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para la
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y la
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**Evaluation of Programme 2.2.2 (Food and Agricultural Information) –
Activities Related to Agricultural Statistics in the Context of FAOSTAT**

Table of Contents

	Pages
EXECUTIVE SUMMARY	1
I. INTRODUCTION	2
<i>Evaluation approach</i>	3
II. STATISTICAL FUNCTIONS AND INSTITUTIONAL ARRANGEMENTS	4
III. IMPLEMENTATION AND RESULTS	8
<i>Norms and standards function</i>	9
<i>Data compilation function</i>	11
<i>Provision and dissemination of statistics function</i>	15
<i>Development function</i>	17
IV. SUMMARY ASSESSMENT	19
<i>Relevance to the Organization's strategic objectives and to member countries</i>	19
<i>Adequacy of working arrangements among main statistical units</i>	21
<i>Quality of outputs, services and effectiveness</i>	23

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V. ISSUES, CONCLUSIONS AND RECOMMENDATIONS	24
<i>Key issues and conclusions</i>	24
<i>Recommendations</i>	28
ANNEX 1: COMMENTS OF THE EXTERNAL REVIEW PANEL	31
ANNEX 2: MANAGEMENT RESPONSE	33
ANNEX 3: ACRONYMS	38

EXECUTIVE SUMMARY

1. FAO's work on the collection and dissemination of statistical information on food and agriculture represents a core element of the Organization's mandate: Article I of the constitution requires the Organization to collect, analyse, interpret and disseminate information relating to nutrition, food and agriculture.
2. The present review has been undertaken as a desk study by the Evaluation Service, with the assistance of short external consultancies. Its purpose is to take critical stock of FAO statistical activities, in particular to assess the overall relevance and performance of such activities in meeting user needs for reliable statistical data, and to identify key issues and lessons. Among its aims is to contribute to ongoing in-house consultations on appropriate solutions and long-term commitments concerning the Corporate Database for Substantive Statistical Data (FAOSTAT).
3. Key findings of the review are:
 - FAO is recognized as the primary source of global statistics on food and agriculture, which are widely used by many external users around the world, as well as by internal users for monitoring and analytical work, including major FAO publications. The Member Nations also appreciate and accord priority to FAO's statistical work. However, it faces many challenges and issues (see paragraphs 5–7 and 74–75).
 - During the period under review, the system was under pressure with regard to maintaining and improving its quality and coverage as well as meeting the increasing demands for additional statistical data (see paragraphs 8 and 59).
 - FAO's core statistical database, FAOSTAT, has been affected by technical and data quality problems (see paragraphs 11, 32–33 and 78–79).
 - Decreased Regular Programme (RP) resources have been committed to statistics during the period, particularly for the Statistics Division (ESS). This has made it difficult to maintain some of the traditional data series, let alone respond to new data demands or proceed quickly with the much needed upgrading of FAOSTAT (see paragraphs 18 and 86–87).
 - Furthermore, many countries face serious constraints in their national statistical capacity, and the quality of country data reported to FAO by a number of countries has been declining. This affects the Organization's ability to maintain and enhance the integrity of its databases (see paragraphs 11, 66–67 and 83–84).
 - At the same time, there is growing demand for new or additional information and analyses in response to emerging international concerns, particularly regarding the alleviation of hunger and poverty (see paragraphs 11, 42–43 and 82).
 - FAO has one of the least centralized statistical systems of any international agency, and this has adverse effects on coordination and quality assurance among many units engaged in statistical work. There is a need for an effective mechanism that could minimize the duplication of statistical activities and allow the sharing of expertise and experience (see paragraphs 69–71 and 91).
 - The Medium-Term Plan (MTP) 2004–2009 demonstrates the Organization's intention to address the limitations imposed by the current FAOSTAT system (with the planned launch of FAOSTAT2 in 2005), and to improve the analytical depth of its statistical work (see paragraphs 40–41 and 88).
4. Key recommendations are:
 - the Organization's commitment to ensuring adequate resources for its statistical activities on the one hand, and increased advocacy for mobilizing international support to strengthening national statistical capacity on the other (see paragraph 101);

- supporting statistical development and data compilation at the country level by introducing simplified survey and data analysis methods, reducing countries' reporting burden, streamlining the data collection and reporting process, involving complementary data producers, supporting the participation of subject matter experts in statistical working parties, and improving the coordination and integration of activities between ESS and decentralized offices (see paragraph 102);
- strengthening relations with member country experts – including establishing a global forum – in order to address data quality and methodological problems, exchange information and enhance the transparency of FAO's statistical work (see paragraph 103);
- creating an Advisory Panel on Statistics to advise the Organization regarding data needs and analytical approaches, measures to improve responsiveness, consolidation of statistical methods, and in particular the focus and scope of key areas for future FAO work in statistics. The last of these includes distinguishing priority areas from areas and activities of lesser priority where FAO's involvement could be curtailed (see paragraphs 104–105);
- enhancing the internal commitment to statistical quality: in ESS, by upgrading and strengthening the Basic Data Branch (ESSB), in view of its central role in maintaining and improving the largest component of the corporate database, and through measures for more integrated operations and synergy among the division's three units; and, at the corporate level, by creating an internal coordinating mechanism on FAO statistics to review methodologies, identify priority data needs and propose corrective action, where necessary (see paragraph 106); and
- ensuring an adequate level of resources for FAO's statistical activities, particularly for the successful development and operation of FAOSTAT2. The latter's success is essential, and the system should be designed in modules so that it can come into operation progressively, will not be overwhelmed by its own complexity and can be implemented in line with the available funding (see paragraph 107).

I. INTRODUCTION

5. FAO's work on the collection and dissemination of statistical information on food and agriculture represents a core element of the Organization's mandate. Article I of the constitution requires the Organization to collect, analyse, interpret and disseminate information relating to nutrition, food and agriculture (the term "agriculture" and its derivatives includes fisheries, marine products, forestry and primary forestry products). The first session of the FAO Conference in 1945 provided the rationale: "If FAO is to carry out its work successfully it will need to know where and why hunger and malnutrition exist, what forms they take, and how widespread they are. Such data will serve as a basis for making plans, determining the efficacy of measures used, and measuring progress from time to time."

6. This statement also applies beyond the Organization: other international organizations, governments, commercial companies, farmers' associations and research institutions all need credible, timely, up-to-date and appropriate information as a basis for rational decision-making.

7. Several institutions provide agricultural data, including universities, industry organizations and national governments. International organizations such as the World Bank, the International Monetary Fund (IMF), the World Trade Organization (WTO) and the Organisation for Economic Co-operation and Development (OECD) have a major role in supplying statistics across all economic sectors. Both within and outside the United Nations system, FAO is acknowledged as the leading agency for food and agricultural statistics and as the only source of global fishery statistics.

8. Since its inception, the Organization has endeavoured to maintain the best possible capacity to process, validate, harmonize and analyse incoming data and generate accurate information. Improving the quality, transparency and coverage of, as well as access to, FAO's

statistical data has been an important priority and includes assisting countries in agricultural statistics capacity building.

9. The statistical system established and maintained by FAO is characterized by global coverage based on national statistical data from member countries (supplemented by data from other sources), inter-country comparability based on common definitions and standards, and a comprehensive scope covering key aspects of the production, trade and consumption of the main food and agricultural commodities for each member country. As national official statistics are the primary source of information, data quality depends substantially on the capacity of national statistical systems. FAO's statistical work benefits from integration with the Organization's other information and data activities and from networks of contacts at a range of technical and statistical institutions.

10. The importance of statistics has constantly been reiterated in the Organization's policy documents and is recognized by its Governing Bodies: agricultural statistics development and the World Agricultural Information Centre (WAICENT) – FAO's corporate programme on information management and dissemination – were among the protected priority areas endorsed by the 1999 FAO Conference. The current Strategic Framework highlights statistical activities under Objective E: Improving Decision-Making through Provision of Information and Assessments and Fostering of Knowledge Management for Food and Agriculture, in particular E.1: An Integrated Information Resource Base, with Current, Relevant and Reliable Statistics, Information and Knowledge made Accessible to all FAO Clients. The need to improve fishery statistics and information has long been recognized by the Committee on Fisheries (COFI) which, at its next session in 2003, will consider a draft FAO Strategy for Improving Information on the Status and Trends of Capture Fisheries (see Box 2).

11. A number of issues influence the quality of FAO's statistical activities. Because the available (official) data for a number of countries are incomplete in terms of the range of variables and areas covered, the primary data in FAO databases represent not only the information returned by countries, but also estimates introduced by FAO. Differences in statistical concepts have led to problems with the comparability of statistics, including incompatibilities among agricultural census and survey results, and the accuracy of the data varies among countries. At the same time, there is a growing demand for new or additional information and analyses in response to emerging international concerns regarding, for example, the alleviation of hunger and poverty. In addition, FAO's core statistical database, the Corporate Database for Substantive Statistical Data (FAOSTAT), has been affected by technical and data quality problems.¹ Changes in the Organization's information management and dissemination policy (in particular the creation of WAICENT) have affected the operations of "traditional" statistics units and, to some extent – in the case of ESS – their resource allocations.

Evaluation approach

12. The primary purpose of this review is to take critical stock of FAO's statistical activities as part of its role as a centre of technical excellence, in particular to assess the overall relevance and performance of these activities in meeting user needs for reliable statistical data, and to identify key issues and lessons. The review focuses on the Organization's statistical compilation, analysis and dissemination systems (particularly those related to FAOSTAT) and its technical support on statistical development and other related aspects for countries and regional organizations. Among its aims is to contribute to ongoing in-house consultations on appropriate solutions and long-term commitments concerning FAOSTAT.

¹ At its May 2001 session, the Programme Committee was advised of the growing difficulties in managing the FAOSTAT working system and maintaining the quality of FAO's data collections.

13. The review was undertaken as a desk study by the Evaluation Service, with input from short external consultancies² to assist on the overall approach and scope of the review, to review the presentation of data on FAO's statistical web sites and to discuss intermediate findings. The review thus involved:

1. discussions about statistical activities with the staff concerned, specifically in three units – ESS, the Fishery Information, Data and Statistics Unit (FIDI) and the Forestry Planning and Statistics Branch (FONS) – and review of the available documentation;
2. the involvement of external experts to guide the review and analyse particular issues;
3. questionnaire surveys of FAO member countries, key international partners and selected internal users of FAO statistical information;
4. desk review of the evaluations of projects that support national statistical development (Evaluation Service staff participated in two of these evaluations); and
5. a review of this report by an external peer panel (see Comments of the External Review Panel).

II. STATISTICAL FUNCTIONS AND INSTITUTIONAL ARRANGEMENTS

14. The FAO statistical system, FAOSTAT, comprises data on 800 agricultural commodities and 250 fishery and forestry products, covering 230 countries and territories, including their aggregates at the regional and subregional levels. The system covers time series data on demography, agricultural, fishery and forestry production (agricultural resources and inputs, production outputs, external trade, utilization, commodity balances and prices), trade flows (crops, livestock, fishery and forestry primary and derived products, agricultural inputs and machinery) and other databases on selected subjects, such as agricultural censuses, economic accounts and development aid. It also includes aggregates and indicators derived by FAO for analytical purposes. The main statistical data sets are maintained in FAOSTAT as part of WAICENT.

15. In FAO, prime responsibility for statistics rests with ESS, which gathers, analyses and disseminates statistical data on world food and agriculture, provides advice and assistance to FAO members and supervises statisticians in the Organization's Regional and Subregional Offices. For the fishery and forestry sectors, statistical work is handled separately by smaller units in the Fisheries and Forestry Departments, i.e. FIDI and FONS, both of which perform functions similar to those of ESS, in their respective sectors. The main features of these three units are summarized in Table 1, which provides their respective programmes, main areas of work and staffing (as of mid-2002).

Table 1: Main Programmes and Units Responsible for Statistical Activities³			
Programmes/Programme Entities (PEs)	Main areas of work	Unit	Staff (posts) Prof./GS
<u>Programme 2.2.2</u> • PE 222P1 (Agricultural Resources, Inputs, Income)	Analyses economic and agricultural statistics and	<u>ESS</u> ESSA ⁴ (Statistical Analysis Service)	Prof. 8/GS 7

² The consultants were: Mr. D. Casley, formerly with the World Bank and FAO; Mr. E. Swires-Hennessy, of the Local Data Unit, Wales; and Mr. T. Griffin, formerly with the ECE.

³ As of mid-2002, PEs 222P1 and P2 correspond to former Sub-programme 2221 (Statistical Processing and Analysis) and PEs P3 and A1 to Sub-programme 2222 (Statistical Development). Only staff who are involved in statistical work – either full or part time – were counted.

⁴ Recent additional work areas for ESSA include PE 220A1 (Food Insecurity and Vulnerability Information for Better Policy Targeting: the derivation and analysis of food and nutrition indicators; global assessment and monitoring of progress towards food security targets), PE 220A2 (WFS – Mid-Term Review in 2006, to assess changes in consumption distribution), PE 220P1 (monitoring WFS and Millennium Development Goals in the context of the UN system).

