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PROGRAMME COMMITTEE

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Evaluation of FAO's Statistical Work

Queries on the substantive content of this document may be addressed to: Mr Masahiro Igarashi Director Office of Evaluation Tel. +39 06570 53903

EXECUTIVE SUMMARY

➢ The Office of Evaluation's assessment of FAO's statistical work from 2012 to 2018 was requested by the 119th Session of Programme Committee in 2018. It aims to provide Members with an assessment of FAO's statistical contribution to agricultural and rural development and food and nutrition security from 2012 to 2018.

➢ The evaluation assesses: (i) the effectiveness of FAO's governance structure in coordinating and advancing the production and use of statistics in its work at global, regional and national level and promoting the use of statistics in international forums; (ii) the capacity-development support FAO provides to Members to strengthen their statistical capabilities and to produce Sustainable Development Goal (SDG) data and indicators in the context of the Organization's custodianship role; and (iii) the extent of gender mainstreaming and work towards the SDGs in FAO's statistics work.

➢ The evaluation responds to three overarching questions:
  o to what extent is FAO's statistical governance adequate and effective in meeting the Organization's needs and in contributing to the international governance of food and agricultural statistics?
  o to what extent has FAO proved relevant and effective in providing quality statistics to internal and external stakeholders?
  o to what extent is FAO providing relevant and effective statistical capacity-building to Members?

➢ The evaluation was conducted by the FAO Office of Evaluation (OED) with the support of an external team of thematic experts. It drew on multiple primary and secondary data sources and adopted a mixed-method approach to data analysis, triangulation and validation. Sources and methods of collection included semi–structured interviews, surveys, document reviews, a synthesis of evidence from evaluations conducted by OED, a review of project documents, Google Trends and a benchmark study.

➢ The Evaluation Team undertook a thorough stakeholder mapping exercise to identify key internal, external and potential users of FAO data and publications, along with in-depth document reviews, interviews with key informants, a survey of FAO database users on the quality of FAO statistics and a review of 14 databases. These analyses, together with information collected from field visits to 10 countries, user satisfaction surveys and a quality assessment and planning survey, helped to triangulate the evidence gathered. The Team visited FAO Regional Offices and 10 countries to carry out case studies.

➢ The Evaluation Team concluded that FAO's current internal statistical governance does not provide a solid basis for well-coordinated, coherent or satisfactory statistical work. While its statistical work remains relevant to its Strategic Framework, weak enforcement of internal governance arrangements and a profusion of units/divisions conducting statistical activities (including at regional level) have led to confusion over roles and responsibilities, diluting its effectiveness. FAO has not better capitalize on regional statistical expertise.

➢ Given the relevance of statistics to the overall work of FAO, the evaluation concluded that the regular programme resources allocated to FAO's statistical activities, including support work, are not commensurate with the objectives of the workplan. FAO's dependence on extra-budgetary resources for statistical capacity-building creates uncertainty as to the sustainability of this capacity-development work.

➢ While progress has been made on aspects of quality, the statistics produced and disseminated by FAO are only partly compliant with its Statistics Quality Assurance Framework (SQAF). Insufficient harmonization of procedures, IT support and infrastructure are limiting advancement towards a more coherent and modern statistical system.

➢ FAO's coordinating role and methodological work on the SDGs have raised its profile in the international statistical community and its outreach work on national standards has increased

awareness. Linking FAO's methodological and capacity-development work on SDGs indicator implementation with its regular statistical capacity-development activities at country level is crucial to creating long-term statistical capacity and enforcing policy alignment.

➢ FAO's statistical capacity-development activities largely focus on setting up data-collection systems and pay insufficient attention to how statistics can be used in national evidence-based policymaking systems. Also, gender disaggregation has not been systematically incorporated into FAO statistical activities, although progress has been made in this regard.

➢ The Evaluation Team recommends that FAO review its statistical governance arrangements to ensure better coordination and coherence of its statistical work. Specifically, this will require (1) ensuring that a single coordination unit has sufficient oversight authority and accountability and (2) clarifying and concretizing responsibilities and reporting lines for the divisions and offices responsible for producing and disseminating statistics.

➢ To this end, the Evaluation Team suggests that FAO (1) elevate the oversight and responsibilities of the Chief Statistician to a higher level and/or (2) merge the functions of Chief Statistician and Divisional Director of Statistics, giving this entity broader responsibility for managing the statistical activities currently undertaken in other statistical units.

➢ FAO should invest in cost-effective options to strengthen and redefine the function of regional statisticians by allocating sufficient resources to allow them to contribute to strategic activities at headquarters level and to operational activities at country level.

➢ The evaluation also recommends that FAO reprioritize regular programming resources for statistical activities and maximize the use of extra-budgetary funding by having a more strategic multi-year capacity-development plan. This new strategy should outline:

   o how FAO plans to increase the coverage of its statistical capacity-development initiatives to enable countries to collect, produce and disseminate accurate, reliable and timely statistics and to use statistical information, including gender disaggregated data; and

   o how FAO decentralized offices will contribute to the development and implementation of National Strategies for the Development of Statistics (NSDS).

➢ The Evaluation Team recommends that FAO accelerate actions to improve the quality of its data and IT infrastructure support and urgently put in place and enforce an integrated statistical quality management system, covering all statistical activities, to ensure full adherence with current and new internationally accepted statistical standards and norms.

GUIDANCE SOUGHT FROM THE PROGRAMME COMMITTEE

➢ The Programme Committee is invited to review the content of the document and provide guidance as deemed appropriate.

Thematic evaluation series

Evaluation of FAO's statistical work

SUMMARY[1] REPORT TO THE PROGRAMME COMMITTEE

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, March 2020

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[1] The full version of the report, including annexes, is available at the FAO Evaluation Website: www.fao.org/evaluation

Contents

Glossary

Classification	International statistical classifications and common nomenclatures
Data	Non-categorized information, usually numerical, that is collected through observation
Data analysis	The process of transforming data into usable information, often presented in the form of a published analytical article, in order to add value to the statistical output
Database	A logical collection of information that is interrelated and that is managed and stored as a unit, for example in the same computer file; the terms database and data set are often used interchangeably
Data dissemination	The release to users of statistical information obtained through a statistical activity
Effectiveness	The extent to which the activity's stated objectives have been met
Indicator	The representation of statistical data for a specified time, place or any other relevant characteristic, corrected for at least one dimension (usually size) so as to allow meaningful comparison
Imputation	Process of replacing missing data with substituted values
Metadata	Information that is needed to be able to use and interpret statistics
Microdata	Information on individual persons, households or business entities, used in official statistics for the production of aggregate information (usually tables)
Statistical activities	Those steps in production and dissemination of statistics involving the identification, collection, processing, interpretation and dissemination of numerical data intended to define a phenomenon
Statistical data	Categorized data from a survey or administrative source used to. produce statistics
Statistical governance	The process by which public and private actors articulate interest, frame/structure and prioritize issues and make, implement, monitor and enforce decisions
Statistical work	All of the statistical initiatives, undertaken by FAO in its thematic areas. It includes all the steps involved in producing and disseminating statistics, on an institutional, conceptual and methodological level

1.   Introduction

1.   This evaluation was requested by the 119th session of the FAO Programme Committee in 2018 to assess the contribution of FAO's statistical work to agricultural and rural development and food and nutrition security.

2.   The evaluation covers FAO's statistical work from January 2012 to June 2019. It assesses (a) the effectiveness of FAO's governance structure in coordinating and advancing the use of statistics in its work at the global, regional and national level and promoting the use of statistics in international fora; (b) capacity-development processes and issues associated with the implementation and harmonization of Sustainable Development Goal (SDG) indicators, also in relation to its custodianship responsibilities, and (c) the extent of gender mainstreaming in FAO's statistical work. The evaluation explores three overarching questions:

- To what extent is FAO's statistical governance adequate and effective in meeting the Organization's needs and in contributing to the international governance of food and agricultural statistics?
- To what extent has FAO proved relevant and effective in providing quality statistics to internal and external stakeholders?
- To what extent is FAO providing relevant and effective statistical capacity-building to Members?

3.   The evaluation was conducted by OED with the support of an external team of thematic experts. It relied on multiple primary and secondary data sources and adopted a mixed-method approach to data analysis, triangulation and validation. It benefited from the inputs of FAO teams responsible for statistical activities at headquarters, regional and country level.

