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IMPROVEMENT OF AGRICULTURAL STATISTICS
IN ASIA AND PACIFIC COUNTRIES
(GCP/RAS/171/JPN)

**Proceedings of the National Seminar
on the System of Food and Agriculture
Statistics in Bhutan**

Thimphu, 25-26 January 2000

Volume I
Report of the Seminar

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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EXECUTIVE SUMMARY

Introduction

1. A national seminar on the System of Food and Agriculture Statistics was held at the Banquet Hall of the Royal Government of Bhutan in Thimphu on 23 and 24 January 2000. The seminar was organized jointly by the Ministry of Agriculture of Bhutan and the FAO Regional Project for the Improvement of Agricultural Statistics in Asia-Pacific Countries (GCP/RAS/17I/JPN).

2. Twenty-seven senior officers from the relevant departments of the Ministry of Agriculture, concerned organizations, and the Central Statistics Organization of Bhutan participated in the seminar. A Danish International Development Agency (DANIDA) advisor to the Land Use and Statistics Section of the agriculture ministry also attended the seminar. FAO was represented by its resident officer-in-charge and by the agricultural statistics expert of the project.

3. Mr Nim Dorji, Head of the Statistics Unit of the Policy and Planning Division (PPD) of the Ministry of Agriculture, opened the seminar. The agricultural statistics expert of the project provided the participants with an overview of the project and the objectives of the seminar, which was to assess the current system of agricultural statistics in Bhutan and identify the needs and expectations of data users in the country. In addition, the seminar discussed problems and issues faced in the collection, analysis, use and dissemination of food and agriculture statistics.

4. Mr Phintsho Dorji, Officer-in-charge, FAO Bhutan, read the welcome address and opening statement. He emphasized the need for reliable statistics for planning, implementation and monitoring of the programmes, and called for active participation and meaningful discussion.

5. As chief guest of the seminar, Mr Daw Tenzin, Secretary of the Planning Commission, delivered the opening speech. He stressed the importance of sound statistics for effective policy measures and for national planning. He also mentioned that the closing of the gap existing among the various data producers was the greatest challenge in the field of Bhutan statistics and that the improvement of the database and of market price information was becoming increasingly important.

Information collected for forest management planning (Session 1)

6. The document entitled “Information collected for forest management planning” was presented by Mr Lobzang Dorji of the Forestry Services Division of the Ministry of Agriculture. It provided a rundown on the data collection methods used for the preparation of forestry management plans.

7. **Forestry resources:** Inventory persons are posted in the field throughout the year. They use the systematic sampling survey while deskwork is done in Thimphu. Two forms are used for data collection: a compass sheet, and a tally sheet for timber and non-timber species (as separate items). Wildlife and physical features are also recorded. The forms are sent to the head office at Thimphu to be fed into the computer for processing and analysis through the PLOT program.

8. **Socio-economic data:** The rapid rural appraisal method is applied to get the data. Timeline, infrastructure, etc, are taken into consideration. This record is collected mainly for the second phase. Also taken into consideration are grazing issues, land tenure, indent of demands from communities, and availability of private land for tree planting.

9. **Ecology of the forest:** The forest is scanned for information on resources and socio-economic conditions as a basis for the preparation of plans. Depending on the species available, the area is divided into blocks, compartments and sub-compartments. The annual allowable cut is never greater than the annual increment – the rule of thumb for forest management planning projects.

10. The seminar was informed that, the plans translate into action by handing over the plans to the divisional forest officers for implementation. The annual operational plans submitted by the officers should be within the management plans. Environmental, physical and financial monitoring was done by the Forest Resource Development Section of the Forest Services Division. Data collection on the non-wood forest products by the Renewable Natural Resources statistics unit could be supplied to the section to save resources by avoiding duplication of efforts.

11. In terms of data collection, the organization of forest and extension must work out a way for the systematic sharing of information to save resources.

12. Beyond the immediate discussion, it was remarked that there was a need for stronger links both vertically and horizontally. The participants to the workshop should work out ways of sharing information among the various organizations using information technology. What had been done so far was done in isolation and the information produced did not correlate. A reliable basis using a scientific approach was indeed needed for the millennium census, it was asserted.

13. The seminar stressed that there was a need to collaborate in terms of socio-economic data collection, as various agencies were ploughing the same field, as it were. Common areas should be identified in order to pool resources and share information.

14. For ecological conditions information, it was further suggested that the forestry division collaborate with the National Environment Commission, which also dealt with it.

