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### SYSTEMS OF AGRICULTURAL STATISTICS\*

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#### Introduction

An agricultural statistical system may be defined as the machinery for the collection, compilation, analysis, interpretation, use and publication of numerical data relating to the various aspects of agriculture and agricultural economy. In order to be able to discharge its functions with competence and efficiency, this system should be "honest, efficient, technically competent, closely intermeshed among its parts, productive and alert to informational requirements". From its inception, FAO has stressed the need for evolving appropriate statistical systems both at the national and international levels and has set up a strong statistical unit at its Headquarters for centralizing and disseminating agricultural statistical information reported by the member countries.

A study of systems of agricultural statistics must deal, inter alia, with the scope of agricultural statistics, the national and international requirements of agricultural statistical series, the methods of collecting them in the different countries together with their limitations, and the existing statistical services and organizations for collecting them. While the material required for this study is not yet available from many countries, the available material is considered comprehensive enough to discuss the subject in broad outline.

<sup>\*</sup> Paper prepared for International Statistical Conferences, India, 1951, and reproduced in this journal with the permission of the FAO.—Editor.

#### SCOPE OF AGRICULTURAL STATISTICS

- 1. The term 'agricultural statistics' has now come to acquire a very wide significance and is consequently difficult of precise definition. It may, however, be broadly defined as the aggregate of numerical information bearing on the different fields of agriculture and its economy. These data enable the appraisal of the past and present agricultural resources of a country and help the administration in taking decisions on matters of agricultural and food policy. Agricultural statistics, therefore, comprise a very wide field, such as crop acreages, livestock numbers, crop and livestock production and prices, statistics of agricultural stocks, statistics of farm population and employment, farm wages, income and expenses, amount of machinery and fertilizers used, family living costs, farm taxes, loans to farmers, agricultural wages, trade in agricultural products, statistics of nutrition and food consumption, statistics of fisheries, forestry and forest products, etc. These may be broadly classified under the following three heads:
- (a) Basic agricultural statistics.—Number of holdings and their principal characteristics, such as size, form of tenure, fragmentation, land use, agricultural population, employment in agricultural work, farm implements and machinery;
- (b) Agricultural statistics proper.—Statistics of crop acreages and production, and statistics of livestock and their products; and
  - (c) Agricultural statistics in the wider sense.—Stocks, prices and trade statistics of agricultural and livestock products, farm income, statistics of cost of production of crops, agricultural labour force, wages in agriculture, rural indebtedness, statistics of fisheries, forestry and their products, etc.
  - 2. Of the above, the statistics under (a) provide the basic information regarding the agricultural structure and resources of a country. These are collected through censuses of agriculture which are an integral part of a system of agricultural statistics. The statistics under (b) and (c) are required in the formulation of current agricultural and food policies and are collected through annual surveys. In this paper, we shall deal only with the statistics under (b).

## NATIONAL AND INTERNATIONAL REQUIREMENTS FOR AGRICULTURAL STATISTICS

3. The basic requirements which the agricultural statistical series of a country must satisfy in order to be of real help and assistance

- n shaping its agricultural policies are (a) utility, (b) significance, (c) reliability, (d) adequacy of coverage, (e) timeliness, and (f) international comparability. These are discussed seriatim below.
- (a) Utility.—Agricultural statistics of a country must be collected keeping in view their utility in the formulation of agricultural development plans and administrative action, and their usefulness to the general public and the trade. In several countries, a considerable mass of statistics have been collected without sufficient need for them and without knowing to what practical use these would be put. A recent example is provided by Japan where, as stated by Rice and Dedrick,\* the "Japanese administrative officials, the public and many Japanese statisticians themselves fail to understand that the collection of statistics can be justified only if the figures gathered are used, .... and statistical data have sometimes continued to be collected long after their original purpose has been served". Such uncritical collection of statistics must be avoided in order that the statistical resources of a country may be properly and efficiently utilized. Any plans for collection of statistics should be preceded by suitable planning by qualified statisticians who understand their use.
- (b) Significance.—It is also necessary that the statistics are collected in a manner so as to be as widely significant as possible in appraising the agricultural resources and economy of a country. This point has been stressed in recent years by FAO who attach particular importance to the collection by member countries of agricultural statistics on a holdingwise basis instead of on a fieldwise basis as in some countries, which gives a clearer picture of the agricultural structure and economy of a country than data on a fieldwise basis.
- (c) Reliability.—The need for ensuring the reliability of agricultural statistics collected cannot be too strongly emphasized. In most underdeveloped countries, e.g., Iran, Afghanistan, Ethiopia, Saudi Arabia, Madagascar, Sierra Leone, Mauritius, Nigeria, etc., the agricultural statistics are little more than guesses. Such statistics cannot, therefore, be used for any action at national or international levels. It is, consequently, in the highest degree important to ensure by every possible means the reliability of the statistical series collected.
- (d) Adequacy of coverage.—Another requirement of agricultural statistics is the completeness of geographical coverage of the statistics

