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Items for discussion and decision: agricultural and rural statistics  

Report of the Food and Agriculture Organization of the United Nations on recent developments in agricultural and rural statistics  

Note by the Secretary-General  

In accordance with Economic and Social Council decision 2019/210 and past practices, the Secretary-General has the honour to transmit the report of the Food and Agriculture Organization of the United Nations (FAO) on recent developments in agricultural and rural statistics. More than a decade having passed since the first report of this kind by Eurostat to the Statistical Commission (E/CN.3/2009/3 and E/CN.3/2009/3/Corr.1), the present report contains a retrospective of actions taken by FAO and its partners to improve the availability and quality of food and agricultural statistics and describes future plans for development in this area. The report includes: (a) a review of the state of agricultural and rural statistics in 2009 as documented in the Eurostat report and the 2008 independent evaluation of the role and work of FAO in statistics; (b) a summary of the main initiatives undertaken by FAO to respond to the issues identified, including strengthening internal governance systems, revamping the FAO corporate database (FAOSTAT) and other data platforms, implementing a statistical quality assurance framework and launching the Global Strategy to Improve Agricultural and Rural Statistics; (c) an examination of the key results obtained; and (d) a description of ongoing and future initiatives to tackle new challenges in the context of the 2030 Agenda for Sustainable Development, including a proposed strategy for the modernization of the FAO Statistics Division, a proposed programme of work of the Inter-Agency and Expert Group on Agricultural and Rural Statistics for the period 2020–2023 and the latest capacity development initiatives, including the “50 x 2030” initiative and the ongoing support for the national monitoring of and reporting on the Sustainable Development Goals, as well as the action plan for the second phase (2020–2025) of the Global Strategy to Improve Agricultural and Rural Statistics.  

The Commission is invited to comment on the points for decision raised in section VI of the report.
Report of the Food and Agriculture Organization of the United Nations on recent developments in agricultural and rural statistics

I. Introduction

1. The present report is aimed at informing the Statistical Commission of actions taken by the Food and Agriculture Organization of the United Nations (FAO) to address the crisis in agricultural and rural statistics identified in the late 2000s, as well as the ongoing and future initiatives to tackle new challenges in the context of the 2030 Agenda for Sustainable Development. The Commission is requested to consider and approve the recommendations provided.

2. The independent evaluation of the role and work of FAO in statistics, conducted in 2008, highlighted the decline in countries’ statistical capacity as by far the most significant of the quality issues affecting the FAO statistics programme. The evaluation showed convincing anecdotal information that national statistical capacity for agricultural statistics had deteriorated over time because of a progressive decline in resources at the national level and a lack of donor interest.

3. To tackle those challenges, the independent evaluation provided a series of recommendations. They included the need for FAO to regain international leadership in agricultural, forestry and fishery statistics; to establish a governance mechanism for the FAO statistical system; to develop a new set of cost-effective statistical methods and best practices; to establish regular communication with users; to develop an information technology strategy to support and automatize statistical processes; and to reallocate resources to statistics.

4. A few months earlier, one of the main outcomes of the Fourth International Conference on Agricultural Statistics, held in Beijing in October 2007, was the acknowledgement of a lack of strategic direction to address the new data requirements for food and agriculture. The Conference also stressed a structural shortage of key data, insufficient financial support and a progressive erosion of knowledge on agricultural statistics, together with their marginalization from the core of the national statistical system. The meeting concluded with consensus on the current unsatisfactory situation of agricultural statistics and the need for a strategic plan to improve them.

5. In the report to the Statistical Commission on global initiatives to improve agricultural and rural statistics (E/CN.3/2009/3 and E/CN.3/2009/3/Corr.1), the weaknesses of countries’ capacities and the outdated systems for the collection, analysis and dissemination of agricultural data were further explored. The report showed that a large percentage of key agricultural variables disseminated in the FAO database were estimated in the absence of countries’ submissions of national data; a large proportion of countries (30 per cent) had not conducted an agricultural census in the preceding 20 years; there was a decline in funding support for statistics channelled to ministries of agriculture (which have traditionally provided much of the data on agriculture), not compensated by a proportional increase in funding to national statistical offices (which are gradually taking responsibility for a higher proportion of agricultural statistics); and there were weak governance structures at the national level for managing and organizing national statistical systems around the entities involved in data collection for different sectors.

6. Just over 10 years since the issuance of that report, the present document provides a broad account of actions taken by FAO and its partners to improve the availability and quality of food and agricultural statistics, as well as an overview of
future plans for development in this area. In section II, a summary is provided of the main initiatives undertaken by FAO to respond to the issues identified above, including a series of reforms to progressively strengthen internal governance systems in FAO statistics; a revamp of FAOSTAT and other data platforms; the implementation of a statistical quality assurance framework; and the launch of the Global Strategy to Improve Agricultural and Rural Statistics. In section III, the key results obtained from the initiatives are examined, including the streamlining of FAO questionnaires and other data collection processes, the improved quality and dissemination modalities of FAO statistics, the development of a comprehensive series of guidelines on cost-effective methodologies, the launch of the Agricultural Integrated Survey (AGRIS) programme, the refinement of the World Programme for the Census of Agriculture and the outputs of the Global Strategy. In sections IV and V, the ongoing and future initiatives to tackle new challenges in the context of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals are reviewed. Those initiatives include a proposed strategy for the modernization of FAO statistics over the next five years; the proposed programme of work of the Inter-Agency and Expert Group on Agricultural and Rural Statistics for the period 2020–2023; and an integrated strategy for statistical capacity development for food, agricultural and rural statistics to be delivered through an array of interlinked and complementary projects, including the umbrella programme on measuring data relating to the Goals, the “50 x 2030” initiative and the action plan of the second phase (2020–2025) of the Global Strategy. Section VI contains recommendations for consideration and adoption by the Statistical Commission.

II. Response of the Food and Agriculture Organization of the United Nations

7. The present section provides a summary of the main initiatives undertaken by FAO to respond to the weaknesses of agricultural and rural statistics highlighted in the report to the Statistical Commission of 2009 on global initiatives to improve agricultural and rural statistics. In essence, FAO has pursued a two-pronged strategy to address those weaknesses: on the one hand, by improving internal processes and governance structures to ensure greater harmonization, coordination and quality of data; and on the other hand, by tackling the insufficient quality and quantity of data collected from countries by introducing new cost-effective methodologies, investing in new data collection tools and promoting the integration of agricultural statistics in national statistical systems. The internal part of the strategy is exemplified by a series of reforms to progressively strengthen internal governance systems in the area of FAO statistics, revamp the major data dissemination platforms of FAO for agricultural statistics and other supporting information technology infrastructure and implement a statistical quality assurance framework across the organization. The external part of the strategy is reflected in the launch and successful completion of the first phase of the Global Strategy to Improve Agricultural and Rural Statistics, the largest ever capacity development initiative in this domain implemented to date.