Table 1: Main Programmes and Units Responsible for Statistical Activities³			
Programmes/Programme Entities (PEs)	Main areas of work	Unit	Staff (posts) Prof./GS
<p>Statistics, including Gender Profiles)</p> <ul style="list-style-type: none"> • PE 222P2 (Agricultural Production, Trade Statistics and Food Balance Sheets) • PE 222P3 (Agricultural Statistics Development) • PE 222A2 (FAO/World Bank/USDA Initiative for Agricultural Statistics in Africa-Phase I) • PE 222S1 (Technical Support to Member Nations and the Field Programme) 	<p>demographic data; compiles, evaluates and disseminates statistics on agricultural inputs and land use and agricultural prices; derives agricultural output, undernourishment rates and productivity indicators; responsible for environmental statistical issues.</p> <p>Compiles, critically evaluates, maintains and disseminates statistics on production, trade and domestic supply and utilization accounts for crops and livestock products, food availability and other derived statistics; disseminates metadata and data quality indicators.</p> <p>Develops and improves national systems of food and agricultural statistics; promotes the evaluation, application and dissemination of appropriate methodologies, especially for agricultural censuses and surveys, including training, seminars and other technical meetings.</p> <p>Facilitates the collection and dissemination of data in areas of special social and economic interest.</p> <p>Provides technical support in project formulation and backstopping.</p>	<p>ESSB (Basic Data Branch)</p> <p>ESSS (Statistical Development Service)</p>	<p>Prof. 11/GS 20</p> <p>Prof. 7/GS 3⁵</p>
<p><u>Programme 2.3.1</u></p> <ul style="list-style-type: none"> • PE 231P1 (Provision of Fishery Information and Statistics) • PE 231S1 (Advice and Technical Support to Member Nations and Regional Fisheries Bodies) 	<p>Compiles, critically evaluates, maintains, disseminates, monitors and analyses statistics on fishery production from capture fisheries and aquaculture, production and trade of fishery commodities, fish consumption, fishery fleets and employment in fisheries. Undertakes training and the development of methodologies, tools (e.g. ARTFISH), guidelines and references, as well as field projects.</p>	<p>FIDI (Fishery Information, Data and Statistics Unit)</p>	<p>Prof. 5.5/GS 8</p>
<p><u>Programme 2.4.3</u></p> <ul style="list-style-type: none"> • PE 243P3 (Forestry Products Production and Trade Statistics) 	<p>Collects, processes, analyses and disseminates national, regional and international statistics on forest and forest industry resources, production</p>	<p>FONS (Forestry Planning and Statistics Branch)</p>	<p>Prof. 1.5/GS 7</p>

⁵ Does not include four regional/subregional statistician posts in the Regional Offices for Africa (RAF), for Asia and the Pacific (RAP), and for Latin America and the Caribbean (RLC), as well as for the Sub-regional Office of Southern and East Africa (SAFR).

Table 1: Main Programmes and Units Responsible for Statistical Activities³			
Programmes/Programme Entities (PEs)	Main areas of work	Unit	Staff (posts) Prof./GS
	and trade and other important socio-economic variables; provides technical advice and support on national forest programmes, training, production of methodologies, tools, guidelines and references; backstops field projects.		

16. The main statistical series produced by these units are contained in FAOSTAT, which is also where most institutional collaboration between ESS and the statistical units takes place. In addition, the Fisheries and Forestry Departments develop and maintain their own databases, such as the Computer System for Global Fish Catches (FISHSTAT Plus) and the Forestry Information System (FORIS), which contain more detailed and/or specific information that is not covered by FAOSTAT. Institutionally, they also tend to work with separate international commissions and other bodies regarding their specific statistical activities. ESS on the other hand collaborates with regional statistical commissions (for which it provides the secretariat) and UN sister organizations with a focus on agriculture.

17. Statistical activities within FAO are not limited to the programmes and units listed in Table 1 – in fact many units maintain their own specialized databases in their respective technical subject areas, with varying degrees of interface with the main system. For example, Programme 222 (the Commodities and Trade Division [ESC]) has a long tradition in statistics on selected internationally traded commodities. At the same time, an increasing demand for data on food insecurity and for early warning and forecasting purposes has led to statistical data being collected, processed and disseminated by other FAO units. New initiatives that crucially depend on statistical inputs have come into being, such as Food Insecurity and Vulnerability Information and Mapping Systems (FIVIMS). In the forestry sector, the Forest Resources Development Service (FORM) has conducted assessments of forest resources at the international level since 1947, covering mainly Global Forest Resources Assessments (FRAs) and support to countries for national forest assessments.

18. Table 2 shows the Regular Programme (RP) resources (budget and expenditure) for the main statistical programmes during 1996–2001. The figures are, however, not always strictly comparable owing to changes in the programme structure. Two sub-programmes/programme entities (PEs) that have remained relatively identical – Statistical Development (S-P 2222, PE 222A2/P3/S1) and Statistical Analysis and Basic Data – saw their budgets decline by 23.5 and 3.3 percent, respectively. The core statistical activities within ESS have faced an apparent budget reduction of 14.1 percent. (Some of the budget reductions were due to the establishment of FIVIMS and the Information Resources and Virtual Library sub-programmes/PEs.) In comparison, the decrease in RP resources for all technical and economic programmes during the same period was 2.3 percent. The budget for fishery statistics saw an increase in 1998–1999, returning to its previous levels in 2000–2001; however, in terms of expenditure, fishery statistics declined by 15.5 percent. For forestry statistics, RP resources are not strictly comparable, as in 2000–2001 the programme entity structure, and thus the budget composition, changed.

Sub-programmes/ Programme Entities (PEs)	1996–1997		1998–1999		2000–2001	
	Budget	Expenditure	Budget	Expenditure	Budget	Expenditure
2221 (Statistical Analysis and Basic Data); 222P1/P2	8 891	8 958	8 111	8 344	8 599	7 753
2222 (Statistical Development); 222A2/P3/S1	4 602	4 443	3 624	3 334	3 521	3 303
2223 (WAICENT/FAOSTAT); 222P6	2 041	2 253	1 647	1 485	1 227	1 017
222 Total	15 534	15 654	13 382	11 678	13 347	12 073
2312 (Fishery Data and Statistics); 231P1	3 507	4 181	3 809	4 245	3 598	3 533
2432 (Forestry Statistics and Sector Analysis); 243P3	1 199	1 426	1 480	1 539	1 000	860
Total for statistics	20 240	21 261	18 671	18 947	17 945	16 466

19. Staff resources in ESS declined significantly as a consequence of resource cuts and the transfer of functions to other units. ESS established posts (including regional and subregional officers) decreased from 36 professional posts in biennium 1994–1995 to 32 in biennium 2002–2003, with a low of 29 professional posts in biennium 2000–2001. However, the number of filled positions has always remained significantly lower: between a maximum of 29 in biennium 1994–1995 and a minimum of 25 in biennium 2001–2002. The General Service experienced larger losses: between biennia 1994–1995 and 2000–2001, established posts declined from 57 to 38, or 33 percent; in terms of filled positions, the loss was more than 40 percent. Most ESS staff losses were caused by retirement of the incumbents without replacement, while several posts were transferred to other units, mostly in connection with the establishment of WAICENT. One direct effect of this was the discontinuation of producer price statistics in 1998 (the most recent price data in FAOSTAT refer to 1995).

20. During the review period, the Field Programme for statistics comprised 99 projects. ESS leads the other units in terms of both number of field projects and budget volume (see Table 3). In geographical terms, the Africa region received the largest share of resources, i.e. 41 percent. (For fishery projects, the share was 46 percent, for ESS projects 43 percent, and for forestry projects 31 percent.)

⁶ The figures are indicative only as the new Programme of Work and Budget (PWB) structure and organizational changes have made direct comparison impossible. For example, the budget for ESS units disregards FIVIMS and represents essentially only core statistical activities. For FONS, the creation of a new PE 244P1 (Forestry Information System) has led to an apparent reduction in the budget.

Sector	Africa		Asia		Europe		Inter-regional		Latin America		Near East		Total	
	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)
ESS	32	13 932	20	11 457			1	200	14	2 674	9	4 446	76	32 709
FIDI	11	1 836	2	465			1	1 568			1	118	15	3 987
FONS	3	2 291	1	920	1	2 571	2	616	1	986			8	7 384
Total	46	18 059	23	12 842	1	2 571	4	2 384	15	3 660	10	4 564	99	44 080

21. In terms of project numbers and funding sources, the Technical Cooperation Programme (TCP) funds the largest number of projects; although TF/GCP projects account for greater budget volume (see Table 4).

Fund	Africa		Asia		Europe		Inter-regional		Latin America		Near East		Total	
	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)	Proj. No.	Total budget (US\$'000)
TCP	31	6 051	14	2 962					12	2 128	7	1 627	64	12 768
TF/GCP	3	9 334	7	9 447	1	2 571	4	2 384	1	986			16	24 722
TF/UTF	4	842	2	433					2	546	3	2 937	11	4 758
UNDP	8	1 832											8	1 832
Total	46	18 059	23	12 842	1	2 571	4	2 384	15	3 660	10	4 564	99	44 080

III. IMPLEMENTATION AND RESULTS

22. The overall objective of statistical work is essentially twofold: i) to provide users within and outside FAO with timely, reliable and comparable statistical information to support the monitoring and analysis of the food and agriculture (including fishery and forestry) situation and issues; and ii) to enhance the capacity of national governments to develop and use their statistical systems.

23. These objectives cover four major functions:

- **Norms and standards function:** FAO develops and maintains statistical definitions, classifications, standards and methodologies and coordinates these with other intergovernmental agencies in order to facilitate mutually compatible approaches to data collection, processing and analysis. As well as producing numerous methodological publications (such as handbooks, guidelines and technical papers), FAO leads or participates in the regular coordination meetings of regional and/or thematic statistical commissions, committees and working groups. Collaboration among national and international statisticians is also encouraged through support to networking.

- **Data compilation function:** This function includes both gathering data and processing them for inclusion in FAO statistical series. To varying degrees, FAO is involved in promoting the collection and use of statistics; collating various statistics from countries, regional bodies and industry (e.g. for marketing and trade data); undertaking first-level checks of the data received for internal consistency or anomalous trends; investigating anomalies with the countries concerned; and publishing statistics on the various aspects of agriculture, fisheries and forestry. Statistics supplied by national authorities are routinely adjusted when mistakes are obvious, better data are available from other bodies or countries agree with FAO estimates.
- **Service function** (provision and dissemination by FAO of current, reliable and relevant statistics): The production and publication of statistical yearbooks was initiated by the International Institute of Agriculture (IIA – a forerunner to FAO) in 1910, and work on the first World Agricultural Census was launched in 1930. In 1947, FAO took over these tasks, and since 1950 it has been responsible for providing the framework and guidance for the decennial programme of the World Agricultural Censuses. FAO started to produce analytical studies of global concern in 1946 with the First World Food Survey. World Food Surveys are published at regular intervals and serve as a basis for discussions in key fora. Other outputs include statistical bulletins, circulars, compendiums, food balance sheets, studies and analyses, and various other publications.
- **Development function:** In order to help build capacity for improved information management at the national and regional levels, FAO customizes standard methodologies and generic software tools for statistics gathering and processing by countries, according to their needs and statistical set-ups, and organizes regular training on statistical methodologies and practices. In addition, it supports countries and other partners through direct advice and field projects. In some cases, FAO also provides basic equipment that is indispensable for the processing of statistical data, such as computer hardware and software.

Norms and standards function

24. ESS produces comprehensive publications on statistical methods and standards in FAO's Statistical Development Series. Recent publications include the Programme for the World Census of Agriculture 2000 (1995), which provides guidelines for national censuses of agriculture conducted during the decade 1996–2005 and including – for the first time – environment and sustainable development issues and gender-disaggregated information. Supplementary guidelines deal with the improvement of statistics on women (1996), employment (1997) and aquaculture (1997). Other manuals focus on multiple-frame agricultural surveys (1996 and 1998), economic accounts for food and agriculture (1996) and technical conversion factors for agricultural commodities. There is also a range of publications (including training manuals) on concepts, definitions and methodologies. As a rule, these documents reflect accepted international standards and approaches, and are frequently scrutinized by expert consultations organized by FAO, such as the Working Group on Trade Statistics, which it founded in the last decade.

Box 1: Food balance sheets

A food balance sheet (FBS) presents a comprehensive picture of the pattern of a country's food situation during a specified reference period. The FBS shows the sources of supply and the utilization of each food item, i.e. each primary commodity and a number of processed commodities that are potentially available for human consumption. The total quantity of foodstuffs produced in a country, added to the total quantity imported and adjusted to any change in stocks that may have occurred since the beginning of the reference period gives the supply available during that period. Regarding utilization, quantities are differentiated according to whether they are exported, fed to livestock, used for seed, used in manufacture, put to other uses, lost during storage and transportation or used as food supplies for human consumption. The per capita supply of each food item that is available for human consumption is obtained by dividing the respective quantity by the number of people who partake of it. Data on per capita food supplies are expressed in terms of quantity and, by applying appropriate food composition factors for all primary and processed products, caloric value and protein and fat content.

These data are crucial to analysis and policy-making as they are a vital key to understanding the dimensions of malnutrition and hunger in the world. They provide very useful information about where food insecurity is most prevalent and for monitoring food security trends over time. They are also used for projecting future food insecurity. FAO food balance sheets are a valuable supplement to two major statistical publications, the *FAO Production Yearbook* and the *FAO Trade Yearbook*, as they present production and trade statistics in the supply/utilization setting.

25. For decades, the food balance sheets (FBS) developed by FAO have made a key contribution to research on food insecurity and malnutrition and are widely used and cited by research economists and other scholars, as well as by public health officials and aid or development agencies.⁷ A *Handbook for the Preparation of Food Balance Sheets* and several related publications have been prepared and distributed to a large number of users.⁸ Users are also given guidance on the data, and great effort has been made to monitor the quality of data and to improve their usefulness. Nonetheless, as FBS are compiled with data from national sources that vary in quality and documentation – especially regarding basic data – there remain concerns about the quality of estimates.

26. Concerns have also been voiced that the methodologies and guidelines promoted by FAO are not sufficiently geared towards poorer developing countries that lack the financial and human resources to carry out full-blown censuses or comprehensive surveys. For example, in 2001, an FAO-organized workshop in Pretoria, South Africa (African Commission on Agricultural Statistics) recommended that FAO should carry out methodological experiments and studies on, among other issues, alternative methods for data collection on crop area and production.

