

### III 別添調査資料

- 1 相手国側に提出した英文調査報告書  
(1) タイ国



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SUMMARY REPORT OF THE FOLLOW-UP SURVEY TEAM  
TO THAILAND  
FOR THE EX-PARTICIPANTS OF THE GROUP TRAINING COURSE  
IN STATISTICAL INFORMATION SYSTEM FOR AGRICULTURE

I Introduction

It is our great pleasure to be given the opportunity to visit to Thailand as members of this technical follow-up team.

Hereby the team intended to submit the summary report on it's eight (8) days follow-up activities since January 18, 1998 for the reference of respective government agencies in Thailand.

The course has been offered since 1967 and we have accepted 385 participants from 57 countries and entities. Among them, the second largest 37 participants were accepted from Thailand. Unfortunately there are no participants since 1994 from Thailand.

The team member would like to express their deepest gratitude for the hearty welcome and kind cooperation during the whole period of stay.

The Follow-up survey was conducted mainly through interviews and questionnaires to the respective organizations and ex-participants.

II Objectives of the Follow-up Team

The Follow-up team aimed to evaluate the impact of ex-participants trained in this course held in Japan, to assess the problems and needs in the field of agricultural statistics of the participants' countries as well as to improve JICA's future training programs.

1. To measure and evaluate the impact of the course for the ex-participants and the extent of utilization of what they had gained in Japan, and to exchange views and opinions about technical matters in the fields of agricultural statistics with them and their supervising officials, so that we can make the future program more effective and fruitful.
2. To investigate and understand the present situation in this country, especially in the above-mentioned field in order to reflect them in making our future program more effective.
3. To conduct a seminar for providing information on latest development in the fields concerned.

### III The Team Member

1. Mr. Noritaka YAMAMOTO (Team Leader)  
Deputy Director, Marketing and Consumption Statistics Div.,  
Statistics and Information Dep.(SID),  
Ministry of Agriculture, Forestry and Fisheries (MAFF).
  
2. Mr. Ryuki IKEDA ( Technical Guidance)  
Section Chief,  
Office of International affairs of Planning and Coordination Div., SID, MAFF
  
3. Mr. Junichi OIKAWA (Coordination)  
Staff,  
Second Training Div.,  
Tsukuba International Center (TBIC),  
Japan International Cooperative Agency (JICA)

### IV Summarized Schedule

1. January 18 (Sun)
  - Arrival at Bangkok
  
2. January 19 (Mon)
  - Visit to JICA Thailand Office
  - Visit to Embassy of Japan in Thailand
  - Follow-up visit to Department of Technical and Economic Cooperation (DTEC)
  
3. January 20 (Tue)
  - Follow-up visit to National Statistical Office (NSO)
  - Meeting with Ex-participants in NSO
  - Seminar titled Japan's new activities in agricultural statistics at NSO
  
4. January 21 (Wed)
  - Follow-up visit to Office of Agricultural Economics (OAE)  
of Ministry of Agricultural and Co-operatives (MoAC)
  - Meeting with Ex-participants in OAE/MoAC
  - Seminar titled Japan's new activities in agricultural statistics at OAE/MoAC
  
5. January 22 (Thu)
  - Follow-up visit to Ayutthaya Provincial Statistical Office (PSO) of NSO
  - Meeting with Ex-participants in Ayutthaya PSO/NSO

- Discussion concerning Japan's new activities in agricultural statistics at Ayutthaya PSO/NSO

6. January 23 (Fri)

- Visit and file the preliminary report to JICA Thailand Office
- Visit to Embassy of Japan in Thailand

7. January 24 (Sat)

- (Field Survey on Agricultural situation in Phetchaburi and Prachuap Khiri Khan )

8. January 25 (Sun)

- Leave from Bangkok

#### V Summary of Follow-up Visit and Meeting with Ex-participants

DTEC, NSO and OAE/MoAC have given us the best evaluation for the group training course in statistical information system for agriculture held in Japan to say that ex-participants has been making effective use in their agricultural statistics working of the acquired technical skill in this course and that all of these respective organizations required acceptance two or more participants in this course in and after 1998. Ex-participants in NSO and OAE/MoAC also express their thanks and usefulness in their now-engaging work.

The specific situation of each organization in agricultural statistics and the recommendation mentioned by each organization and ex-participant is the following.

##### 1 DTEC

We have in mind that DTEC has the selection scheme of participants by testing their English acquisition in order to have the active communication within the group training members and that DTEC itself checks the effect of the training course through its document- forms filed by participants after finishing the course.

Among their recommendation for further improvement of this course are the following.

- (1) plural course in the different level in agricultural statistics
- (2) Similar group course sponsored and held by JICA in Bangkok
- (3) GIS subject in curriculum

##### 2 NSO

We have in mind that NSO just in time starts the Inter- Census in 1998 through the direct data-input system by all of 76 provincial NSO offices which is the first trial case in full scale of NSO's statistical activities and that the training of data-processing staffs in their provincial level is now the emergency necessity. So we also have in mind that the trainer's training is fully helpful to this situation.

Among their recommendation of NSO and their ex-participants for further improvement of this

course are the following.

- (1) Similar group training course specialized to fishery statistics for junior statistician
- (2) short-term training course (2-3 weeks ) on specific subjects in agricultural or fishery statistics
- (3) the second stage training for ex-participants some years later after the first training
- (4) Advanced group training course specialized in agricultural statistics analysis
- (5) successive information service to ex-participants
- (6) On the job training in Japanese governmental organization concerning agricultural statistics

### 3 OAE /MoAC

We have in mind that OAE/MoAC has been now establishing the more effective and more reliable agricultural statistics especially in the planted and harvested area and yield per HA not only in the field of achieved or realized crop production statistics but also in the field of the estimated or predicted production figure before the harvest period. To say more at this point, OAE/MoAC have expressed the full interest in Japan's method of statistics in this field at the seminar held in January 21. We also have in mind that Japan's accurate acreage and yield statistics and prediction methodology through this training course will surely help to improve OAE/MoAC agricultural statistics.

Among their recommendation of OAE/MoAC and their ex-participants for further improvement of this course are the following.

- (1) Advanced group training course specialized in agricultural statistics analysis
- (2) Similar group training course specialized to statistical methodology including sampling design and questionnaire design.
- (3) Successive information service to ex-participants

### VI Summary of the Seminar Course

We have the Seminar titled " Japan's new activities in agricultural statistics " at NSO and OAE/MoAC with text documents. Total participants of two places are 47 fellow members including 10 ex-participants. We also have a discussion at Ayutthaya NSO provincial office concerning the same matter. After the presentation of our explanation, many successive discussions concerning Japan's present activities in agricultural statistics were most fruitful to all participants including us to promote mutual understanding for agricultural statistics activities in both countries.