A. Internal reforms

8. In order for FAO to regain international leadership in food and agriculture statistics and provide effective support to national statistical capacity, the aforementioned independent evaluation of its role and work in statistics had recommended a series of internal reforms to improve governance and ensure greater harmonization, coordination and quality of data. Among other things, the evaluation recommended the establishment of a governance mechanism for the FAO statistical
system, the development of a set of statistical standards and best practices and the development of an information technology strategy to support statistical information systems, including FAOSTAT.

9. In response to those recommendations, a series of internal reforms was implemented, which gradually reinforced the internal statistical governance architecture of FAO. In 2012, the organization established the function of Chief Statistician, under whose broad oversight the FAO statistical system has since functioned, in close consultation with an Interdepartmental Working Group on Statistics to ensure effective coordination among all FAO statistical programmes and incorporate consistency and alignment in statistical practices. The role of the Chief Statistician was further strengthened in November 2015 with the issuance of administrative circular 2015/22, under which the Chief Statistician was given responsibility to approve all statistical activities of the organization so as to ensure consistency, reduce duplication of efforts and guarantee the quality of FAO data. The functions of the Chief Statistician include the approval and adoption of statistical standards, the clearance of FAO questionnaires, the clearance of the statistical components of new projects and programmes and the preparation of the organization’s biennial statistical programme of work.

10. On 9 December 2016, in response to the increasing demands on FAO in the area of statistics pursuant to the adoption of the 2030 Agenda (see sect. IV below), as well as continued challenges in promoting greater coherence, accountability and compliance with approved procedures, the FAO Council approved a change to the corporate structure, with the establishment of a new division, the Office of the Chief Statistician, and a separation of the duties of the Chief Statistician from the duties of the Director of the Statistics Division, which had hitherto been carried out by the same individual. The Office of the Chief Statistician took on the responsibility for the coordination and oversight of the otherwise decentralized statistical system of FAO, in which a number of statistical units effectively continued to implement the statistical processes pertinent to their domain. The Office is staffed with seven Professional officers, temporarily seconded from various technical units, plus two permanent administrative staff.

11. The Office of the Chief Statistician has since provided strategic vision for the work of FAO in statistics and: (a) has spearheaded the role of FAO as a custodian agency for the Sustainable Development Goal indicators; (b) has overseen corporate statistical planning and programme management; (c) has promoted statistical governance and quality assurance; (d) has pursued resource mobilization and partnerships for statistics; (e) has established policies for data collection; (f) has ensured the implementation of statistical standards, classifications and methodologies; (g) has improved the communication and use of statistics; and (h) has coordinated statistical capacity development within the organization and between FAO and countries.

12. The FAO statistical system covers four main statistical functions: data collection, processing, analysis and dissemination; the development of methods and standards; statistical capacity development; and statistical coordination and governance. In order to define corporate quality standards for its statistical production processes and outputs, FAO adopted a statistical quality assurance framework in 2014. The framework is a coherent and comprehensive system of principles, monitoring tools and implementation tools for statistical quality management across the whole organization. It aims, among other things, to ensure that internationally agreed statistical classifications, definitions and methodologies are adopted at FAO;

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to ensure that corporate standards for statistical processes are implemented across the overall FAO statistical programme; and to ensure the trustworthiness and credibility of FAO official statistics.

B. Establishment of a corporate statistical working system

13. According to article I of its Constitution, FAO has the mandate to collect data from its member countries, to validate and harmonize them and to disseminate internationally comparable food and agricultural statistics. It is therefore critical for FAO to have a centralized state-of-the-art platform for storing and processing statistical information using consistent and high-quality standard procedures across the organization. Given the number and variety of the time series disseminated by the organization and the multidisciplinary nature of the information requirements, the statistical processes and classifications and the data management system need to be standardized and streamlined. In addition, a corporate statistical system is needed to document and maintain the institutional memory and utilize the intellectual capacity of the various units of the organization with different subject matter expertise.

14. With those objectives, FAO invested in the design and development of a corporate statistical working system. The platform facilitates the harmonization of approaches across FAO departments and the implementation of FAO and international standards, including the adoption of the Generic Statistical Business Process Model of international classifications and metadata standards to harmonize the processes and methodology.

C. Global Strategy to Improve Agricultural and Rural Statistics

15. In 2009, at the fortieth session of the Statistical Commission, the Working Group on Agricultural Statistics, led by Eurostat and supported by the World Bank, the United States Department of Agriculture and FAO, reported the key challenges facing agricultural and rural statistics (see E/CN.3/2009/3 and E/CN.3/2009/3/Corr.1). The issues highlighted included the need to better integrate agricultural statistics into national statistical systems, to update and develop new statistical methodologies, to strengthen partnerships with other international and regional organizations and to coordinate donors’ capacity development efforts. The Commission endorsed the report and established the Friends of the Chair group on agricultural statistics to design a strategy aimed at tackling the issues outlined in the report. After inputs were received at several high-level meetings attended by heads of national statistical organizations and international agencies, the Global Strategy to Improve Agricultural and Rural Statistics was developed and the Commission endorsed its action plan at its forty-third session, in 2012. The action plan was further supplemented by regional action plans to facilitate the implementation of the Global Strategy at the regional level.

16. The Global Strategy is based on three pillars: establishing a minimum set of core data, integrating agriculture in national statistical systems, and fostering sustainability of the statistical system through governance and statistical capacity-building. The first action plan of the Global Strategy outlined four outputs. The first was the establishment and functioning of an effective governance structure at the global and regional levels to coordinate the implementation of the Global Strategy. The second focused on the establishment of appropriate coordination bodies, legal frameworks and strategic plans for national statistical systems in target countries to enable the integration of agriculture into the national statistical system. The third output was the development and dissemination of new cost-effective methods for data
collection, analysis and dissemination through the implementation of an ambitious research agenda aimed at developing cost-effective methodologies leveraging new technological and methodological advancements. The fourth output was aimed at strengthening the technical skills of staff in regional training centres and targeted countries through training- and technical assistance-related activities. Finally, a fifth output was added in 2015 with the objective of further developing and testing the AGRIS methodology, initiated through the research component.


III. Results obtained

18. In the present section, some of the key results obtained from the internal and external initiatives described in the previous section are examined. With regard to the external initiatives of FAO, these include the results of the first phase of the Global Strategy, the establishment of an AGRIS support programme and the refinement of the World Programme for the Census of Agriculture. With regard to the internal processes of FAO, the series of internal reforms to strengthen statistical governance has resulted in greater streamlining and standardization of FAO questionnaires, the restructuring of major data collection processes and a general improvement in the quality of corporate statistical processes.

