination and integration of implementation of the Global Strategy with ongoing programs of statistical capacity development for synergy, complementarities and a greater impact at the regional level.
b. Approve the Regional Plan (including budget and log-frame) prior to its submission to the GSC—the Regional Action Plan will be submitted by the Regional Office (RO) through the GO.
c. Approve the annual workplans (and any substantial modification) of each of the PPs, prior to their submission to the GEB, by the RO, through the GO, for requesting disbursement of funds.
d. Decide on the allocation of funds received between the regional and country activities, as well as among the countries, on the basis of the approved workplans.
e. Monitor progress in implementation of the Regional Action Plan.
f. Review recommendations of the Regional Executive Board (REB) and approve the annual narrative and financial reports prepared by the PPs, prior to their submission to the GSC by the RO through the GEB, the GO and the FA.

g. Approve the regional monitoring and evaluation plan and reports prior to their submission by the RO to the GEB through the GO.
h. Appoint the members of the REB and periodically review its mandate.
i. Support the mobilization of resources for implementation of the Global Strategy, including financial resources, in-kind technical support and South-South cooperation.
j. Review its own functions at any stage as required.

Composition. The composition of the RSC will typically include representatives of countries, Resource Partners, regional organizations, regional PPs and FAO, as well as selected experts.

Rules of decision. Decisions of the RSC will be taken by consensus. If all efforts fail to reach a consensus, decisions will be made by a simple majority vote, provided that decisions of the RSC that have a bearing on the Global Trust Fund will not be made without the consent of donors to the Global Trust Fund.

Regional Executive Board (REB). Each RSC will evaluate the need to establish a Regional Executive Board (REB), which is an executive committee of the RSC that receives delegated authority from the RSC to oversee the execution of its decisions. The REB will meet more frequently than the RSC and will carry out the RSC's functions in the interim between RSC's meetings. In case the REB is established, detailed ToRs will be provided by the RSC.

Regional Office (RO). The structure and size of the Regional Office (RO) will vary by region, depending on regional resources and needs. Its major role is coordinating the country assessments and providing the integrated national statistical systems with training and technical assistance. The RO should also liaise with other international, regional, and sub-regional offices within its region to coordinate their support for countries, thereby avoiding duplication of effort and ensuring that global standards are being followed. In particular, the activities of the RO will include:

a. Contributing to resource mobilization to support implementation of the Global Strategy.
b. Serving as the secretariat for the RSC, servicing its meetings, providing recommendations on the allocation of funds and preparing the annual progress report.
c. Preparing the consolidated regional narrative and financial[12] progress reports from the individual reports submitted by each PP for submission to the GSC through the FA and the GO and making recommendations to the RSC and the REB.
d. Making recommendations on the allocation of hard committed funds to regional PPs in alignment with the proportions indicated in the Regional Action Plan and based on the allocation of the annual expected funds approved by the GSC.
e. Preparing the regional monitoring and evaluation report for submission to the RSC and the GSC through the GO.
f. Working closely with the GO to ensure implementation of the Global Strategy at the regional level.
g. Collaborating with the GO to ensure that the specific research needs of the regions are taken into account.
h. Adapting the methodologies developed by the GO to meet the requirements of the countries in the region.

[12] The consolidated financial report prepared by the RO does not prevent each of the PPs from submitting its individual certified financial report to the FA.

i. Reviewing and consolidating the annual workplans prepared by the regional PPs into one annual regional workplan.
j. Providing overall coordination support for countries in regions that do not have a functioning regional coordinating body.
k. Providing overall coordination of the training activities and technical support to becarried out in the region.
l. Providing assistance to countries in preparing the country proposals.
m. Undertaking any other tasks required to achieve the objectives of the Global Strategy, as appropriate.