27. FIDI undertakes statistical development and coordination actions at the international and national levels:

- At the international level, it promotes the use of standard international classifications and definitions, mainly through systematic consultation and coordination with other fishery agencies responsible for international fishery statistical activities through the

⁷ FBS data are most commonly used in the citation of daily intakes of energy, fat, protein and other nutrients, and are used by countries, international agencies and researchers to identify shortfalls or surplus in a nation's energy and nutrient intake or to examine the availability of a particular commodity or class of commodities.

⁸ Owing to differences in definitions, data gathering, concepts and methodologies over time and among countries, as well as to possible errors in estimation, the validity of FBS data depends on the quality and similarity of the data, definitions and methodologies in the countries involved over time. In order to facilitate comparisons, FBS data for past years are regularly revised.

Coordinating Working Party on Fishery Statistics (CWP),⁹ but also with national administrations.

- At the national level, FIDI provides technical assistance to countries in enhancing their capacity to collect, process and analyse fishery statistical data.¹⁰ Activities include the development of generic microcomputer software that can be tailored to meet the needs of national fishery statistical systems while complying with international standards and requirements,¹¹ the provision of methodological guidelines in applied fishery statistics and computing (e.g. *Guidelines for the routine collection of capture fishery data*) and the holding of national- and regional-level training courses and workshops focusing on integrated fishery statistical systems and the methodological and operational aspects of catch and effort statistical surveys.

28. During the period under review, FIDI has been developing the Fisheries Global Information System (FIGIS),¹² aimed at providing policy-makers with timely, reliable strategic information on fishery status and trends on a global scale, including FAO's fishery statistics. Organized in a database, this information is presented in the form of fact sheets illustrated by maps, images and statistical graphics constructed from available time series. It is published via the Internet, through CD-ROMs and in printed form. CWP reviewed FIGIS as a tool for assembling fishery status and trends reports (and other fishery information), and accepted it as an appropriate and practical mechanism, with the proviso that it rely on the commitment of fishery information sources to use it as an up-to-date, high-quality monitoring system on the status and trends of world fishery resources. To this end, FIGIS promotes standards and improved practices for the conduct of fisheries and fisheries-related activities. Owing to varying capabilities in member countries, the underlying principle is to use the "best available scientific evidence" rather than to try to apply uniform quality standards.

29. FONS often works together with other technical forestry units to provide technical advice and support to member countries to assist in the planning and implementation of national forest programmes through the production of methodologies, tools, guidelines and references, as well as training and field projects. Using extra-budgetary funds, pilot studies have been undertaken to develop and test effective data gathering and analysis methodologies, sometimes as part of an agricultural census (e.g. in Togo under GCP/TOG/014/EC).

Data compilation function

30. The data compilation function, together with the dissemination function, is perhaps the most widely known FAO statistical activity. Because it relies mostly on national sources, FAO is involved to varying degrees in promoting international standards and national statistical capacity building. Statistical units compile statistics from countries, regional bodies and industry (e.g. marketing and trade data), undertake first-level checks of the data received for internal consistency or anomalous trends (inputting missing data wherever necessary) and liaise about anomalies with the countries concerned in order to resolve problems.

⁹ CWP is an FAO body.

¹⁰ However, this service is very limited owing to staffing constraints (only one staff member is assigned to it).

¹¹ e.g. ARTFISH, an FAO-developed system of statistical approaches, technical documents and computer software to streamline survey operations and analyse data collected from the field.

¹² FIGIS is built on a network of subsystems: the Fishery Resources Monitoring System (FIRMS), a global aquatic resource monitoring system comprising core information modules on species, resources, fisheries and fisheries management systems; the Computerized System of Fish Marketing Information (GLOBEFISH) containing information on international fish trade; and the Aquatic Sciences and Fisheries Abstracts (ASFA), a bibliographical database. The following subsystems are under development: Aquaculture, Trade and Marketing, and Research

Box 2: Towards a strategy for improving information on the status and trends of fisheries

All policy documents regarding fisheries, such as the United Nations (UN) Convention on the Law of the Sea, the UN Fish Stocks Agreement, the FAO Code of Conduct for Responsible Fisheries and the recently adopted FAO International Plans of Action, are built on FAO's fishery statistics. For example, concerns about clear signs of the over-exploitation of important fish stocks prompted COFI to undertake preparation of the Code of Conduct for Responsible Fisheries.

However, the validity of reporting on fishery resources' status and trends has often been diminished by unsupportable and questionable statements. In recognition of the need for improvement, a draft FAO Strategy for Improving Information on Status and Trends of Capture Fisheries was agreed by a technical consultation that met in Rome from 25 to 28 March 2002. The draft strategy has been elaborated within the framework of the Code of Conduct for Responsible Fisheries and proposes to invigorate data collection and research and the assembly and dissemination of information. Its objectives are to:

- provide a framework for the improvement of knowledge about fishery status and trends for better policy-making, management and sustainable use;
- allow countries, regional fishery bodies (RFBs) and FAO to assemble status and trends information in a more systematic way using FIGIS; and
- build capacity in developing countries.

Guiding principles for the strategy are sustainability, provision of the best scientific evidence, participation and cooperation, objectivity, transparency, timeliness and flexibility. The draft strategy specifies several required actions:

- capacity building in developing countries and the implementation of cost-effective and sustainable data collection, analysis, reporting and exchange mechanisms to meet national needs as well as those of RFBs and FAO;
- enhanced capacities to extend the coverage of data collection, validation and analysis for small-scale and multispecies fisheries, which are often underestimated;
- expansion of the scope of information for management responsibilities, and development of indicators of sustainable development;
- support to the compilation of a global inventory of fisheries and fish stocks to improve the completeness of status and trends information;
- support to the development of FIGIS to facilitate the systematic synthesis of status and trends information from the national to the regional and global levels;
- development of criteria and methods for quality assurance, transparency and security of information; and
- establishment of working groups to assess the status and trends of fisheries and enhance the transparency of information.

The strategy will provide a framework for partnerships to facilitate the systematic flow of status and trends information from the national to the regional and global levels, including FIGIS. The strategy also aims to renew national commitments to collect, analyse and share information and to motivate development partner agency support for capacity building in developing countries.

31. FAO generally emphasizes the "official" nature of the national sources that report the data through annual questionnaires. The reported data are reviewed, analysed and adjusted, where necessary. Where there are gaps, national publications and other reports are used to complete the series. In this context, the quality assurance process involves the following considerations:

- **Relevance of statistical concepts:** The basic concepts originated from traditional agricultural censuses and surveys conducted in various Member Nations and administrative records maintained in countries over the years. However, emphasis is placed on harmonizing these concepts with the concepts that are recommended (or adopted) by other international systems.
- **Comparability of statistics:** The quality of data depends partly on how well the basic ratios or averages can be estimated for making international comparisons and presenting the world and regional pictures. Where necessary, either national data are adjusted to take

account of the differences in concepts over space and time, or the differences are explained and quantified by providing adequate notes.

- **Accuracy:** The accuracy of the data varies among countries. For data sets such as those maintained by FAO, there is neither any statistical measure (such as standard error) nor any reference population total with which to determine a set's accuracy. However, the internal analyses that are carried out take into account: i) the latest year for which official data are available; ii) the extent of revisions made in subsequent years; iii) the share of data that are based on official estimates; and iv) the consistency in "supply and use" identity structural ratios (e.g. fertilizer consumption per hectare of agricultural land for making a final judgement about the accuracy of a series). Country missions are also undertaken continuously in order to improve the quality of the data.

32. Nevertheless, ensuring the quality of the data in FAO statistical series has been a major challenge because the availability of reliable data can vary greatly among countries and even within countries. In 1997, an ESS paper estimated that only 16 out of 54 countries in Africa had reliable basic statistics (for crops and livestock). Similarly, a review of FAOSTAT in 2001 indicated that 30 countries worldwide lacked relevant statistics for five, or even ten, years. In FAOSTAT, missing official or semi-official data must be estimated through various available techniques. The continuing problem of low data quality is a major concern for FAO, which needs to have comprehensive and reliable data coverage.

33. In 2000, ESS established the Agricultural Bulletin Board on Data Collection, Dissemination and Quality of Statistics (ABCDQ) project to reinforce the quality of FAOSTAT.¹³ For each country, metadata on data collection and dissemination are provided, such as organizations and contacts, sources of information (total census, sample survey, administrative record or others), method of data collection, data specifications, data coverage, mixed cropping, comments, dissemination format, periodicity, timeliness and lapse time of data published.

34. FAO collaborates with other organizations involved in collecting agricultural statistics (such as OECD and Eurostat, which compile data for developed or industrialized countries). This includes efforts for harmonizing the concepts and definitions used for the collection of primary data, as well as the use of common questionnaires. These issues are being actively considered by, for example, the Economic Commission for Europe (ECE), FAO, OECD, Eurostat and the Administrative Committee on Coordination (ACC) Sub-Committee on Statistical Activities for crop and livestock production and trade, producer prices and fisheries.

35. Fishery statistics depend not only on collaboration with countries but also, to a large degree, on interaction between FIDI and the regional fishery organizations (RFOs). In particular, most of the data for the global reviews of the state of stocks that are elaborated and published by FAO are obtained directly from the working groups of FAO and non-FAO RFOs as well as other bodies. In addition, scientific literature, supplemented by information from industry magazines and fishery-independent sources such as trade data is being used. Where data do not exist or are incomplete, one-off estimates are made using individual experts or through dedicated expert consultations. For certain items, FIDI uses questionnaires that are primarily developed and maintained by other units and organizations (such as the ESSB questionnaire for trade data).

36. Quality assurance is increasingly an additional issue for fisheries data. Data needs are being expanded by the inclusion of ecosystem, social and economic considerations, in addition to those of fishing capacity and fisheries governance, but in many circumstances data collection cannot satisfactorily meet traditional demands, let alone be extended to these additional aspects. The quality of global-level information that countries report to FAO has deteriorated. For example, in 1980 only about 3 percent of all capture fishery production statistical records were

¹³ Quality is interpreted by criteria relating to: i) the relevance of statistical concepts; ii) the accuracy of estimates; iii) the timeliness and punctuality in disseminating results; iv) the accessibility and clarity of information; v) the comparability of statistics; and vi) coherence.

based on FAO estimates rather than reported statistics, but their share has increased to 10 percent in recent years, and the reported statistics are of dubious accuracy and lack basic detail. For the Eastern Indian Ocean, the Northwest Pacific, the Western Central Pacific and Asian and African inland waters, between 25 and 75 percent of reported catch quantities are not identified at the species or even the family level, markedly reducing the utility of these statistics. In this context, FIGIS is expected to contribute to the provision of more timely and accurate fishery statistics.

37. In the context of forestry statistics, considerable progress has been made in the development of common questionnaires. The Forestry Department has successfully implemented global forest resource assessments using a common format in collaboration with member countries and partner institutions, such as the United Nations Environment Programme (UNEP) and the International Tropical Timber Organization (ITTO). The department is currently executing a second Joint Forest Sector Questionnaire with Eurostat, ECE and ITTO. This builds on more than ten years of joint forest products questionnaires executed by FAO, ECE and Eurostat. However, each of the organizations publishes data independently according to its specific needs.

38. The overall trend in the Forestry Department is towards shifting responsibility for data collection, analysis and the provision of information to the technical units concerned. Most of the forestry information currently compiled by FONS and FORM aims to facilitate the preparation of national forestry programmes, international policy development and negotiations, and investment and strategic planning, project appraisal and market development studies. European Commission-FAO Partnership projects have strengthened countries' capacity to collect and compile reliable information and to use this information for the development of forestry policies in Africa, Asia and the Caribbean (see Box 3).

Box 3: Data collection and analysis for sustainable forest management in ACP countries - Linking national and international efforts (GCP/INT/679/EC)

This project became operational in January 1998 for a period of four years, with a total budget of US\$ 1,026,279.

The overall objective of this European Commission-FAO Partnership Project on Forestry was to promote the sustainable management of trees and forests in African and Caribbean countries by helping them to develop policies that integrate and balance all of the relevant economic, environmental and social aspects of forestry. It aimed to do this by strengthening countries' capacity to collect and compile reliable information about forestry and to use this information for the development of forestry policies.

Most activities have been implemented by national and regional institutions in Africa, with technical assistance and guidance from FAO. The main results of the project can be summarized as a move towards a new appreciation of data collection by many forestry departments in African and Caribbean countries:

- all 48 African and all 15 Caribbean member countries of the African, Caribbean and Pacific Group of States (ACP) participated in the project;
- 219 national experts in Africa and the Caribbean updated, gathered and analysed forest management information for their countries;
- 44 national forestry sector outlook reports, and five sub-regional and one regional overview reports were produced under the Forestry Outlook Study for Africa (FOSA) and the Caribbean Forestry Sector Outlook Study (CFSOS);
- 17 subregional workshops covering data collection, data analysis, outlook and forest policy were organized and were attended by a total of 474 people;
- 126 thematic reports were written by national experts (and made available through the FAO website);
- five countries conducted pilot studies on data gathering and analysis, resulting in 18 reports; and
- FAO's data banks and website improved considerably with country data that were validated by the directors of the African and Caribbean forestry departments.

The follow-up activity in Africa (GCP/RAF/354/EC), which started in January 2000, has built on the work of this project under a number of specific topics. Two other new European Commission-FAO projects, on improving information on, and knowledge of, sustainable forest management are currently being implemented in Asia (GCP/RAS/173/EC) and Latin America (GCP/RLA/133/EC).