4.   The Evaluation Team undertook a thorough stakeholder mapping exercise, document review, interviews, capacity-development and data-quality surveys, a review of 14 databases, a synthesis of evidence from OED evaluations, Google Trends research and a benchmark study. To gather information on FAO's support for the methodological development of SDG indicators,[2] the Evaluation Team conducted a separate desk review. It visited FAO Regional Offices and 10 countries in five regions to carry out case studies:

- Africa: Cameroon, Côte d'Ivoire, Ethiopia, Ghana and Uganda[3, 4]
- Asia: Bangladesh, the Lao People's Democratic Republic and the Philippines
- Europe and Central Asia: Armenia and Georgia
- Latin America: Chile and Colombia
- Near East and North Africa: Lebanon

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[2] FAO (2017a; 2017b; 2017c; 2018a; 2018b) and the forthcoming evaluations of FAO's Contribution to the Republic of Uganda and Lebanon
[3] Skype meetings were held for Ethiopia and Uganda.
[4] Country Programme Evaluations (CPEs)

2.   Context and description of FAO's statistics work

5.   Many of FAO's technical divisions ("internal stakeholders")[5] conduct their own statistical programme of work (SPW) and maintain their own data in various FAO databases.

6.   FAO is a leading provider of internationally comparable food, nutrition and agriculture statistics and technical assistance services. The FAO Statistics Evaluation 2008 [6] recommended the improvement of IT governance and significant action to "de-duplicate and de-fragment" information systems and data. It also noted that "there was a vacuum in the leadership of agricultural statistics, both internally and at international level".

7.   Thus, the Statistics Programme Steering Committee (SPSC) and the Statistical Coordination Working Group (SCWG) were created in 2010. IT governance underwent major change in 2010–2011. In 2012, FAO created the headquarters-based position of Chief Statistician,[7] a joint role with the responsibility of the Statistics Division director.

8.   In 2014, the Statistics Quality Assurance Framework (SQAF) was developed to guide how statistical activities should be carried out at FAO. In 2015, the Organization established the Accountability Framework for FAO Statistical Activities and, in December 2016, the Council approved a structural change in the Organization's statistics governance, creating the Office of the Chief Statistician (OCS).

9.   OCS was expected to operate in a similar vein to the Strategic Programmes, so it was deemed logical to place the OCS under the Deputy Director General of Programmes (DDP) rather than within the Statistics Division (ESS) (or a data-producing department). An important function of the OCS is the internal and external governance of statistical activities. The Chief Statistician is supported in this function by the Interdepartmental Working Group on Statistics (IDWG-Statistics).

10. FAO's external role spans its contributions to the Regional Commissions for Statistics.[8] The Chief Statistician also represents FAO on the United Nations Statistical Commission (UNSC), other intergovernmental forums and the coordination mechanisms of the United Nations agencies and international organizations.

11. With international consensus on the need to address the challenges of applying statistics to issues of agricultural development, UNSC convened a working group to draft a strategic

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[5] The internal stakeholders are the Office of the Chief Statistician (OCS); the Statistics Division (ESS); the Forestry Policy and Resources Division (FOA); the Fisheries and Aquaculture Policy and Resources Division (FIA); the Animal Production and Health Division (AGA); the Plant Production and Protection Division (AGP); the Land and Water Division (CBL); the Climate and Environment Division (CBC); the Information Technology Division (CIO); the Agricultural Development Economics Division (ESA); the Nutrition and Food Systems Division (ESN); the Social Policies and Rural Institutions Division (ESP); the Trade and Markets Division (EST); the Office of Corporate Communication (OCC); the Regional Office for Africa (RAF) and Subregional Office of Eastern Africa (SFE); the Regional Office for Asia and the Pacific (RAP) and Subregional Office for Pacific Islands (SAP); the Regional Office for Europe and Central Asia (REU); the Regional Office for Latin America and the Caribbean (RLC) and Subregional Office for the Caribbean (SLC); and the Regional Office for the Near East and North Africa (RNE).

[6] FAO (2008)

[7] Director-general's bulletin, No. 2012/59

[8] Regional Commission for Agriculture Statistics in Africa (AFCAS); Asia and Pacific Commission on Agricultural Statistics (APCAS); and FAO/OEA-CIE/IICA Working Group on Agricultural and Livestock Statistics for Latin America and the Caribbean

plan to improve agricultural statistics.[9] The outcome was a draft Global Strategy to Improve Agricultural Statistics (GSARS).[10]

12.   A Global Action Plan[11] provided the framework for rebuilding national statistical capacity to produce agricultural statistics and increase their use in policymaking. It centred on the three pillars of the GSARS: (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.[12] FAO-ESS hosted the office that oversaw the technical coordination of the implementation of the GSARS globally.

13.   The implementation of the 2030 Agenda for Sustainable Development requires high-quality statistics to inform policy, monitor progress and ensure the accountability of all stakeholders. The unprecedented amount of statistics that must be fed into the SDG indicators poses a significant challenge for national statistical systems in developing countries, which are expected to call on the assistance of the United Nations System, including FAO. In 2016, FAO was designated a custodian agency[13] for 21 SDG indicators (SDGs 2, 5, 6, 12, 14 and 15). It was named co-contributor for five more indicators.

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[9] World Bank and FAO (2010)
[10] Funding agencies, such as the Bill & Melinda Gates Foundation, also showed their interest by sending delegates to the meeting to discuss possibilities and modalities for participating in this global initiative.
[11] FAO (2012)
[12] Ibid
[13] See FAO 2020b.

3.   Findings

3.1.   Evaluation question

To what extent is FAO statistical governance adequate and effective in meeting the Organization's needs and in contributing to the international governance of food, nutrition and agricultural statistics?

Finding 1. Statistics remains core to FAO's overall mandate and strategic goals. The delivery and production of agricultural statistics has been designated an Outcome in the Strategic Framework and this has elevated its status in a sustainable development context, although it has not been matched by an increase in budget.

14.   An examination of corporate documents confirmed that statistics has been and remains core to FAO's mandate and activities since the Organization was founded in 1945.

15.   In FAO's reviewed Strategic Framework, statistics evolved from being merely a core function to being anchored in Outcome 6.2. The majority of statistical outputs[14] are delivered under the Strategic Objectives. While the positioning of statistics within the Strategic Framework gives it more institutional prominence, it has not necessarily attracted a substantive amount of funds to Outcome 6.2 on top of the net appropriations assigned to ESS from the various Strategic Objectives.

Finding 2. FAO's internal governance structure for statistical work does not effectively support its statistical activities.

16.   The Evaluation team found that the Chief Statistician's reprise of the role of ESS Director under 2012–2016 arrangements was broadly welcomed. This facilitated better internal arrangements and communication between the various ESS teams, other technical divisions and regional statisticians. As ESS is the primary division responsible for FAO's core statistical work, with financial and human resources behind it, the affirmation of its coordinating and accountability roles was well received.

17.   Moreover, incorporating statistical technical and executive decisions into the same division underpinned the Chief Statistician's decision-making ability and authority. OCS received no funding or dedicated staff to allow it to resume its mandated responsibility of supporting statistical work at regional and country level (all five professional core posts at OCS are seconded from ESS; other staff are cost-shared with FIA and FOA). It only received additional funding for its work on the SDGs in the 2018/19 PWB.

18.   Structurally, however, the OCS reports to the DDP, while ESS reports to the Assistant Director-General of the Economic and Social Development Department (ADG-ES). Other divisions responsible for statistical activities report to different Assistant Directors-General. OCS has no formal jurisdiction over ESS or any of the other divisions carrying out statistical work. DDP has no systemic functional responsibility for IDWG-Statistics. IDWG-Statistics reports are not shared with higher-level management (DDP or ES-ADG) and reporting is carried out on an as-needed, rather than systematic, basis. The feedback from interviewees

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[14] SP1 Outcome 1.3 (indicator 1.3.A, 1 of 4 outcomes/outcome indicator), SP2 Outcome 2.4 (indicator 2.4.A, 1 of 4 outcomes and 1 of 9 outcome indicators), SP3 embedded in all outcomes except outcome 3.1.A (indicators 3.2.A, 3.3.A, 3.4.A; 3 of 12 outcome indicators), SP4 Outcome 4.4 (indicator 4.4.A, 1 of 4 outcomes and 1 of 8 outcome indicators), SP5 Outcome 5.2 (indicator 5.2.A, 1 of 4 outcomes and 1 of 8 outcome indicators).

was that these reporting methods were not helpful and only added to bureaucracy and confusion.

19.   A review of meeting minutes and informant feedback confirmed that IDWG-Statistics (director level) is supposed to play a key role in improving internal coordination on both technical and procedural issues. However its meetings are too infrequent and its agenda is not particularly conducive to preparation, pre-meeting discussions or exchange of views. Directors often do not attend and are represented by technical officers with no decision-making power. IDWG (director level) is not perceived as a decision-making body and has no powers to enforce compliance by other divisions.

20.   The IDWG-Statistics technical task force was better perceived. The task force was deemed to play a meaningful role in improving the internal coordination network that deals with technical and procedural issues. As IDWG-Statistics is the structure that is supposed to demonstrate FAO's joined-up statistics thinking and work, not having management's systematic involvement in and endorsement of it is a major failing.