The contents in the Seminar course is the following.

- 1 Present State of Agricultural, Forestry and Fishery Statistics and Information in Japan
  - (1) the Scope of Agricultural Statistics
  - (2) the Marketing Information Service for Perishable Food
  - (3) the Organization of SID/MAFF
- 2 A New Course to Take in Developing Statistics and Information of SID/MAFF

- (1) to Expand distribution, processing and consumption statistics and information
- (2) Easier use to general members of the public
- (3) Information with a greater appeal to the public
- (4) to Carry out statistics and information services more efficiently
- 3 Establishment of Information Center Activity of SID/MAFF
- 4 Information Network of SID/MAFF
- 5 2000 Agricultural Census of Japan
- 6 International Cooperation on Agricultural, Forestry and Fishery Statistics
- 7 " Japan's proposal to set up system and arrangements for better statistics and information on agriculture and food in Asian and the Pacific region " in the 16th session of the Asia and Pacific Commission on agricultural statistics (APCAS)
- 8 " Challenge for data collection and analysis " presented in the same session.

#### VII Conclusion

The Follow-up team concluded and recommend to JICA that the respective organization on this course and ex-participants have been made the best use of their acquired technical skill and that this course will help to improve the agricultural statistics of Thailand.

We confirm ourselves that this opportunity surely help to strengthen the relationship between Thailand and Japan in the field of agricultural statistics activities.



Noritaka YAMAMOTO

Leader of the Follow-up Survey Team for Ex-participants of the group training course in statistical information system for agriculture

(2) नेपाल国



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SUMMARY REPORT OF THE FOLLOW-UP SURVEY TEAM  
TO NEPAL  
FOR THE EX-PARTICIPANTS OF THE GROUP TRAINING COURSE  
IN STATISTICAL INFORMATION SYSTEM FOR AGRICULTURE.

### I Introduction

It is our great pleasure to be given the opportunity to visit Nepal as members of this technical follow-up team.

Hereby the team intended to submit the summary report on its six (6) days follow-up activities since January 25, 1998 for the reference of respective government agencies in Nepal.

The course has been offered since 1967 and we have accepted 385 participants from 57 countries and entities. Among them, 20 participants were accepted from Nepal. Unfortunately there are no participants since 1993 from Nepal.

The team member would like to express their deepest gratitude for the hearty welcome and kind cooperation during the whole period of stay.

The Follow-up survey was conducted mainly through interviews and questionnaires to the respective organizations and ex-participants.

### II Objectives of the Follow-up Team

The Follow-up team aimed to evaluate the impact of ex-participants trained in this course held in Japan, to assess the problems and needs in the field of agricultural statistics of the participants' countries as well as to improve JICA's future training programs.

1. To measure and evaluate the impact of the course for the ex-participants and the extent of utilization of what they had gained in Japan, and to exchange views and opinions about technical matters in the fields of agricultural statistics with them and their supervising officials, so that we can make the future program more effective and fruitful.
2. To investigate and understand the present situation in this country, especially in the above-mentioned field in order to reflect them in making our future program more effective.
3. To conduct a seminar for providing information on latest development in the fields concerned.

### III The Team Member

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Deputy Director, Marketing and Consumption Statistics Div.,  
Statistics and Information Dep.(SID),  
Ministry of Agriculture, Forestry and Fisheries (MAFF).

#### 2. Mr. Ryuki IKEDA ( Technical Guidance)

Section Chief,  
Office of International affairs of Planning and Coordination Div., SID, MAFF

#### 3. Mr. Junichi OIKAWA (Coordination)

Staff,  
Second Training Div.,  
Tsukuba International Center (TBIC),  
Japan International Cooperative Agency (JICA)

### IV Summarized Schedule

#### 1 January 25 (Sun)

- Arrival at Kathmandu
- Follow-up visit to National Planning Commission Secretariat (NPCS)

#### 2 January 26 (Mon)

- Visit to JICA Nepal Office
- Visit to Embassy of Japan in Nepal
- Courtesy Visit to Mr. S. N. UPADHYAYA  
and Follow-up interview to Agricultural Statistics Div.(ASD), Ministry of Agriculture (MOA)

#### 3 January 27 (Tue)

- Meeting with Ex-participants at JICA Nepal Office
- Courtesy Visit to Mr. K. R. SHARMA  
and Follow-up interview to Central Bureau of Statistics (C B S)

#### 4 January 28 (Wed)

- Seminar titled "Japan's new activities in agricultural statistics" at JICA Nepal Office

#### 5 January 29 (Thu)

- ( Field Survey on Agricultural situation in Bairini )

6 January 30 (Fri)

- Visit and file the preliminary report to JICA Nepal Office
- Leave from Kathmandu

#### V Summary of Follow-up Visit and Meeting with Ex-participants

NPCS, CBS and MOA have given us the best evaluation for the group training course in statistical information system for agriculture held in Japan to say that ex-participants has been making effective use in their agricultural statistics working of the acquired technical skill in this course and that all of these respective organizations required acceptance one or more participants in this course in and after 1998. Ex-participants in CBS and MOA also express their thanks and usefulness in their now-engaging work.

The specific situation of each organization in agricultural statistics and the recommendation mentioned by each organization and ex-participant is the following.

##### 1. NPCS

We have in mind that NPCS has highly stressed the necessity of improving agricultural statistics in order to effectively monitor the progress of the now-on-going "Nepal Agricultural Perspective Plan ( APP ) " which will accelerate Nepal's agricultural growth rate by 2 percentage points from about 3 percent per annum to 5 percent per annum in 20 years from 1994 to 2014.

We also have in mind that NPCS considers Japan as the most familiar to Nepal and thanks so much for the Japanese agricultural cooperation.

##### 2. CBS

We have in mind that CBS now prepares the 2001/02 Agricultural Census and that CBS scheduled to give the training of staffs in 33 district offices.

Among their recommendation for further improvement of this course other than the acceptance in the training course is the sampling design and questionnaire design in training curriculum.

CBS wants to be furnished with the instruments and machines for survey and data-processing such as personal computer, FAX, photo copy.