Provision and dissemination of statistics function

39. While statistical yearbooks were the Organization's traditional vehicle of choice for disseminating agricultural information, since the late 1980s most of the data collected by FAO are fed into FAOSTAT, which currently contains more than 4 million time series records. This database provides country, regional and world agricultural statistics from 1961 to the present, and covers such areas as production, trade, food balance sheets, fertilizer and pesticides, land use and irrigation, forest products, fishery products, population, agricultural machinery, and food aid shipments. FAOSTAT offers an annual subscription service that provides extensive online query and download limits and unlimited access to FTP bulk download files. Web site statistics from 1998 onwards indicate that FAOSTAT is the most frequently accessed FAO web site and that most FAOSTAT hits come from developed countries (more than 80 percent). Similarly, of the 209 FAOSTAT subscribers in early 2002, only 15 were in developing countries; the vast majority of subscribers are commercial companies, universities and national and international public service agencies in OECD countries.

	Oct.–Dec. 1995	1996–1997	1998–1999	2000–2001
FAOSTAT number of statistical data collections	8	24	38	48
FAOSTAT data bank accesses (external users)	3 560	725 186	2 335 890	4 390 194
FAOSTAT records downloaded (external users)	186 882	100 962 601	303 543 963	442 438 160
Internet average number of hits (per month)		1 138 109	3 711 357	16 543 475
Intranet average number of hits (per month)		n.a.	563 995	1 483 895

40. In recognition of increasing technical problems with the original FAOSTAT system, work on a new FAOSTAT system commenced in September 2001. FAOSTAT2 is intended to: i) provide an improved user interface, streamlined system processes and a stable and reliable technical environment for the FAOSTAT working system; ii) improve the data quality by providing robust tools for compiling, validating, estimating and analysing data at both FAO Headquarters and the country level; iii) incorporate new user requirements for system functionality and access to new data sets; iv) improve user access to FAOSTAT data by enhancing and creating new mechanisms for data dissemination, including access to data across domains; and v) enhance data integrity by ensuring that appropriate methodologies and data standards are consistently applied.

41. An important improvement will be the development of CountryStat, a scaled-down version of the FAOSTAT2 application, which will provide countries with the functionality to compile, validate, analyse and disseminate their national data. Outputs from CountryStat could then be loaded easily into FAOSTAT2 for further dissemination through FAO's web site, publications and CD-ROMs. This would improve online data entry and processing, which is currently possible to only a limited extent, through a Web-based Virtual Questionnaire.

42. National censuses of agriculture have been promoted by FAO since its inception and are reflected in the Organization's Agricultural Census Database, which contains the latest census data for 92 countries. In addition, ESSA analyses worldwide population, food supply and consumption data to derive indicators of the food and nutrition situation, and prepares related global studies, in particular, the World Food Survey. So far, six World Food Surveys have been carried out. In recent years, work has been initiated in response to new demands, such as investment in agriculture, agro-environmental indicators, rural infrastructure, and agricultural and non-agricultural income for rural populations. However, existing resources have proved insufficient for the comprehensive coverage of these fields.

43. Thus, the service functions of ESS and other statistical units include not only the dissemination of statistics but also analytical, monitoring and reporting tasks. Some of these are related to the development and implementation of measurement and indicator methodologies, and others to the analysis of key aspects of the food and agriculture situation. The demand for more regular and complete global-, regional- and country-level analysis of the progress made on hunger reduction and agricultural development goals has been increasing rapidly in recent years; this is reflected in the ESS mandate, to which have been added specific responsibilities in monitoring World Food Summit and Millennium Development Goals. In addition to the World Food Survey, which it continues to prepare every ten years, the Statistical Analysis Service now also prepares key sections of the *State of Food Insecurity in the World* (SOFI) and the FAO contribution to the UN Global Monitoring Report on Millennium Development Goals every year, as well as contributing to the work on FIVIMS. ESS also prepares special analyses and reports as contributions to other FAO publications, such as the *State of Food and Agriculture* (SOFA) and *Agriculture towards 20XX*, and major events, such as the Committee on World Food Security (CFS) or the World Food Summit (WFS). In turn, the fishery and forestry statistical units contribute to such documents as the *State of World Fisheries and Aquaculture* (SOFIA) and the *State of the World's Forest* (SOFO).

44. In the 1990s, FAO completely revised the available fishery production statistics time series, computerizing them back to 1950, filling in missing data, disaggregating data by fishing area, taking account of political changes (e.g. the emergence of new countries), adjusting species identification (as taxonomy evolves) and splitting fishery production between aquaculture and capture fisheries. Fishery data contained in FAOSTAT include fish production data, which cover the volume of fish production (i.e. catches and aquaculture) by country, by 50 groups of species and by 29 FAO major fishing areas for statistical purposes. The data are presented by country as time series on the volumes of annual production (catches and aquaculture), the production of processed and preserved products and the external trade of these groups of products in terms of volume and value.

45. FISHSTAT+ disseminates data that are more detailed than those in FAOSTAT. Another database, FISHERS, contains the numbers of people engaged in fishing, as national annual averages for 1961 onwards, according to the working time that they devote to the occupation. FISHERS data for 1990 onwards include employment in aquaculture, are separated into inland and marine fisheries and are gender-disaggregated.

46. In FAOSTAT, food balance sheets from individual countries provide statistics on apparent fish consumption in relation to total national diets. These are the only fishery statistics for which FAOSTAT is the working system. All other fishery statistics are maintained in departmental working systems that are currently being integrated into an Oracle database within FIGIS, which will have seamless integration with FAOSTAT2.

47. FIDI produces specialized statistical publications, including three yearbooks (for capture fishery production, aquaculture production and commodities), biennial circulars on fish consumption and numbers of fishers, and an occasional publication on fishing fleet statistics. Fisheries web site statistics indicate that statistical databases and software are the most accessed pages on the FAO Fisheries Department web site (with more than 2 600 visits in May 2002).

48. As well as the forestry data on production and trade that are held in FAOSTAT, FONS also disseminates forestry statistics. These additional data are held in two databases: the Forest Products Database and the Bilateral Trade Matrices. The former contains annual data on the production and trade of forest products for 1961 onwards, while the latter contain trade statistics

(import and export volumes and values) for all forest products. Trade statistics in this database are disaggregated, so imports and exports between individual countries can be identified.¹⁴

49. FONS also produces the *Yearbook of Forest Products and Pulp and Paper Capacities Survey* each year.¹⁵ This contains all the statistics included in the forest products database for the five most recent years, as well as a complete set of notes and descriptions of the statistics and a few summary tables that are not available in the forest products database.

50. FORM publishes various periodic reports, such as GFRA 2000, in printed form and on the web. Country-by-country statistics on forest resources, including forest cover, plantations, volume and biomass and fires, are maintained in the FORIS database.

Development function

51. ESS has taken initiatives aimed at improving national and regional statistical systems, including organizing round table meetings and workshops, participating actively in the Partnership in Statistics for Development in the 21st Century (PARIS21) Consortium¹⁶ and the FAO/World Bank/United States Department of Agriculture (USDA) initiative in agricultural statistics, and providing technical assistance. Most of the technical support to countries that uses extra-budgetary funds is provided by the Statistical Development Service (ESSS).

52. FAO's activities have been primarily oriented towards enhancing the availability, access to and quality of food and agricultural information systems, with a focus on improving statistical methodologies and harmonizing nomenclatures, classifications and techniques for data collection, processing and dissemination in order to promote international comparability. Support has been given to expert consultations, seminars and meetings to strengthen national statistical services and early warning systems in support of poverty alleviation and food security programmes.¹⁷ An Inter-Secretariat Working Group on Agricultural Statistics¹⁸ (IWG.AGRI), created in 1991, helps transition economies to adapt their agricultural statistical systems to the needs of a market economy, including through coordinating technical assistance programmes in agricultural statistics for Central and Eastern European countries (CEECs) and Newly Independent States (NIS).

53. Under the Field Programme, ESS has supported 76 projects (32 in Africa, 20 in Asia, 14 in Latin America, nine in the Near East, and one global) during the period under review. Operational or recently terminated projects, including regional or country-based Regular Programme activities, are active in the following areas:

- Agricultural census: Benin, Cape Verde, China, Grenada, Lebanon, Peru, St Lucia, the United Republic of Tanzania and Togo.

¹⁴ These data come from the trade statistics that are collected each year by the United Nations Statistical Division, sometimes adjusted by FAO to take into account the information supplied by national forestry authorities and other official sources. The different sources of these two sets of statistics lead to discrepancies for some countries.

¹⁵ During the period under review, some planned publications (*Forest Products Prices* and *Provisional Statistics on Non-Wood Forest Products*) could not be produced.

¹⁶ PARIS21 is an OECD/UN/IMF/World Bank consortium established in 1999 to boost statistical capacity and provide support for statistical capacity building. An active dialogue has been established with the United Kingdom's Department for International Development (DFID), a lead agency in PARIS21. A FAO statistician is the Convenor of the PARIS21 Task Team on Agricultural Studies.

¹⁷ For example, in the Asia and Pacific Region: Expert Consultation on the Development of Agricultural Statistics for Food Policy (June/July 1999); a seminar on Remote Sensing for Agricultural Statistics (June 1999); Technical Meeting on Methodology for Food Crop Forecasting (December 1999); and Farm Data Systems Review in Bangkok (July 2000). For fisheries: a regional workshop on Census of Agriculture 2000: Structural Aquaculture Statistics; and an expert consultation and regional workshop on the Development of Guidelines for the Routine Collection of Capture Fisheries Data, in Bangkok (May 1998). For forestry: the Information and Analysis for Sustainable Forest Management Linking National and International Efforts in South Asia and Southeast Asia initiative was launched.

¹⁸ IWG.AGRI was established in 1991 by OECD, the EC (Eurostat), UN ECE and FAO.

- Ongoing systems of agricultural statistics: Djibouti, Maldives, Mali, Palestine, the United Republic of Tanzania, Togo and the Democratic Republic of the Congo.
- Agricultural statistics for food security and early warning information systems: Intergovernmental Authority on Development (IGAD) countries, the Lao People's Democratic Republic, Mauritania, Mozambique, Southern African Development Community (SADC) countries, Senegal, Sri Lanka, the United Republic of Tanzania, Viet Nam and the Democratic Republic of the Congo.
- Statistical data processing and databases: SADC countries and the United Republic of Tanzania.
- Other assistance: Angola – food consumption survey; Indonesia – agribusiness statistics; Cape Verde – pilot survey of irrigated crops; Brazil, Cameroon, Côte d'Ivoire, Ghana, Nigeria – preparatory assistance for cocoa tree stock survey; and Asia – strengthening regional data exchange system on food and agricultural statistics in Asian and Pacific countries.

54. Regarding FAO's promotion of the programme for the World Census of Agriculture, an outstanding success has been China's first-ever census of agriculture in 1997, with technical assistance from FAO through an Italian-funded project (see Box 4).

55. The FAO/World Bank/USDA initiative in support of strengthening national systems of food and agricultural statistics in Africa started country activities in Ghana in November 1997, and subsequently expanded to cover 13 countries (by September 2001).¹⁹ The initiative promotes an integrated approach to the development of national agricultural statistics systems in order to ensure the harmonization and rationalization of data collection and dissemination activities. All elements of statistical information pertaining to the agriculture sector will be developed within, or linked to, this single system, including forestry and fisheries statistics, market information, early warning information and crop forecasts, as well as data relating to food security. The system also provides data for monitoring and evaluating major agricultural investment programmes and for carrying out impact assessments.

56. Most fisheries statistics projects have targeted Africa, but a number have provided support in Asia and Latin America. During the period under review, FIDI has been involved in 15 projects, 11 of which were in Africa, two in Asia, one in the Near East and one project was interregional. Most projects were funded by the TCP (12 with a combined budget of US\$ 1.9 million), while two GCP projects (one Asia project and one interregional development of FIGIS project) were funded by Japan (US\$ 1.8 million), as well as one small UNDP project in the Gabon (US\$ 250 000). Additional assistance, for short advisory services and/or the organization of training courses, consultations, etc., has been provided through the Regular Programme.

57. FONS also provides technical advice and support to countries to help them implement their national forest programmes. This includes training and the production of methodologies, tools, guidelines and references, as well as field projects implemented with countries to improve their forestry information. FONS has designed and backstopped nine projects:²⁰ three interregional, three regional (European Commission partnerships), two national in Africa, and one national in Europe. A particular feature of FONS projects is that none of them are specific statistics projects; they focus mostly on forestry management.

¹⁹ The countries include Cameroon, Ghana, Guinea, Lesotho, Madagascar, Malawi, Mali, Mauritania, Nigeria, Senegal, the United Republic of Tanzania, Togo and Uganda.

²⁰ These include projects under: the European Commission-FAO Partnership Project: GCP/RAF/354/EC Sustainable Forest Management Programme in African ACP Countries; GCP/RAS/173/EC Information and Analysis for Sustainable Forest Management in South Asia and Southern Asia; and GCP/RLA/133/EC Information and Analysis for Sustainable Forest Management in 12 Tropical Countries in Central and South America.

Box 4: Agricultural Census (Phases II and III) in China (GCP/CPR/010-020-025/ITA)

This project became operational in August 1993 for a period of six years and four months, with a donor budget of US\$ 10.52 million.

The project had the overall objective of enabling the government (through the National Bureau of Statistics [NBS]) to conduct the first agricultural census that follows internationally accepted standards, and thus to contribute to the development of an accurate and timely statistical system for the rural and agriculture sector. The specific objective for the second phase was to finalize the census methodologies and to complete the technical capacity development of the national and regional Food and Agricultural Statistical Centres (FASCs) – which were established in the first phase – for census implementation (planned for 1997), including expansion of the FASC network (originally 16 regional FASCs were planned) and the training of FASC staff and some 13,000 provincial- and country-level statistical officers. For the third phase, the main objective was to provide technical support to census implementation (including data processing and tabulation) and dissemination of the census results.