The functions of Crop and Livestock Services Division (Session 2)

15. The document entitled “The functions of CLSD” was presented by Mr T N Acharya of the Crop and Livestock Services Division (CLSD) of the Ministry of Agriculture.

16. Bhutanese agriculture including horticulture, livestock and forestry is commonly referred to as the Renewable Natural Resources (RNR) sector. The current linkage system with RNR research centres was explained. RNR research centres should report statistical data and information to the Research, Extension and Irrigation Division and to the statistics unit of CLSD for national compilation.

17. A lengthy discussion ensued on the fluctuating trends of Bhutanese cattle. Accurate data collection was needed to avoid confusion, it was concluded. The seminar recommended that the flow of information be discussed and improved among the technical divisions.

Renewable Natural Resources statistics (Session 3)

18. The document entitled “RNR statistics” was presented by Mr Nim Dorji, head of the statistics unit of the Policy and Planning Division (PPD) of the Ministry of Agriculture (MoA). The presentation focused on the setting up of a reliable, efficient and consistent information system in Bhutan.

19. The Bhutanese ministry of agriculture intends to collect RNR data by sample surveys from now on. It will also conduct an agricultural census every five years, starting from the end of the year 2000.

20. The statistics unit was set up in January 1998 with the goal to establish a reliable, efficient and consistent information system. Since then, a series of workshops have been carried out by the unit.

21. The first workshop was held with the objective to create awareness on the importance of RNR data and of the development of an RNR format. The participants included all the sector heads from the twenty *dzongkhags* (districts). The role and responsibilities of each component of the statistical structure were discussed in detail in order to avoid duplication of work in data collection.

22. The annual sample survey would be implemented through systematic random sampling or linear sampling. The household, defined as a group of persons using the same kitchen, would be used as the sample unit, and the *geog* (block) as the sample frame. The sample size, at the advice of the Central Statistical Organization (CSO), was put at 10 percent.

23. A two-stage survey would be carried out for the winter and the summer crops. The data of winter crops, harvested in the springtime, would be collected in August-September; that of summer crops, which are harvested after August, in December-January.

24. The second workshop was held for all extension agents in several *dzongkhags* to train them in information collection and management at *geog* and *dzongkhag* levels. Each extension agent was provided with a calculator to speed up data calculation, and each *dzongkhag* with a computer and a printer together with training in Microsoft Access. Capability in SPSS would also be developed in the statistics unit.

25. The responsibility on data collection was clearly allotted to the relevant organizations: data on production and land use is to be collected by the statistics unit; other agro-meteorological data by extension agents under the Research, Extension and Irrigation Division (REID); data on timber by the Forest Resource Development Section (FRDS) of the Forest Service Division (FSD); and data on input delivery by the Crop and Livestock Service Division (CLSD). The Food Corporation of Bhutan and the Department of Revenue and Customs are to collect import and export data.

26. The first agricultural census is planned for the end of the year 2000. The census will be implemented directly by the Ministry of Agriculture using as enumerators trained graduates from the National Resources Training Institute, which comes under the ministry. Once the data is collected, the computerized *dzongkhag* offices will enter and compile it at district level, then forward it to PPD for national-level compilation, analysis and publication.

27. A number of problems surfaced during the annual RNR survey: conflicts arose among extension agents over the use of the lone computer available per *dzongkhag*; the current sampling size of 10 percent was not enough to estimate *geog* figures; there was a need to further train *dzongkhag* staff members and to standardize conversion rates (e.g. *dre* and *langdo*). There are great differences in the measurement units used in the various *dzongkhags*. So far, standardization has been completed for 11 *dzongkhags*.

28. Regarding preparation of the Year 2000 census, the participants were told that the work is proceeding. A DANIDA consultant has already presented his first input, and a second input on the preparation of the census will soon be submitted to the Council of Ministers for clearance. The format will be simplified and shortened, focusing on the main crops. A budget of Nu6 million¹ is required, but sources of financing have yet to be identified. The technical assistance required is of five men per month.

29. For other minor crops, a 10-percent sampling size may not be enough. Crops should be separated from the current sample survey method, and a different method may be developed later. Processing and the validation process at *dzongkhag* level must be looked into.

¹ The Ngultrum (symbol: Nu) is the national currency of Bhutan. The current rate of exchange is US\$1 = Nu42.5.