##### 3 MOA

We have in mind that MOA is to be specialized to conduct production information of field crops and livestock instead of agricultural statistics which is to be published by CBS after adjusting with MOA and that this task is highly needed to be improved in the field of gathering, transmitting, calculating and analyzing these information just on time when needed.

We also have in mind that MOA needs the training of local enumerators in the agricultural service center (ASC) and livestock service centers (LSC) at the village level in order to gather useful information. In addition, we consider that MOA needs not only to improve sample design, questionnaire design and quick data-processing, but also to re-structure data-base of all villages

which adequately reflects the temporary changes of production condition in the reported areas to the total prediction figures at national level of crop and/or livestock production .

Among their recommendation of MOA and their ex-participants for further improvement of this course other than the acceptance in the training course is the successive information service to ex-participants.

MOA also wants to be furnished with the instruments and machines for survey and data-processing such as personal computer, FAX, photo copy.

#### VI MOA requested the dispatch of short-term expert from Japan.

MOA expresses its wish for Japan to dispatch the short-term expert from Japan in the field of Japan's accurate and timely production prediction at national total level in order to improve current MOA activities more effectively and more useful.

We carefully interviewed the details how MOA has been now conducting information gathering and production prediction. However, each information concerning current changes of production conditions dose neither quickly informed to the headquarters owing to the lack of equipment, nor reflected effectively to summed up to the national total production prediction mainly because of the lack of adequate sampling-design and/or questionnaire-design.

We insist that the more accurate and more timely information on agricultural production will be surely helpful to promote APP more effectively and more adequately. For example, gathered and accumulated data of damages scale and frequency in each villages to each crop and livestock, which could be reflected to the national total production prediction, must be the indicator to show what and where is the needed improvement at the agricultural policy level.

Japan has indeed obtained high technical skill in the field of accurate national total production prediction in agricultural statistics. Therefore, we think that MOA can surely improve its now-on-going way by the proper advices of expert from Japan in this field.

#### VII Summary of the Seminar Course

We have the Seminar titled " Japan's new activities in agricultural statistics " at JICA Nepal Office with text documents. Total participants of NPCS and MOA fellow members are 14 including 3 ex-participants. After the presentation of our explanation, many successive discussions concerning Japan's present activities in agricultural statistics were most fruitful to all participants including us to promote mutual understanding for agricultural statistics activities in both countries.

The contents in the Seminar course is the following.

##### 1 Present State of Agricultural, Forestry and Fishery Statistics and Information in Japan

- (1) the Scope of Agricultural Statistics
- (2) the Marketing Information Service for Perishable Food
- (3) the Organization of SID/MAFF

##### 2 A New Course to Take in Developing Statistics and Information of SID/MAFF

- (1) to Expand distribution, processing and consumption statistics and information
- (2) Easier use to general members of the public
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- 3 Establishment of Information Center Activity of SID/MAFF
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- 7 " Japan's proposal to set up system and arrangements for better statistics and information on agriculture and food in Asian and the Pacific region " in the 16th session of the Asia and Pacific Commission on agricultural statistics (APCAS)
- 8 " Challenge for data collection and analysis " presented in the same session.

## VII Conclusion

The Follow-up team concluded and recommend to JICA that the respective organization on this course and ex-participants have been made the best use of their acquired technical skill and that acceptance in this course will help to improve the agricultural statistics of Nepal.

We also concluded and recommended to JICA that the dispatch of short-term expert to MOA is the most useful to promote the APP effectively and successfully in the field of agricultural statistics.

We confirm ourselves that this opportunity surely help to strengthen the relationship between Nepal and Japan in the field of agricultural statistics activities.

Noritaka YAMAMOTO

Leader of the Follow-up Survey Team for Ex-participants of the group training course in statistical information system for agriculture

## 2 質問票の取りまとめ結果

### (1) 帰国研修員所属機関

## 帰国研修員所属機関に対する質問票の取りまとめ結果

### I 研修員の選考過程

#### 1 選考の手順

##### タイ国 国家統計局 (NSO)

##### 農業協同組合省農業経済局 (OAE)

各組織から1, 2名の農業統計または農業統計部門のデータ処理担当者がDTECに推薦される。DTECにおいては、JICAの基準に従って書類選考が行われ、更に英語の試験の結果等から最適者が選ばれる。

##### ネパール国 農業省農業統計課 (MoA)

農業統計の分野に勤務する職員の中から、農業省の管理部門の担当次官、事務次官、大臣の同意を得られた職員が候補者とされる。

#### 2 選考期間

##### タイ国 国家統計局 (NSO)

- ・2ヶ月以上

##### タイ国 農業協同組合省農業経済局 (OAE)

- ・1ヶ月以内

##### ネパール国 農業省農業統計課 (MoA)

- ・1ヶ月以上

#### 3 選考要件

##### タイ国 国家統計局 (NSO)

- ・現在の職場, 学歴, 職歴, 英語の能力

##### タイ国 農業協同組合省農業経済局 (OAE)

- ・現在の職場

##### ネパール国 農業省農業統計課 (MoA)

- ・現在の職場, 学歴, 職歴

#### 4 募集要綱 ( General Information ) の内容

##### タイ国 国家統計局 (NSO)

##### 1) 募集要綱の内容に不足はないか

- ・問題なし

##### 2) 募集要綱の受領時期に遅れはないか

- ・問題なし

- 3) 本コースに毎年何人程度研修員を送りたいか  
・1～2名の研修員を受け入れて欲しい

タイ国 農業協同組合省農業経済局 (OAE)

- 1) 募集要綱の内容に不足はないか  
・問題なし
- 2) 募集要綱の受領時期に遅れはないか  
・遅い
- 3) 本コースに毎年何人程度研修員を送りたいか  
・毎年は受け取っていない

ネパール国 農業省農業統計課 (MoA)

- 1) 募集要綱の内容に不足はないか  
・問題なし
- 2) 募集要綱の受領時期に遅れはないか  
・問題なし
- 3) 本コースに毎年何人程度研修員を送りたいか  
・毎年、最低1, 2名の研修員を研修に参加させたい

## II 本集団研修コースの評価

### 1 研修員の帰国後の勤務状況

タイ国 国家統計局 (NSO)

- ・調査設計から集計, 分析, 公表に至る各段階

タイ国 農業協同組合省農業経済局 (OAE)

- ・分析, 予測部門

ネパール国 農業省農業統計課 (MoA)

- ・退職, 農業統計部門以外の職域に異動

### 2 帰国研修員の研修成果の活用状況

タイ国 国家統計局 (NSO)