National Governance Framework

Governance at the national level will build as much as possible on existing coordination mechanisms and structures. National governance of the agricultural statistical system entails the establishment where it does not exist of a sectoral coordination mechanism that brings together the national statistics office and the ministries responsible for agriculture, forestry, and fisheries and any other institutions that collect agriculture-related data. This sectoral coordination mechanism should be part of the national statistical coordination mechanism, such as the national statistics council, which provides governance to the whole national statistical system. Typically, the coordination mechanism for the agriculture sector (e.g., National Agricultural Statistics Committee, NASC) will be a subcommittee of the national statistics council, ensuring that agricultural statistics are integrated into the national statistical system. The national statistics council, through the agricultural subcommittee (NASC) and in coordination with the Global Strategy regional coordinator[13],will be responsible for carrying out the detailed assessment of the capacity of the country's agricultural statistical system, as well as preparing the Sector Strategic Plan for Agricultural and Rural Statistics (SSPARS), in line with the recommendations of the Global Strategy and in consultation with data users and other stakeholders. These governance arrangements should enable the ministries and agencies involved in the collection of agricultural data to integrate the Sector Strategic Plan into the National Strategies for the Development of Statistics (NSDS). The national statistics council will also be responsible for reviewing as needed the existing statistical legislation to ensure that clear responsibilities for data collection are assigned to the different national institutions. The national statistics council should develop a strategy to foster public awareness and mobilize resources in support of the implementation of the SSPARS and of the NSDS.

[13] Regional Strategy Secretary for Africa.

APPENDIX E

Fund Administrator: Terms Of Reference

FAO, in its capacity as the Fund Administrator (FA), will hold in trust, as a legal owner, and administer the funds, contributed by Resource Partners to implement the Global Strategy and will be accountable to the Global Steering Committee (GSC) for the performance of its fiduciary responsibilities.

The FA accepts this appointment on the understanding that the Participating Partners (PPs) assume full programmatic and financial accountability for the funds disbursed to them by the FA and will be directly accountable to the GSC in accordance with the PP's own fiduciary framework, policies, guidelines and procedures.

The FA will have the following responsibilities:

a. Receive contributions from Resource Partners that wish to provide financial support to the Global Trust Fund;

b. Administer such funds received, in accordance with the signed MOU, and with the strategic allocations decided by the GSC, including the provisions relating to winding up the Global Trust Fund and related matters;

c. Disburse available funds to each of the PPs in accordance with instructions from the Global Executive Board (GEB), taking into account the budget set out in the programmatic document[14] as approved by the Regional Steering Committee (RSC);

d. Prepare, twice a year, the consolidated financial report based on the certified financial report submitted by each of the PPs, and provide the consolidated financial report to the GEB. Submit the consolidated financial report to the GSC for comments (as appropriate) and final endorsement[15] The FA forwards the endorsed annual consolidated financial report to each Resource Partner **no later than 31st May each year**;

e. The FA will prepare annual and final certified financial reports on its activities as FA;

f. Each year, the FA will receive from the Global Office the annual consolidated narrative report based on the narrative progress reports submitted by each of the PPs. It will submit the annual narrative report to the GSC for approval[16] .Once the report has been approved, the FA forwards the approved annual consolidated

[14] As used in this document, an approved programmatic document refers to an annual workplan which is approved by the RSC for fund allocation purposes.

[15] The GSC may endorse the financial reports electronically.

[16] The GSC may approve the annual narrative report electronically.

narrative report to each Resource Partner **no later than 30th April** each year;

g. The FA will provide final consolidated financial and narrative reports after the completion of the activities, including notification that the Global Trust Fund has been fully expended or has been wound up;

h. Provide the GEB with the annual delivery rate[17] of the funds executed by each region based on the analysis of the financial report together with the workplans and the narrative reports;

i. Disburse funds to the PPs for any additional costs of the task that the GSC may decide to allocate.

The FA will inform the GSC on Resource Partners' contributions. In consultation with the PPs, the FA will ensure that the GSC decisions regarding the Global Trust Fund are posted on FAO's website, where appropriate. In addition, periodic reports on the progress of implementation of the Global Trust Fund will be posted.

All contributions received from Resource Partners will be deposited in the Global Trust Fund. Following the approval of the GEB, the contributions received will be disbursed to the PPs.