The terminal evaluation that went to the field in late 2000 found that project implementation was very efficient, with timely adjustments to the training and technical requirements, as they evolved in response to policy changes in the national census programme, including the enlarged FASC network. This was facilitated by strong national commitment, competent national leadership (at NBS) and holistic project planning, which integrated methodological development, staff training and institutional development, buttressed by intensive technical consultations at the national and international levels.

All the main planned outputs and results were achieved, in some cases exceeding their aims.

Through the census's success, the project had considerable effects and impact on the use of census results and on improving the agricultural statistical systems at various levels, including: i) use of some of the census results in the preparation of the next five-year development plans at the national and provincial levels (especially use of the data relating to agricultural land use and livestock, for which significant under- or over-reporting in the current statistics was shown); ii) reconciliation and streamlining of the current statistics in line with the census data and methodologies; iii) widespread initiatives for improving statistical information systems at the national and provincial levels, including the use of advanced data analysis techniques; and iv) interest in greater use of improved statistics for analysis and the planning of work on agricultural and rural development issues.

The mission concluded that the project had been highly relevant and effective, in general. However, it highlighted three important issues in terms of sustaining the significant results achieved: i) some gaps and weaknesses in the technical capacity of FASC teams; ii) inadequate access to the census results; and iii) the uncertain future status of the FASC structure.

IV. SUMMARY ASSESSMENT

Relevance to the Organization's strategic objectives and to member countries

Addressing FAO priority concerns

58. In the first instance, FAO's mandate is to stimulate and facilitate policies that combat hunger and malnutrition. Advocacy work and support to decision-making and policy work are predicated on the availability of reliable and relevant data. Statistics are indispensable to the review and monitoring of the progress of nations through such documents such as SOFA, SOFIA, SOFO and SOFI. Likewise, WFS targets and commitments need to be verified through statistics. Other recent initiatives aimed at furthering anti-hunger policies, such as FIVIMS, need statistics to locate and enumerate food-insecure and vulnerable people.

59. However, during the period under review, the system has come under pressure with regard to maintaining and improving its quality and coverage and to meeting increasing demands for additional statistical data. In addition, the regular resources committed to statistics have

declined during the period, particularly for ESS, making it difficult to maintain some of the traditional data series, let alone proceed quickly with the much needed upgrading of FAOSTAT.

60. Furthermore, the quality of data that a number of countries report to FAO has been declining, affecting the Organization's ability to maintain and enhance the integrity of its databases.

Relevance of statistical activities to member countries (questionnaire responses)

61. Member countries have repeatedly confirmed the importance of FAO's statistical activities, as was borne out by the responses received to the questionnaire that was circulated to all member countries. However, the relatively low response rate to the questionnaire (62 countries, about 30 percent of those surveyed) illustrates a problem: communication between FAO and member countries in the field of statistics appears to be cumbersome and slow. ESS complaints regarding countries' non-reporting of statistics also reflect this.

62. Most governments make moderately frequent use of FAO statistics (once a month) and access FAO statistics via the yearbooks (69 cases); Internet access²¹ comes second (with 57 cases), and CDs/diskettes last (24 cases).²²

63. Interaction between FAO and national statistical units is generally seen as satisfactory (between 50 and 61 percent of responses in this area); the highest number of unsatisfied responses (25 percent) concern "support and guidance mechanisms for providing assistance in statistical development activities". Individual comments point to a lack of feedback and/or direct communication with the respective statistical unit, and to FAO's lack of follow-up to earlier interventions. Regarding possible improvements in the Organization's statistical activities, several responses highlight the need for coverage of additional data areas (mostly related to cost of production/price data, but also on specific products, land use issues, etc.). Many countries that lack information technology (IT) facilities requested assistance with computers and Internet access, as well as more direct communication with ESS.

64. The questionnaire responses indicate that governments are particularly appreciative of the following aspects of FAO statistics: technical quality (44 percent rated this as a strong feature), neutrality (39 percent) and relevance (38 percent). With some exceptions regarding trade and demographic data, FAO is almost invariably rated as being a better source for agricultural statistics than other organizations are. However, some other aspects are viewed as unsatisfactory, such as timeliness (23 percent of respondents), completeness in coverage (14 percent) and accuracy (13 percent). Many respondents highlighted the need for wider coverage of economic data, such as production cost, price data and land use.

65. In terms of prioritizing types of FAO support, there is a clear trend in favour of field project support in capacity building, while RP support such as workshops and seminars is appreciated but is not always seen as catering to respondents' specific needs (many RP activities have a regional rather than a national focus).

Responding to the needs of member countries

66. FAO has historically supported the creation of in-country surveying, particularly the development of census capability aimed at reporting data with a high degree of accuracy and putting less emphasis on timing. During the period covered, assistance was provided through RP work (methodological textbooks, manuals, guidelines and workshops) and field projects (some 99 projects with a total value of US\$ 44 million). However, many countries have not been able to maintain or develop adequate statistical capacity. At the same time, the increasing demand for

²¹ 20 developing (or middle-income) countries reported having no or very limited Internet access. Others reported high costs and slow download speeds as obstacles.

²² There appear to be more responses than there were questionnaires received because some respondents gave multiple answers.

data that are more current is not always coupled with acceptance of the potentially lower reliability of such data, and this poses a dilemma for resource-poor statistical units.

67. Within the framework of the FAO/World Bank/USDA statistical initiative, FAO has been able to provide assistance to some African countries, but has certainly not been able to address all priority needs. FAO's presence is weak in the Near East Region: very few projects are operational in that region, and the regional statistician post was abolished in the early 1990s. Noting this weakness, the 2002 session of the Regional Conference requested the re-establishment of this post. Many countries in transition from a centrally-planned to a market economy have to upgrade their statistical systems, but FAO has not been able to respond adequately to requests from the Commonwealth of Independent States (CIS) and Eastern European countries owing to resource and capacity limitations. These limitations also affect the ability to develop new methods and techniques for use in national statistical systems, as well as the provision of direct support to member countries. Staff resources are also limited in other areas. A regional fishery statistician to support statistical development in the Asia and Pacific Region was proposed under the real growth scenario for 2002–2003, but the post was not realized.

68. It should be noted that statistical capacity building in developing countries has mutual benefits. In the case of ESSB and ESSA, an increased involvement in training workshops and direct assistance to countries has helped to develop a more personal relationship with counterparts in national statistical units. The recent improvement in statistical reporting by African countries is partly attributed to this.

Adequacy of working arrangements among main statistical units

69. Among others issues, the working arrangements within ESS and between ESS and other statistical units in FAO have been the subject of a review of ESS undertaken by three external reviewers in late 2001/early 2002.²³ Although the reviewers' remarks have not been consolidated (i.e. some recommendations are mutually exclusive), their core findings appear valid:

- a) Within the division, ESSB's position is underrated vis-à-vis the other two units (which as services are hierarchically more important). Traditionally, the branch provides most of the division's basic data products, which are of strategic importance to supply/utilization accounts and food balance sheets. In recent years, and especially in the context of development of FAOSTAT2, new skills beyond routine database maintenance are becoming increasingly important, including statistical database system development and statistical methods for food demand–supply analysis. In other words, the growing analytical demands faced by the branch are not reflected in its status.
- b) There are coordination problems among the ESS units. For example, in some cases, ESSB and ESSS have each promoted different data codings in the same country, and other specific country-level activities have not always been coordinated. Furthermore, there has been little regular consultation/information exchange on their respective activities.
- c) Regarding coordination and collaboration among ESS, FIDI and FONS, although contacts do exist (e.g. through data series in FAOSTAT, the use of common questionnaires and the FAOSTAT2 Working Group), there is no formal mechanism for statistical units within FAO to interact and develop ways of improving the Organization's data provision service. ESS external meetings are not normally attended by the other statistical units, and vice-versa.

²³ The review was carried out on the initiative of the Assistant Director-General (ADG) of ES. The reviewers were Mr. F. Vogel, USDA; Mr. B. Kiregyera, Statistics Consultant, Uganda; and Mr. I. David, formerly of the Asian Development Bank.

Interaction with other FAO units²⁴

70. The Statistics Division is recognized as the main provider of agricultural statistics within FAO. A questionnaire survey of internal users confirms planning's reliance on FAOSTAT statistics (including for analysis and outlook functions). However, most units would appreciate having additional data and information (economic data – e.g. prices and investment in agriculture; subnational statistics; metadata; and specific areas – e.g. land use) and have expressed concerns about the timeliness and quality of some data. Regarding user feedback, the existing mechanisms appear limited in effectiveness, although there is an Interdepartmental User Group on FAOSTAT2 (members outside the statistical units are the Office of Assistant Director-General [AGD], the Programme Coordination Unit [ESDP], the Environment and Natural Resources Service [SDRN] and the Agricultural Policy Support Service [TCAS]) and some regular informal contact between data users and ESS, especially ESSB. Several questionnaire comments refer to apparent incompatibilities among the definitions and codings used in FAO statistics. This indicates a need for the statistical units in FAO to focus specifically on *statistical* definitions – currently, one broad-spectrum Priority Area for Inter-disciplinary Action (PAIA) deals with definitions, norms, methodologies and quality of information.²⁵ Thus, there is considerable scope for improving the support and advisory function to internal as well as external users – the division has not been in a position to meet many specific requests for advice and information.

71. Another type of collaboration that needs attention relates to similar data compiled by different units. For example, ESC collects data on food aid cereal exports by source and destination. It also generates data on production, consumption, trade and stocks for the early warning system (i.e. “current” data, which FAOSTAT does not include at the moment, but which it should include in order to ensure the more timely dissemination of data relevant for many private and public agents). Such data should be regarded as complementary, but in the past some discrepancies have occurred between the figures presented in ESC publications (*Food outlook, Food shortages and emergencies, Food supply situation, and Crop prospects in sub-Saharan Africa*) and those in FAOSTAT. Presumably, these discrepancies are the result of different time frames, circumstances and coverage, but they create difficulty for users because the database does not provide background information on the data. This issue also emphasizes the need for a common ESS and ESC approach for checking the accuracy of production, consumption, trade and stocks data.

Coordination/harmonization with other providers of agricultural statistics

72. All statistical units in FAO work with their respective country structures, working parties, regional commissions or other established bodies. Their common aims are to assess the status and trends of statistics, enhance the quality and transparency of statistical information, and build capacity, either directly by providing training and professional advice for the scientists involved, or indirectly through national initiatives emanating from regional bodies.

73. Particularly successful initiatives in collaboration with international organizations have included the ESS/World Bank/USDA initiative in Africa, and the FONS/European Commission partnership in Africa, Asia and Central and Latin America. Issues of quality control and improvement and the harmonization of reporting systems have been common priority concerns

²⁴ This section refers mainly to the ESS Division, as most coverage of FIDI and FONS is specific to only a few units within the respective departments.

²⁵ The PAIA is chaired by the Library and Documentation Systems Division (GIL) and has the following priorities: i) improved user interface and search functionality for FAO's statistical databases; ii) revision of statistical data collection, processing and analysis processes; iii) use of international classification standards to standardize terms, definitions and categorization schemes under the various subject matters or disciplines covered by FAO, including interdisciplinary activities; iv) issue of document type definitions (DTDs) for information objects and textual information produced by the Organization, including tools for use by members; and v) presentation of progress to the Consultations on Agricultural Information Management (COAIMs) that are held during the plan period, along with feedback of the results to future activities.

for many international organizations. Results include unified questionnaires: in particular FONS and FORM have succeeded in making a joint data reporting arrangement with ECE, Eurostat and ITTO. ESS is discussing similar arrangements with some partner institutions. FIDI has a long tradition of international coordination²⁶ and, where possible, uses data from standard ESSB questionnaires.

Quality of outputs, services and effectiveness

74. FAO is by far the main repository of agricultural statistics and is recognized as the only source of global statistics on fisheries and agriculture. Its statistics are widely used all over the world by many individuals and institutions. Statistical databases are maintained not only to facilitate the dissemination of country-level statistics pertaining to food and agriculture (including forestry and fishery) through yearbooks and on the Internet, but also to provide global and regional aggregates that enable the review and monitoring of the progress of nations through documents such as SOFA, SOFIA, SOFO and SOFI. FAO member countries have repeatedly confirmed the importance of statistics for policy and management purposes.

75. At the same time, the need for improved statistical coverage and services is recognized by the statistical units themselves, and is being addressed with varying degrees of effectiveness. Generally, in response to data users' requirements, FAO statistics are moving from the reporting of simple statistics to the reporting of value-added statistics and indicators – the scope and coverage are expanding from physical statistics (production, trade and inputs) to economic statistics (prices, incomes, income, gender-disaggregated and environment). FAO statistics have become more widely accessible through the Internet, and more value has been added through the provision of background information (e.g. metadata).

76. The quality of statistical data is of paramount concern in terms of ensuring objective, reliable, consistent, harmonized and credible information, and the most critical area in FAO statistical activities appears to be the data compilation and analysis function. Given the weak national data of a significant number of countries, FAO statistical units have found it necessary to use secondary data and/or estimates when compiling its own official data. Gaps in national data include missing geographical areas and some economic or environmental factors. A related issue is transparency regarding the substitution of official data with FAO's estimates: many users within and outside the Organization highlight the need for more explicit indications for the use of such estimates.

77. Statistical norms and concepts are also important for improving the quality of statistical data, and FAO has been performing adequately in this field by harmonizing the approaches that it and other relevant organizations follow. Growing analytical demands lead to more complex statistics, which often incorporate derived data. There is some concern that insufficient attention has been given to metadata (although this issue is being addressed in ESS) and – more important – that some original statistics have not been updated.