- ・良好

タイ国 農業協同組合省農業経済局 (OAE)

- ・良好

ネパール国 農業省農業統計課 (MoA)

- ・良好

- 3 帰国後、他に移動した研修員の勤務先
- タイ国 国家統計局 (NSO)
- ・概ね同一職域で勤務している
- タイ国 農業協同組合省農業経済局 (OAE)
- ・農業統計部門から分析部門への異動
- ネパール国 農業省農業統計課 (MoA)
- ・他機関に異動しても統計に関連する仕事に就くよう希望している
- 4 帰国研修員が持ち帰った有益な知識や経験
- タイ国 国家統計局 (NSO)
- ・帰国後、自己啓発に努め、業務の改善に役立てようとしている
- タイ国 農業協同組合省農業経済局 (OAE)
- ・日本及び他の研修参加国の農業統計システムについて
- ネパール国 農業省農業統計課 (MoA)
- ・標本理論、定義、データ収集、コンピュータ利用によるデータ処理等
- 5 帰国研修員による研修成果の組織への伝播
- タイ国 国家統計局 (NSO)
- ・帰国研修員の多くは、当組織の研修講師を兼ねており、日本での研修成果を組織内に広めている
- タイ国 農業協同組合省農業経済局 (OAE)
- ・調査を企画設計する際に行う討議の中で、帰国研修員が日本での研修成果を紹介することにより、組織内に広まっている
- ネパール国 農業省農業統計課 (MoA)
- ・十分行われている
- 6 今後もこのコースへ研修員を送りたいか？
- タイ国 国家統計局 (NSO)
- タイ国 農業協同組合省農業経済局 (OAE)
- ネパール国 農業省農業統計課 (MoA)
- ・(各組織とも) 本コースは職員に大変有益であり、研修員として送りたい

## 7 本コースの具体的評価

### タイ国 国家統計局 (NSO)

- |           |        |          |          |
|-----------|--------|----------|----------|
| a) 内容のレベル | 高い ( ) | 普通 ( )   | 低い ( ○ ) |
| b) 期間     | 長い ( ) | 普通 ( ○ ) | 短い ( )   |
| c) 講義数    | 多い ( ) | 普通 ( ○ ) | 少ない ( )  |
| d) 参加研修員数 | 多い ( ) | 普通 ( ○ ) | 少ない ( )  |

### タイ国 農業協同組合省農業経済局 (OAE)

- |           |          |          |           |
|-----------|----------|----------|-----------|
| a) 内容のレベル | 高い ( ○ ) | 普通 ( )   | 低い ( )    |
| b) 期間     | 長い ( )   | 普通 ( ○ ) | 短い ( )    |
| c) 講義数    | 多い ( ○ ) | 普通 ( )   | 少ない ( )   |
| d) 参加研修員数 | 多い ( )   | 普通 ( )   | 少ない ( ○ ) |

### ネパール国 農業省農業統計課 (MoA)

- |           |        |        |           |
|-----------|--------|--------|-----------|
| a) 内容のレベル | 高い ( ) | 普通 ( ) | 低い ( ○ )  |
| b) 期間     | 長い ( ) | 普通 ( ) | 短い ( ○ )  |
| c) 講義数    | 多い ( ) | 普通 ( ) | 少ない ( ○ ) |
| d) 参加研修員数 | 多い ( ) | 普通 ( ) | 少ない ( ○ ) |

## II 本集団研修コースの将来に向けた改善点

### 1 実施期間

#### タイ国 国家統計局 (NSO)

- ・ 3ヶ月

#### タイ国 農業協同組合省農業経済局 (OAE)

- ・ 3ヶ月以上

#### ネパール国 農業省農業統計課 (MoA)

- ・ 少なくとも6ヶ月

### 2 カリキュラム及び研修内容

#### タイ国 国家統計局 (NSO)

- ・ 漁業センサス, 水産統計, 農業統計分析, 最新のコンピュータソフトの操作
- ・ 特にデータ処理, 分析のためのコンピュータソフトの面に焦点を絞った研修とされたい

#### タイ国 農業協同組合省農業経済局 (OAE)

- ・ コンピュータを利用した分析及び予測, 生産費調査

ネパール国 農業省農業統計課 (M o A)

- ・マクロレベルでの視点で、産業統計、国家経済計算
- ・より実践的な演習、フィールドワーク

3 技術レベル

タイ国 国家統計局 (NSO)

- ・準統計官レベルに絞りたい

タイ国 農業協同組合省農業経済局 (OAE)

ネパール国 農業省農業統計課 (M o A)

- ・記載なし

4 その他

タイ国 国家統計局 (NSO)

タイ国 農業協同組合省農業経済局 (OAE)

ネパール国 農業省農業統計課 (M o A)

- ・記載なし

(2) 帰国研修員

帰国研修員に対する質問票の取りまとめ結果

I 本集団研修コースの評価

1 研修で学んだ知識や経験は現在の仕事に役立っているか？

タイ国 国家統計局 (NSO) 回答数：帰国研修員 9人

大いに ( 4 ) ある程度 ( 3 ) 十分ではない ( 2 )

タイ国 農業協同組合省農業経済局 (OAE) 回答数：帰国研修員 8人

大いに ( 5 ) ある程度 ( 0 ) 十分ではない ( 2 )

未回答 ( 1 )

ネパール国 農業省農業統計課 (MoA) 回答数：帰国研修員 3人

大いに ( 1 ) ある程度 ( 1 ) 十分ではない ( 1 )

2 どの様な有益で適応可能な知識や経験を学んだか？

タイ国 国家統計局 (NSO)

- ・ コンピュータ利用等の農業統計における最新技術
- ・ 調査票設計, 実査技術, コンピュータ利用, 分析
- ・ 日本の先進的な農業統計, データ処理技術
- ・ コンピュータを利用したデータ処理, 日本の農業センサスの手法
- ・ 研修受講により視野が広がった
- ・ 段階を追った調査実施の過程
- ・ 農業統計実施に当たっての手法
- ・ 実査手法

タイ国 農業協同組合省農業経済局 (OAE)

- ・ 調査の実施手順
- ・ 流通, 経営統計
- ・ 研修員相互の意見交換
- ・ 標本抽出, 標本数の決定等の標本理論
- ・ 進んだ統計技術, 特にコンピュータ

ネパール国 農業省農業統計課 (MoA)

- ・ 標本調査法, 調査手法
- ・ データ分析
- ・ データ収集

3 研修終了後、所属する組織に知識や経験を伝えたか？

タイ国 国家統計局 (NSO)