FAO will make a clear delineation between its function as FA and as PP. An accountability framework with distinct reporting lines will be established and maintained. When FAO will act as PP, its policies, guidelines and procedures will apply.

[17]The delivery rate estimation is not applicable for the first year.

APPENDIX F

Relationship Among Thematic Domains, Research Topics And Pillars Of The Global Strategy

THEMATIC DOMAIN	RESEARCH TOPIC	PILLAR OF THE GLOBAL STRATEGY
Creating an appropriate reference framework	Creating an appropriate framework for the development of an integrated agricultural statistical programme; Mainstreaming agriculture into the National Strategies for the Development of Statistics; Implementing an integrated survey framework.	II
Identifying the most appropriate master frame for an integrated survey	Improving the use of GPS, GIS, and remote sensing for setting up a master sampling frame for an integrated survey; Identifying the most appropriate area frame for specific landscape types; Improving methods for linking area frames with list frames.	II
Improving data collection methods	Improving methods for estimating crop area, yield, and production; Improving methods for estimating crop area, yield, and production of: • Mixed crops; • Repeated cropping; • Continuous cropping; Developing methods for estimating yields of root crops; Improving methods for estimating postharvest losses and use of pesticides; Improving methods for estimating the cost of production in developing countries; Improving the methodology for: • Enumerating nomadic livestock; • Estimating livestock products; Adopting new technologies; Improving data collection methods and analysis of inland fisheries and aquaculture; Improving data collection methods and analysis of irrigated area and use of water for irrigation.	I
Improving the methodology for food security statistics	Improving the methodology for the estimation of: • Food security statistics in synergy with the FAO/World Food Programme Information Systems for Food and Nutrition Security (ISFNS) strategy work on standards and methods; • Food stocks; • Edible forest products; Using nutrition indicators for food security indicators; Using households surveys and the Living Standards Measurement; Study for collecting data to compile food security indicators	I, II
Improving the methodology for market statistics	Improving the methodology in synergy with the Agricultural Market Information System (AMIS) for: • Estimating farm gate prices; • Collecting data on agricultural commodity prices at rural and border market; • Estimating informal cross-border trade data; • Collecting data on factors and product markets affecting agricultural activities and the impact of biofuels on the market.	I

THEMATIC DOMAIN	RESEARCH TOPIC	PILLAR OF THE GLOBAL STRATEGY
Improving the methodology for data analysis	Improving the methodology for: • Reconciling census data with survey data; • Determining users' information needs for decision making; • Using small-area estimation methods for improving agricultural statistics; • Crop forecasting and early warning.	II
Improving the methodology for using administrative data	Improving the quality of administrative data; Developing more efficient and more robust methods for using administrative data for improving agricultural statistics.	II
Identifying the appropriate indicators and collection methods for gender-related data and indicators	Identifying the: • Appropriate indicators; • Data to be collected and survey designs.	I, II
Identifying the appropriate indicators and collection methods for small-scale fisheries	Identifying the frame and developing methods for the appropriate data collection; Improving methods for estimation of self-consumption.	I
Better integrating geographic information and statistics	Developing robust and statistically based methods for spatial disaggregation and for integrating various kinds of geographical information and geo-referenced survey data; Improving statistical methods for spatial interpolation and presentation.	I
Improving the methodology for using remote sensing	Developing more efficient and accurate methods for using remote sensing; Evaluating the cost-efficiency of remote sensing in developing countries; Improving methods for using AFRICOVER or more detailed land use/land cover databases.	I
Identifying the appropriate indicators and collection methods for agri-environment	Identifying the indicators to be adopted and consequently the guidelines on: • Data to be collected; • Most appropriate sample units and sample design; • Interactions among the variables to be investigated and the precisions to be reached. Identifying the data to be collected and the survey designs for analysing the interactions among climate, environment, and agriculture; Identifying the data to be collected and the survey designs for analysing the impacts of biofuels and genetically modified organisms on biodiversity and the environment; Identifying the data to be collected and survey designs for monitoring deforestation and land cover change.	I,II

Note: Pillar I: Establishing a minimum set of core data that countries will provide to meet the current and emerging demands; Pillar II: Integrating agriculture into the national statistical system; Pillar III: Fostering the sustainability of the statistical system through governance and statistical capacity building.