A. Results of internal reforms

19. Since its establishment, the Office of the Chief Statistician of FAO has worked to enhance the quality, harmonization and coordination of corporate statistical processes. The Office has revised all FAO questionnaires dispatched to countries and developed seven new corporate statistical standards to harmonize the statistical methods and practices of FAO, and has ensured their adoption by the Interdepartmental Working Group on Statistics. The Office also periodically administers a quality assessment and planning survey to FAO units involved in the collection and analysis of statistical data. On that basis, every two years, the Office prepares the FAO statistical programme of work (the latest edition of which covers the biennium 2018–2019), reviews the quality of all FAO statistical processes and approves all the administrative actions required for their implementation.

20. The results of the quality assessment and planning survey have also been used to develop five improvement plans for critical statistical reporting systems, three of which have already been implemented and the other two of which are currently ongoing. The exercise has led in particular to the re-engineering of the statistical processes of the Information System on Water and Agriculture (AQUASTAT), which disseminates key data on water supply and uses, the Domestic Animal Diversity Information System and the Global Forest Resources Assessment, 2020, the main FAO tool for monitoring the status of the world’s forests.

21. Furthermore, the Office of the Chief Statistician has worked to improve corporate data dissemination policies and platforms. The Office has developed an open data policy, new terms of use for FAO databases and a corporate policy on
microdata dissemination. In 2019, the Office launched the first public FAO microdata catalogue, the Food and Agriculture Microdata Catalogue, an inventory of over 350 national data sets from farm and household surveys which contains detailed information related to agriculture, food security and nutrition that can be used in policy analysis and research, as well as highly disaggregated statistics.

22. In order to acquire actionable insights to increase data use and user satisfaction, the Office also began a programme of annual user consultations for FAO databases. More than 7,000 FAOSTAT users from the research, academic, public administration and private sector communities participated in the first user consultation. The report showed that, on average, about 80 per cent of its users were satisfied with the new version of FAOSTAT in terms of accessibility, relevance, consistency and accuracy of the statistics published, while a lower degree of satisfaction was registered for the timeliness with which the data are disseminated.

23. The broader performance of FAO in statistics is currently being assessed through a new evaluation of its work in that area. The evaluation, which was requested by the FAO Programme Committee at its 119th session, is being conducted by the FAO Office of Evaluation with the assistance of a team of external experts. The evaluation was conducted in 2019 and will be presented to FAO member States at the Committee’s spring session in 2020. The evaluation assessed the extent to which the statistical governance of FAO is adequate and effective to meet the organization’s needs and to contribute to the international governance of food and agricultural statistics, the extent to which FAO is able and effective in providing high-quality statistics to internal and external stakeholders, and the extent to which FAO is providing relevant and effective statistical capacity-building to member States.

24. The evaluation will inform further reforms within the FAO statistical system.

B. Results of the first phase of the Global Strategy to Improve Agricultural and Rural Statistics

25. The first phase of implementation of the Global Strategy was successfully concluded in 2018. The key results of each output are summarized as follows:

   (a) **Output 1: effective governing bodies are established and functioning at the global and regional levels.** Global and regional steering committees were successfully established and met their target in terms of providing guidance and oversight during the implementation of the first phase. Regular meetings of those bodies brought together stakeholders from national agricultural statistical systems, global and regional organizations, regional training and research institutions and resource partners in order to ensure the relevance of activities and outputs and maximize results at the global, regional and national levels. A Scientific Advisory Committee was also established, which included experts from academia, international research institutions and national statistical systems in order to review the methodological work and ensure that it was grounded in the latest research and technology and could also be implemented by developing countries;

   (b) **Output 2: coordination bodies within the national statistical systems, legal frameworks and strategic plans are established in target countries to enable the integration of agriculture into the national statistical system.** More than 60 countries in Africa and in Asia and the Pacific improved national coordination and the integration of agricultural statistics into the national statistical systems. This was achieved primarily through the development of strategic plans for agricultural and rural statistics and the incorporation of agricultural and rural statistics into the national strategies for the development of statistics. Output targets have been met
where additional government funding has been provided to support the implementation of the strategic plans for agricultural and rural statistics (9 countries in Africa out of a target of 40 countries, and 7 countries in Asia and the Pacific out of a target of 10 countries);

(c) **Output 3: new cost-effective methods for data collection, analysis and dissemination are developed and disseminated.** Prior to the Global Strategy, many of the methodologies used worldwide to generate core agricultural data had not been updated in more than 50 years. As a result, those sets of methods were outdated and not sustainable, as they were too costly and did not incorporate the latest technologies and methodological advancements for agricultural statistics. The Global Strategy, through its ambitious programmes in its 45 lines of research, produced more than 120 guidelines, technical reports and training materials in the 16 thematic domains of agricultural statistics listed below:

- Conceptual framework (integrated survey framework)
- Agricultural integrated surveys (AGRIS)
- Master sampling frames for agricultural statistics and integrated agricultural survey programmes
- Use of administrative data for agricultural statistics
- Data collection (on cost of production and post-harvest losses, and through computer-assisted personal interviewing)
- Data dissemination
- Crop statistics (crop monitoring and forecasting)
- Livestock statistics (estimation of nomadic livestock)
- Food security (food balance sheets and food consumption)
- Fishery statistics (small fishery and aquaculture statistics)
- Forestry and forest products statistics
- Use of remote sensing and geographic information for agricultural statistics
- Gender-disaggregated data and decent work statistics
- Data analysis (farm typology, reconciliation of surveys and census data)
- Rural statistics (international definition of rural areas and core set of rural development indicators)
- Sustainability (sustainable agriculture and environmental statistics) and productivity

These methodologies were developed and tested by senior experts, in collaboration with national statistical organizations and relevant line ministries in more than 50 countries. Participation of a diverse set of countries in the development and testing ensured that the methodologies were feasible and cost-effective. All methodological documents were published online, and the most important ones were also made available in French and Spanish;

(d) **Output 4: increased capacity of agricultural statistics staff in regional training centres and target countries.** In addition to the guidelines previously mentioned, training materials based on output 3 were developed and made publicly available in English, French and Spanish. Furthermore, regional training courses were conducted in Africa and Asia, and the materials were incorporated into the curricula of the regional training centres. In total, 94 countries received technical assistance
and/or training on various cost-effective methodologies. Moreover, the project strengthened, in particular, the technical skills in food and agricultural statistics of young statisticians of the African region by creating a masters degree course in agricultural statistics and providing long-term scholarships to 70 young statisticians from sub-Saharan African countries;

(c) Output 5: Agricultural Integrated Survey methodology developed and piloted. The AGRIS survey methodology was developed on the basis of new cost-effective tools developed under output 3 to guide countries in setting up a comprehensive and up-to-date survey programme that would collect structural and annual agricultural data. AGRIS is a 10-year survey programme, implemented in the intercensal period, that adopts a modular approach to addressing, in a comprehensive manner, the new agricultural data requirements. It includes a core module, in which annual production data and information on the structural characteristics of farms are collected, and four rotating modules, in which more detailed data are collected on labour, machinery, equipment and assets, methods of production and impact on the environment, and economy-related statistics. The questionnaire and survey design was tested in Ghana.