21.   The feedback from those interviewed at regional and country level suggests confusion as to the boundaries between ESS and OCS. Many associate OCS solely with coordination on the SDGs. Furthermore, staff outside headquarters and those not involved in statistical activities find it hard to distinguish between the roles of Chief Statistician and ESS Director, despite efforts by OCS, communication on the functional split has not trickled down.

22.   The governance model prescribing the position of Chief Statistician is based on that of similar ISOs. However, the way in which the job is defined and positioned in FAO is unique, in that it combines a coordinating and leading role on methodological issues with a lack of hierarchical authority to ensure the enforcement of strategic decisions. This unparalleled situation is confirmed by a benchmark study of other international organizations with statistical responsibility, which suggests that a position combining both roles would be a good model.

Finding 3: OCS's mandate to coordinate the SDGs is widely appreciated and respected, both internally and externally, and has contributed to an improvement in the visibility of FAO's statistical activities.

23.   FAO is highly regarded by UNSC for the role it plays in developing methodology for the 21 SDG indicators under its custodianship. Interviews with staff and external stakeholders confirmed that the position of Chief Statistician had facilitated coordination, liaison and a smooth flow of requests to the Organization. FAO's standard setting for the 21 (and five co-contributor) SDG indicators is highly relevant and appears to be effective and appreciated in terms of methodology and procedure.

24.   FAO has made a good progress on external coordination and the governance of agricultural statistics in an SDG context. Its major contributions – such as the "Voices of the Hungry" project to improve the availability of reliable food and nutrition security statistics; the "50 by 2030" initiative; global forest resource assessments (FRAs) and the GEMI project (to improve FAO's ability to obtain better water-stress and water-efficiency indicators)[15]– were made in tandem with other United Nations agencies and resource partners.

25.   FAO's work on the development of standards and guidance for a number of thematic areas in agriculture is well recognized. In the forestry sector, for example, FAO leads when it

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[15] Recently the GEMI project has changed name to" Integrated Monitoring Imitative on SDG 6 (IMI-SDG 6 project)"

comes to the definitions of land use and land cover used in the System of Environmental and Economic Accounts and the World Census of Agriculture. It leads the central product classification of crop and livestock products, fertilizers and pesticides and is commonly seen as a global leader in the areas of FRAs, national forest monitoring and the conservation of forest carbon stocks, as well as the sustainable management of forests and enhancement of forest carbon stocks (Reducing Emissions from Deforestation and Forest Degradation, or REDD+).

26.   As a partner responsible for monitoring, reporting, verification and forest emission reference-level work in general, FAO is seen as a crucial driver of the REDD+ processes and a key contributor to sustainable land-resource management. FAO's Forestry department leads core work on forest data and indicators, including SDG indicators 15.1.1 (FRA database), 15.2.1 (FRA database-FRA) and 15.4.2 (remote sensing), while ESS leads work on SDG sub-indicator 2.4.1. In addition, FAO's Fishery and Aquaculture department act as the secretariat of the Coordinating Working Party on Fishery Statistics, a mechanism that has coordinated statistical programmes conducted by regional fishery bodies and other inter-governmental organizations with a remit for fishery statistics since 1960.

27.   FAO's contribution to the external coordination of SDG indicators ties in with its role as a custodian and co-contributor (partner) agency.[16]

28.   FAO is involved in the High Level Political Forum (HLPF) and its activities. It contributed to the co-drafting of Executive Committee on Economic and Social Affairs (ECESA+) technical papers for HLPF 2017, co-organizing an Expert Group Meeting on SDG 2, and participated in the Regional Forums for Sustainable Development, preparing background notes and organizing discussion segments. FAO timed the release of its flagship publication on the State of Food Security and Nutrition in the World[17]to coincide with the 2019 HLPF. The report was co-produced with other UN agencies that have SDG monitoring responsibilities – IFAD, UNICEF, WFP and WHO – to include a broader focus on nutrition. Importantly, it captures two key indicators under SDG 2: 2.1.1 (on the prevalence of undernourishment) and 2.1.2 (on the prevalence of moderate or severe food insecurity).

Finding 4: Gender mainstreaming in statistical programmes and projects varies from division to division. The core strength of OCS's work on gender is manifest in its support for SDG 5 indicator methodology.

29.   The Evaluation Team looked at different levels of gender mainstreaming in FAO's statistical work programme and projects, such as the inclusion of gender aspects in strategy, availability of sex-disaggregated data (in relevant databases), etc.

30.   The FAO SPW from 2010–2011 to 2018–2021 indicates that gender has been referred to in the workplans of some divisions, mainly the Social Policies and Rural Institutions Division (ESP, previously the Gender, Equity and Rural Employment Division, or ESW), the Fisheries and Aquaculture Department (FIA), ESS and the Forestry Policy and Resources Division (FOA). OCS has no gender focal point, however. Although ESP conducted Country Gender Assessments in the five FAO regions in 2012–2019, data from these reports have not been systematically used to update the Gender and Land Rights database.[18] Moreover, feedback

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[16] FAO's responsibilities as a custodian agency, outlined in the 2017 Report of the IAEG-SDG to the Statistical Commission (par. 28) (UN ECOSOC, 2017) and as recognized by recent UN Statistical Commission decision 48/101/k (UNSD, 2017).
[17] FAO, IFAD, UNICEF and WHO (2019)
[18] FAO (2020a)

from informants suggested that not much gender-related data collection had been done at country level, requiring staff to reach out to other organizations, such as the World Bank.

31.   The Organization is also custodian for indicator 2.1.2 on the prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES).[19] At the global level, considerable effort is being made to provide sex-disaggregated data for this indicator. However, FAO has yet to fully determine (based on how countries have administered the gender disaggregated questions in their data collection) whether it is possible to disaggregate national data by sex, as some countries do not conduct such analysis.

32.   FAO technical officers' capacity to mainstream gender in their statistical work on SDGs (where appropriate from the perspective of the specific indicator), varies. A more focused approach to integrate a gender perspective into SDG implementation and monitoring projects, both at regional and country level is needed. This is in line with the FAO's Gender Evaluation Report 2019, which found that though FAO's Gender Equality Policy remains relevant to its mandate and strategic goals, it should be updated to reflect external developments, such as the SDGs.

33.   There have been successful SDG-related awareness-raising projects and advocacy events in a number of countries (in the REU and RAF regions) to support the integration of the gender mainstreaming process into FAO's statistical work. It would seem that gender-sensitive interventions are more at an awareness-raising level, however, than embedded into core statistical interventions and data disaggregation in a way that contributes to equity and equality considerations for effective governance and decision-making.

34.   Important partnership initiatives, such as FAO's collaboration with Germany's Gesellschaft für Internationale Zusammenarbeit (GIZ) on a legal assessment tool and methodology for SDG indicator 5.a.2 (on the proportion of countries where the legal framework [including customary law] guarantees women's equal rights to land ownership and/or control) have been established. FAO is also working with the World Bank and UN-Habitat (custodians for SDG indicators on land ownership) to develop questions for data-collection mechanisms and a handbook to support countries in their data-collecting efforts, as well as with UN-Women to promote the compilation of data on SDG indicator 5.a.1.

35.   FAO also hosts a number of important databases containing sex-disaggregated data, such as FAOSTAT[20] and AQUASTAT.[21] Employment data by gender are collected by FIA and the Gender and Land Rights Database. However, these databases are not well known to a number of FAO professionals or their external counterparts. The same goes for the methodologies that FAO has developed such as the Minimum Dietary Diversity for Women (MDD-W).

Finding 5: Limited resources (financial, human and IT/infrastructure) have been invested in statistical activities.

36.   An assessment of the financial, human and infrastructural resources invested in FAO's statistics activities showed that core work on statistics at headquarters is resourced mostly from regular programme funding. In PWBs 2012/13, 2014/15, 2016/17 and 2018/19, this totalled 65.3 million. The absence of a tagging system meant it was not possible to identify funds directed specifically to statistical activities in other technical divisions.

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[19] INDDEX Project (2018)
[20] FAOSTAT (2019)
[21] AQUASTAT (n.d.)

37.   Although statistics was not found to be at a greater disadvantage than other areas of FAO's work, interviewees cited greater demand for statistics advice and expertise than could be met with existing staff. Resources have increased slightly thanks to certain programmes (global strategy) and the SDGs, but have not kept pace with the combined effects of growing demand and changing circumstances.