<sup>\*</sup> See Japanese Statistical Organization—A Report of the Second Statistical Mission to Japan, to the Supreme Commander for the Allied Powers, by Stuart A. Rice and Calvert L. Dedrick, Washington, D.C., July 1951.

reported. At present, in the more developed countries like the USA, Canada, the UK, and other European countries, the coverage is almost complete. In others, such as the Union of South Africa and India, the coverage is only partial. In many underdeveloped countries, however, there is absence of systematic enumeration altogether. In its programme for the 1950 World Census of Agriculture, FAO has already emphasized the need by member countries for the collection of statistics with as complete a coverage as the administrative resources of the respective countries would permit. Till this recommendation can be implemented, it is important for member countries, while furnishing statistics relating to their respective countries, to state the extent of coverage of the statistics reported by them.

- (e) Timeliness.—The fifth requirement of agricultural statistics is their availability in time if they are to serve the purpose expected of them. Experience shows that the processing of data takes considerable time and there is consequent delay in their publication beyond the due dates. This greatly diminishes their value for purposes of national and international action. It is, therefore, desirable to adopt appropriate ways and means of reducing these delays to the minimum posisible.
- (f) International comparability.—The last and the most important requirement, from the point of view of FAO, is the international comparability of the agricultural statistical series. This, in fact, is one of the basic requirements for developing a world system of agricultural statistics such as is evolving through the efforts of FAO. In the programme for the 1950 World Census of Agriculture, FAO has, for purposes of international comparability, laid down standardized definitions of the various items on agricultural statistics, which may be taken for the present as a basis for achieving the desired international standardization and comparability. When the results of the census from all the countries are received, the examination of all the material will provide an opportunity for examining the extent to which the agricultural concepts and standards developed by FAO have been adopted by the countries and need modification. FAO is also devoting attention to the standardization of other statistical concepts such as definitions of livestock products and terminology for rice production.

#### PREVALENT STATISTICAL SYSTEMS

4. We shall now examine to what extent the requirements enumerated above, particularly in regard to the adequacy of coverage and reliability, are fulfilled in actual practice by the statistical series

reported from the different countries. Perhaps the best way of doing this would be to describe the prevalent statistical systems. This we shall do in two parts, the first dealing with methods of collecting agricultural statistics and the second with the existing statistical services and organizations.

(a) Methods of collecting agricultural statistics.—The methods of collecting crop and livestock statistics vary considerably in the different countries. In the more developed countries, annual censuses are carried out for the collection of these statistics. The unit of enumeration is usually a farm or holding, but in some it is a field, the method of enumeration being by interviewing the farmer and by mailed questionnaire, supplemented in some countries by spot inspection. These annual censuses are, however, known to suffer from incompleteness. Owing to this difficulty in ensuring completeness in annual censuses, many countries, such as the USA, Canada, Finland, Norway and Uruguay, conduct censuses only periodically, either quinquennially or decennially, and use the results as bench marks for improving the precision of annual estimates derived from partial or sample surveys. By and large in most underdeveloped countries, however, there is hardly any attempt at systematic enumeration and the agricultural statistics reported for most items are little more than guesses.

For obtaining area statistics in case of incompleteness in coverage arising either from partial census or absence of any systematic enumeration altogether, a number of countries, such as India and Southern Rhodesia, have used the method of random sample surveys. Some countries have corrected for bias in census acreage due either to non-reporting or to understatement in the area reported, by the use of the sampling method.

The statistics of production in most developed countries are usually based on the periodic reports received from crop reporters. Most of these countries possess an extensive agency of crop reporters who send their estimates to the Central Office either expressed directly in terms of the yield of the crop per hectare, or as percentage of yield for the previous year. In many countries, such as the USA and India, the yield of crop is expressed as percentage of the standard normal crop. Estimates thus reported are then processed into some sort of an average for each administrative unit, which is altered and modified on the basis of information made available from independent sources. The objective method of crop-cutting surveys by the method of random sampling for the estimation of crop production has not yet been generally adopted by most developed countries on a large scale;

and India is the only country where annual random sample surveys for the estimation of outturn of the principal crops have now been in progress for several years, largely as a result of the efforts of the Indian Council of Agricultural Research.