30. It was suggested that, since the training of each level of hierarchy in the Ministry of Agriculture on data collection was important, the Land Use and Statistics Section should have a multi-disciplinary team to expand its activities in the future.

31. The need to strengthen agro-meteorological data collection is to be taken care of by the Research, Extension and Irrigation Division, which will be able to carry out the function with little external support, the participants were told from the chair, whose incumbent emphasized that there was a need to work together in data collection, analysis and dissemination in order to ensure a two-way flow of information at all levels.

The marketing information system (Session 4)

32. The document entitled “The marketing information system” was presented by Mr Chhime Tshering of the Agriculture Marketing Section of PPD.

33. The mission of the Agricultural Marketing Information System (AMIS), the participants were told, was to collect retail prices in five townships to produce quarterly reports, to collect auction-yard prices and to compile annual cash-crop reports using the Excel format – all this with the assistance of the Food Corporation of Bhutan.

34. Agricultural marketing information was collected from Sunday markets. In every Sunday market, one data collector received in-country training. The collector submitted monthly reports to the Agricultural Marketing Section of PPD.

35. The section produced quarterly bulletins for prices. Inclusion of export-import analysis in the bulletin was under consideration.

36. The software for AMIS should be developed according to the development of appropriate forms of data collection, it was suggested. Furthermore, dissemination of the market information through media should be encouraged. And in order to allow the users to compare retail and farm-gate prices, which were collected by the Agriculture Marketing Section and the statistics unit respectively, the same format should be used.

37. When it was suggested that the lists of items covered by the Food Corporation of Bhutan and by the Agriculture Marketing Section were short, so that they were of little use to the Central Statistical Organization to project the national picture, this was refuted by the Agriculture Marketing Section: there were about 70 commodities on which information was collected. The Central Statistical Organization had listed 327 items based on consumption patterns. Manufactured goods were not within the mandate of the marketing section, which focused on raw agricultural goods.

38. The suggestion was then made for the Central Statistical Organization and the Agriculture Marketing Section to come to an understanding on the list of items on which information was to be collected in order to avoid duplication of efforts.

39. Regarding market prices, it was noted that there was no direct involvement of or intervention by the government: demand and supply set the prices, and there were annual – though not seasonal – price fluctuations. The general trend was that the prices were in favour of the farmers as far as farm produce was concerned.

40. At this point, the seminar stressed the need for good data in the planning of development interventions. In terms of quantity, the information supplied was adequate. However, quality improvement was still issued. Adequate collection measures needed to be established. In the past, data was collected by what surveyors were wont to call the tent-survey method, meaning that data was intramural, generated without physical measurement. Rather than going into the field and starting from scratch, the chair suggested, it might be worth surveying the data already collected by other agencies to determine where the data gaps were. Information should flow in and out, and this called for linkages with sectors outside RNR. Adequate support should be given to other stakeholders, in terms of training and equipment, to compensate them for their efforts.

The role of the Food Corporation of Bhutan (Session 5)

41. The document entitled “The role of the Food Corporation of Bhutan” was presented by Mr Zeko Dorji, Regional Manager of the Food Corporation of Bhutan (FCB).

42. The role of FCB was to adjust supply and demand of foodstuffs through intervention in the market, and for this purpose FCB collected and analysed trade information on food- and agriculture-related materials.

43. The seminar was informed of how FCB fixed prices. Prices depended on the Indian market. For instance, FCB bought *kharang* (milled corn) from the Druk Seed Corporation for distribution to schools; if the domestic supply was insufficient, imports were made from India.

44. Demand for milk was increasing every year. Local milk was much more expensive than imported milk. The local farmers should be given some sort of protection in the future. Although it might not be possible to ban imported goods immediately, it might become necessary to do so for some of the goods.

45. There was concern over possible duplication in the recording of information on import and export. According to the Department of Revenue and Customs, whatever was being transacted was recorded at the customs checkpoints. Yet, the latter kept no record of

the goods already sold to agents commissioned by FCB: whatever was delivered to those agents was recorded by the *dzongkhags*.

46. According to the chair, the problem with statistics on FCB prices might be that other agencies sold the same produce but that these were sold at different prices. When it came to prices, it was important to see a balance between buyers and sellers. The information collected by different agencies should be defined clearly: Revenue and Customs would record all import and export figures, whereas FCB would keep records on in-country markets.