78. The dissemination of statistics is increasingly done through FAOSTAT, while distribution via CD-ROM and statistical yearbooks receives decreasing attention. Positive features of FAOSTAT include access to a vast range of data, such as imputed values and the availability of much metadata.²⁷ However, at least under the current FAOSTAT system, there are certain shortcomings to the statistics: i) inconsistent access to databases; ii) inconsistent design;

²⁶ FAO launched internationally agreed reporting standards (e.g. landings/catch, live/landed weight, nationality of catches) in 1959 when the Continuing Working Party on Atlantic Fishery Statistics (then known as the CWP) was formally established between FAO and international fishery organizations. The system is still in operation; meanwhile the CWP has changed its name to the Coordinating Working Party on Fishery Statistics. FIDI provides the Secretariat for the CWP.

²⁷ As the website is under constant update, some of the features reviewed have already been changed.

iii) instances of inappropriate presentation;²⁸ iv) charts that do not represent the data in a statistically accurate manner; v) text presented as simple copies of printed documents; vi) evidence of a lack of quality control, including erroneous navigation; and vii) inability to provide full details for some statistics (e.g. fisheries).

79. Furthermore, many developing countries still rely on yearbooks as they lack access to FAO's web site. Thus, they miss out on several new features that have been introduced in recent years and that are available only on the Internet, such as ABCDQ.

80. Limited support to countries has been provided through the Field Programme. Generally, projects backstopped by ESSS, FIDI and FONS during the period under review focused on agricultural censuses/surveys, ongoing systems of agricultural statistics (strengthening the institutional and technical capacity of national statistical systems), agricultural statistics for food security and early warning information systems, statistical data processing and statistical databases. The approaches have usually included developing and/or introducing improved and standardized methodologies for data collection, processing, analysis, dissemination and sharing; providing the necessary equipment, and supplies (mostly computer software and hardware), as well as technical assistance; and staff training (including workshops, study tours, etc.).

81. Evaluation reports and desk reviews indicate that most projects contributed significantly to strengthening the institutional and technical capacity of national statistical services. As already mentioned, FAO support to the Food and Agricultural Statistics Centres (FASCs) in China is one of the most successful examples; others include support to agricultural census in Togo, the European Commission–FAO Partnership Programme on forestry statistics, and Japan-funded support to agriculture and fishery statistics in Asia and the Pacific (in cooperation with parallel Japanese bilateral aid). However, with a few exceptions, the sustainability of the results achieved with assistance remains a key issue. Recurrent findings are that more human resources are deemed necessary to strengthen the statistical offices' capacities and that continued assistance during the follow-up phase is desirable. In this connection, it is a source of concern that much of the technical assistance in statistical development has to rely on TCP projects with relatively limited resources and duration.

V. ISSUES, CONCLUSIONS AND RECOMMENDATIONS

Key issues and conclusions

82. An increasing demand for more detailed data and more specific analysis has added to the workload of the three units under review (ESS, FIDI and FONS) and led to the creation of other data compilation, analysis and dissemination centres within the Organization. For FAO, it is important to ensure the reliability and accuracy of the data covered; where this is not the case, the merit of the statistical databases will diminish. The Organization faces the challenge of addressing new demands on its statistical systems while resources are stagnant.

Resource constraints of national statistical systems

83. There are problems with the quality of data in many countries and regions. Providing adequate data and assessments is most problematic for least-developed countries, which have inadequate financial and technical resources. Particularly for Africa, the African Commission on Agricultural Statistics noted in 2001 that continuing funding constraints were being experienced by most countries, sizeable government funding was the exception rather than the rule, the analysis of agricultural census data continued to be hampered by the lack of adequately trained staff, and donors, dissatisfied with national statistical organizations, were increasingly supporting uncoordinated data gathering activities implemented by non-governmental organizations (NGOs) outside the official system.

²⁸ Features of tables that do not follow standards include: justification of columns, figures in thousands lacking separators, and use of either a full stop or a comma as a decimal separator.

Deficient reporting by countries

84. Inadequate reporting by countries can take many forms: inflated estimates from major producing countries threaten the credibility of FAO's production statistics and distort world and regional aggregates (as in the case of fishery statistics); underestimated or incomplete production data on small-scale and subsistence farming and fishing (as well as use of forest products by local communities) understate the importance of these sectors and result in a lack of consideration in policy-making; and late reporting diminishes the data value for users. Certain countries report their figures in ways that do not conform to FAO guidelines and recommendations as regards concepts, definitions and coverage of the data. Such countries: apply inaccurate conversion factors, extraction rates and similar ancillary information; assign dubious food nutrient factors to commodities; and give questionable figures on the utilization of various crops for feed and industrial purposes and waste.

85. However, the value of FAO's global statistics ultimately depends on the national statistical systems' ability to reach and/or maintain acceptable statistical standards. While this is a long-term goal, the Organization should also consider practical shorter-term approaches, such as: reducing the reporting burden on countries (through agencies agreeing on joint reporting formats); and facilitating the improved collection of existing data in countries, which would require greater collaboration among FAO units, including the regional statisticians, and national actors engaged in statistical activities.

Decreasing resources for statistics in FAO

86. Particularly when regular resources are concerned, decreasing resources are a major issue for all the three units engaged in statistics. Their response requires a combination of improvements to the cost-effectiveness of their working arrangements, better integration and coordination among the concerned units, and the development of a strategic vision within which fewer priority activities are identified so that each can be assigned a larger share of the limited resources. This would entail some difficult decisions.

87. For ESS, the demand for more and better data has coincided with decreasing resource levels, the effects of which have only partly been offset by the delegation of certain functions (mainly related to information dissemination) to other units. An important element in the Organization's data sets – agricultural producer prices – has not been updated since 1998.²⁹ Reactivating outdated data sets is generally not easy because the direct relationship with countries' technical services has been lost, there is a lack of memory within ESS about the scrutiny and imputation of missing data, and the gap in the time series is too long to enable estimation. Given the existing resources in ESS, it is unlikely that the service concerned (ESSA) will be able to process different sets of price data, e.g. monthly prices, wholesale prices, etc.. Similarly, ESSA lacks the staff to develop new methods and techniques (which are needed in order to maintain and improve national statistical systems) and to provide direct support to countries on their application.

Resources for FAOSTAT2

88. The upgrading of FAO's statistical database to FAOSTAT2 is considered essential for the Organization's corporate statistical system. FAOSTAT2's projected coming on-stream by 2005 depends on the payment of arrears or on extra-budgetary resources. This is clearly a fragile basis on which to base system improvements of strategic significance, and would seem to warrant the formulation of a contingency plan or a phased approach to the introduction of FAOSTAT2.

²⁹ Users frequently request price information (as is evident from the questionnaire responses), which is a necessary element of agricultural sector analysis. This was borne out in 2002, when WTO requested ESS to estimate the value of the agricultural production of all countries.

Low recognition of the database maintenance and enhancement function

89. The importance of the data on which analytical and forecasting work is done has been insufficiently recognized. This is reflected in the status of the unit dealing with basic statistics (ESSB): it is a branch, while the other two units in the division are services and, therefore, have more highly graded professional staff. While the branch status of ESSB may have been appropriate in the past, changes in the process of collecting and processing data have made the work more complex. This, in conjunction with ESSB's coordination work within and outside ESS, justifies a higher status for the unit.

Inadequate collaboration within ESS

90. The functions of the three units within ESS are clearly defined but appear to have become rigid over time. Interaction among the units appears to have been limited (e.g. problems have been caused by different coding conventions being promoted in the same country by different ESS units) and field projects – generally operated by ESSS – have not always reflected the list of problem countries identified by ESSB. There are signs that interaction is increasing: under the new divisional leadership, initiatives are being developed through which to arrive at a common understanding of issues and agreement on future approaches.

Need to improve statistical coordination within FAO

91. FAO has one of the least centralized statistical systems of any international agency. Cooperation and coordination among ESS, FIDI and FONS and between ESS and other providers and users of statistics have, as a rule, been neither frequent nor regular – some interaction between statisticians and main data users takes place, but not all actual and potential users within the Organization are being reached.³⁰ No general forum has been established to review statistical issues, and neither is there an effective mechanism that would avoid the duplication of statistical activities and allow for the sharing of expertise and experience. This has ramifications for the selection and prioritization of FAO's statistical work, as well as for quality control and statistical support. Another aspect is the quality of the statistical questionnaires that FAO distributes: of the 72 questionnaires sent out in 1998, only nine were from the Statistics Division. Although, in theory, statistical questionnaires sent out by other FAO units are vetted by ESS, this mandate is not exercised in practice.

92. A new PAIA dealing with definitions, norms, methodologies and quality of information could address some data issues, but it appears to have too wide a scope to substitute for a body dealing specifically with statistical questions. In any case, the PAIA has not yet progressed beyond its initial stages.

Limited regional presence

93. FAO's regional presence in terms of agricultural statistics (and fisheries and forestry statistics) is fragmented. Several regional/subregional statistician posts are vacant, or were vacant for long periods. In particular, countries in the Near East Region, CIS and Eastern Europe are hardly covered by statistical assistance activities. Several proposals to establish new regional posts (for ESS in the Near East Region and for fisheries in the Asia and Pacific Region) have not yet been implemented, owing to resource constraints.

Choice between competing survey methods

94. Statistical development and data collection methods have to respond to data demands ranging from very general requirements to requests for fine-scale data. The increasing demand for more recent and more detailed data engenders a conflict between the advocacy of rigorous survey methodologies, which inevitably require time and resources, and the promotion of quick, rapid statistically non-verifiable methods. Within FAO, both approaches coexist, with ESS usually

³⁰ In addition, the internal user questionnaire revealed a number of data issues that could be addressed in such a forum.

arguing in favour of statistical rigour. However, a choice sometimes has to be made between statistically orthodox methods and rapid appraisal methods, which may put less of a burden on existing national capabilities.

95. The challenges facing ESS are how to respond to these new approaches and how to determine where assistance to countries should continue to be geared towards comprehensive coverage (census) and where more limited, rapid survey methods would be more appropriate. Guidance to countries on the range of possible methodologies is required, but ESS lacks the resources for comprehensive methodology development.

Data overconfidence

96. Another issue is the over-interpretation of available data. FAO's World Food Surveys contain repeated cautionary words on the reliability of individual country data, while some documents intended for a wider readership attempt to put a figure on individual country developments regarding hunger and malnourishment. As demonstrated in the recent FAO-sponsored symposium on methodologies for estimating food insecurity (June 2002), experts have divergent views regarding sound methodologies. Thus, in order to maintain the Organization's professional integrity and credibility, caution is needed to ensure that such statistics are used judiciously when presenting analyses that are based on methodologies with inherent limitations.

Demonstrating the cost-effectiveness of statistics

97. Funding for statistical activities has been limited in many developing countries and, in the past, at FAO. It may be that improved statistics' contribution to better agricultural decision-making has not been properly addressed by ESS and FAO. Recent international initiatives have brought attention to the issue and improved the funding situation, but it appears that the cost-effectiveness of having reliable data for planning and measuring development targets has not yet been convincingly demonstrated. This is likely to require more interaction between statisticians and the users of their outputs.

Outlook

98. Against this background, ESS and the other statistical units have made efforts to address problematic issues and to widen the scope and coverage of statistics. Information for users has improved with the provision of metadata and the introduction of the ABCDQ data quality project. Regarding dissemination, FAOSTAT2 is expected to improve the accessibility and user-friendliness of FAO statistics, but a worrying aspect in this regard is the substantial number of statistical offices in developing countries that have no or only limited access to the Internet. Without the presence of modern IT facilities, they will miss out on these developments.

99. Generally, FAO's Governing Bodies seem inclined to accord priority status to statistical activities. Subject to its adoption by COFI, the FAO Strategy for Improving Information on the Status and Trends of Capture Fisheries will provide a framework for improving statistics, which should motivate donor partner agencies to support capacity building.

100. The Medium-Term Plan (MTP) 2004–2009 demonstrates the Organization's intention to address the limitations of the current FAOSTAT system (with the planned launch of FAOSTAT2 in 2005) and to improve the analytical depth of its statistical work: PE 222P1 (Agricultural Resources and Income Statistics) is expected to provide statistical data on population, labour force, prices, incomes and other socio-economic variables. However, this raises questions about the availability of additional resources, particularly for FAOSTAT2. Similarly, it is foreseen that PE 222A2 (FAO/World Bank/USDA Initiative for Agricultural Statistics in Africa) will run out in biennium 2004–2005 – to be succeeded by TP 222A6 starting in 2006³¹ – and national statistical capacity building has remained a relatively minor point under PE 222P3 (Agricultural Statistics Development). Of the regions previously identified as problematic (such as the Near East,

³¹ At the time of writing, discussions on a follow-up project were stalled for procedural reasons.

countries in transition or resource-poor developing countries), only Africa has been earmarked for specific assistance.

Recommendations

(1) International commitment to statistical quality

101. During the past decade there has been insufficient appreciation of the strategic importance of national statistical systems. This situation seems to have changed in recent years with the international community's growing recognition of the problem. As improved data quality and reporting are crucial to the development of effective food security and poverty alleviation strategies, *it is recommended that the Organization commits adequate resources to its statistical activities and enhances its advocacy role for mobilizing international support to national statistical capacities.* In particular, more concerted efforts should be made to attract extra-budgetary resources under new donor partnership programmes in support of priority statistical activities of a normative nature, especially those directed to food security and poverty alleviation. Similarly, FAO should work with its partners to ensure that international undertakings stipulating progress monitoring are underpinned by the provision of adequate resources for countries to produce and report the necessary information, including support to capacity building for this purpose.