- ・ 農業センサス部門の業務を担当しており、その業務を通じて
- ・ 職場内のミーティング等の機会に
- ・ 帰国後作成した報告レポートによって

タイ国 農業協同組合省農業経済局 (OAE)

- ・ 上司に対して作成した報告レポートによって
- ・ 仕事を通じて

ネパール国 農業省農業統計課 (MoA)

- ・ 仕事を通じて
- ・ 実査担当職員に対する指導会において講師を務める

4 このコースへの参加を他の職員に薦めるか？

タイ国 国家統計局 (NSO)

はい ( 9 )    いいえ ( 0 )

タイ国 農業協同組合省農業経済局 (OAE)

はい ( 8 )    いいえ ( 0 )

ネパール国 農業省農業統計課 (MoA)

はい ( 3 )    いいえ ( 0 )

5 本コースの具体的評価

タイ国 国家統計局 (NSO)

- |           |          |          |           |
|-----------|----------|----------|-----------|
| a) 内容のレベル | 高い ( 3 ) | 普通 ( 6 ) | 低い ( 0 )  |
| b) 期間     | 長い ( 1 ) | 普通 ( 5 ) | 短い ( 3 )  |
| c) 講義数    | 多い ( 3 ) | 普通 ( 4 ) | 少ない ( 2 ) |
| d) 参加研修員数 | 多い ( 2 ) | 普通 ( 5 ) | 少ない ( 2 ) |

タイ国 農業協同組合省農業経済局 (OAE)

- |           |          |          |           |
|-----------|----------|----------|-----------|
| a) 内容のレベル | 高い ( 5 ) | 普通 ( 2 ) | 低い ( 1 )  |
| b) 期間     | 長い ( 0 ) | 普通 ( 6 ) | 短い ( 2 )  |
| c) 講義数    | 多い ( 5 ) | 普通 ( 3 ) | 少ない ( 0 ) |

d) 参加研修員数 多い ( 0 ) 普通 ( 2 ) 少ない ( 6 )

ネパール国 農業省農業統計課 (M o A)

a) 内容のレベル 高い ( 2 ) 普通 ( 0 ) 低い ( 1 )  
b) 期間 長い ( 0 ) 普通 ( 2 ) 短い ( 1 )  
c) 講義数 多い ( 1 ) 普通 ( 0 ) 少ない ( 2 )  
d) 参加研修員数 多い ( 0 ) 普通 ( 1 ) 少ない ( 2 )

## II 本集団研修コースの将来に向けた改善点

### 1 実施期間

タイ国 国家統計局 (NSO)

- ・ 3～6ヶ月に延長

タイ国 農業協同組合省農業経済局 (OAE)

- ・ 3ヶ月以上に延長
- ・ 4～5ヶ月

ネパール国 農業省農業統計課 (M o A)

- ・ 3～6ヶ月

### 2 カリキュラム及び研修内容

タイ国 国家統計局 (NSO)

- ・ 持続可能な農業及び流通に関する統計
- ・ 最新の手法を用いた分析手法
- ・ 分析とプレゼンテーションの手法
- ・ 農業センサス等の農業統計調査の統計的手法, 調査票設計, コンピュータを利用したデータ処理と分析, 公表資料の作成, 統計的精度管理の手法
- ・ 実査, ケーススタディ等による演習の拡充
- ・ 実査演習における農家への訪問機会の拡充
- ・ コンピュータ・ソフトの演習

タイ国 農業協同組合省農業経済局 (OAE)

- ・ コンピュータを利用した標本抽出, データ処理, 分析及び予測手法
- ・ 農業統計情報システムにおけるコンピュータの役割
- ・ 予測のための標本抽出手法

- ・生産費調査
- ・プレゼンテーションの手法
- ・ワークショップ等演習を拡充
- ・WTO等の貿易関連の講義

ネパール国 農業省農業統計課 (MoA)

- ・畜産統計
- ・データ処理, 分析, 公表資料の作成等におけるコンピューター利用技術の拡充

3 技術レベル

タイ国 国家統計局 (NSO)

- ・更に上級レベル

タイ国 農業協同組合省農業経済局 (OAE)

- ・更に上級レベル

ネパール国 農業省農業統計課 (MoA)

- ・特記事項なし

4 その他

タイ国 国家統計局 (NSO)

- ・研修終了後のテストの実施

タイ国 農業協同組合省農業経済局 (OAE)

- ・研修員間の文化交流の時間を設ける

ネパール国 農業省農業統計課 (MoA)

- ・理論と演習の相互補完の充実
- ・大学教授等の活用

3 事前に送付した質問票

(1) 技術協力窓口機関

[ For Window Organization of technical cooperation ]

FOLLOW-UP SURVEY FOR EX-PARTICIPANTS OF TRAINING COURSE  
TSUKUBA INTERNATIONAL CENTER (TBIC)  
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

QUESTIONNAIRE FOR ORGANIZATION CONCERNED ON  
GROUP TRAINING COURSE IN  
STATISTICAL INFORMATION SYSTEM FOR AGRICULTURE,  
AGRICULTURAL STATISTICS

To whom it may concern

We will generally appreciate your cooperation in answering the following questions to help us effectuate our visit to your country. (Kindly requested to write in block letter or typewrite. Thank you.)

**I General Questions**

1. Your full name: \_\_\_\_\_
2. Name of organization you belong to: \_\_\_\_\_
3. Office address: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_
4. Your position: \_\_\_\_\_

**II Questions on the selection system of the applicants of the Statistical Information System for Agriculture/ Agricultural Statistics Course.**

1. When does your organization receive the General Information (GI) of this group training course from Government of Japan every year ?  
\_\_\_\_\_

2. How does your government select the applicants ?

1) Nomination stage:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



(2) 帰国研修員所属機関

[ For Organization to which Ex-participants belong ]

FOLLOW-UP SURVEY FOR EX-PARTICIPANTS OF TRAINING COURSE  
TSUKUBA INTERNATIONAL CENTER (TBIC)  
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

QUESTIONNAIRE FOR ORGANIZATION CONCERNED ON  
GROUP TRAINING COURSE IN  
STATISTICAL INFORMATION SYSTEM FOR AGRICULTURE,  
AGRICULTURAL STATISTICS

To whom it may concern

We will generally appreciate your cooperation in answering the following questions to help us effectuate our visit to your country. (Kindly requested to write in block letter or typewrite. Thank you.)