Trade statistics collection, processing and compilation by Revenue and Customs (Session 6)

47. The document entitled “How trade statistics are collected, processed and compiled by Revenue and Customs” was presented by Mr Karma Tshultrim of the Department of Revenue and Customs, Ministry of Finance.

48. Import and export declarations filed by traders at the border customs entry and exit checkpoints were the primary source of trade data, which was collected mainly for tax collection purposes concerning only a few items. The Ministry of Trade and Industry in collaboration with the Department of Revenue and Customs had initiated trade data collection and processing.

49. The Department of Revenue and Customs had five regional offices. There was no trade up north, only down south. There were 18 permanent checkpoints and three seasonal checkpoints (nine earlier). The seasonal checkpoints were usually for oranges. A charge of Nu800 per truck was imposed for orange and for apple, and of Nu3000 per truck for cardamom. Other agricultural goods were free of tax. Import tax was charged only for processed goods (two types of taxes, namely sales and customs tax).

50. Apart from the above-mentioned exceptions, the trade with India was free (no export or import custom duties).

System of National Accounts (Session 7)

51. The document entitled “System of National Accounts” was presented by Mr Soman Wangdi of the Central Statistical Organization (CSO).

52. The seminar was informed of the System of National Accounts concept and of the methods of data collection and calculation of GDP and GNP. The Bhutanese economy comprises of nine sectors, of which agriculture (i.e. RNR) is the largest.

53. There are three approaches to estimate GDP: the income, expenditure and production approaches. The production approach is the simplest. Whatever is produced, minus intermediate consumption, equals GDP for agriculture.

54. The seminar was informed the evaluation of the present RNR Statistics and future demand from point of view of CSO as the biggest user. First, that there are two drawbacks in agriculture data collection: neither kitchen garden information nor production on government land are available; second, that the National Income Survey questionnaire should be finalized with the collaboration of other ministries. The CSO would organize a meeting with them before finalizing the document.

55. On the other hand, the Policy and Planning Division of the Ministry of Agriculture too was interested in collecting data on the agricultural household economy. The objectives of the two agencies were different; they were not doing the same survey and there was plenty of room for compromise in terms of data collection.

56. The seminar agreed that, as the central body of national statistics, the Central Statistical Organization should take the lead in coordinating efforts to avoid duplication and promote resource sharing, the chair told the seminar. We should go ahead with the present arrangements, but the format should be finalized in common. After the survey is completed, results should be analysed to define a new methodology. It was felt that there was a lot of concern for resource sharing when it came to data collection. Given its superior technical expertise, the Central Statistical Organization should advise the other ministries.

Resolutions of the seminar

- The need for reliable, efficient, consistent and up-to-date information for appropriate development planning and intervention was felt by all the participants.
- It was also felt that in the past, the different agencies were collecting data in isolation; this called for consultative meetings with the various stakeholders to identify the data gaps.
- The method of livestock population should be studied to establish a link between the grazing intensity of wild animals and local cattle in the forest.
- It was noted that the quantity of information was not an issue but rather the issue was quality, thus measures to improve data quality were deemed appropriate and timely.
- The data collection method should be changed from the administrative type of reporting to a more scientific one.
- Regarding trade statistics, it was agreed that the data from the Department of Revenue and Customs was the most reliable for agriculture produce and that the Food Corporation of Bhutan should continue to collect information on agricultural exports through auction records.
- It was found that there was a great need for agro-meteorological data and it was agreed that the Ministry of Agriculture should improve the quality of data collected by seeking financial assistance from external agencies.
- The importance of the agriculture census was emphasized and the census was urged to go ahead as planned for completion by the end of the year 2000.
- A meeting should be convened before the finalization of the Household Income Survey questionnaire to agree on modalities. (The survey is to be conducted by the Central Statistical Organization and the agriculture census by the Policy and Planning Division.)
- The Forestry Services Division should collaborate with the statistics unit of the Ministry of Agriculture in the data collection for non-wood forest products.
- Since the Central Statistical Organization is the lead agency in terms of information management, it should provide advisory services and backstopping to the different stakeholders.
- Both the Statistics Unit of the Policy and Planning Division and the Agriculture Marketing Section should use the same software for ease in data management.