26. On the basis of the AGRIS methodology developed and tested by the Global Strategy, two projects were designed to support countries in the implementation of an Agricultural Integrated Survey programme: the project entitled “Targeted support for agricultural statistical innovation at FAO (2016–2020)”, funded by the Bill and Melinda Gates Foundation, and the project entitled “Implementation of AGRIS in four pilot countries – phase I (2016–2021)”, funded by the United States Agency for International Development. As of December 2019, eight countries (Armenia, Cambodia, Costa Rica, Ecuador, Georgia, Nepal, Senegal and Uganda) had started the preparation or implementation of their national AGRIS. This work, combined with the testing of the methodology in Ghana, served as a proof of concept for the design of the “50 x 2030” initiative described in section V below.

27. Work by FAO on the World Programme for the Census of Agriculture also took stock of the innovations developed in the context of the Global Strategy. As already reported to the Statistical Commission in 2018 (see E/CN.3/2018/13), the most recent methodological and technological developments are reflected in the guidelines developed for the 2020 round of the Programme (volume 1, “Programme, concepts and definitions”, and volume 2 “Operational guidelines”). Support to countries on the World Programme for the Census of Agriculture is also fully integrated with the AGRIS programme.

C. Results of the implementation of the statistical working system project

28. Up to now, the statistical processes of seven main FAO statistical domains have already been integrated into the new statistical working system, namely, agricultural production and trade, food balance sheets, macroeconomic statistics, environmental statistics, population statistics, water supply and use statistics and fishery statistics. The plan now is for the corporate system to also cover the collection, validation and processing of several of the Sustainable Development Goal indicators under FAO custodianship. Moreover, several processes still need to be integrated into this system, including forest product statistics and agricultural producer prices.

29. One of the key results of the adoption of the statistical working system is the reduction of the amount of time needed to process the data and the increased quality of the data disseminated. On average, the time elapsing from the collection to the
dissemination of official statistics has decreased substantially, from 1.5 years to between six and nine months.

30. As next steps, the statistical working system will include as new functionalities the integration with the master data management system, innovative methods for data collection, including online questionnaires, the system’s migration to the cloud for improved performance and scalability, and the integration of new validation tools for an overall increase in data consistency and accuracy.

D. Results of support from the Food and Agriculture Organization of the United Nations to countries on Sustainable Development Goal reporting

31. In addition to the implementation of internal reforms in FAO and the Global Strategy to Improve Agricultural and Rural Statistics, FAO has been very active at the international level, providing a strong contribution to the coordination of the global statistical system in general and to the governance mechanisms of the international and supranational statistical organizations in particular (the Committee for the Coordination of Statistical Activities and the Committee of the Chief Statisticians of the United Nations System). Within this context, and recognizing the fundamental role played by food security and the sustainable and efficient management of natural resources for the achievement of the entire 2030 Agenda, FAO was assigned the responsibility to serve as custodian agency for 21 Sustainable Development Goal indicators, a role that significantly enlarged the mandate of FAO with regard to statistical capacity development. Owing to constant efforts and expanded commitments deployed by the organization, the average proportion of countries reporting on the 21 Sustainable Development Goal indicators under FAO custodianship rose from 29 per cent in 2017 to 42 per cent in 2019. A number of interlinked actions have led to this result. Firstly, FAO, through its active engagement in the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, has progressively ensured the methodological development and successful endorsement as global standards of all 21 indicators under FAO custodianship. As of the ninth meeting of the Inter-Agency and Expert Group, held in March 2019, all 21 indicators are either in the tier I or tier II category. The formal approval of Sustainable Development Goal indicator methodologies by the Inter-Agency and Expert Group has, in turn, opened the possibility for countries to begin reporting on them and, at the same time, has underscored the need for capacity support in doing so.

32. To tackle those gaps, FAO has effectively implemented a broad range of capacity development activities in support of monitoring the achievement of the Sustainable Development Goals, in which some 150 countries have participated. They include global, regional and national training workshops, organized using dedicated corporate funds. FAO also pioneered the development of specific e-learning courses for Sustainable Development Goal indicators, 15 of which, covering 18 indicators, have already been disseminated through the FAO e-learning centre, to which the Sustainable Development Goal monitoring and reporting toolkit for United Nations country teams is also linked. Moreover, a number of the e-learning courses have been translated into multiple official languages of the United Nations.

33. Within the context of the work of FAO on Sustainable Development Goal indicators, an exemplary initiative in terms of both methodological development and effective assistance to countries’ capacity development is the “Voices of the hungry” project. Building on the prior long-standing experience of a number of countries and research institutions, FAO developed the Food Insecurity Experience Scale (FIES), an experience-based measurement tool consisting of a set of questions about people’s
access to adequate food. The project has demonstrated the robustness of the methodology adopted, and the FIES-based metric was subsequently adopted by the Inter-Agency and Expert Group on Sustainable Development Goal Indicators as an official global Sustainable Development Goal indicator to monitor target 2.1 of the Goals. Instrumental in achieving this result has been the introduction of the FIES module in the questionnaire of the Gallup World Poll, which is implemented on an annual basis in over 140 countries. In this way, global standards for moderate and severe food insecurity could be established, despite the extensive cultural and language differences, and regional and global aggregates could be obtained. Furthermore, the project is providing support to dozens of countries to integrate the FIES module in their national surveys. Recently, the number of countries having already incorporated FIES in their national surveys, or having authorized FAO to publish the FIES provisional estimates, exceeded 100 for the first time. As a result of these concerted efforts, the Inter-Agency and Expert Group reclassified the indicator from tier II to tier I at its most recent meeting, held from 21 to 24 October 2019.

34. Over the past four years, the coordination of capacity development initiatives for Sustainable Development Goal indicators has been facilitated by the establishment of a dedicated subgroup under the Interdepartmental Working Group on Statistics, which convenes the technical focal points responsible for each specific indicator. Documentation material to support decentralized FAO offices and United Nations country teams in the context of the United Nations reform has also been developed to better assist countries on Sustainable Development Goal monitoring. Moreover, in 2016, FAO launched a dedicated online portal for the Sustainable Development Goal indicators as a single entry point for all information on FAO activities concerning monitoring of the Goals. The portal provides access to all available data on the Goals at the global, regional and country levels, a variety of interactive data visualization tools, links to metadata and other methodological documentation and links to relevant capacity development initiatives and e-learning courses.