**I General Questions**

1. Your full name: \_\_\_\_\_
2. Name of organization you belong to: \_\_\_\_\_
3. Office address: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_
4. Your position: \_\_\_\_\_

**II Organization Outline and Activities of Agricultural Statistics**

1. What are the main activities and responsibilities of your organization?  
\_\_\_\_\_  
\_\_\_\_\_

2. How many persons does your organization have?  
\_\_\_\_\_  
\_\_\_\_\_

3. Of your staffs, how many persons engage in the agricultural statistics?  
\_\_\_\_\_  
\_\_\_\_\_

\* If you have your organization chart, please attach it.

4. What kind of agricultural survey do you conduct?

\* If you have the list of the agricultural statistics publication, please attach it.

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5. Concerning the agricultural statistics, what divisions of your organization are responsible for ?

- 1) survey design and/or questionnaire design: \_\_\_\_\_
- 2) sampling: \_\_\_\_\_
- 3) survey manual preparation: \_\_\_\_\_
- 4) data collecting: \_\_\_\_\_
- 5) data summing, processing and/or analyzing: \_\_\_\_\_
- 6) publication: \_\_\_\_\_
- 7) training of involved survey personnel: \_\_\_\_\_

6. What kind of problems are there in the agricultural statistics? ;

- 1) survey design and/or questionnaire design: \_\_\_\_\_
- 2) sampling: \_\_\_\_\_
- 3) survey manual preparation: \_\_\_\_\_
- 4) data collecting: \_\_\_\_\_
- 5) data summing, processing and/or analyzing: \_\_\_\_\_
- 6) publication: \_\_\_\_\_
- g) training of involved survey personnel: \_\_\_\_\_

7. How do you think to solve these problems?

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8. What can JICA do to help to solve these problems?

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**III Questions on the Statistical Information System for Agriculture/  
Agricultural Statistics Course.**

1. Please let us know the procedure of candidate nomination.

1) Nomination stage:

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2) Selection stage:

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3) Final determination stage:

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2. How long does it take you to choose the final candidates for this training course?

within one month /  more than one month

(it takes about \_\_\_\_\_ months)

3. What are the standards of candidate selection for this training course?

present post of candidate     educational background

intention                       service record

interchange between the related institute

others (please specify below.)

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4. General Information ("G.I."): brochure of the course from JICA.

- 1) Did you get enough information from the "G.I." for selecting final candidates, i.e., prospective participants in this training course ?  
(Should any other piece of information be added to the "G.I.")?

Yes, it is enough. /  No, it is not enough.

In case of "No", please specify the information to be added.

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- 2) Do you usually received "G.I." well in advance?

Yes /  No, it arrives late.

- 3) How many applicants/ candidates do you have every year for this training course?

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**IV Evaluation of the Statistical Information System for Agriculture/  
Agricultural statistics course**

1. What kind of work does each ex-participant now working in your organization engage in ?

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2. From your point of view, does each ex-participant apply the knowledge or experience of this training course ?

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3. What kind of work does each ex-participant who has been transferred to another post after the participation of this training course ?

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4. From your point of view, What kind of useful and applicable knowledge or experience have your ex-participants brought ?

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5. How was the transmission or spread of knowledge or experience by each ex-participant ?

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6. Will you continue to send your staff to participate in this training course ?

Yes /  No

In case of "Yes", what / how intense are your expectation?

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7. How do you evaluate this training course ?

- 1) level of content:  high,  low,  neither  
2) length:  long,  short,  neither  
3) number of curriculums:  many,  few,  neither  
4) number of participants:  many,  not many,  neither

#### V Improvement of future Statistical Information System for Agriculture course

1. In the future, what kind of subjects would you expect to add to this training course?

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2. If you have any opinions/ comments regarding the improvements of the future Statistical Information System course. Please, specify as to the following.

1) Duration of program:

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2) Curriculums:

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3) Contents of training:

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4) Technique level:

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5) Others:

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**VI JICA AFTER SERVICES**

JICA conducts after care services for ex-participants of the Statistical Information System for Agriculture/ Agricultural Statistics Course. If you (as an organization) have any opinions/ requests concerning this service. Please specify here.

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**VII REQUEST TO JICA**

If you have any request to JICA, please specify here.

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DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

Thank you very much

(3) 帰国研修員

[ For Ex-participants ]

FOLLOW-UP SURVEY FOR EX-PARTICIPANTS OF TRAINING COURSE  
TSUKUBA INTERNATIONAL CENTER (TBIC)  
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

QUESTIONNAIRE FOR ORGANIZATION CONCERNED ON  
GROUP TRAINING COURSE IN  
STATISTICAL INFORMATION SYSTEM FOR AGRICULTURE,  
AGRICULTURAL STATISTICS

To whom it may concern

We will generally appreciate your cooperation in answering the following questions to help us effectuate our visit to your country. (Kindly requested to write in block letter or typewrite. Thank you.)

I. General Questions

1. Your full name: \_\_\_\_\_ Age: \_\_\_\_\_

(Please underline family name.)

2. The last education: \_\_\_\_\_

3. Year of your participation to the training course : \_\_\_\_\_

4. Name of organization you belong to: \_\_\_\_\_

5. Office address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Facsimile: \_\_\_\_\_

6. Your position: \_\_\_\_\_

7. Your home address: \_\_\_\_\_

Telephone: \_\_\_\_\_ E-mail address: \_\_\_\_\_

8. Have you ever received foreign training course other than JICA?

( ) Yes / ( ) No

In case of "Yes", please give us the course name, duration of the course, curriculums, contents of training, technique level and others.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**II Question on your present job**

1. Please describe the work of your organization. What are the main activities and responsibilities of your organization ?

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2. Please give a brief description of your duties in your current working position. What is the activity and responsibilities of you at present ?

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3. What kind of agricultural survey do you conduct ?

\* If you have the explanation of your conducting survey, please attach it.

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4. Concerning the agricultural statistics, what do you think the problems or obstacles in the field of the agricultural statistics ?

[1] the organization level

1) general constrains such as

- ( ) Trained personnel
- ( ) Government policy for the agricultural statistics
- ( ) Financial situation
- ( ) Data processing machines and tools
- ( ) Others

\* please describe briefly.