38.   Still, there are just 39 professional positions in ESS as the main division responsible for data collection, analysis and dissemination (including Regional and Subregional Officers/Statisticians), out of these seven positions are distributed to different regions, and out of the 32 positions in ESS, five positions are seconded to OCS. The total number of staff in ESS has reduced from the 32 reported in the Statistics Evaluation 2008. The post of capacity-building officer is still lacking. In Fisheries, there is only one senior officer responsible for statistics (assisted by one P4, four P3 and one consultant working as part of a shared arrangement with OCS). The situation is similar in Forestry, where three technical officers deal with statistical work. According to departmental interviewees, demand has remained high in all divisions, while the number of staff has fallen or remained the same. There are only two regional statisticians in RAF, for example, to support more than 40 countries. The picture is similar in RAP.

39.   Field offices are generally understaffed when it comes to statistics expertise and this affects the breadth and depth of coverage they can provide. Regional Offices each have one statistician who is expected to cover a very broad range of work and cannot meet all requests. Some Country Offices do not have any statistical expertise, hampering interaction with the national statistical offices and in some instances regional commissions.

40.   At regional and country level, only core regional statistics staff are funded from regular programme budgets; extra budgetary funding has been used to provide statistics expertise in some Country Offices. The same applies to funding for capacity development. Support for agricultural censuses has been financed by donors such as the European Union and World Bank, with early project planning and preparation often financed from Technical Cooperation Programme funding.

41.   Information technology infrastructure and expertise was cited as a constraint at headquarters, stemming partly from the timing of funding and partly from the loss of key staff when recruitment processes changed (see also Finding 8). Given the need for a functional statistical data warehouse (SDW), this is a major limitation.

42.   FAO's SDG-related statistical work is largely dependent on extra-budgetary resources and fund leverage. A notable increase in interest from the donor community has indeed been seen since the adoption of the 2030 Agenda. However, this raises some concerns about its sustainability.

43.   Considerable gaps in human and financial resources and capacity limitations are affecting FAO's ability to provide the direct institutional support countries need on the SDG indicators. For instance, an assessment of the effects of stepping up SDG monitoring on country capacity and needs in the Asia-Pacific region shows that the demand for assistance far exceeds what FAO can provide with current resources.

44.   The assumption is that regional statisticians are in charge of carrying out SDG indicator-related work. However, most SDG-related work is actually coordinated and carried out by the SDG unit in OCS. When such work is delegated to the regional statisticians, they generally see it as additional workload.

45.   The number of initiatives (across all FAO activities, not just statistics) associated with SDG indicators poses a major challenge for Country Offices from a staffing and financial perspective (limited number of staff, scarce resources), hindering comprehensive implementation, synergic collaboration and adequate monitoring. In this context, Country and Regional Offices must take a more integrated and holistic approach and, to this end, secure adequate resources from donors. Resource mobilization is highly important. There has been a step-up in this regard, mostly at headquarters level, but efforts need to be intensified elsewhere to prevent the fragmentation and gaps observed in many regions.

3.2.   Evaluation question 2

To what extent has FAO proved effective in providing quality statistics to internal and external stakeholders?

Finding 6: FAO's statistical system only partly meets the information needs of internal and external users and is not fully equipped to receive their feedback.

46.   The SQAF defines "relevance" as "the degree to which FAO statistical databases meet current and potential user needs". The Evaluation Team, therefore, summarizes "fitness for purpose" as "the effectiveness of the response to current specific needs for statistics". Quality in statistics is a construct that covers methodology, concepts, the institution and context. The SQAF is based on the UN Fundamental Principles of Official Statistics[22], it covers statistical outputs, processes and the institutional environment. The quality of statistical outputs considers relevance, accuracy and reliability, timeliness and punctuality, coherence and comparability, and accessibility and clarity.

47.   An important group of FAO statistics users consists of policy makers at national and international level. Academia and researchers, non-profit organizations and business make up another important user group. Beyond that, FAO Statistics is used by members of the media and general public active or interested in agriculture, fisheries and other relevant subject domains (FAO, 2018). There is also a broad range of potential data users, as agriculture and rural statistics are not only relevant and essential to government, but to development partners. Many of the subject domains covered by FAO statistics also appear to chime with the fields of interest of other international public and private organizations and NGOs.

48.   The global coverage of FAO's statistics is high, as is its complementarity with national, regional and global data. Subnational-level information is often collected in line with FAO-recommended procedures, standards and guidelines.

49.   For several datasets (for example, gridded livestock of the world/livestock systems, global FRAs, and fishery and aquaculture statistics), there are no (global) alternatives. Even where quality is difficult to compare with other sources, FAO's datasets are considered a good basis for complementary statistics. Feedback from the user survey conducted for this evaluation and from interviews confirmed that FAO statistical data, especially those from AQUASTAT and FOA, were generally found to be fit for purpose. Furthermore, the review of the 13 databases showed coherent objectives and methodology underlying almost all databases, with more than half clearly fulfilling their objectives.

50.   The quality of certain other FAO data, however, were called into question by some specialized users in the countries visited. They noted that some of the datasets were less widely used, particularly at country level. These included certain data in the FishStatJ

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[22] UN General Assembly (2014)

database, which were not internally comparable or consistent, perhaps due to incomplete updates of past data or different data sources, and much of the Global FRA data, which is estimated or imputed (and documented as such). This issue is largely down to the nature of the data submitted. However, some methods of estimation can be basic and not make sufficient use of non-national sources.

51.   FAO's statistical teams have created mechanisms to receive feedback from internal and external users on the fitness for purpose of their data. User satisfaction surveys are good practice: in the evaluation questionnaire, 55 percent of users fully or partly agreed that "FAO constantly asks for my feedback as a customer of its databases". Suggestion boxes and comments through functional mailboxes are both useful and frequently used. There did not appear to be a common mechanism across databases to systematically incorporate comments into FAO's statistical production and dissemination process, however.

52.   Several users at country and regional level (and internally) said their questions on statistical information in FAO's databases and suggestions for changes or improvements to the metadata often failed to receive a response, fanning a sense of isolation in the field. This suggests that not all of FAO's statistical feedback mechanisms are effective.

Finding 7: Despite improvements to the production and dissemination of FAO statistics, additional work is required to achieve fully coordinated processes capable of delivering the expected level of quality.

53.   The FAO Statistics Evaluation 2008 painted FAO statistics as having a highly dispersed and ill-coordinated structure.[23] Based on its recommendations and the global push for quality agricultural statistics, initiatives have been taken to improve agricultural statistics, both internally by FAO and globally by UNSC. The main external initiatives involve studies and pilots in the context of GSARS. Within FAO, a strategy was developed to improve the quality of data production.

54.   Past evaluations[24] and stakeholder interviews show that those projects hosted by FAO and supported by GSARS were broadly successful in generating appropriate, cost-effective methodologies for countries to produce quality data through an integrated information system. Implementation of these statistical tools and methodologies for data collection, processing, interpretation and dissemination is expected to happen in the second phase of GSARS, the timing of which has yet to be agreed.

55.   FAO statistics are mainly based on data that have been collected, processed and aggregated at national level. The country-level data-collection process is guided by well-documented technical guidelines and standards.

56.   The quality and state of national data-collection processes vary enormously, leading to input data of disparate quality. FAO is recognized as having a fundamental global role in developing methods and standards for food and agricultural statistics and for providing technical assistance that can help countries meet the new monitoring challenges.[25]

57.   FAO's statistics units collect data through a large number of domain- and subdomain-specific questionnaires, which are bundled into batches and sent to country focal points. Most questionnaires contain tables in Excel format, to which a variety of experts must add recent country-level data. The methodology is relatively traditional. The evaluation found

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[23] FAO (2008)
[24] Such as the global strategy and AMIS
[25] For example, on the new indicators for monitoring the SDGs

that at country level, there is a low level of commitment to delivering the information in a timely manner and confusion about the exact roles of the focal points and contact persons. While the headquarters side seems to be very well organized, FAO country representatives mentioned myriad questionnaires sent to various contacts at irregular intervals.

58.   As part of its coordinating mandate, OCS is currently involved in the harmonization of early-stage questionnaires, but this has yet to result in a fully coordinated system of data collection from countries and other data-gathering institutions. While there are regular checks to ensure that focal points are up to date, interviewees at country level seemed to indicate that there was still a lot of room to improve this part of the data-collection system.

59.   The multiplicity of data collection methods and databases, processes and overlapping responsibilities in the various divisions is still an issue of concern. Some interviewees voiced worries in relation to the multiple database management systems and statistical packages in use, as well as multiple versions of software packages, such as R-statistics.[26] This creates the potential for inconsistent and duplicate solutions to common problems.

60.   The Evaluation Team deemed OCS's activities to create internal awareness of FAO statistics and to harmonize and coordinate the use of international quality standards, tools and procedures in each of the statistical domains a success.