IV. The new global context

35. While the results mentioned above have improved the availability and quality of agricultural statistics and countries’ statistical capacity, much more remains to be done. The global monitoring framework of the 2030 Agenda for Sustainable Development has magnified the demand for food, agricultural and rural statistics. Not only are there four times as many Sustainable Development Goal indicators overall compared to Millennium Development Goal indicators, but there are also a large number of new Sustainable Development Goal indicators specifically focused on food, agriculture and rural development that have required the development of new indicator methodologies, the development and testing of new data collection tools and a dramatic increase in capacity development initiatives to ensure that national statistical systems are appropriately equipped to report on the new data. Adding to this challenge is the strong call of the international community to “leave no one behind”, which has implied the need for increasingly disaggregated data by relevant population groups and other characteristics.

36. These challenges are corroborated by the results of two major surveys undertaken by FAO in 2019: an internal survey on the need for the modernization of statistical activities at FAO, and a global statistical capacity assessment for the Sustainable Development Goal indicators under FAO custodianship.

37. FAO undertook the global statistical capacity assessment in early 2019, with the aim of measuring countries’ statistical capacity to monitor and report on the Sustainable Development Goal indicators under FAO custodianship. The survey
included questions on national coordination mechanisms for reporting on the Goals, the capacity of countries to produce and disseminate the required statistical data and technical and financial assistance needs. Of a total of 111 countries that participated in the survey, the results showed that:

(a) The majority of countries do not regularly conduct some of the key data collection activities that provide the main data sources to compile the Sustainable Development Goal indicators related to food and agriculture. For instance, only 28 per cent of countries have carried out an agricultural census in the past five years;

(b) Even when certain key data collection activities are carried out regularly, they do not collect the data needed to generate the FAO-relevant Sustainable Development Goal indicators. For instance, 79 per cent of countries suggested they had conducted some type of agricultural survey within the past five years, but that they would require significant support to upgrade them to ensure they can generate suitable data for the relevant indicators;

(c) Many countries in which key data collection activities have not been carried out recently are not planning to conduct agricultural surveys in the near future. This puts long-term pressure on the compilation of the Sustainable Development Goal indicators, which heavily relies on such data collection vehicles;

(d) Only 63 per cent of the countries seem to have established good coordination and/or information-sharing among agencies at the national level and externally with international custodian agencies. Moreover, many countries were not able to identify a specific national focal point for most of the Sustainable Development Goal indicators under FAO custodianship;

(e) Seventy-two per cent of countries report that they will require some form of assistance to produce data for the Sustainable Development Goal indicators under FAO custodianship.

38. FAO undertook a second major survey in 2019 involving all corporate units engaged in statistical data production within the organization. The main findings have formed the basis for designing the new FAO strategy for modernization in the area of statistics, detailed in section V below. The main findings are the following:

(a) Despite an overall improvement in the capacity to produce official data, there is a persistently low capacity in countries to produce high-quality statistics and to respond to new data demands related to food, agriculture and rural livelihoods. In many cases, national statistical systems cannot keep up with the capacity development efforts required by the adoption of new data sources or of innovative methodological frameworks, particularly those emerging from the 2030 Agenda. As a result, the quality of data released by FAO is often challenged by poor input data and low response rates from countries. This problem is exacerbated by the data collection methods of FAO, which in many cases do not take advantage of new technologies and may contribute to the low response rates;

(b) Statistical data generally lack the level of disaggregation required for monitoring the commitments of the 2030 Agenda and for targeting national policy interventions. The use of traditional survey tools and sampling methods impose limitations on the production of statistics at the level of disaggregation required for effective decision-making. In this regard, national data collections are usually not georeferenced, hampering the possibility of generating detailed territorial statistics and integrating the information collected with new data sources. Innovative techniques that could address some of these issues are far from being mainstreamed in national statistical programmes or in FAO. As a result, data are not able to drive the transformative changes required to achieve sustainable development or shed light on the situation of the most vulnerable groups;
(c) Data are still produced with a large time lag, and are thus unable to provide actionable information for decision makers. A large proportion of FAO statistics are still published long after the reporting period and are thus unable to provide actionable intelligence for Governments and the international community to take effective measures to address complex sustainable development challenges in a timely manner. Nowcasting and forecasting, and other techniques that could help to provide more timely estimates, are not being implemented systematically. Similarly, innovative tools and methods that could reduce the data collection and processing time are still not mainstreamed in national statistical systems or in FAO;

(d) Current statistical production processes in FAO are not as efficient as they could be. They use highly diversified data production approaches and tools that often still heavily rely on manual interventions, affecting the quality and timeliness of the data generated. In many cases, existing processes lack the necessary flexibility and interoperability for data integration and cross-sectoral analysis. Current information technology infrastructure and procedures are not sufficiently responsive to emerging statistical requirements and do not take full advantage of the recent innovations in information technology applications;

(e) User interfaces are complex and outdated. Currently, FAO disseminates data through a plethora of different statistical databases accessible from different platforms, which are often independent and incompatible. Such scattered interfaces make data less accessible, interoperable and reusable. Moreover, data and metadata are not harmonized and are managed through independent information technology architectures, making data sets impossible to combine. This hinders the production of analytical and cross-cutting statistical outputs to reach a larger audience and influence public and private decisions. In addition, the terms of use and dissemination policies of FAO are not yet fully compliant with established open data principles, which restricts the use of its data.

V. The way forward

39. In the present section, the ongoing and future initiatives undertaken by FAO to tackle the above-mentioned challenges in the new global context are reviewed. These initiatives include a proposed strategy for the modernization of the FAO Statistics Division for the period 2020–2025; the proposed programme of work of the Inter-Agency and Expert Group on Agricultural and Rural Statistics for the period 2020–2023; and an integrated strategy for statistical capacity development focused on Sustainable Development Goal indicators, to be delivered through an array of complementary projects. Those projects comprise the “50 x 2030” initiative, the umbrella programme on measuring data relating to the Goals and the action plan for the second phase (2020–2025) of the Global Strategy to Improve Agricultural and Rural Statistics.

A. Strategy for the modernization of the FAO Statistics Division for the period 2020–2025

40. The proposed FAO strategy for the modernization of statistics will guide the organization’s efforts to further improve agricultural and rural statistics over the next five years. Based on the results of the survey described in paragraph 38 above, the proposed strategy has four main objectives: (a) to create a data innovation lab for the development of cutting-edge methods, data integration and modern business process models; (b) to mainstream user-centric approaches to data dissemination; (c) to introduce a new model for statistical capacity development and to demonstrate leadership in setting quality standards; and (d) to establish partnerships and
collaboration for securing access to new data sources. The strategy will be further improved on the basis of the Commission’s recommendations and the results of the 2019 evaluation of the work of FAO on statistics.