The methods of collecting statistics of livestock products are relatively more complex and present special problems of their own. We shalf not, therefore, deal with them here.

- (b) Existing statistical services and organizations.—The statistical services and organizations vary widely in the different countries, from being most highly developed in such countries as the USA and the UK, fairly developed in countries such as Argentina and Mexico, and poorly developed in countries such as Honduras, Syria and Cambodia, to no statistical services and organizations whatsoever in countries like Afghanistan and Saudi Arabia.
- 5. By and large in most undeveloped countries, there exist no statistical services and organizations, most of the statistics in these countries being collected as a by-product of the ordinary administrative activities, with the various branches of government collecting statistics to meet their own particular needs. With the war and the subsequent emphasis on economic planning, there was a great increase in the number of government departments which necessitated avoiding duplication and overlapping. This need, as also the realization that efficient statistical services could be organized on modern statistical lines within the available resources of government, have made many of them initiate measures to establish or overhaul their statistical services and organizations.
- 6. In the more developed countries, however, there exist well-defined and long-established statistical services and organizations for the collection and dissemination of agricultural statistics; and we shall, in the subsequent paragraphs, describe in brief outline those existing in the USA, India, Brazil, Canada, the UK, France, Denmark and the Netherlands as typical of the agricultural systems prevailing in most of these countries.
- 7. In the USA, a basic feature of the Government's agricultural statistical organization is that most of it is located within the Department of Agriculture. This organization is the Bureau of Agricultural Economics, hereinafter called BAE. The only function relating to agricultural statistics which BAE does not perform is that relating to the quinquennial agricultural census which is carried out by the Bureau of the Census in the Department of Commerce. Co-operative

agreements exist between BAE and most of the State Departments of Agriculture and the closest co-operation exists between the two in actual practice. There is an Agricultural Statistician for every State to whom monthly statistical returns are sent by various groups of volunteer reporters, some of them reporting on the main crops and livestock of the State and others only on special subjects or minor crops. From these reports and from information about railroad shipments, receipts of products in the main markets, processing of products, and enumeration for local taxation, the Statistician makes estimates and sends them to BAE. BAE also has some field offices and receives directly returns from special reporters on some commodities. BAE thus exercises central control both on its own staff and that of the different State Departments of Agriculture entrusted with the collection The co-ordination of all and reporting of agricultural statistics. statistical work in the USA is done by the Division of Statistical Standards in the Bureau of the Budget.

- 8. In India, all the work relating to the compilation and dissemination of agricultural statistics is carried out by a Statistical Office, called the Directorate of Economics and Statistics in the Central Ministry of Food and Agriculture. The work relating to research in statistical sampling and improved methodology in the field of agricultural statistics is, however, carried out by the Statistics Branch of the Indian Council of Agricultural Research under this Ministry, which works in close co-operation with the Directorate. This is a unique feature of the agricultural statistical system prevailing in India to which most of the recent advances in the field of agricultural statistics in this country are due.
- 9. The Directorate plays a role similar to BAE in the USA. However, unlike the USA, the States in India are autonomous and agricultural statistics is a State subject under the present constitution. In the reporting parts of the Indian Union, the primary agricultural statistics are collected by periodical field-to-field inspections by the patwari agency which extends to the remotest village, there being one patwari (or village official) in every village or a group of 3 to 5 villages. This agency works under the supervision and control of the Land Records Department of each State. Under the five-year co-ordinated scheme of crop-cutting experiments now in progress in the different States under the direction of the Indian Council of Agricultural Research, provision has been made for a central supervisory check on area statistics on a countrywide scale by field staff stationed in the different States. Although the Directorate of Economics and Statistics

does not have any administrative control on the State offices in charge of the collection and dissemination of agricultural statistics for their respective States, the closest co-operation subsists between the two.