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2) by each stage:

a) survey design and/or questionnaire design: \_\_\_\_\_

b) sampling: \_\_\_\_\_

c) survey manual preparation: \_\_\_\_\_

d) data collecting: \_\_\_\_\_

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e) data summing, processing and/or analyzing: \_\_\_\_\_

f) publication: \_\_\_\_\_

g) training of involved survey personnel: \_\_\_\_\_

[2] personal level

\* please describe briefly. \_\_\_\_\_

5. How do you think to solve these problems ?

6. What can JICA do to help to solve these problems ?

### III Evaluation of the Statistical Information System for Agriculture/ Agricultural statistics Course

1. Do you make into practical use the knowledge or experience of this training course applicable for your present job ?

2. What kind of useful and applicable knowledge or experience have you brought from this training course ?

3. How do you transmit or spread in your organization or office the knowledge or experience after this training course ?

4. Will you encourage other fellow members to apply for this training course ?  
( ) Yes / ( ) No

5. How do you evaluate this training course?

a) level of content: ( ) high, ( ) low, ( ) neither

b) length: ( ) long, ( ) short, ( ) neither

c) number of curriculums: ( ) many, ( ) few, ( ) neither

d) number of participants: ( ) many, ( ) not many, ( ) neither

#### IV Improvement of future Statistical Information System for Agriculture/ Agricultural statistics Course

1. In the future, what kind of subjects would you expect to add to this training course?

---

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2. If you have any opinions/ comments regarding the improvements of the future training course. Please, specify as to the following.

a) Duration of program:

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g) Curriculums:

---

---

c) Contents of training:

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---

d) Technique level:

---

---

e) Others:

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#### 4 セミナー資料

##### (1) 日本の農林水産統計情報の現状

## **Present State of Agriculture, Forestry and Fisheries Statistics and Information in Japan**

## 1. Outline of Statistical Surveys on Agriculture, Forestry and Fisheries in Japan

### (1) The Scope of Statistical Surveys

In Japan the statistical surveys on agriculture, forestry and fisheries are classified into the following four categories according to what they are designed to find, which ensures that they are systematically conducted.

- a) The first category of surveys is designed to grasp the basic structure of agriculture, forestry and fisheries. This category includes the Census of Agriculture, Forestry and Fisheries, and various structure surveys.
- b) The second category of surveys is to grasp the actual economic conditions of those engaged in agriculture, forestry and fisheries. This category covers economy surveys to know their actual economic activities and household economy; production cost surveys to grasp the costs of producing major crops and livestock products; and price surveys on agricultural products and materials used for agricultural production.
- c) The third category refers to those surveys designed to get the actual condition of how resources for production of agriculture, forestry and fisheries are used and how production goes on. This category consists of surveys to measure cultivated and planted fields; surveys to figure out produced volumes of products; surveys to forecast production of major agricultural products; and surveys to investigate agricultural damages.
- d) The fourth category aims to bring to light the actual process of distribution from the producer to the consumer. This category consists of structure surveys on food distribution, price surveys of major foods at different stages of distribution, and surveys on wholesale markets due to ascertaining systematically how food supplies are distributed.

### (2) The Sort of Statistical Surveys and the Facilities for Release and Use

There are about 100 different statistical surveys in all that belong to any of the above four categories. The results of those surveys are annually made into a total of about 500 items for public release such as preliminary reports, information sheets and monthly reports (published in a total of about 730,000 copies), and also into about 50 types of annual reports (published in a total of about 110,000 copies).

Those publications of statistics and information are well used as basic information resources for reference in formulating and pursuing policies to ensure stable food supplies, to encourage agriculture, forestry, fisheries, and rural development, and to help people improving their management skills in those industries. They are also widely used by people engaged in the production, distribution and processing of agricultural, forestry and fisheries products, and also specialists at educational and research institutes and so on.

Besides the release of survey results in a printed form, recently efforts have started to make them available through personal computer-based communications and on the Internet (the Ministry of Agriculture, Forestry and Fisheries (MAFF) runs a home page whose URL is

<http://www.maff.go.jp>). (See 3-(2) for the numbers of approaches received through personal computer-based communications and on the Internet)

(3) The Market Information Service for Perishable Food

MAFF's Statistics and Information Department (SID) runs a "Market Information Service for Perishable Food". This service centers on a system to collect daily the market trends of vegetables and fruit in 68 major wholesale markets and those of meat products in 24 such wholesale markets in Japan, to transfer them on line to a central computer for processing, and then to send the processed information to about 5,600 subscribers on a real-time basis through fax and personal computer-based communications.

(4) The Organization of SID

In Japan the central government's statistical organization is a decentralized type, meaning that the Management and Coordination Agency and the other ministries and agencies individually undertake statistical surveys in the areas for which they are responsible.

SID is responsible for undertaking statistical surveys on agriculture, forestry and fisheries, including the Census of Agriculture, Forestry and Fisheries.

This organization consists of a head office and local branch offices as shown in the following table (Table-1).

(Table-1) An Outline of the Organization of MAFF's Statistics and Information Department

(As of 1 October 1996)

Central level	Regional level	Prefecture-covering level	Field-survey level
Statistics and Information Department	Statistics and Information Departments of Regional Agricultural Administration Offices	Statistics and Information Offices	Branch Offices
(7 divisions)	(7 offices)	(43 offices)	(287 offices)
(413 persons)	(411 persons)	(5,831 persons)	

(5) The Budget of SID

In the budget for FY1996 SID were provided with 11.4 billion yen (10.5 billion yen excluding Census-related allocations). (Table-2)

(Table-2) Annual Budget Allocations for MAFF's Statistics and Information Department

(million yen)

Fiscal Year	Total	Exclusive of the Census of Agriculture, Forestry and Fisheries related allocations
1992	10,851	10,558
1993	12,549	10,460
1994	17,865	10,116
1995	13,764	10,403
1996	11,377	10,510

## 2. Progress in Improvement of Statistics and Information Services on Agriculture, Forestry and Fisheries

### (1) A Proposal by the "Study Group for Statistics and Information on Agriculture, Forestry and Fisheries" and Its Execution

The Study Group came up with a proposal on the future course to take in trying to improve statistics and information on agriculture, forestry and fisheries in August 1995, in view of expanding internationalization, development of new roles for agricultural administration, and various needs of people with different interests. The details of the proposal are as follows, which SID will phase into practice over about 5 years from 1996 in a planned manner.

#### A New Course to Take in Developing Statistics and Information on Agriculture, Forestry and Fisheries (Summary of the Proposal)

##### 1. A Course to Shift to in Response to the Changing Environment

###### (1) A Course to Shift to in Response to New Needs

Although the existing statistics and information services concentrate mainly on the field of domestic production, it is necessary to make a major change in this current services by expanding statistics and information services on downstream areas such as distribution, processing and consumption; on foreign situations; and on Japan's foothill and mountain regions and environmental issues.