41. New or alternative data sources (for example, big data, satellite data, sensor data and web data) and innovative statistical methods (for example, nowcasting, forecasting and small-area estimation) can complement traditional data sources to reduce the time and resources needed for data production and fill key data gaps. However, leveraging the potential of new data sources and technologies requires significant investment in human skill development, research and development, technology, data acquisition, attracting talent and upgrading infrastructure and processes. Given the decentralized statistical system of FAO, investing in each department separately risks the duplication of efforts and the generation of contradictory results. Instead, FAO aims to create a data innovation lab in order to develop its capacity to harvest the potential of innovative technologies, new data sources and cutting-edge methods for improving the availability, quality and timeliness of FAO statistics. The lab’s activities will be implemented by multidisciplinary teams through clearly defined modernization projects. The lab will act as a hub for developing the capacity of FAO statistical units on all innovative solutions and will also develop the data acquisition modalities from new data sources. The new methodological solutions developed in the lab will then be transferred to countries so that they can take ownership of these methods and produce more timely data to be reported globally.

42. FAO needs to address the current fragmentation of its databases and to move towards an integrated data dissemination platform. Data assets from various individual operational systems and databases will be integrated and consolidated in a statistical data warehouse to feed the integrated platform and improve the utilization of FAO statistical outputs. This not only will empower users in carrying out cross-sectional analysis, but also will enable FAO to provide enhanced support to other capacity development projects. Moving towards an integrated data dissemination platform will also enable the organization to satisfy the needs of various types of users, from the general public to specialized researchers who may want to run their own analyses. In parallel, FAO will take steps to further modernize its legal framework for data-sharing, to allow free and open use by the private sector and to expand its user engagement through systematic survey-based user consultations that will allow it to produce diversified and customized statistical outputs.

43. Addressing countries’ capacity limitations and assisting them in modernizing their statistical data production systems is of paramount importance, given that the FAO statistical system mainly relies on data generated by its member countries. In this regard, therefore, the following initiatives are proposed:

(a) To implement integrated survey programmes and methods to address the ever-growing demand for food, agriculture and nutrition data that can no longer be met through stand-alone approaches and antiquated agriculture sampling frames or registers;

(b) To set data quality standards for key food and agricultural statistics and assist countries in developing and implementing national data quality assurance frameworks for agriculture, which are aimed at improving the quality of data generated by countries and hence, at the same time, the data disseminated by FAO internationally;

(c) To develop country capacities in the use of new or alternative data sources, including big data and earth observation data, to complement traditional tools such as surveys and censuses. Support will be provided for the adoption of methods for georeferencing field survey programmes and for the interpretation of earth
observation data. Moreover, countries will be enabled to adopt methods for collecting and disseminating disaggregated data on the Sustainable Development Goal indicators;

(d) To introduce modern data collection and analysis tools by assisting countries in migrating from outdated paper-based data collection methods to new electronic methods (such as computer-assisted interviewing with tablets, telephones, web-based applications and smartphones);

(e) To improve the coordination of statistical data production at the country level through unified dialogue with national Governments and United Nations country teams, with the aim of improving data quality, the allocation of clear institutional responsibilities for data reporting and capacity development activities, as well as the consistency of data reported by different entities;

(f) To ensure that support provided to national statistical systems is well articulated in the new United Nations Sustainable Development Cooperation Framework, with a view to ensuring improved coordination of United Nations statistical capacity development in the context of United Nations reform, and programmes promoting innovative data solutions, open data and the use of new data sources.

44. The final objective of the strategy is to establish partnerships with research institutions, academia and high-tech companies for improving access to new data sources, as well as strengthening the engagement of FAO in existing inter-agency and intergovernmental forums. FAO is already working through the Committee of the Chief Statisticians of the United Nations System and the Committee for the Coordination of Statistical Activities on an integrated road map for the modernization of United Nations statistics, which was declared an absolute priority by the Secretary-General and will be presented to the High-level Committee on Programmes of the United Nations System Chief Executives Board for Coordination in April 2020. In addition, FAO:

(a) Will strengthen its engagement with the Committee on World Food Security, whose High-level Panel of Experts on Food Security and Nutrition is preparing a report to provide countries with actionable policy recommendations to strengthen their capacity to collect, analyse and utilize high-quality statistics for improving decision-making around food security, sustainable agriculture and nutrition policies;

(b) Will expand its involvement in the United Nations World Data Forum, which brings together Governments, businesses, civil society and the scientific and academic communities to explore innovative ways to apply data and statistics to measure global progress and inform evidence-based policy decisions on the 2030 Agenda for Sustainable Development;

(c) Will deepen its relationships with earth observation data and big data providers, including the Global Working Group on Big Data for Official Statistics and the Committee of Experts on Global Geospatial Information Management, in order to define agreements for the sharing of earth observation data and big data; will develop, test and customize earth observation algorithms and toolboxes; will validate earth observation data through field surveys for their sustainable implementation in countries; and will develop country capabilities for agricultural monitoring based on earth observation data;

(d) Will integrate systematically, under each modernization project, partnerships with research institutions, academia and high-tech companies, for example, the European Space Agency, the Rome-based United Nations entities and research consortia of leading universities, to assist the organization and the data
innovation lab in building its skills, validating its methods and integrating new technologies;

(e) Will establish formal agreements or data exchange protocols with international and regional organizations, such as Eurostat and the African Union Commission, which already collect data of interest for FAO, to facilitate data-sharing and therefore reduce countries’ reporting burden;

(f) Will scale up resource mobilization efforts for the modernization of statistical processes in developing countries and FAO, securing new and additional resources, such as private sector funding and blended finance;

(g) Will develop measurement and reporting tools for private sector entities to allow them to report on their contribution to the achievement of the Sustainable Development Goals, using standardized indicators that can be aggregated by relevant national statistical organizations to inform their national reporting on the Goals.

45. The new FAO model for capacity development under the organization’s new strategy for the modernization of statistics is most clearly expressed through the integrated approach for statistical capacity development. The approach will be delivered through three new and complementary initiatives that target key aspects of the data production cycle and country-specific statistical development needs. The umbrella programme on measuring data relating to the Sustainable Development Goals will support the adoption, production, dissemination and use of food- and agriculture-related Sustainable Development Goal indicators by countries. The “50 x 2030” initiative will support, both technically and financially, the adoption of Agricultural Integrated Surveys (AGRIS) that are fundamental for collecting data on a number of agriculture-related indicators, many of which suffer from severe data gaps. Lastly, the implementation of the action plan for the second phase (2020–2025) of the Global Strategy to Improve Agricultural and Rural Statistics will ensure the use of existing innovative tools and methodologies developed during the first phase, and will build the enabling conditions to improve agricultural and rural statistics as well as other FAO capacity development programmes at the country level. Some initial resources have already been secured for these initiatives and FAO will continue its efforts to attract the remaining funds necessary for their full implementation.

B. Multi-donor umbrella programme on monitoring the Sustainable Development Goals, 2019–2023

46. The overall objective of the umbrella programme on measuring data relating to the Sustainable Development Goals is to enable partner countries to produce and use more comprehensive data on Sustainable Development Goal indicators, allowing them to design effective evidence-based national strategies to ensure that relevant targets of the Goals are met. The direct beneficiaries will be the national institutions responsible for collecting, computing and disseminating the data and indicators on the Goals, as well as policymakers, whose decisions will be better informed as a result. Decision makers will benefit not only from higher-quality and more granular data, but also from improved analytical progress reports, which will help to identify the key determinants of Goal achievement. In this way, by addressing all the steps of the data cycle and by establishing a strong link to the policy work of FAO, the programme will ultimately help countries to reach the targets of the Goals.