AGENDA

The National Seminar on the System of Food and Agricultural Statistics

jointly organized by the Ministry of Agriculture
and the FAO Regional Project GCP/RAS/171/JPN
25-26 January 2000

Date	Time	Programme
Day 1:		
25/01/2000	09.00 AM	Registration
	09.10 AM	All participants seated
	09.15 AM	Arrival of the Chief Guest, Mr.Dawa Tenzin, Secretary of the Planning Commission
	09.20 AM	Welcome address by Mr.Nim Dorji, National Dy. Project Manager, Land Use and Statistics Section (LUSS), Policy and Planning Division (PPD), MoA
	09.30 AM	Introduction of the project and the objective of the seminar by Mr. Ikeda, Agriculture Statistics Expert, GC/RAS/171/ JPN, FAO
	09.50 AM	Statement by Mr. Phuntsho Dorji, Officer-in-charge, FAO Bhutan
	10.10 AM	Opening speech by the Chief Guest
	10.25 AM	Vote of thanks by Ms. Sonam Choeki, Planning Officer, PPD/MoA
	10.30 AM	Tea break

Chairman by the Chief Irrigation Officer, Research and Irrigation Division (REID), MoA

Reporter by Tshering Jamyang, LUSS & Karma Rinzin, Policy and Legal Section, PLS, PPD

- 11.00 AM Presentation by Forestry Services Division (FAD)
(Mr.Lobzang Dorji, Forest Resources Development Division (FRDS), FSD, MoA)
- 11.30 AM Discussion
- 12.00 AM Presentation by Crop and Livestock Services Division (CLSD)
(Mr. A N. Archarya, CLSD, MoA)
- 12.30 PM Discussion
- 01.00 PM Lunch break
- 02.00 PM Presentation by Land Use and Statistics Section (LUSS), PPD
(Mr. Nim Dorji, LUSS, PPD, MoA)
- 02.30 PM Discussion
- 03.00 PM Tea break
- 03.20 PM Presentation by Agriculture Marketing Section (AMS), PPD
(Mr. Chimi Tshering, AMS, PPD, MoA)
- 03.40 PM Discussion

Day 2: *Chairman by Mr. Jigmi Wangdue, Extension Program Officer, Reg. Research Centre, Yusipang.*

Reporter by Mr. Karma Rinzin, PLS and Mr. Tshering jamyang, LUSS

- 26/01/2000 9.00 AM Presentation by the Food Corporation of Bhutan
(Mr. Zeko, Regional Manager)
- 9.30 AM Discussion
- 10.00 AM Tea break

- 10.20 AM Presentation by the Department of Revenue and Customs Office
(Mr. Karma Tshultrim)
- 10.40 AM Discussion
- 11.10 AM Presentation by the Central Statistical Organization
(Mr. Sonam Wangdue)
- 11.30 AM Discussion
- 12.00 AM Preparation of proceedings by the repertoires and Core Group
- 01.00 PM Lunch Break
- 02.00 PM Presentation of the workshop proceedings by Core Group
- 02.30 PM Closing of the workshop by Dr. Pema Gyamtsho, Head, PPD
- 07.00 PM Closing Dinner

LIST OF PARTICIPANTS

Mr. Daw Tenzin, Dr. Pema Gyamtsho	Secretary, Planning Commission Head, Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Jens Kristrin Lourp	LUSS, Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Nim Dorji, Head	Statistics Unit, Land Use and Statistics Section (LUSS), Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Tshering Jamyang	Statistics Unit, LUSS, Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Dorji Wangchuk	Statistical Unit, LUSS, Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Karpo Dukpa	Statistical Unit, LUSS, Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Karma Galey	Land Resource Unit, LUSS, Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Dunkar Drukpa	GIS Unit, LUSS, Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Chhimi Teshering	Agriculture Marketing Section (AMS), Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Ugyen Gongphel	AMS, Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Chado Tenzin	Policy and Legal Section (PLS), Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Tenzin Liekphel	PLS, Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Karma Rinzin	PLS, Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. Tenzin Chophel	Programming and Planning Section (PPS), Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Ms. Sonam Choeki	Human Resource Development Section, Policy and Planning Division (PPD), Ministry of Agriculture (MoA)
Mr. T.N. Aoharya	Crop and Livestock Service Division (CLSD), MoA
Mr. Karma Dorji	Crop and Livestock Service Division (CLSD), MoA
Mr. Kayljang Tshering	Research, Extension and Irrigation Division (REID), MoA
Mr. Jigme Wangdi	RNR RC, Yusipang, Research, Extension and Irrigation Division (REID), MoA
Mr. Ugyen Thinlay	Director, Forestry Service Division (FSD), MoA
Mr. Lobzang Droji	Forest Resources Development Division (FRDS),
Mr. Sonam Wangdi	Central Statistical Organization (CSO)
Mr. Sangay Tempa	Central Statistical Organization (CSO)
Mr. Karma Tshultrim	Department of Revenue and Customs, Ministry of Finance
Mr. Zeko Dorji	Regional Manager, Food Cooperation Bhutan