- 10. In Brazil, the collection, compilation, tabulation and processing of all agricultural statistics is done by the Department of Statistics for Production of the Ministry of Agriculture. This Department works in close co-operation with the Statistical Offices of the different States. It sends to each of the Municipios (which are minor political subdivisions) throughout the country a booklet containing the necessary questionnaires in triplicate required for enumeration of agricultural statistics. The municipal authorities, through staff principally employed for agricultural statistics, fill up these forms, retain one copy for their office use, despatch another copy to the Department of Statistics for Production and the third one to the Statistical Offices of their respective States. The Department of Statistics for Production then edits, compiles, tabulates and processes the returns, and subsequently publishes the results. However, in order to obtain estimates for their respective States without delay, the State Statistical Offices also independently edit, tabulate and process the returns for their internal use only, but do not publish the results as these are always reconciled with the figures obtained by the Department of Statistics for Production of the Ministry of Agriculture.
- 11. The Department of Statistics for Production closely co-operates in all statistical matters with the Brazilian Institute of Geography and Statistics which co-ordinates all the official statistics of Brazil. The closest co-operation subsists between the Institute and the different States through special agreements. The Institute maintains Statistical Offices in each State and also an Agent in each Municipio. This staff works with and assists the local municipal authorities, particularly their staff mainly employed for agricultural statistics, in regard to the reporting of agricultural statistics.\*
- 12. In Canada, all work relating to agricultural statistics is centralized in the Agricultural Division of the Dominion Bureau of Statistics under the Department of Trade and Commerce. A high degree of liaison is maintained between the Agricultural and other Divisions within the Bureau. Also, a great deal of outside liaison exists between

<sup>\*</sup> Very recently, however, it has been decided that the compilation, editing, tabulation and processing of data will be done in the Statistical Office of each State, the Statistical Department for Production acting as a co-ordinating and supervisory body. This decision does not, however, seem to have been implemented so far,

the Agricultural Division and the Federal Department of Agriculture and other Government Departments. Although there are no formal agreements between the Federal Government and the ten Provinces in the field of agricultural statistics, there are agreements which have been laid down in correspondence from time to time, the matters covered relating to such things as timing of reports, arrangements as to collection and publication of the results, concepts, terminology, etc. However, there is a wide variation in the agricultural statistical activities of those Provinces. The size of the staff varies greatly and functions undertaken range from purely consultative or advisory up to almost as complete responsibility as that undertaken by the Agricultural Division of the Bureau of Statistics. These variations are more or less directly related to the size of the Provinces and the relative importance of agriculture in the economy of the Provinces. Although, under the Statistics Act, the Federal Government has primary responsibility for statistics generally, some Provinces not only act in a consultative capacity but they collect, tabulate and publish their agricultural statistics.

- 13. The greater portion of the data used by the Agricultural Division is obtained directly from farmers or individuals closely in touch with agriculture. The Agricultural Division has also a network of correspondents who send crop reports periodically to the Bureau.
- 14. In United Kingdom, the Division of Economics and Statistics of the Ministry of Agriculture and Fisheries is responsible for the collection and publication of agricultural statistics in England and Wales. This Division has a Census Branch for the collection, compilation, tabulation and processing of the returns of the quarterly agricultural censuses which have been carried out in England and Wales for several years in March, June, September and December. Another Branch of the Division, called the Analysis of Statistics Branch, is charged with the application of sampling methods to agricultural statistics.
- 15. Under compulsory powers given by Section 78 of the Agriculture Act of 1947, statistics are collected from all occupiers of over one acre of agricultural land. Detailed schedules, asking for information relating to land use, production, livestock, machinery, labour employed and other details, are sent by the Census Branch by mail to the individual farmers, numbering about 370,000, who are required to fill them up and return them by post to the District Agricultural Officers, who scrutinize them before despatching them to the Census Branch. These officers also furnish information regarding the yield of crops.