APPENDIX G

Outputs And Corresponding Activities For Prioritized Research Topics

OUTPUTS	ACTIVITIES
1.1 Report on ongoing or already completed research activities on the selected priority topics. **1.2** Potential partners identified. **1.3** Reports on • Ongoing or already completed research activities on the specific research topic; • Review of the relevant literature (state of the art); • Gaps analysis and remaining methodological issues identified.	**1.1** Collect information on the ongoing or already completed research activities on the selected topics. **1.2** Identify possible partner institutions. **1.3** Prepare the contracts for the partners (academic institutions, research centres, individual experts, etc.). **1.4** Coordinate the activities of the partners. **1.5** Facilitate networking among the partners. **1.6** Identify the relevant literature concerning the specific research topics. **1.7** Review the literature on priority topics. **1.8** Identify and analyse the gaps and remaining methodological issues. **1.9** Prepare a draft report on the ongoing or already completed research activities and the gaps in specific research topic and literature review. **1.10** Organize workshops on the ongoing or already completed research activities on the specific research topic and literature review.
2. Empirical studies designed and field-tested by the relevant technical partner institutions	**2.1** Design studies for the field tests for the specific research topic. **2.2** Set up the methodology and the instruments (questionnaires, manuals, etc.). **2.3** Select the countries and the samples for the experiments. **2.4** Conduct the field tests.
3. Technical reports on the findings and recommendations for possible solutions to methodological issues prepared, peer reviewed and validated by experts	**3.1** Process and analyse the results. **3.2** Prepare a report on the findings and recommend possible solutions to issues. **3.3** Select the experts for the peer review and expert validation. **3.4** Submit the reports prepared to the experts. **3.5** Undertake peer review and expert validation through a technical workshop.
4. Methodological publications and dissemination of results	**4.1**. Analyse the results of the peer review and the expert validation. **4.2** Prepare and submit methodological papers to important journals. **4.3** Organize a dissemination workshop with countries and other stakeholders. **4.4** Disseminate the findings on the Web.
5. Methodological basis for the guidelines for advanced technical assistance and training	**5.1** Prepare the methodological basis for the guidelines and handbooks for advanced technical assistance and training.

APPENDIX H

Topics Requiring Limited Resources to Produce Highly Needed Technical Guidelines for Immediate Implementation (Quick Wins)

THEMATIC DOMAIN	SELECTED RESEARCH TOPIC	STATUS IN AUGUST 2011	PILLAR OF THE GLOBAL STRATEGY
Creating an appropriate reference framework.	**1.** Framework for development of an integrated agricultural statistical programme.	Existing publication needs to be updated.	II
	2. Mainstreaming agriculture into the National Strategies for Development of Statistics.	Guidelines have been drafted by the FAO/PARIS21.	II
Identifying the most appropriate master frame for an integrated survey.	**3.** Use of global positioning systems in the production of agricultural statistics.	Draft handbook being prepared. Undertake additional work on slopes and other conditions. Other field experiments being conducted by World Bank's Living Standards Measurement Study.	II
Improving data collection methods.	**4.** Improving estimation of crop area, yield, and production.	Existing publication needs to be updated with focus on yield and production.	I
	5. Cost of production.	Work initiated.	I
	6. Methodology for enumerating nomadic livestock.	Draft guideline available.	I
Improving the methodology for food security.	**7.** Methodology for estimating supply utilization account and food balance sheets.	Work initiated.	II
Improving the methodology for market statistics.	**8.** Estimating farm gate prices	Work initiated.	I
Improving the methodology for data analysis.	**9.** Reconciling census data with survey data.	Some country practices documented. More work needed.	II

Note: Pillar I: Establishing a minimum set of core data that countries will provide to meet the current and emerging demands; Pillar II: Integrating agriculture into the national statistical system; Pillar III: Fostering the sustainability of the statistical system through governance and statistical capacity building.

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