Mr. Lorup	Adviser to LUSS, MoA, Land Use and Planning Project, Danish International Development Agency (DANID)
Mr. Phuntosho Dorji	Office in Charge, FAO Bhutan, Food and Agricultural Organization (FAO)
Mr. Ryuki Ikeda	Agricultural Statistics Expert, FAO regional project, GCP/RAS/171/JPN, Food and Agricultural Organization (FAO)

STATEMENTS

- **Welcome address**
Mr Nim Dorji
Head of the Statistics Unit, Policy and Planning Division,
Ministry of Agriculture

- **Statement at the Opening Ceremony**
Mr Phintsho Dorji
Officer-in-Charge, FAO Bhutan

- **Introductory remarks on the regional project "Improvement of Agricultural Statistics in Asia and Pacific Countries" (GCP/RAS/171/JPN)**
Mr Ryuki Ikeda
Agricultural Statistics expert
GCP/RAS/171/JPN, c/o FAO/RAP

- **Closing Remarks**
Mr Ryuki Ikeda
Agricultural Statistics expert
GCP/RAS/171/JPN, c/o FAO/RAP

Welcome address

Mr Nim Dorji
Head of the Statistics Unit
Policy and Planning Division,
Ministry of Agriculture

Good Morning and welcome to all of you! I would like to extend our special welcome to the Secretary, Planning Commission. We are honored to have your presence in this morning's opening ceremony. Your presence indicates the highest priority accorded by the government to the development of information system. Your esteemed guidance in the future direction of information management will be very useful.

We have Ryuki Ikeda, Chief Technical Advisor to the project "Improvement of Agricultural Statistics in Asia and Pacific Countries," of the FAO Regional Office, Bangkok. Heading the project, Mr. Ikeda has been instrumental in this workshop – giving inspiration and technical support. Mr. Ikeda, you are most welcome. Hope you will have a fruitful discussion in the workshop and enjoy your short stay in Bhutan.

We have with us this morning Mr. Phuntsho Dorji, FAO Office, Thimphu. Mr. Phuntsho has helped us in mediating between FAO office in Bangkok and MoA and bringing Mr. Ikeda out here. We are pleased to have him here this morning and say a few words from the FAO side. Our welcome to you.

We have other important participants in this seminar - CSO, Rev. & Customs, FSD, FCB, CLSD, REID, including PPD. We are very happy to have a high response from these organizations. Your participation will have a significant impact in the future information management.

The duration of the seminar is for two days from 25-26 January with the theme "Systems of Food and Agricultural Statistics"

On behalf of the Honorable Minister, Ministry of Agriculture and the Head of PPD and on my own behalf, I once again welcome you to this seminar.

Tashi Delek!

Statement at the Opening Ceremony

Mr Phintsho Dorji
Officer-in-Charge
FAO Bhutan

It is my great pleasure to participate in this National Seminar on Food and Agricultural Statistics in Bhutan. On behalf of all FAO colleagues who are concerned with Bhutanese agricultural statistics, I would like to thank the Ministry of Agriculture for organizing this meeting.

As you know, this seminar will be held under the cooperation between Ministry of Agriculture of Bhutan and FAO Regional Project “Improvement of Agricultural Statistics in Asia and Pacific Countries” (GCP/RASI17I/JPN), which is financed by the Government of Japan. The purpose of this seminar is to review the existing system of food and agricultural statistics, and to identify priority areas for improvement.

Bhutanese agriculture is a key factor for national economic growth. In fact, nowadays, about 85 % of the employed population were engaged in agriculture, and agricultural sector accounts for almost 40% of whole GDP. Agriculture sector is the biggest industry of the nation and improving agricultural is a major challenge in Bhutan. To do this properly the need for strengthening of agricultural statistics collection, analyses and dissemination are also underscored in Eighth Five Year Plan.

Only accurate data can contribute in planning, monitoring and evaluation of agricultural development programmes. We hope that the presentations during this seminar are focused on to review the system food and agricultural statistics. We are interested in knowing how the data are collected at grass-root level, and how they are processed or summarized. Thus methodologies used in the collection and analysis of data will figure prominently. We also hope that this seminar will help identify priority areas that need improvement, through exchange of views.