(2) Supporting statistical development and data compilation

102. Given the deteriorating state of food and agriculture statistics in many countries, *it is recommended that FAO explore and undertake several measures to support these countries in improving their statistical capacity:*

- a) Extra-budgetary resources should be mobilized to support the development of statistical capacity in countries committed to this endeavour. In designing such support, particular attention should be given to achieving practical results in a sustainable way. This should focus on innovative and cost-effective ways for developing capacity, for example, by concentrating on selected priority areas or introducing simplified methods and approaches (e.g. in survey methods and data analysis) through pilot projects and/or training aimed at critical bottlenecks. Similarly, greater efforts could be made to coordinate assistance to conventional statistical capacity development with that provided to new information systems development, such as for food security and poverty alleviation. All such support should take into account the limited financial and human resources and the institutional weaknesses.
- b) Measures for facilitating the transmission of data to FAO and reducing the reporting burden should be expanded. This would include greater person-to-person contact between FAO officers and their national counterparts, through workshops and country visits, in order to achieve a better understanding of the procedures and their respective roles and responsibilities. At the same time, FAO units involved in gathering statistics should streamline the data collection and reporting process by adjusting the scope and/or frequency of questionnaires for country reporting, as well as by promoting joint questionnaires among FAO units and with other agencies and by encouraging joint surveys at the country level.
- c) Many organizations and scientists at the local, national and regional levels could make valuable contributions to the collection of agricultural statistics. So far, this source has been underexploited, mainly because of FAO's emphasis on official sources. Efforts should be made to develop more contacts with complementary data producers in order to tap these additional data sources.
- d) Countries frequently use coding systems and methodological approaches that do not conform to international conventions. FAO should promote and support the increased participation of subject matter experts in statistical working parties and similar bodies. Countries should be urged to adopt such bodies' recommendations regarding statistical definitions, norms and procedures.

- e) While the proposed FAOSTAT2 will contribute to this last issue, ESS – in particular – should strengthen cooperation among its units by identifying the main areas of weaknesses in country data reporting and by developing joint measures for addressing them.
- f) Improvement of the coordination and integration of statistical activities between ESS and the decentralized offices should be addressed by allowing outposted officers to participate in discussions with Headquarters colleagues through meetings at Headquarters and through e-mail discussion fora.

(3) Strengthening relations with member country experts

103. Unlike fisheries and forestry statisticians, ESS does not have any effective global-level links with member countries, except through the meetings that are jointly arranged from time to time by UN-ECE, OECD, the EC and FAO. Thus, *it is recommended that, as well as regional statistical meetings, a global forum should be established for institutionalized contacts with experts from member countries.* This would have a number of benefits:

- It would address data quality and methodological problems through external peer review, and propose solutions (an approach that FAO has already applied in specific statistical fields through working parties, regional bodies and expert consultations).
- It would allow national statisticians to exchange information and opinions on their own problems, which would also be enlightening to FAO staff.
- It would increase the profile and transparency of FAO's statistical work, help to inspire trust and improve quality.

(4) Advisory panel on statistics

104. Discussions with experts and responses from the internal user and the country questionnaires point to an unmet demand for specific data sets and individual statistical applications. This, together with resource constraints, indicates a need to review the relative priorities of the current range of statistical activities within a strategic perspective. *It is recommended that an international advisory panel on statistics be created to consider data needs and analytical approaches, improve responsiveness, gather intelligence about current data concerns and consolidate statistical methods.*

105. In particular, given the recent change in divisional leadership, the advisory panel recommended in the previous paragraph should suggest ideas for the focus and scope of future FAO work in statistics in order to help the Organization to make the right selection of priority areas. Prioritization may include the decision to discontinue or reduce the frequency of updating certain statistical series, while at the same time developing partnerships with other statistical organizations that may be in a better position to cover these areas.

(5) Internal commitment to statistical quality

106. Within FAO, improving the quality and utility of its statistical information would require investments in some areas (e.g. FAOSTAT2), possible reduction in some areas and streamlining of the working arrangements among the units concerned as either the suppliers or the users of statistics. In this context, as well as the issue of FAOSTAT, *the following are recommended:*

- a) Within ESS, the upgrading and strengthening of ESSB should be considered in view of its functions, which play a central role in maintaining and improving the largest component of the corporate database, including its dissemination. Given this role (which would grow under FAOSTAT2), its intensified cooperation with member countries and its staff size, ESSB should be upgraded from branch to service status.
- b) Measures should be taken for more integrated operations among the three ESS units, including common approaches to ensuring data quality, responding to new statistical data demands and providing support to countries, in order to enhance the coherence and synergy within ESS programme functions.

- c) In order to avoid confusion, duplication and misinterpretation, a coordinating committee on FAO statistics comprising all key units (ESS, FIDI, FONS, other statistics suppliers and main data users) should be formed to review methodologies, identify priority data needs and propose corrective action, where necessary. Its purpose would be to ensure that data collection, data processing and analysis, reporting and exchange practices are consistent and coherent and that statistical data meet the priority needs of member countries as well as of FAO and its partners. This forum should be led by ESS under the umbrella of the new PAIA on definitions, norms, methodologies and quality of information, whose functions will include the harmonization of statistical approaches and definitions.
- d) Similarly, a central survey quality function (perhaps a Survey Quality Unit) should be established to review and improve all statistical data collection in FAO. As a minimum, the coordinating committee on FAO statistics should meet periodically to review survey, questionnaire and other data collection activities undertaken by all FAO units, with a view to ensuring their consistency with established quality standards.

(6) FAOSTAT2

107. The planned new statistical database FAOSTAT2 is a necessary and essential development for FAO to meet the needs and challenges of the coming years. *It is strongly recommended that an adequate level of resources be secured for the successful development and operation of FAOSTAT2 by 2005.* Given its ambitious nature, it is also recommended that FAOSTAT2 be designed and constructed in a modular fashion so that it can be put into operation gradually and will not be overwhelmed by its own complexity.

ANNEX 1: COMMENTS OF THE EXTERNAL REVIEW PANEL³²

Introduction

108. The external Peer Review Panel convened at FAO Headquarters in Rome, 4 to 6 November 2002. It was organized to review and comment on the evaluation report as an integral part of the evaluation process. In particular, the Panel was invited to comment on the quality of the evaluation in terms of analytical rigour and soundness of judgement. To validate the findings, conclusions and recommendations found in the draft report, the Panel held discussions with senior staff of the main statistical units within FAO, i.e. ESS, FIDI and FONS. It also met with internal data users, i.e. ESDG, TCAS, ESCB and ESCG.

109. The Panel agreed that the draft report prepared by PBEE was objective, balanced, well organized and comprehensive. The report gave a solid basis to review FAO's work on collecting and disseminating statistical information on food and agriculture. It clearly described the details of FAO's statistical programmes, its various functions, outputs and institutional arrangements. Information on budgets, as well as human resources being made available to the programmes were also given.

110. In particular, the Panel wishes to highlight the following aspects of the conclusions: (i) the reporting of countries on statistics is inadequate in many ways, with direct impact on the quality and value of FAO's databases of global statistics; (ii) appropriate measures should be taken to ensure that the quality and credibility of these databases are maintained, including greater coordination among FAO units as well as with other international organizations, both in collecting data from countries and supporting the development of national statistical systems; (iii) FAO units have a pivotal role to play in quality control of data collection and processing, for which coordination and collaboration within ESS and between the data providers and users should be further enhanced, including the creation of a central mechanism for selection, prioritization, harmonization, monitoring and evaluation of statistical activities within FAO; (iv) the ESS Division would require more staff and other resources to meet its challenges; and (v) the FAOSTAT system should be improved to address its shortcomings.

Recommendations

1. Given its own findings from the meetings and appreciation of the conclusions and the justifications for the recommendations made in the draft report, the Panel broadly concurs with the recommendations. In particular, the Panel agrees with the recommendation that FAO renews its commitment to data quality by ensuring that additional resources are made available for its statistical activities and by undertaking advocacy work, and with the recommendation that FAO contributes to the building of capacities in countries to consolidate and improve their statistical systems for food and agriculture, thereby improving the quality of their data.
2. The Panel views these recommendations to imply two broad strategic aims, namely: (a) for FAO to regain its lead role in development of agricultural statistics in the world; and (b) for ESS to strengthen its central role in the statistical programme of FAO, especially with respect to data quality control.
3. The Panel recommends the following measures to be undertaken to contribute to achieving the strategic aim: (i) filling up of posts of statisticians in FAO Regional Offices; (ii) using existing regional commissions as a venue for establishing regular contact among countries and between FAO and countries; (iii) introducing in regional statistical training centres modules in agricultural statistics wherein FAO-recommended

³² The panel was made up of: Ms. A. Thiongane, Regional Adviser, UN Economic Commission for Africa (ECA), Addis Ababa, Ethiopia; Mr. M. Merbis, Economist, Center for World Food Studies, Amsterdam, the Netherlands; Mr. G. Calo, Director, Eurostat, Luxembourg; Mr. M. Galmes, Professor, University of the Republic of Uruguay; and Mr. R. Recide, Director, Bureau of Agriculture Statistics, the Philippines.

norms, standards and methodologies may be taught; and (iv) strengthening collaboration between FAO Regional Offices and subregional economic groupings in the collection of data and promotion of norms and standards.

4. The Panel considers strategic aim (b) to be an expression of FAO's internal commitment to statistical quality. Improving the quality of data in FAO requires the strengthening of ESS's role within the Organization. Towards this end, the Panel supports the recommendation that ESS be restructured with the three functions (collection, analysis, development) being accorded equal importance. This means the upgrading of ESSB status from that of branch to that of a service, based on the justifications given in the evaluation report.
5. Strategic aim (b) requires that data quality assessment and control must be considered as inherent functions of every aspect of ESS work. For this, the Panel recommends: (i) to propose an operational definition for quality of data, both for data submitted by countries and for those that have undergone processing within FAO; (ii) to assess and report on data quality regularly; and (iii) to improve the methodology used to this aim, following the recommendations of an International Advisory Panel of Experts.
6. The Panel agrees with the recommendation to create an International Advisory Panel of Experts, for all the reasons rightly cited in the evaluation report. This international panel can be an objective and neutral partner of FAO in regularly reviewing its statistical programmes, considering analytical approaches, recommending strategies to improve responsiveness of countries and consolidating statistical methods.
7. The Panel suggests that to promote the credibility of, and accountability/responsibility for FAO statistics, a long-term objective within FAO should be to consolidate all statistical data production services within FAO in one unit – ESS. While this may not be possible in the immediate future given present institutional arrangements, the Panel recommends that, at the very least, the maintenance of a unique corporate statistical data warehouse should be lodged at ESS, as a means to facilitate the creation, maintenance, updating and data quality checking of the databases. This would vest ESS with final responsibility for the databases disseminated (on agriculture, fisheries and forestry) to external users.
8. The Panel further recommends that FAO establishes (where they do not exist) or enhances (where they do) regional networks of statisticians, providing a regular institutionalized contact between statisticians in FAO Regional Offices and their country counterparts in statistical offices, academe, research institutions, and other data producing agencies. Through these networks, data exchange may be facilitated, current issues affecting the agricultural statistics systems in countries may be discussed and field programme implementation may be better coordinated.
9. The Panel recommends that additional funding for statistical activities should be prioritized for: (i) supporting statistical development in countries; (ii) recruitment of young qualified personnel to fill vacant positions within ESS; and (iii) development of systems (e.g. FAOSTAT2).

111. As to recent developments in international commitments (e.g. UN Millenium Goals, WFS, poverty eradication, etc.), the Panel notes that they provide FAO with opportunities to strengthen and enhance existing frameworks for the development of statistical systems for food and agriculture, in particular, and the rural sector in general. In addition, they provide tools for advocating international cooperation and resource sharing among countries and the international donor community, as envisioned in PARIS21. An example is the FAO/World Bank/USDA initiative which aims at promoting not only agricultural statistics but also a larger framework of rural statistics containing most of the new data items (e.g. rural income, rural investment, welfare and poverty), the demand for which has grown tremendously in recent years.

ANNEX 2: MANAGEMENT RESPONSE

112. The Review of FAO's Statistical Activities (Review) has been undertaken as a desk study by the Evaluation Service (PBEE) with the assistance of short-term external consultancies. A review of this report by an External Peer Review Panel (Panel) was organized as an integral part of the evaluation process and the Panel Report is attached as an annex to the PBEE Report. The management response relates to both reports unless otherwise stated explicitly.

113. The Review and the External Peer Review Panel acknowledge that FAO's work on collection and dissemination of statistical information on food and agriculture is a core element of the Organization's mandate. In essence, the reports point to the fact that during the period under review, the system has come under pressure with regard to maintaining and improving its quality and coverage as well as meeting increasing demands for additional statistical data. This, combined with a decline in Regular Programme resources committed to statistics, implies that the Organization faces the challenge of addressing new demands on its statistical systems with stagnant resources.

114. *Management welcomes the Review on the whole and shares its findings and recommendations in general. In particular, it welcomes the recognition of increasing demand for statistics combined with a decline in Regular Programme resources committed to statistics during the review period and the recommendation for adequate resources for statistical activities and for mobilizing support to enhance national statistical capacities. Furthermore, Management shares the opinion of the Panel that the Review is objective, balanced, well organized and comprehensive.* Management's response given below concentrates on the basic structure and philosophy of the findings and recommendations by PBEE and the Panel rather than on the fine details of the two reports.