47. The umbrella programme is global in scope and is fully aligned with the Cape Town Global Action Plan for Sustainable Development Data, which provides the framework for planning and implementing statistical capacity-building pertaining to the 2030 Agenda for Sustainable Development. The programme is designed in a
modular approach, with tailored capacity development activities to be delivered through five modules, corresponding to the following five outputs:

- **Output 1**: data disaggregation techniques are established for all Sustainable Development Goal indicators under FAO custodianship.
- **Output 2**: data gaps and statistical capacities of partner countries relating to the Sustainable Development Goals are assessed, and strategic plans are developed that align national monitoring frameworks with the global indicator framework.
- **Output 3**: innovative and cost-effective methods, such as the use of earth observation data, are adopted in partner countries for producing relevant Sustainable Development Goal indicators in a sustainable way.
- **Output 4**: the 21 FAO-relevant Sustainable Development Goal indicators are regularly monitored in partner countries.
- **Output 5**: data relating to the Sustainable Development Goals is made openly accessible and progress reports on the Goals are produced and widely disseminated in partner countries.

48. The programme has already received its first donation of $1 million, with which a series of activities have already been planned by the Office of the Chief Statistician of FAO.

### C. The “50 x 2030” initiative

49. The “50 x 2030” initiative was officially launched in September 2018 during the “Data to end hunger event” held on the margins of the high-level segment of the seventy-third session of the General Assembly. The initiative brings together committed partners in agricultural development in an attempt to solve the problem of agricultural data gaps, amalgamating the technical and operational capabilities of development partners with the determination and hard work of partner countries.

50. The initiative will scale up and build on the experiences of the FAO AGRIS programme and the Living Standards Measurement Study – Integrated Surveys on Agriculture project of the World Bank. It is aimed at empowering and supporting 50 low-income and lower middle-income countries to build strong national agricultural data systems that produce and use high-quality and timely agricultural and rural survey data for informing policies. This effort will be complemented by the experience of the Research and Impact Assessment Division of the International Fund for Agricultural Development (IFAD) in increasing and improving the use of survey data to inform decision-making aimed at increasing agricultural productivity in a sustainable manner, enhancing food security and nutrition and achieving Sustainable Development Goal 2.

51. The initiative will increase capacity to produce, analyse and use data to inform decision-making in the agricultural sector. The commitment of partners of the “50 x 2030” initiative will serve as a catalyst to enable true agents of change – governments, businesses, smallholders and civil society – to transform agriculture in a sustainable way through evidence-based policies and investments.

52. The initiative is also of strategic importance to increase the quantity and quality of the data available to FAO and other actors to report on agricultural statistics, as it will fill data gaps that currently exist and that are concentrated in the developing world. In terms of the Sustainable Development Goals, it will provide up-to-date and timely data for indicators 2.3.1, 2.3.2, 2.4.1, 5.a.1 and 12.3.1 on a constant basis until 2030 for monitoring purposes.
53. The initiative is underpinned by two survey models that will be integrated into national data systems. Countries will have the possibility to implement either a farm-based agricultural survey programme over a 10-year cycle or an integrated agricultural and rural survey model, combining a farm-based agricultural survey programme with a household-based rural socioeconomic survey programme. FAO will lead the data production component in close collaboration with the World Bank.

54. Alongside the survey programmes, the initiative will prioritize critical methodological research for agricultural and rural surveys, in particular for developing methodological solutions for the efficient implementation of its modular survey systems. The Centre for Development Data of the World Bank will lead this component.

55. The initiative will also prioritize a key tenet, which is to ensure that the data are used. The initiative will strive to build the capacity and motivation of decision makers to use data and to strengthen data producers to align with needs. This component will be implemented by IFAD.

56. The governance and organizational structure of the initiative includes a partnership council overseeing all activities and constituting the highest decision-making body. Four low-income and lower middle-income countries, one from each of the Africa, Asia and the Pacific, Middle East and Latin America and the Caribbean regions, are represented by members nominated by the High-level Group for Partnership, Coordination and Capacity-Building for Statistics for the 2030 Agenda for Sustainable Development. In addition, the governance includes a programme management team provided by the World Bank to coordinate the work programme among the implementing partners, a multi-donor trust fund, with the World Bank serving as trustee, and a technical advisory group providing technical advice and peer review services to the initiative and partner countries.

57. The total cost of the initiative, shared by partner countries, donors, multilateral implementing partners and the private sector, has been estimated at between $500 million and $700 million. Partner countries should gradually contribute a share of needed funding and commit to take over fully within a period of five to eight years. Donors and multilateral organizations have already committed more than $75 million to fund the first steps of implementation of the initiative.

58. The initiative also presents an innovative way of funding statistics by using contributions made by donors in a multi-donor trust fund for technical assistance to leverage a much bigger pool of resources managed by the International Development Association of the World Bank for data collection. This allows the initiative to escalate its scope of coverage and have a more ambitious target.

59. The partnership council adopted the governance and operations framework on 19 June 2019, and the initiative began operations on 1 July 2019 with an interim six-month plan of activity. During the first six months of implementation (July to December 2019), FAO has implemented activities relating to the implementation of AGRIS in eight countries covered by the existing grants from the United States Agency for International Development and the Bill and Melinda Gates Foundation, and in six countries included in the World Bank Living Standards Measurement Study – Integrated Surveys on Agriculture project. The World Bank and FAO, through the secretariat of the Global Rural and Agricultural Integrated Surveys (GRAINS) project, have made progress in the elaboration of harmonized questionnaires, and the World Bank has conducted methodological work in different areas. FAO and IFAD have created a working group on data use for coordinating the data use activities in countries covered by existing grants.
60. The programme management team is being set up, with a programme manager already having been appointed. Progress has been made in the establishment of agreements between the World Bank and the other implementing partners, and working procedures have been adopted by the different partners in terms of workplans, reporting processes and the results framework. In terms of funding, a regional project for making resources available to countries in Western Africa to be implemented jointly by the International Development Association and the International Bank for Reconstruction and Development is in preparation.

61. Another six-month plan will be submitted to the partnership council in December 2019 covering the period from January to June 2020, followed by an annual plan for the period from July 2020 to June 2021 to be inserted into a future cycle of three-year master plans.