61.   In 2013, FAO took the initiative to develop an internal SWS (for the "throughput" process) and an SDW (for the "output" level). The SDW would integrate the information from the separate domain-specific databases at variable level. According to interviewees, however, the IT division's reluctance to support the model, deliver and maintain functionalities and carry out operations meant the SDW initiative failed and the money invested in it was lost. Contrary to the desired harmonized and integrated approach, isolated initiatives have been undertaken in certain divisions, supported by the IT division, to improve data dissemination.

62.   The development of the SWS, designed to facilitate the use of standard tools for processing data through 13 common plug-ins, seems to have been successful. Less ambitious than the SDW initiative, the SWS combines the input databases of statistical domains based on a common structure for the main dimensions (country, year).

63.   The development of the SWS is behind schedule. A lack of sufficient IT support and speedy action are the key reasons here, but there is also little evidence to date that these tools, procedures and standards have been successfully implemented in statistical domains outside ESS.

64.   Collaboration between internal stakeholders has improved since the 2008 Evaluation. However, there is still clear reluctance on the part of non-ESS divisions to coordinate and follow the recommended guidelines. From interviews, the Evaluation Team learned that non-ESS divisions often do not consider themselves part of FAO statistics; they sometime argue that they are not creating statistics, but providing administrative information or advanced analysis. Others deem the rules proposed by OCS to be unsuited to their processes and statistical products.

Finding 8. While progress has been made, FAO's statistics production and dissemination process has failed to respond adequately to changing circumstances.

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[26] R is a programming language and free software environment for statistical computing and graphics supported by the R Foundation for Statistical Computing. The R language is widely used among statisticians and data miners for developing statistical software and data analysis.

65.   The evaluation reviewed the ability and readiness of FAO statistics to adapt its workplan, production methods, methodologies and deliverables to changing circumstances in support of increasing overall statistical quality

66.   New developments in society, knowledge and technology and changing policy priorities have to be taken into account when examining, the Organization's ability to adapt to rapidly changing circumstances. These issues are currently being discussed within FAO, including in the context of the Strategy for the Modernization of FAO Statistics. However, these objectives cannot be fully achieved using current tools and procedures. The aforementioned constraints within the Information Technology Division (CIO) were a common challenge noted by various other divisions.

67.   The data ecosystem – the stakeholders, available data and methodologies – is changing rapidly. Constant innovation is needed, but sometimes bigger steps have to be taken. Elements of the recent (November 2019) Strategy for the Modernization of FAO Statistics are a step towards a modern statistical production environment.

68.   The need to switch to easily accessible and easy-to-complete online questionnaires that could yield improved efficiency and response rates came up frequently during the evaluation.

69.   Capacity to modernize and innovate must include the ability to update systems and re-prioritize efforts at regular intervals, together with sufficient resources to update methods and information technology so that statistical systems keep pace with changing user needs.

70.   Even if many of the standards and methodologies proposed by earlier modernization initiatives (such as GSARS) and projects (such as the Agricultural Integrated Survey, or AGRIS) are widely implemented, achieving better-quality results from modernization may be more difficult, given the time it will take to improve basic country data. The 2019 Modernization strategy rightly prioritizes such improvements.

71.   The Evaluation Team found several factors impeding FAO's modernization goals, including human-resource constraints (expert knowledge), the funding of modernization work, the need for coherence between corporate IT solutions and the IT environment; the internal organization of the still disparate statistical system and OCS's unclear mandate on further harmonization.

72.   The high level of expertise of FAO statistical staff ensures a good base for methodological developments. However, the planned modernization needs specific expertise that is scarce on the ground in FAO Statistics. Much IT development work has been delayed due to a lack of expertise and staff in CIO. This situation has also led to expert staff either not being trained in IT or being totally tied up in IT work and, consequently, unable to carry out their main tasks. This has caused delays to innovative projects such as the SWS.

73.   IT strategy and human resources (HR) issues (with potential overlap) are corporate issues that do not only apply to FAO Statistics, though FAO Statistics has clearly felt the consequences in terms of sustainability. Together, FAO's IT and HR issues seem to be hindering the statistical divisions' ability to quickly adapt to circumstances.

74.   The internal organization of FAO Statistics also limits its capacity for innovation. OCS's mandate is focused on coordination and harmonization and, to a large extent, FAO's work on SDG indicators.

75.   The dispersal of FAO Statistics over a large number of divisions and teams is problematic. While OCS has been able to generate various guidelines on common practices and approaches, the developmental capacity of the various statistical domains is still very much driven by staff. The current institutional set-up also risks the duplication of effort and is sometimes incompatible or inconsistent with recommended tools/methods (as happened with the development of remote sensing for statistical purposes, for example).

76.   Much innovative work, especially at country level, is conducted through projects sponsored by extrabudgetary funds. It appears that it is often not possible to prolong and scale up projects past the pilot phase due to a lack of core funding. Sponsors have indicated that they do not consider regular core work under the statistics mandate to be an appropriate use of their funding.

Finding 9: FAO statistics is only partly compliant with the Organization's SQAF.

77.   The first principle of the SQAF is "relevance". The primary users of FAO's databases appear to be governments, international organizations, academia and the private sector seeking internationally comparable data. Interviews suggested that the need for national stakeholder group, such as civil-society organizations, for international comparisons, is more limited. One reason is that some FAO statistical databases (or parts of them) can be difficult to interpret, even for seasoned users, compared with other international databases. This evidence coexists with many satisfied users of FAO's statistics.

78.   Asked to what extent the FAO statistical databases met their institution's current and potential demands, country statisticians generally responded "partially" or "mostly", although some told the Evaluation Team they prefer other internet-based data sources such as USDA databases.

79.   The second principle of the SQAF is that "FAO statistics accurately and reliably portray reality".[27] In some cases, researchers questioned the accuracy of FAO data[28]: FAOSTAT was shown to post erroneous agricultural yields in addition to other inconsistencies, such as export volumes in excess of production volumes. There were also instances of multiple values for the same data concept in different FAO databases. Sometimes, national organizations do not ensure their data are truly representative. In some cases, the accuracy of FAO's statistical databases, as measured by the imputation rate and percentage of estimated values, does not meet the norms of other international statistical organizations. This is often down to the nature of the data submitted. However, estimation methods can also be basic and fail to make sufficient use of non-national data source. This does not contradict the fact that much of FAO data is accepted and accurate.

80.   The third principle of the SQAF is "timeliness and punctuality". The time it takes for data to be published in FAO databases is, in some cases, longer than for comparable statistics at other international institutions. The norm accepted for annual data by many international statistical organizations (for example, the International Monetary Fund, the Organisation for Economic Co-operation and Development and Eurostat) is no more than 12 months after the end of the reference year. Similar norms apply for other periods. While the nature of some FAO data precludes a 12-month timeframe, this is not always the case, notably for economic data. For example, FAOSTAT annual data are often only available considerably more than one year after the end of the reference period. Data for many developing and middle-income countries are not available even then, so the most recent two years of

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[27] FAO (2014)
[28] See Kikuchi et al. (2014). As of December 2019, FAOSTAT data were unchanged from those cited in this paper.

annual data in FAOSTAT are commonly estimated or imputed. This means that FAO, as knowledge organization, is not relying on accurate or up-to-date data for its information or analysis products. Meaningful assessments of, say, current market developments or the food and nutrition security situation cannot be based on trade data or food balance sheets with time lags of two to three years.

81.   The fourth principle of the SQAF is "coherence and comparability". The Evaluation Team encountered very impressive work on harmonization and coordination, although the impact of some of the measures has been limited so far. Several data-producing divisions seem reluctant to follow OCS's statistical policy. The existence of multiple databases with limited common technical governance risks the provision of data that are not coherent or comparable. Values for agricultural commodity output data, for example, for time periods that are no longer subject to revision are different in the 'Food Outlook', FAOSTAT and AMIS, as well as external data sources. While there are some valid reasons for variations in values (and AMIS is explicit about its use of different data sources to FAOSTAT), not all differences can be explained in this way.

82.   There is no functioning integrated dissemination database, although the SDW is planned. Consequently, much of the information provided is redundant. A screening of existing information and a consistent process for adding new variables and indicators to data collections would be helpful.

83.   Separate questionnaires addressed to the same recipient create additional work and the potential for incomplete or inconsistent responses.

84.   The last SQAF principle is "accessibility and clarity", which refers to the ease and quality of data access, as well as supporting graphics, documentation, metadata and information. Various technical problems specific to some of the statistical databases have limited their accessibility.

85.   There is a clear lack of communication when it comes to how the data in FAO's databases are compiled. The metadata available via the internet is not easily accessible to country-level users. While most of the databases examined provided some documentation, it was usually incomplete, inconsistent and unaligned with common standards or structures. Food-price monitoring and analysis is an example of an FAO database with good metadata.