Finally, I would like to encourage active participation and frank discussions during this seminar to bring about useful conclusions and recommendations. May I also express my best wishes for a fruitful meeting.

Thank you.

Introductory remarks on the regional project "Improvement of Agricultural Statistics in Asia and Pacific Countries" (GCP/RAS/171/JPN)

Mr Ryuki Ikeda
Agricultural Statistics expert
GCP/RAS/171/JPN
c/o FAO/RAP

1. Introduction of the Project

This project was formulated following the recommendation of the sixteenth session of the Asia and Pacific Commission on Agricultural Statistics (16th APCAS), held in Tokyo, Japan, in October/November 1996. At the session, the importance of strengthening cooperation and the establishment of a system for collection and dissemination of statistics among member countries of the Commission were discussed. Japan expressed willingness to contribute in this matter and offered a budget for a trust fund project to be executed by FAO. This project was approved and it actually started its activities in September 1998.

The two objectives of the project are:

- Study national systems of food and agricultural statistics and organise National/Regional Seminars on Production and Use of Agricultural Statistics, and National/Regional Workshop on specific areas.
- Formulate a Plan for the establishment of a data-base and equipment facilities to provide a capability to transfer data in electronic format both to and from countries in the Region, and FAO, using common concepts, standards and classifications.

Over the last several years, a number of country projects have been implemented at national level by FAO and other international organizations. This regional project is the first one to include most countries in this region in the field of Agricultural Statistics. This project covers 16 countries such as Bangladesh, Bhutan, Cambodia, China, Fiji, India, Indonesia, Iran, Lao PDR, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand and Vietnam.

Currently there are many issues on agriculture concerning international matters, such as trade, environment, and freedom from hunger and so on. Accurate figures indicated by good statistics can greatly contribute to finding solutions on these matters. Demand for accurate and comparable statistics among countries will be ever increasing. In this connection, this project is expected to contribute to meet these needs.

2. Background of Agriculture and Agricultural Statistics in Bhutan

In most countries in this region, agriculture provides the foundation of industrial development. In Bhutan, beyond doubt, one of the main industries is agriculture. About 85% of the employed population are engaged in agricultural sector. Agriculture accounts for almost 40% of the whole GDP. Strong agricultural policies, therefore, should invariably comprise the mainstay of the countries' important development policies.

In Bhutan, Agricultural sector is called Renewable Natural Resources (RNR) sector. The RNR sector under the MoA, covers agriculture, livestock, forestry and horticulture. The development of RNR sector could lead to improvements in people's living standards and sustaining development of rural communities. The Eighth Five Year Plan mentioned three objectives of development for RNR sector, as 1) National Food Security, 2) Conservation of Natural Resources, 3) Sustainable Economic Production and Enhancement of Rural Income. To do this properly the need for good statistics is therefore underscored.

Bhutan used to adopt the administrative-type reporting system mainly as the principal source for agricultural statistics. However, in recent years, MoA has been implementing Land Use Planning Project (LUPP) with assistance of Danish International Development Agency (DANIDA), Denmark, to build up a strong data base for RNR sector. And the sample survey for household, which is called Annual RNR Survey, has been introduced in the country. The second agricultural census is also expected to conduct on 2002. These efforts are all aimed at improving the national statistical service in Bhutan for the effective solutions to help the country to obtain accurate and objective figures.

3. Purpose of the seminar

The statistics can indicate quantitatively representing of the actual condition of the society and economy. This means statistics are like soft infrastructure indispensable in the contemporary society. Today, it is difficult to think of not using statistics in all kind areas as promotion of administration and economic activities.

In the agricultural area, statistics also plays the role of as compass in promoting food supply and demand policies, price policies and agricultural structure policies. Furthermore, for a qualified planning, formulating and evaluation of projects, basic data reflected the actual situation is strongly needed.

Presently, MoA is the main organization on agricultural statistics, and intends to strengthen their function on agricultural statistics. Therefore, it is significant to hold the National Seminar at this time.

This seminar aims to;

- assess the state of national food and agricultural statistics service in Bhutan;
- review existing food and agricultural statistical activities;
- identify demands of/and expectations from data users;
- discuss problems, issues faced in the collection, analysis, use and dissemination of food and agriculture statistics; and
- formulate recommendations for future improvement of the national food and agricultural statistical program.