62. The Global Strategy to Improve Agricultural and Rural Statistics has been conceived as a multi-year programme to be implemented through five-year phases, enabling the programme to be constantly aligned with the ever-evolving context having an impact on statistical capacity development. The main technical focus for the second phase will be based on five principles: (a) the use of existing, innovative tools developed during the first phase; (b) additional research to be conducted in the second phase to bridge remaining gaps and respond to new demands from countries; (c) better use of data, addressing gaps in terms of skills and knowledge for processing data and informing and sensitizing policymakers on how to read, interpret and use statistics; (d) innovative capacity development strategies using experience gained from the first phase and integrating new approaches to capacity development; and (e) improved advocacy, communication and dissemination for raising greater awareness of the activities and impact of the Global Strategy.

63. The action plan for the second phase is aimed at strengthening and modernizing countries’ agricultural statistical systems in line with the initial principles and the three pillars of the Global Strategy. Therefore, the second global action plan is focused on four technical areas and outputs that relate to the main aspects of the process and cycle of statistical production and use in support of food security and sustainable development policies, particularly as they relate to the Sustainable Development Goals, and one area relating to the more effective implementation of the plan. The four technical areas of focus proposed cover the main activities aimed at providing technical assistance and training on cost-effective methods to countries as needed, using innovative approaches and boosting data production to respond to the data needs emerging from the evolving development agendas. The need to establish better linkages with policymaking through better use of data and better dissemination of results led to the addition of a specific area (growing the use of data for policy purposes).

64. The second global action plan, covering the period from 2020 to 2025, was presented at the seventeenth meeting of the Global Steering Committee and was later endorsed by means of a written consultation. It is built on a modular approach, as recommended by the Committee. This means that the entire implementation of the Global Strategy will be distributed into a set of distinct “modules and investments” that can be developed independently and implemented by various partners. However, modularity implies that all modules still function as an integrated whole and therefore that strengthened approaches are required in terms of governance, fundraising, coordination, monitoring and reporting.
65. It is expected that a modular approach will help in: (a) bringing flexibility to address the needs of a wide range of countries at different levels of statistical development; (b) synchronizing the activities under an overarching implementation system for the second phase of the Global Strategy, therefore facilitating synergies with other existing initiatives; (c) identifying appropriate partnerships; and (d) increasing gains in terms of efficiency by merging activities under the responsibility of a minimum number of implementing partners.

66. It is also expected that the governance of the Global Strategy will be streamlined in its second phase. Taking into account the request from the Statistical Commission to reduce the number of reporting groups, the proposal is to dismantle the Global Steering Committee of the Global Strategy and use the Inter-Agency and Expert Group on Agricultural and Rural Statistics for reporting the results of the second phase of the Global Strategy to the Commission.

E. Proposed workplan for the Inter-Agency and Expert Group on Agricultural and Rural Statistics

67. At its forty-third session, the Statistical Commission endorsed the proposal to establish the Inter-Agency and Expert Group on Agricultural and Rural Statistics as a mechanism to develop and document good practices and guidelines on concepts, methods and statistical standards for food security, sustainable agriculture and rural development. Since then, the Group has carried out research activities in a number of different domains, such as: (a) improving the measurement of food consumption, which resulted in the development of guidelines for the collection of food data in household consumption and expenditure surveys and their endorsement by the Commission at its forty-ninth session; (b) methods for measuring and monitoring agricultural sustainability, which resulted in the methodological proposal on indicator 2.4.1 of the Sustainable Development Goals and its endorsement by the Inter-Agency and Expert Group on Sustainable Development Goal Indicators in 2018; (c) a proposed international definition of smallholders to monitor target 2.3 of the Sustainable Development Goals, which was discussed at the forty-ninth session of the Commission and endorsed by the Inter-Agency and Expert Group on Sustainable Development Goal Indicators in 2018; and (d) selecting a core set of rural development indicators and developing a harmonized methodology for the delineation of cities and urban and rural areas to facilitate international statistical comparisons. This work, which is intended to complement national definitions and not replace them, was welcomed by the Commission at its forty-ninth session (E/2018/24-E/CN.3/2018/37, decision 49/112, para. (i)).

68. With the above-mentioned achievements and the remaining challenges described in the previous sections in mind, and taking into account the broader priorities of the Statistical Commission for modernizing statistics, the Inter-Agency and Expert Group on Agricultural and Rural Statistics is proposing a new research agenda articulated by four main pillars, as follows:

(a) To set data quality standards for key food and agricultural data and assist countries in developing and implementing national data quality assurance frameworks for agricultural statistics, with the aim of improving, at the same time, the quality of data generated by countries and hence the data disseminated by FAO internationally;

(b) To develop standards for the use of new or alternative data sources in producing food, agricultural and rural statistics, in particular the use of earth observation data for land cover mapping, data disaggregation and crop yield and crop area estimation;
(c) To further develop or adapt existing innovative analytical statistical methods (such as nowcasting, forecasting and small-area estimation) for food, agricultural and rural statistics to improve the availability of more timely and disaggregated data;

(d) To conduct additional research in the domain of food security statistics, particularly on food consumption data collected by countries using household surveys; methods for reconciling food consumption data obtained from different sources; and methods to better adapt FIES to the cultural and socioeconomic conditions of each country. This line of research will build on guidelines already developed for the collection of food data in household consumption and expenditure surveys by the Inter-Agency and Expert Group on Agricultural and Rural Statistics, and progress achieved by FAO in developing the methodologies to measure the prevalence of undernourishment and the severity of food insecurity based on FIES.

VI. Action to be taken by the Statistical Commission

69. The Statistical Commission is invited:

(a) To take note of the comprehensive set of measures that FAO has implemented to address the findings of the independent evaluation of the role and work of FAO in statistics, and additional challenges identified in the report on global initiatives to improve agricultural and rural statistics prepared for the Commission by Eurostat (E/CN.3/2009/3 and E/CN.3/2009/3/Corr.1);

(b) To endorse the main principles of the proposed strategy for modernizing the FAO Statistics Division, which is aligned with the road map for the modernization of the United Nations statistical system and which will guide the organization’s efforts to further improve agricultural and rural statistics in the next five years;

(c) To express its support for the FAO integrated strategy for statistical capacity development, which is articulated in three main components: (i) technical assistance to improve the capacity of countries to monitor the global Sustainable Development Goal indicators, through the umbrella programme on measuring data relating to the Goals; (ii) the funding and implementation of an integrated programme of agricultural surveys through the “50 x 2030” initiative; and (iii) the action plan for the second phase (2020–2025) of the Global Strategy to Improve Agricultural and Rural Statistics;

(d) To comment on the work carried out so far by the Inter-Agency and Expert Group on Agricultural and Rural Statistics and to provide further guidance on the proposed research agenda, which comprises: (i) the development of national data quality assurance frameworks for agricultural statistics; (ii) the development of methods and standards for the use of new or alternative data sources in producing food and agricultural statistics at the national and international levels; (iii) the development of innovative methods for producing real-time statistics at the country level; and (iv) conducting methodological research in the domain of food security statistics to further improve their relevance and accuracy.