86.   The look and structure of FAO databases is generally coordinated. All databases are approached via the same start page. Some have a different look and feel, dating from a previous iteration. Greater standardization and coordination is highly desirable.

87.   Statistical information systems have been developed in mutual isolation and are often not accessible in the same way. For the same reason, the continued development of separate user interfaces is not sustainable. These problems are understood within FAO.

88.   The OCS Strategy for the Modernization of FAO Statistics states that "FAO's terms of use and dissemination policies are not compliant with established open data principles". The FAOSTAT User Consultation 2018 recommends greater compliance with open data standards. The FAO Statistical Programme of Work 2018–2019[29] aims to develop an Open

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[29] FAO (2019c)

Data Strategy, including quality standards, to ensure that all FAO databases are compliant.[30] The challenge is to ensure full implementation across FAO.[31]

Finding 10. FAO's normative and methodological work on the SDGs has been well done and is recognized internationally.

89.   FAO has been responsive and timely in meeting new country needs and answering requests for awareness-raising, knowledge-sharing and capacity development on the methodologies and guidance associated with the 21 SDG indicators. Notwithstanding OCS's considerable efforts to endorse, develop and harmonize statistical standards for the new SDG concepts and principles, staff expressed a desire to play an even more active role from an SDG coordination perspective in light of the rise in country-level demand.

90.   FAO has been continuously engaged in testing and piloting activities with a number of countries to assess the applicability, relevance and effectiveness of new methodologies, guidelines and proxies to different contexts.

91.   The methods being developed to measure SDG progress have, in many instances, contributed to or been turned into tools. FAO's statistics division, together with the World Bank's Computational Tools Team (Development Research Group), has developed the free, stand-alone ADePT-Food Security Module aimed at improving the quality, consistency and availability of food-security statistics gathered in national household surveys.

92.   There has been good progress on forging technical partnerships to develop methodologies for certain SDG indicators. FAO is working with a number of international organizations on SDG-related statistics initiatives. However, ensuring effective co-contributing collaboration requires more structured and strategic interventions by FAO. To date, it has failed to capitalize on its methodological development partnerships with co-contributing agencies.

93.   Overall, interviewees expressed positive views (and high expectations) of the quality of FAO technical guidance on SDG-related indicators. This positive feedback should serve as an incentive to strengthen and consistently apply quality-assurance mechanisms for SDG-related and traditional statistical knowledge products and services. The SDG study conducted in the evaluation underpinned the results and provided substantive evidence of the evaluation's findings.

3.3.   Evaluation question 3

To what extent is FAO providing relevant and effective statistical capacity-building to Members?

Finding 11. The need for capacity development in agricultural statistics is high due to countries' low capacity to produce quality statistics in response to demands for data. FAO does not always meet these needs comprehensively due to the limited allocation of net appropriations and a dependency on extrabudgetary resources. Nonetheless, the capacity-development support that FAO provides on statistics is relevant.

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[30] Work is planned on a proof-of-concept open-data catalogue, initially for SDG datasets.

[31] Access to microdata has been built into some databases. This enables database users to customize indicators without accessing the microdata and/or permits them to access suitably anonymized microdata. A microdata archive is planned to disseminate the datasets of agricultural censuses and surveys.

94.   FAO's statistical capacity-development activities at country level can be grouped into "demand-driven", "supply-driven" (FAO-initiated) and/or "collaborative" (when included in Country Programming Frameworks, or CPFs). Eighty-eight percent of national respondents surveyed for this evaluation said FAO's support for statistical capacity development was "highly" or "quite" relevant. There are examples of needs assessments, as in the context of the GSARS and SDG indicators. However, FAO's statistical capacity-development activities are not systematic or well-coordinated overall, primarily due to the Organization's dependency on external project funding.[32] Technical Cooperation Programmes (TCPs) are a key tool when it comes to meeting priority demands/needs for technical assistance and capacity development at national level. The proportion of donor funding and TCP-supported statistical capacity development can vary by region/country.

95.   FAO plays a prominent role in helping countries to conduct agricultural censuses. It commits a significant proportion of its TCP budget to providing technical assistance in this regard (51 percent of census work was funded by the TCP in 2012/13 and 41 percent in 2018/19). Census data have informed the development of key national programmes and policies.[33] However, 50 percent of International Development Association (IDA) countries had no agricultural censuses in period 2006-2020,[34] while 70 percent had no agricultural production surveys.

96.   Countries' appetite to implement AGRIS and donors' interest in funding it demonstrates its relevance. A key issue, however, is that implementation has been driven by headquarters without the involvement of the Regional and/or Country Offices in most regions, apart from REU.

97.   AGRIS and agricultural censuses have been modified to ensure that they generate the required information for a number of SDG indicators on gender; there has been a focus recently on capacity development for SDG indicator monitoring and reporting.[35]

98.   Evaluation survey results indicated that FAO was better able to meet the demands of countries with high- or low-level demand for support than of countries with medium-level demand.

99.   FAO does not compile or keep lists of all of its statistical capacity-development activities for a given country or for the Organization globally. This makes it difficult to systematically assess FAO's overall support/contribution and the impact of its statistical capacity development at national, regional or global level.

Finding 12. Capacity development has focused on data generation and collection and, to some extent, data analysis and dissemination. The use of data and statistics for sustainable policy- and decision-making needs to be better promoted.

100.   FAO has been effective in strengthening the capacity of selected individuals at national level through training, workshops and technical support on various topics and areas. Two key areas of FAO support over the years have been agricultural censuses and food security, as the Team discovered from a review of past evaluations and from discussions (particularly

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[32] A budget analysis of the period from 2012/13 to 2018/19 showed that while in 2012/13, 43 percent of the total budget (regular and extra-budgetary) was from the regular budget, in 2018/19, this was only 27 percent.

[33] For example, in Armenia, the agricultural census is seen as "game changer" and the data have been used to develop the country's Agriculture and Rural Development Strategy 2019–2029.

[34] IDA (2020)

[35] To create awareness of and demand for FAO support, OCS sent letters to countries to request capacity development for SDG indicators, with training on specific indicators on request

at country level). While individual capacity for data interpretation has improved somewhat, there is scope for FAO to augment capabilities to enhance the use of evidence in policy-making. The need for greater FAO support on data interpretation is evident in the fact that even upper-middle-income countries have requested assistance.

101.   Under GSARS, FAO trained 960 officials from 82 countries in Africa and the Asia-Pacific region through the United Nations Economic Commission for Africa (UNECA) and the United Nations Statistical Institute for Asia and the Pacific (SIAP). GSARS provided technical assistance on cost-effective methodologies to 46 countries (26 in Africa through FAO ESS and the African Development Bank and 16 in Asia-Pacific through FAO RAP). However, the Evaluation Team found limited evidence of the institutionalized use of FAO methodology to collect data. Through UNECA, GSARS provided scholarships for 79 statisticians from 40 emerging African countries to pursue a postgraduate programme in agricultural statistics. Since the end of GSARS in 2018, FAO's efforts to disseminate new methodologies to collect better data for compilation and analysis is still in the very early stages.

102.   Instances of stronger institutional relationships in national statistical systems were noted during agricultural censuses (in Armenia, Côte d'Ivoire, Georgia and Timor Leste, among others). Outside of the agricultural census, it is less clear how FAO is lending holistic support to strengthen institutional capacity and increase coordination to improve national agricultural statistical systems.

103.   When questioned about FAO's effectiveness in strengthening organizational capacity, 50 percent to 60 percent of survey respondents said the support it provided was "highly" or "quite" effective when it came to strategic planning and monitoring, data interpretation, quality assurance systems and statistical production processes. Only 47 percent said FAO's support for transparency in reporting was "highly" or "quite" effective, however.

104.   Key challenges to the collection, compilation and dissemination of statistics highlighted at national level were a lack of skilled staff, inadequate government budgets for statistical capacity-development activities, low political support for statistical initiatives (including capacity development) and inadequate or a lack of TCP or technical assistance resources for statistical capacity development.

105.   FAO's technical support on agricultural censuses has helped numerous countries to provide better-quality statistical data and information. Its technical support has varied from country to country, but has tended to include questionnaire design/adjustments, manuals and tools, enumerator training, sampling strategies and tabulation plans. FAO's support and assistance has enabled countries such as Armenia, Papua New Guinea and Timor Leste to conduct agricultural censuses for the first time. Its assistance has also helped several countries to undertake national agricultural surveys on top of the agricultural census using computer-assisted personal interviewing technology.

106.   FAO's effort to dissemination of statistics and statistical methodologies and its advocacy of the use of data for policy-making have been cited as weaknesses in several FAO evaluations. Many of FAO's statistical knowledge products and services are not known to national-level stakeholders/clients, even though they are identified as "core users".[36] Country visits highlighted that many of the new and improved methodologies developed as part of GSARS were still unknown at country level (food balance sheets, for example).[37] Many national stakeholders were not aware of the FAO e-learning courses available for SDG indicators.