- 16. Similar independent arrangements exist in Scotland and Northern Ireland which are autonomous in all matters relating to agricultural statistics, although, in practice, the same operations are conducted simultaneously in all parts of the United Kingdom. It may also be mentioned that all the statistics in the United Kingdom are co-ordinated by the Central Statistical Office.
- 17. In France, the collection and publication of all agricultural statistics are the responsibility of the Bureau of Statistics in the Ministry of Agriculture. This Bureau collects the statistics through the Departmental Agricultural Services and Communal Commissions and edits, processes and publishes all statistics relating to agriculture in France. Specialized agencies also furnish statistics regarding their specific fields. There are several legal enactments in connection with the collection of agricultural statistics, the most important of which confers compulsory powers on the Ministry of Agriculture to collect the required agricultural statistics from individual farmers.
- 18. The Department of Statistics in Denmark is responsible for the collection and publication of all agricultural statistics. This Department is autonomous and the responsibility for all statistical investigations lies with the Director. Nevertheless, the closest co-operation subsists between the Department and the different Ministries of the Government. For administrative purposes, this Department is one of the four Departments into which the Ministry of Finance is divided.
- 19. Agricultural Statistics are collected by the Department of Statistics through a special staff of enumerators who visit all the farms and fill in the schedules, prepared by the Department of Statistics, by spot inspection and interrogation of the farmers. Information regarding the yield of crops is collected through a network of 300 correspondents distributed throughout the country. Most of these correspondents are Presidents of Farm Associations and similar Organizations. The whole country is covered by these Associations and there is always at least one person belonging to each Association among the reporting personnel. Some other statistics, such as those relating to livestock products, are obtained through specialized agencies and Boards.
- 20. Agricultural statistics in the Netherlands are the responsibility of the Division for Agricultural and Food Supply Statistics of the Central Bureau of Statistics under the Ministry of Economic Affairs. Under compulsory powers derived from legal enactments, agricultural statistics are collected from individual farmers through enumerators

who visit all the farms and fill up schedules, issued by the Central Bureau of Statistics, on the spot by direct inspection and interrogation. Enumerators are carefully instructed and selected from the people acquainted with conditions within the region. Very often, farmers or their sons act as enumerators.

These annual surveys are carried out with the help of the Provincial Food Commissioner's Office, of which there are one for each Province, and local offices in the large municipalities. farm has to be registered with the Provincial Food Office and a registration card is kept for each farm in the Provinces and also in the Agricultural Division of the Central Bureau. Each year plans for the survey are carefully prepared by the Bureau in close co-operation with the people acquainted with the conditions in each region. Schedules drafted by the Central Bureau are discussed and the name and address of each farmer is then placed in the schedule. Schedules are signed both by farmers and enumerators, and then despatched to the Provincial Office, where the original schedule is kept, and a copy sent to the Central Bureau. With the help of the registration cards, each municipality is checked in order to make sure that all farms have been covered. Committees composed of the Mayor and five or six farmers in each municipality furnish information to the Central Bureau on the yield of crops for their respective regions.

#### Conclusion

- 22. It would thus appear that with respect to agricultural statistical systems, the more developed countries may be broadly classified under two categories, viz., (a) those having a "centralized" statistical system in which the functions of collection and dissemination of both agricultural and non-agricultural statistics are vested in the same general statistical office; and (b) those having a "decentralized" statistical system in which agricultural statistics are collected and disseminated by a special statistical office, usually in the Ministry of Agriculture. Canada, Denmark and the Netherlands are examples of the former arrangement, while the other five countries discussed above have special statistical offices for agricultural statistics.
- 23. It is noteworthy that, regardless of the office responsible, all the eight countries have specialized field staff for agricultural statistics. Experience shows that where such specialized staff is not employed, serious inaccuracies in the data reported are likely to occur.
- 24. In four of the countries discussed, viz., Brazil, Canada, India and the USA, there is a considerable geographic decentralization in the

work of agricultural statistics, necessitated by the size of those countries and their governmental structure.

25. The advantages and disadvantages of decentralization of agricultural statistics as against its centralization may now be briefly discussed. As observed by Rutherford,\* the advantages of centralization appear to be that "up to a point there are savings in such matters as statistical equipment, printing equipment, administrative costs, etc.". In other words, centralization results in the usual savings that accrue "from increasing the size of statistical units". In some countries with limited resources, both human and financial, these may be important considerations in such operations as tabulation. calculation, printing and publication. Central control also generally results in the use of common classification systems by different agencies so that different series can be integrated to make possible a consistent picture of the country's economy. On the other hand, the disadvantage of the centralized system is that the statisticians and other technical personnel tend to be removed from and lose contact with their subject-This seriously militates against creative research in applied statistics which can best be carried out in close and intimate contact with the subject concerned. In the decentralized statistical organizations of the USA, the UK and India, where agricultural statistical systems are most highly developed, the Statistical Offices attached to the Ministries of Agriculture have highly qualified agricultural statisticians and other technical personnel on their staff who are engaged in continuous research in statistical sampling and improved methodology in the field of agricultural statistics, and the recent developments in sampling in the field of agriculture are largely ascribable to the intimate association of the statisticians of these countries with their subject-matter fields arising from this arrangement. This appears to throw the balance in favour of decentralization of agricultural statistics in a Statistical Office attached to the Central Ministry of Agriculture of each country. However, this may not hold regardless of the state of development and size of a country and the form of government obtaining in it. In undeveloped countries, for example, where no statistical services and organizations of any kind exist, it appears desirable, to start with, to centralize and concentrate as much work as possible so as to secure the maximum utilization of the available professional skill and resources. With the development and progress of statistical work, there will inevitably arise, though