115. *Management would like to emphasize that it is more constructive and productive to concentrate on the concerns of the reports regarding the quality and coverage of statistics, with a long-run view of sustainability and to focus on the widening gap between actual and potential outputs of the statistical activities, rather than considering past performance from an accounting perspective.*

116. As in any environment facing increasing requirements with decreasing means, three different directions or their combinations can be sought for the solution. The first is to increase the means by either reallocating existing resources or by finding new resources. The second is to lower the goals or reduce the requirements to be targeted. The third is to increase the efficiency and thus attempt to meet more requirements with less resources. The Review and the Panel recommend that the solution be sought in the first and third directions and acknowledge that, apart from minimal resource gains that could be achieved through prioritization of workload, the requirements for the statistical system at FAO are more likely to increase.

117. Below we classify the recommendations of PBEE and the Panel within the framework outlined above and present our responses as well as plans of action:

A. Recommendations to Increase Resources Allocated to Statistical Activities

118. *Recommendations to commit the Organization to ensure adequate resources for its statistical activities on the one hand, and to increase advocacy for mobilizing international support to strengthening national statistical capacity on the other, are fully supported.* While hard work and advances in computer technology compensated for declining resources in the past, the sustainability of the system, let alone the ability to meet growing demands in the future, is clearly at risk.

119. *It is agreed that in addition to adequate resources for the technical units in charge of statistical activities at HQ and for augmenting the statistical capacities of the national statistical*

systems, special attention needs to be given to FAO's corporate statistical database (FAOSTAT). The planned new statistical database FAOSTAT2 is a necessary development for FAO to meet the needs and challenges in the coming years. The FAOSTAT2 project prepared by technical units, discussed and reviewed widely by all the parties involved, approved by FAO management and governing bodies, is expected to start in 2003 using the resources earmarked from arrears. An inter-departmental steering group chaired by the Director of ESS has already been formed to supervise and monitor the FAOSTAT2 project. Therefore, the concerns of the Review regarding the FAOSTAT2 project being dependent on the resources allocated from arrears and on extra-budgetary resources no longer seems valid for the investment stage, given the recent arrival of the arrears. However, these concerns remain valid for the ongoing maintenance of the FAOSTAT2 system once it has been developed and is operational.

B. Recommendations for Identifying and Modifying Priorities

120. *Management agrees with the recommendation to create an International Advisory Panel of Experts, for all the reasons rightly cited in the Review. This international panel can be an objective and neutral partner of FAO in regularly reviewing its statistical programmes, considering analytical approaches, recommending strategies to improve responsiveness of countries and consolidating statistical methods. The Advisory Panel can also contribute to the identification of priority areas as well as areas and activities of lesser priority where FAO's involvement could be curtailed.*

121. *Action has commenced in this direction and it is intended to convene the first session of the Panel later in 2003, the cost of which will be financed partly by using savings from existing Regular Programme resources and partly by identifying a significant number of the initial panel members from the heads of statistical offices of the UN family. Efforts will be made in the next biennia, starting in 2004-05, to earmark resources for this important and much needed Panel so that it can regularly provide guidance on statistical activities.*

C. Recommendations for Increasing Efficiency/Cost Savings

122. *The majority of the findings and recommendations of the Review and the External Panel are related to increasing the efficiency of the statistical activities at FAO. These can be grouped under three broad categories or levels, namely at the country level, at the HQ level and at the international level.*

- *At the source/country level:*

123. *Management agrees that the quality of FAO's statistics ultimately depends on the national statistical systems being able to reach and/or maintain acceptable statistical standards. Serious constraints in the national statistical capacities, and the quality of data reported by countries to FAO due to inadequate financial and technical resources imposes in turn serious constraints and risks on FAO's statistical system. We therefore fully support the following four groups of recommendations towards supporting statistical development and data compilation at the country level:*

1. *Strengthening relations with member countries' experts, including the establishment or enhancement of a regional network of statisticians, using existing regional commissions as a venue for establishing regular contact among countries and between FAO and countries, and strengthening collaboration between FAO Regional Offices and sub-regional economic groupings in the collection of data and promotion of norms and standards.*
2. *Improving the regional presence by filling vacant posts of statisticians in FAO Regional Offices and creating new ones where necessary. The Fisheries Department has proposed under the real growth scenario of the PWB for 2004-2005 the establishment of*

a regional fishery statistician post at RAP and ESS has proposed the creation of a new statistician post at RNE.

3. Introducing in regional statistical training programmes modules in agricultural statistics where FAO-recommended norms, standards, and methodologies may be taught. The CountryStat component of the FAOSTAT2 project is expected to be an important step to this end. An expert consultation has been scheduled to meet in March 2003 to review the structure and contents of this important module of FAOSTAT2 which is expected to contribute not only to the exchange of statistical data between countries and FAO, but also to the policy-making process.
4. Reducing the reporting burden of countries by avoiding duplicate data requests and by facilitating improved data collection methods. Data for FAO's statistical databases are collected using various means ranging from country visits by FAO experts, national publications, national web-sites, paper questionnaires, diskettes, tapes, on-line data transfers to virtual questionnaires. Efforts are made, to the extent the capacities in the reporting countries permit, to reduce the burden on the countries as well as on HQ by requesting the existing data sets through electronic means and virtual questionnaires. It is recognized, however, that there is still room for improvement in this area, especially in the coordination of various requests by different FAO units as well as other agencies for the same set of information from member countries. The CountryStat module of FAOSTAT2 when fully developed is expected to minimize the burden of data collection both for HQ and for the participating member countries by harmonizing the statistical databases in the countries with the FAO databases and through their simultaneous updating protocols.

- *At the Headquarters level:*

124. Three basic groups of recommendations have been made to improve the quality and efficiency of statistical activities at HQ. These involve quality assessment, restructuring and coordination:

1. *We agree with the recommendation to develop an operational definition for quality of data, both for data submitted by countries and those that have undergone processing within FAO, to assess and report on data quality regularly; and to improve the methodology used to this aim, following the recommendations of an International Advisory Panel of Experts.* ESS has already taken steps in this direction and initiated the ABCDQ (Agricultural Bulletin Board on Data Collection, Dissemination and Quality of Statistics) project in 2000 to guide users that might seek information, on the sources and methods of national agricultural data collection and dissemination. The ABCDQ is currently under development. The present version, available on the ESS Web Page, is being provided to stimulate country input as well as gathering national metadata contributions in an organized and systematic way. It is planned to improve and incorporate ABCDQ into FAOSTAT2, together with Meta Data on quality for all FAO statistics.
2. *We agree with the recommendation to restructure ESS, including the upgrading and strengthening of ESSB in view of its central role in compiling, maintaining and improving the largest component of the corporate database.* ESS has already developed a budget neutral proposal to restructure the division into three services by upgrading ESSB from branch level to service level and incorporated it into the 2004-05 PWB.
3. As statistical activities in FAO do not fall into the domain of a single technical unit, but are rather distributed among different units, it is clear that they need to be effectively and efficiently coordinated. *Management agrees, therefore, with the observations regarding the need for better coordination among the concerned units and with the Review recommendation to achieve this by creating an internal coordinating mechanism on FAO statistics and by ESS taking a more active role in the coordination process.* Two initiatives are already in place to this end. First is the new PAIA (Priority Area for

Interdisciplinary Action) dealing with Definitions, Norms, Methodologies and Quality of Information which could address some of the general issues, although it has too wide a scope to substitute for a body dealing specifically with statistical questions. The second is the FAOSTAT Working Group on Data Management and Statistical Methodology with the mandate to document the data classification, coding standards, data definitions and methodologies employed in FAO, share information among related units and agree on appropriate organizational structure to support ongoing statistical activities. There remains nevertheless scope for further refinement of these mechanisms and the establishment of new ones to be able to coordinate statistical activities more effectively.

125. The Panel goes further than the Review and suggests in the “long term to consolidate all statistical data production services within FAO in one unit – ESS.” *Management finds this to be a measure requiring thorough consideration as it would have significant implications for other cross cutting activities at FAO.*

126. *Management acknowledges that collecting, analysing, and providing information has become an integral part of many technical units at FAO.* The diverse nature of information to be collected, analysed and disseminated makes it almost impossible to centralize this in one unit even within the same department. The nature of expertise required, the diverse nature of data, and the strong link required between data providers and users to facilitate effective use and improve data quality, would dictate against the centralization of the data production services. Furthermore, statistics gathering is an integral part of the whole chain leading to analysis/assessment, advice generation and policy-making and these elements are often jointly addressed in each department’s technical assistance and projects in support to countries. Just as complete centralization should not be seen as the only means to coordinate, avoid duplication and improve data quality, complete decentralization is certainly not the answer. *The solution and the challenge is in finding the optimum balance between centralized and decentralized activities coupled with appropriate co-ordination mechanisms.*

127. Indeed, the Panel also recognizes that consolidation of statistical activities “may not be possible in the immediate future given present institutional arrangements and recommends that, at the very least, the maintenance of a unique corporate statistical data warehouse should be lodged at ESS, as a means to facilitate the creation, maintenance, updating and data quality checking of the databases. This would vest ESS with final responsibility for the databases disseminated to external users.” *Management agrees with this proposal and steps have already been taken to incorporate the concept of “corporate statistical data warehouse” as an integral part of the FAOSTAT2 project.*

- *At the international level:*

128. *Management agrees with the Panel’s observation that the recent developments in international commitments (e.g. UN Millenium Goals, WFS, WSSD) and initiatives to improve national and international statistics (e.g. PARIS21, draft FAO Strategy for Improving Information on Status and Trends of Capture Fisheries) provide FAO with opportunities to strengthen and enhance existing frameworks for the development of statistical systems and for advocating international cooperation and resource sharing among countries and the international donor community.* We plan to intensify our efforts to be part of the international efforts to coordinate statistical activities and to improve statistical capacities in member countries.

129. In conclusion, Management would like to reiterate that it welcomes the Review on the whole, and its principal observation that the Organization faces the challenge of addressing new demands on its statistical systems with inadequate resources. The recommendations advanced in the Review are found to be extremely useful for the future direction of statistical activities at FAO. Unfortunately, with the exception of few they are not cost free, at least in their initial years.

Therefore, as recommended by both reports, the need for adequate resources for statistical activities remains.

ANNEX 3: ACRONYMS

ABCDQ	Agricultural Bulletin Board on Data Collection, Dissemination and Quality of Statistics
ACC	Administrative Committee on Coordination
ACP	African, Caribbean and Pacific Group of States
ADG	Assistant Director-General (FAO)
ASFA	Aquatic Sciences and Fisheries Abstracts (FAO)
CEEC	Central and Eastern European country
CFS	Committee on World Food Security
CFSOS	Caribbean Forestry Sector Outlook Study
CIS	Commonwealth of Independent States
COAIM	Consultation on Agricultural Information Management
COFI	Committee on Fisheries (FAO)
CWP	Coordinating Working Party on Fishery Statistics (FAO)
DFID	Department for International Development (UK)
DTD	document type definition
EC	European Community
ECA	Economic Commission for Africa (UN)
ECDC	Economic Cooperation among Developing Countries
ECE	Economic Commission for Europe (UN)
ES	Economic and Social Department (FAO)
ESC	Commodities and Trade Division (FAO)
ESDP	Programme Coordination Unit (FAO)
ESS	Statistics Division (FAO)
ESSA	Statistical Analysis Service (FAO)
ESSB	Basic Data Branch (FAO)
ESSS	Statistical Development Service (FAO)
EU	European Union
FAOSTAT	Corporate Database for Substantive Statistical Data (FAO)
FASC	Food and Agricultural Statistical Centre
FBS	food balance sheet
FIDI	Fishery Information, Data and Statistics Unit (FAO)
FIGIS	Fisheries Global Information System
FIRMS	Fishery Resources Monitoring System
FISHSTAT	Computer System for Global Fish Catches (FAO)
FIVIMS	Food Insecurity and Vulnerability Information and Mapping Systems
FONP	Forestry Policy and Institutions Branch (FAO)
FONS	Forestry Planning and Statistics Branch (FAO)
FORIS	Forestry Information System (FAO)
FORM	Forest Resources Development Service (FAO)
FOSA	Forestry Outlook Study for Africa
FP	Field Programme (FAO)
FRA	Global Forest Resources Assessment
GIL	Library and Documentation System Division (FAO)
GLOBEFISH	Computerized System of Fish Marketing Information (FAO)
IGAD	Intergovernmental Authority on Development
IIA	International Institute of Agriculture
IMF	International Monetary Fund
IT	information technology
ITTO	International Tropical Timber Organization
LIFDC	Low-income food-deficit country
MTP	Medium-Term Plan

NGO	non-governmental organization
NIS	Newly Independent States
OECD	Organisation for Economic Co-operation and Development
PAIA	Priority Area for Inter-disciplinary Action
PE	Programme Entity
PWB	Programme of Work and Budget (FAO)
RAPE	Social Department Group, (FAO Regional Office for Asia and the Pacific)
RFB	regional fishery body
RFO	regional fishery organization
RP	Regular Programme (FAO)
SADC	Southern African Development Community
SAFM	Multi-disciplinary Team (FAO Regional Office for Africa)
SDRN	Environment and Natural Resources Service (FAO)
SOFA	<i>The State of Food and Agriculture</i> (FAO publication)
SOFI	<i>The State of Food Insecurity in the World</i> (FAO publication)
SOFIA	<i>The State of World Fisheries and Aquaculture</i> (FAO publication)
SOFO	<i>The State of the World's Forests</i> (FAO publication)
TC	Technical Cooperation Department (FAO)
TCAS	Agricultural Policy Support Service (FAO)
TCP	Technical Cooperation Programme (FAO)
TF	Trust Fund
UN	United Nations
UNEP	United Nations Environment Programme
USDA	United States Department of Agriculture
WAICENT	World Agricultural Information Centre (FAO)
WFS	World Food Summit
WTO	World Trade Organization