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[36] FAO (2015)
[37] Including in global strategy countries in Africa and the Asia-Pacific region

107.   Many FAO staff were also unaware of the resources available (databases, methodologies and knowledge materials). Building FAO staff capacity should be a prerequisite to guiding and providing assistance to countries on the dissemination of data.

Finding 13. FAO's support for Members in developing and integrating Strategic Plans for Agriculture and Rural Statistics (SPARS) into NSDS has largely been through GSARS, financed entirely by extrabudgetary funds. A lack of core budget means it is unclear whether this support can continue through FAO's decentralized offices. Similarly, strengthening coordination mechanisms for national statistical systems has not been a priority.

108.   Under GSARS, FAO supported 41 countries (26 in Africa and 15 in Asia-Pacific) in developing SPARS. It also developed multi-country subregional strategic plans, integrating them into NSDS. These are detailed, policy-oriented documents focused on agricultural statistics. FAO has capitalized on various degrees of partnership with bilateral and multilateral agencies, foundations and research/academic institutions to facilitate capacity-building for statistics at global, regional and country level. However, leverage of private-sector partnerships remains weak. Key global level partnerships include GSARS[38] and AGRIS (the International System for Agricultural Science and Technology).[39]

109.   At regional level, there have been notable partnerships with UNESCAP, the ADB and the Geo-Information Centre of the Asian Institute of Technology in the Asia-Pacific region, as well as with the Africa Rice Center. However, there has been little exploration of partnerships for statistical capacity development through regional economic communities in Africa. Partnerships with bilateral and multilateral agencies were noted at country level, in addition to a few instances of South–South cooperation.

Finding 14. FAO's capacity development in terms of the SDG indicators is in the early stages. The Organization has primarily focused on spreading awareness of the 21 indicators and, more recently, specific indicators in selected countries. It has not yet aligned and coordinated this work with FAO's normative work at country level.

110.   OCS's focus has shifted from setting up the regional/global framework for the 21 SDG indicators in 2016–2018 to country-level support.[40] National training sessions have taken two forms: (1) a three-day training session to create general awareness of the 21 indicators and (2) specific training on one or two selected indicators, Regional statisticians involvement in these training varies per region, similarly with Representations, which might affect the future integration of SDG support with normative work at country level.

111.   FAO is supporting a select number of Members in aligning their national plans, monitoring and reporting with the SDG indicators. In some countries and regions, FAO has provided assistance on matching certain (if not all) indicators to national plans and monitoring/reporting. In others, such support could be welcome.

112.   Nevertheless, there are a number of challenges associated with Organizational support to Member countries. FAO lacks the resources, for example, to support countries in integrating the eight FIES questions into their national surveys in 2020. Some countries use the SDG indicators, while others use different measures that are not equivalent and

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[38] FAO (2012)
[39] FAO (2018d)
[40] It was noted that the initial challenge for OCS was a lack of country demand. This prompted OCS to write to countries and FAO Representations, asking that they request specific training.

different methodology for collecting data. FAO's work and technical assistance on the 21 SDG indicators, meanwhile, comes under a different focus area to FAO's normative work.

Finding 15. As a leading advocate of gender-disaggregated data, FAO has made efforts to bolster Members' capacity to collect such data for analysis. And while collection has been improving, it is not yet systematic across all of FAO's statistical activities.

113.   FAO is striving to build Members' capacity to collect gender-disaggregated data and is a leading advocate of disaggregating data to enable proper gender analysis.[41] Through the World Programme for the Census of Agriculture and through GSARS, FAO developed and provided guidelines on collecting gender-disaggregated data in national censuses and national agricultural surveys with a view to contributing to gender-specific indicators (5.a.1).[42]

114.   FAO's technical assistance in the RLC region led to the incorporation of gender aspects into the agricultural censuses of Peru and the Dominican Republic. Training on gender statistics is also reported to have yielded positive results. In the RAP region, gender perspectives, such as women's land ownership, were incorporated into Bangladesh's agricultural census, while SDG 5.a.1 was integrated into Bhutan's. Incorporating gender perspectives into agricultural censuses for the first time has enabled gender-disaggregated data collection on agricultural landholdings, engagement in agricultural activities, the nature of engagement and strategies for coping with food insecurity (Cambodia).

115.   However, the collection of gender-disaggregated data is still evolving and is not systematic across FAO activities. Several Country Programme Evaluations have highlighted the issue of inconsistency in gender-disaggregated data (for example, in Haiti, Sri Lanka, Somalia, South Sudan, Kyrgyzstan and Bangladesh). Furthermore, evaluations of specific areas – such as livestock and animal health (South Sudan), flood response (Pakistan), emergency response, employment, social protection and tenure issues – that incorporate poverty analysis have reported a lack of or inadequate use of gender-disaggregated data. Likewise, there is little evidence of gender-disaggregated data being used in decision-making.

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[41] FAO (2013a; 2019a)
[42] FAO (2017d)

4.   Conclusions and recommendations

4.1. Conclusions

Conclusion 1: FAO's internal statistical governance does not form a solid basis for well-coordinated, coherent and satisfactory statistical work. While its statistical work remains relevant to its Strategic Framework – even more so in the era of the SDGs and "no-one left behind" – the profusion of divisions involved in statistical activities and confusion over their roles and responsibilities has diluted its effectiveness. Regional knowledge is insufficiently used to shape methodologies and standards.

Conclusion 2: The regular programme resources allocated to FAO's statistical activities, including support work, are not commensurate with the objectives of the statistical workplan. FAO's dependence on extrabudgetary resources for statistical capacity-building creates uncertainty as to the sustainability of that capacity development to support core statistical activities.

Conclusion 3: While progress has been made on quality, the statistics produced and disseminated by FAO are only partly compliant with the SQAF.

Conclusion 4: Legacy tools and current procedures are (often) constraints on progress towards a coherent, modern statistical system. Insufficient harmonization of current procedures, IT support and infrastructure are further limiting progress.

Conclusion 5: FAO's coordinating role and methodological work on the SDGs has raised its profile in the international statistical community, while its outreach work on national standards has increased awareness. Linking FAO's capacity-development work on SDG indicator implementation with its regular activities at country level is crucial to creating statistical and policy alignment.

Conclusion 6: FAO's statistical capacity-development activities are still focused on setting up data-collection systems and pay insufficient attention to how statistics can be embedded in national evidence-based policymaking systems. Gender disaggregation should be systematically incorporated into all FAO statistical activities.

Conclusion 7: Support for strengthening national statistical systems is not systematically integrated into the thinking and planning of FAO's decentralized offices.

4.2. Recommendations

Recommendation 1: FAO should revise its statistics governance to ensure better coordination and coherence of its statistical work.

It will need to (1) ensure that one entity has sufficient authority to ensure oversight and accountability and (2) clarify and concretize responsibilities and reporting lines for the divisions and offices responsible for producing and disseminating statistics. To implement this recommendation, the Evaluation Team suggests the following actions:

- elevating the oversight and responsibilities of the Chief Statistician
- merging the functions of Chief Statistician and Divisional Director of Statistics and giving this entity broader responsibility for managing the statistical activities of all other units.

Recommendation 2: FAO needs to redefine the function of regional statisticians by allocating sufficient resources to allow them to contribute to strategic activities at headquarters level and to operational activities at country level.

For FAO to realize this recommendation, it has to invest in cost-effective options. One model could be to decentralize more positions from statistical units to the neediest regions. This would reduce the workload of the current regional statisticians and strengthen links. Another option would be to use the Junior Professional Programme and South–South Cooperation as forums for assistance.

Recommendation 3: FAO needs to reprioritize regular programming resources for statistical activities and maximize the effective use of extrabudgetary funding with a more strategic capacity-development plan.

To fulfil the statistical goals set out in the annual workplan, FAO needs to allocate a greater share of the budget to its statistical divisions or units. It needs to invest more, in a more sustainable way, in both human resources and infrastructural work. FAO could consider a number of options to maximize the use of funding by:

- reprioritizing resources within the current regular budget to establish a fundraising and resource-mobilization position using cost-share bases between divisions and/or funds;
- creating a rolling plan that sets: (a) long-term strategic objectives, (b) a medium-term plan for priority actions for, say, three years and (c) a multi-year workplan that feeds into a realistic financial plan;
- setting up an internal trust fund;
- leveraging extrabudgetary resources to create a continuity plan to resolve uncertainties in capacity development under regular programmes; and
- negotiating extrabudgetary funds in a timely manner.

Recommendation 4: FAO needs to accelerate actions to improve the quality of its data and IT infrastructure support.