<sup>\*</sup> See Lectures on Agricultural Statistics, by John B. Rutherford, San Jose, Costa Rica, March 1951.

gradually, need for specialized field staff and statistical offices for the collection and dissemination of agricultural and non-agricultural statistics.

- 26. However, for giving a purpose and design to the collection of statistics and in the interests of development of a certain degree of uniformity in concepts and terminology in the different subject-matter fields, it is necessary to co-ordinate the functions and activities of the Statistical Offices under the different Ministries. This co-ordination can best be achieved through a co-ordinating Statistical Authority, such as the Division of Statistical Standards in the USA, the Central Statistical Office in the UK, or the Brazilian Institute of Geography and Statistics in Brazil. It is, however, important that the function of the co-ordinating Statistical Authority should be restricted to the co-ordination of the statistical work of the Statistical Offices under the different Ministries in order, inter alia, to avoid duplication of effort and lay down standards for adoption by the different Statistical Offices. Experience in some countries shows that where the co-ordinating Statistical Authority exercises greater control on the working of the Statistical Offices, friction between the two is likely to ensue, which seriously militates against smooth and efficient working of the Statistical Offices and harmonious co-operation between the two. which alone can lead to fruitful results. It is, consequently, important that the co-ordinating Statistical Authority should not be invested with administrative control on the staff of the Statistical Offices, or with powers to supervise, direct or guide the work of these Offices which, in fact, it is not in a position to do as efficiently as the specialized staff of the Statistical Offices themselves.
- 27. Finally, there is imperative need for the establishment of efficient statistical systems in many countries, particularly in underdeveloped countries, and for improvement in methodology in the field of agricultural statistics. From its inception, FAO has drawn the attention of member countries to this need and has taken active steps in this direction through its programme for the World Census of Agriculture. It is supplementing this programme by arranging, in co-operation with other international organizations and member governments, international training centres and seminars, for imparting training to statisticians of member countries and, under its Technical Assistance Programme, is sending field experts for assisting the countries in developing appropriate agricultural statistical systems and in improving by all possible means their methodology in the field of agricultural statistics. Its efforts are now directed to the development

of a co-ordinated plan for the improvement of agricultural statistics in the different countries on the background of the conditions existing in each country in a manner so as to ensure the optimum utilization of the available statistical resources of the country.

#### SUMMARY

The paper defines the requirements of an efficient agricultural statistical system and examines the methods and organizations in force in various countries in the attempt to determine to what extent these requirements are fulfilled in actual practice. It notes that with regard to methods, by and large, in most underdeveloped countries, the agricultural statistics reported are little more than guesses while in the more developed countries these are collected through periodical censuses and sample surveys in the intervening years. With regard to the organization, in most underdeveloped countries there exist no statistical services and organizations, most of the statistics in these countries being collected as a by-product of the administrative activity, with the various ministries of the government collecting statistics to meet their own special needs. The more developed countries are found to be grouped under two categories, namely: (a) those having the centralized statistical system in which the functions of collection and dissemination of both agricultural and non-agricultural statistics are vested in the same general statistical office; and (b) those having a decentralized statistical system in which agricultural statistics are collected and disseminated by a statistical office in the Ministry of Agriculture. The paper then discusses the relative merits of centralization and decentralization and, while maintaining that agricultural statistics should be collected by statistical offices attached to the Ministry of Agriculture of each country, makes a strong plea for setting up a co-ordinating statistical authority to ensure uniformity in concepts and terminology in different subject-matters and to co-ordinate the functions and activities of the statistical offices under the different ministries. It however gives a word of warning against investing the co-ordinating authority with administrative and supervisory powers over the staff of the statistical offices of other ministries which, it states, the co-ordinating office is not in a position to do as efficiently as the. specialized staff of the statistical offices of the individual ministries themselves. Finally, it gives a brief description of the measures taken by FAO to develop the statistical systems in different countries through its regular and ETAP programme.