The seminar will serve as a forum for identifying data gaps, deficiencies in methodologies, duplication of efforts/activities, and measures for improving or streamlining agricultural statistics.

CLOSING REMARKS

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I would like to start by saying how enlightening and rewarding I have found these last few days in terms of appreciating the extent of the agricultural statistics system in Bhutan. The quality of the papers, and the depth of discussion they have generated, provide a clear indication of the country's determination to have a stronger agricultural statistical system set in place.

As Mr Daw Tenzin, Secretary of Planning Commission stated in his opening speech, Bhutanese agriculture contributes some 40% to GDP. But perhaps more importantly, it provides a means of livelihood for over 90% of the population through subsistence farming. Agriculture is, therefore, the most important sector of the Bhutanese economy.

From a global perspective, the important role that agriculture plays in ensuring national food security was put in focus at the World Food Summit held in Rome in 1996. The need to have a strong national food security programme is further emphasized by the ever increasing world population which in turn exerts extreme pressure on land use and other resources. The world's total population is now over 6 billion and it continues to increase everyday. In the meantime, total world's arable land is not growing as fast. On the contrary, there is an ever growing pressure for the conversion of agricultural land to give way to housing requirements, commercial and industrial development/expansion even tourism developments.

More and more countries in the world are now eager to join the emerging globalization and free market economy. The globalization of socio-economic activities is intensifying interdependence, every country is strengthening relationships with its neighbours and its trade partners in the world. As evidenced by the recent currency crisis in Asia that impacted on the world economy, today no single economy can exist alone. In the field of agriculture, trade in agricultural products has been expanding rapidly during recent years.

This matter requires establishing a national capacity to evolve policies and development plans. However, policies and plans that can anticipate future trends cannot be formulated out of thin air. The establishment of a strong national statistical service is a necessary prerequisite.

A good information base is a valuable asset and has many uses: national accounts; policy analysis and advice; sector performance analysis; food security and poverty monitoring; and impact analysis for policies and programmes. However, its value will only be appreciated if the data is timely, reliable and used.

The quality of papers and the interesting discussions made in the past two days provides indication of the country's determination to have a stronger agricultural statistical system set in place. I believe this seminar is a timely one especially for this country and the region as a whole. Bhutan, I understand, has been opened its door to the international society embracing free market system. It is heartening to note that the country's leadership has recognized the importance of strengthening its national statistical service to support the transition process. This is evidenced by the number of technical assistance on the development of RNR sector which has requested many international donor community. In recent years, as one of the cooperation, "Land Use Planning Project (LUPP)" is implementing with the support of the Danish International Development Agency (DANID) in building up strong database for RNR sector. It may also play a roll for strengthening agricultural statistics in Bhutan.

The regional project, GCP/RAS/171/JPN, will seek to have a region-wide system of information exchange among APCAS member countries. This system will generate the synergy that will lead to a cooperative effort to strengthen the agricultural statistics and information services of all member countries. At the end of the project we hope to see a regional plan for the establishment of a regional statistics and information exchange system that responds to the needs of each member country. The outputs of this seminar will provide a valuable contribution to the formulation of this plan.

In conclusion, I would like to thank you Messrs. Chairpersons and the rapporteurs for your efforts in keeping us focussed on the agenda and summarizing the discussion. I would also like to thank the resource persons who have put considerable effort into preparing high quality papers and then presenting them. I would also like to thank the MoA for jointly organizing this seminar with FAO and looking after all the local arrangements. Lastly, I would like to thank all the participants who have contributed so actively to the success of this seminar.

Thank you very much.

LIST OF ABBREVIATIONS

AMIS	Agricultural Marketing Information System
FAO	Food and Agriculture Organization of the United Nations
FCB	Food Corporation of Bhutan
CLSD	Crop and Livestock Services Division, under the MoA
CSO	Central Statistical Organization
DANIDA	Danish International Development Agency
FRDS	Forest Resources Development Section, under the FSD of MoA
FSD	Forest Service Division, under the MoA
GDP	Gross Domestic Product
GNP	Gross National Product
LUSS	Land Use and Statistics Section, under the PPD of MoA
MoA	Ministry of Agriculture
PLS	Policy and Legal Section, under the PPD of MoA
PPD	Policy and Planning Division, under the MoA
PPS	Programming and Planning Section, under the PPD of MoA
REID	Research, Extension Irrigation Division, under the MoA
RNR	Renewable Natural Resources
RER RC	Renewable Natural Resources Research Centre, under the MoA