FAO should put in place and enforce an integrated statistical quality management system, covering all statistical activities, to ensure full adherence with existing and new internationally accepted statistical standards and norms.

FAO should implement procedures and information technology tools that facilitate statistical processes and outputs, standardized within an overall data-warehousing strategy, to improve the quality of its data.

Recommendation 5: FAO should increase the coverage of its statistical capacity-development initiatives to enable countries to collect, produce and disseminate accurate, reliable and timely statistics and to use statistical information, including gender-disaggregated data.

The latter could be done by blending FAO's capacity-development activities into country-level sectoral plans and by bringing the broader group of (internal and external) stakeholders together early in the process.

FAO and its field offices should ensure a holistic approach to statistical capacity development along the data value chain to meet data demand (including gender-disaggregated data) in the national policymaking arena and to the development and reporting of sectoral plans.

Recommendation 6: FAO decentralized offices should contribute systematically to the development and implementation of relevant NSDS sectors at country level.

FAO regional offices should take the lead whenever possible and provide technical assistance to ensure that the production and use of national agricultural statistics is given the appropriate weight in NSDS. The policy work of FAO's decentralized offices should support the development and implementation of strategic plans for agricultural statistics, including the strengthening of national coordination mechanisms for statistics as part of the NSDS.

References

AQUASTAT. n.d. FAO's Global Information System on Water and Agriculture [online]. Rome, FAO [cited 4 January 2020]. http://www.fao.org/aquastat/en/

FAO. 2008. *Independent Evaluation of FAO's Role and Work in Statistics 2008*. Programme Committee document 100/3a. Rome. (also available at http://www.fao.org/tempref/docrep/fao/meeting/014/k2921e.pdf).

FAO. 2012. *Action Plan of the Global Strategy to Improve Agricultural and Rural Statistics For Food Security, Sustainable Agriculture and Rural Development*. A joint initiative of FAO, the World Bank and the United Nations Statistical Commission (UNSC). Rome. (also available at http://www.fao.org/3/i3082e/i3082e.pdf).

FAO. 2013a. FAO *Policy on Gender Equality: Attaining Food Security Goals in Agriculture and Rural Development*. Rome. (also available at http://www.fao.org/3/a-i3205e.pdf).

FAO. 2013b. *Reviewed Strategic Framework*. Conference document 2013/7. Rome. (also available at http://www.fao.org/3/mg015e/mg015e.pdf).

FAO. 2014. *The FAO Statistics Quality Assurance Framework*. Rome. (also available at http://www.fao.org/3/i3664e/i3664e.pdf).

FAO. 2015. *Evaluation of FAO's contribution to knowledge on food and agriculture*. Office of Evaluation thematic evaluation series. Rome. (also available at http://www.fao.org/3/a-bd904e.pdf).

FAO. 2016. *Agricultural Integrated Survey (AGRIS): Rationale and Methodology*. Submission to the twenty-sixth session of the Asia and Pacific Commission on Agricultural Statistics, 15–19 February 2016, Thimphu, Bhutan. Rome, FAO Statistics Division. (also available at http://www.fao.org/fileadmin/templates/ess/documents/apcas26/presentations/APCAS-16-6.2.3_-_FAO_-_Agricultural_Integrated_Survey__AGRIS__Rationale_and_Methodology.pdf)

FAO. 2017a. *FAO's Country Programme Evaluation in Cameroon 2013–2017*. Office of Evaluation Country Programme Evaluation Series. Rome. (also available at http://www.fao.org/3/CA0864FR/ca0864fr.pdf).

FAO. 2017b. *Evaluation of FAO's contribution in the Republic of the Niger*. Office of Evaluation Country Programme Evaluation Series. Rome. (also available at http://www.fao.org/3/a-bd619f.pdf).

FAO. 2017c. *Évaluation du Programme de la FAO en Côte d'Ivoire 2012–2016*. Office of Evaluation Country Programme Evaluation Series. Rome. (also available at http://www.fao.org/3/a-bd697f.pdf).

FAO. 2017d. *Guidelines for collecting data for sex-disaggregated and gender-specific indicators in national agricultural surveys*. Global Strategy to improve Agricultural and Rural Statistics (GSARS). Rome. (also available at http://gsars.org/wp-content/uploads/2017/10/GENDER-FINAL_Guideline_May2017-Completo-10-1.pdf).

FAO. 2018a. *Evaluation of FAO's Contribution to The Kingdom of Cambodia*. Office of Evaluation Country Programme Evaluation Series. Rome. (also available at http://www.fao.org/3/ca4448en/ca4448en.pdf).

FAO. 2018b. *Evaluation of FAO's Contribution to the Republic of Kenya.* Office of Evaluation Country Programme Evaluation Series. Rome. (also available at http://www.fao.org/evaluation/evaluation-digest/evaluations-detail/en/c/1147449/).

FAO. 2018c. *FAOSTAT User Consultation 2018*. Rome, FAO Office of the Chief Statistician. (also available at http://www.fao.org/forestry/48724-0ffc5805e19ae3d535167beb5faf4fd3a.pdf).**FAO.** 2018d. *The Agricultural Integrated Surveys Programme – AGRISurvey*. Rome. (also available at http://www.fao.org/3/ca1459en/CA1459EN.pdf).

FAO. 2019a. *Evaluation of FAO's Work on Gender*. Office of Evaluation thematic evaluation series. Rome. (also available at http://www.fao.org/3/ca3755en/ca3755en.pdf).

FAO. 2019b. *Programme Evaluation Report 2019*. C 2019/4. Rome. (also available at http://www.fao.org/3/mz027en/mz027en.pdf).

FAO. 2019c. *FAO Statistical Programme of Work 2018–19*. Rome, Office of the Chief Statistician. (also available at http://www.fao.org/3/CA3009EN/ca3009en.pdf).

FAO. 2020a. Gender and Land Rights Database [online]. Rome [cited 4 January 2020]. http://www.fao.org/gender-landrights-database/en/

FAO. 2020b. Sustainable Development Goals [online]. Rome [cited 12 January 2020]. http://www.fao.org/sustainable-development-goals/indicators/en/

FAOSTAT. 2019. Food and agriculture data [online]. Rome, FAO [cited 4 January 2020]. http://www.fao.org/faostat/en/#home

FAO and the Pacific Community. 2018. *Pacific Strategic Plan for Agricultural and Fisheries Statistics: Strengthening the evidence base for achievement of the Sustainable Development Goals*. Bangkok. (also available at http://www.fao.org/3/I8344EN/i8344en.pdf).

FAO, IFAD, UNICEF, WFP and WHO. 2019. *The State of Food Security and Nutrition in the World 2019. Safeguarding against economic slowdowns and downturns*. Rome, FAO. (also available at http://www.fao.org/3/ca5162en/ca5162en.pdf).

IDA – International Development Association. 2020. What is IDA? [online]. Washington, DC, World Bank Group [cited 4 January 2020]. http://ida.worldbank.org/about/what-is-ida

INDDEX Project. 2018. Data4Diets: Building Blocks for Diet-related Food Security Analysis [online]. Boston, MA, Tufts University [cited 4 January 2020]. https://inddex.nutrition.tufts.edu/data4diets.

Kikuchi, M., Kijima, Y., Haneishi, Y. & Tsuboi, T. 2014. A Brief Appraisal of Rice Production Statistics in Uganda. *Tropical Agriculture and Development*, 58: 78–84. (also available at https://pdfs.semanticscholar.org/f94f/179f753d5316b39374b2b620a4521be0aa5a.pdf?_ga=2.343 05313.1073017675.1578150604-674678938.1557680745).

UN ECOSOC – United Nations Economic and Social Council. 2017. *Report of the Inter-agency and Expert Group on Sustainable Development Goal Indicators*. Note by the Secretary-General. E/CN.3/2017/2. New York. (also available at https://unstats.un.org/unsd/statcom/48th-session/documents/2017-2-IAEG-SDGs-E.pdf).

United Nations General Assembly. 2014. *Fundamental Principles of Official Statistics.*
A/RES/68/261. Resolution adopted by the General Assembly on 29 January 2014. New York. (also
available at https://unstats.un.org/unsd/dnss/gp/FP-New-E.pdf).

UNSD. 2017. *Global indicator framework for the Sustainable Development Goals and targets of the
2030 Agenda for Sustainable Development.* In: Statistical Commission Decisions [online]. UNSD
website. New York [cited 3 January 2020]. https://unstats.un.org/unsd/statcom/decisions-
ref/?code=48/101

World Bank and FAO. 2010. *Global Strategy to Improve Agricultural and Rural Statistics.* Report
No. 56719–GLB. Washington, DC and Rome. (also available at
http://www.fao.org/fileadmin/templates/ess/documents/meetings_and_workshops/ICAS5/Ag_Sta
tistics_Strategy_Final.pdf).