###### (2) Statistics and Information of Easier Use to General Members of the Public

It is natural for statistics to be used for administrative purposes. However, as it is a common property of the public, it should be made easier to use for people with various needs.

##### 2. Tasks in Response to Challenges to Government Statistics and Information Services

###### (1) To Support Development of Policies Dealing with Structural and Managerial Aspects

###### (2) To Support Efforts to Promote the Revitalization of Foothill and Mountain Regions and Conserve the Environment

###### (3) To Expand Statistics and Information Services on Consumers and Food Industries

###### (4) To Respond to New International Circumstance

###### (5) To Launch Information with a Greater Appeal to the Public

###### (6) To Carry out Statistics and Information Services More Efficiently

(2) Establishment of Information Centers on Agriculture, Forestry and Fisheries

SID established Information Centers on Agriculture, Forestry and Fisheries within MAFF's local branch offices, as part of the efforts to apply the proposal by the "Study Group for Statistics and Information on Agriculture, Forestry and Fisheries", and the "Basic Plan for Promoting Administrative Informatization". These Centers are designed to serve as a local base for collecting and distributing information on agriculture, forestry and fisheries. They started to operate in June 1996.

The Headquarters for Promotion of the Information Centers are placed within the MAFF's head office. There are 337 Centers in all the country; 287 are located at branch offices, 43 at statistics and information offices, and 7 within the Statistics and Information Departments of Regional Agricultural Administration Offices.

The main role of those Centers are to actively provide information on agriculture, forestry and fisheries to people with various interests and social backgrounds; to introduce official policies and projects on agriculture, forestry and fisheries; and to answer inquiries from people.

3. Information Network

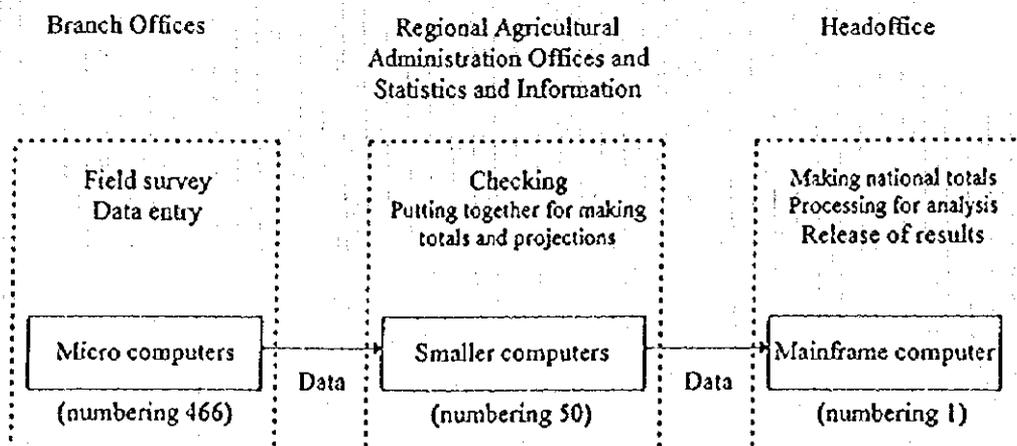
(1) Systematization of Statistical Processing Operations

SID started to install smaller computers at Regional Agricultural Administration Offices and Statistics and Information Offices, and microcomputers at branch offices in 1987, in an effort to systematize and interconnect statistical data processing operations on a network.

At present, branch offices responsible for conducting field survey operations input the collected data into their microcomputers for transmission to the statistics and information offices (or Regional Agricultural Administration Offices), which in turn check and put together the received data for making totals and projections before forwarding them to the SID's head office.

The head office processes the received data for making national totals and analyses on a mainframe computer, after that releases the completed survey results promptly. (Figure-1)

(Figure-1) MAFF's Statistical Data Processing System

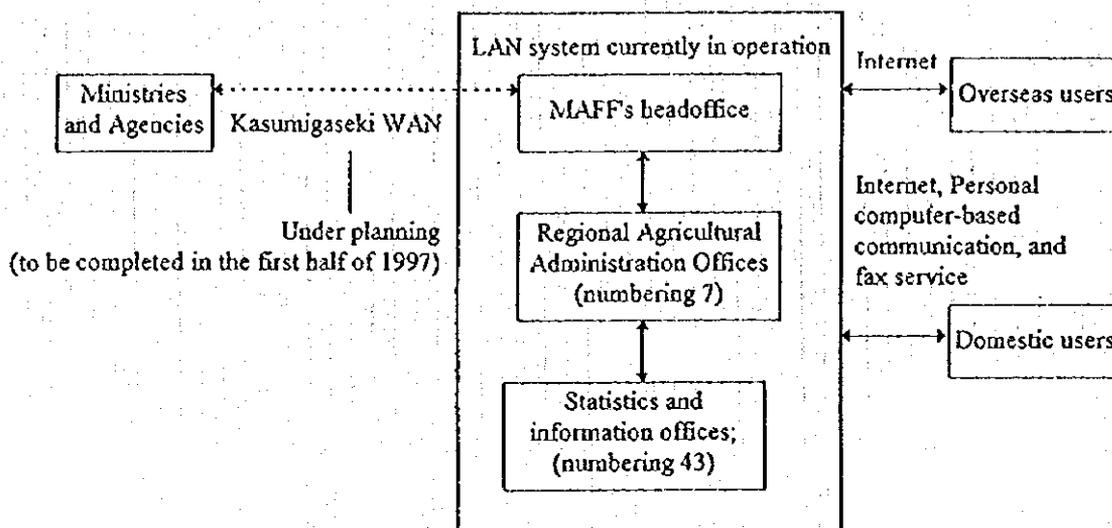


(2) Upgrading of Government Information Processing and Improving Quality of Service to the Public

The government of Japan is making major efforts to improve administrative informatization based on the benefits of the recent rapid advance in the technology for information network, with a view to upgrading government information processing operations and improving quality of service to the public. In the first half of 1997 a network interconnecting government ministries and agencies ("Kasumigaseki WAN") is scheduled to be completed. MAFF also formulated a "Basic Plan for Promoting Administrative Informatization" in June 1995, under which it is working to complete an attempt to have a fine and advanced LAN system in 1999.(Figure-2)

In addition to usual means of distributing information, MAFF started to provide information through personal computer-based communication (in January 1995) and fax service (in October 1995), and on the Internet (in January 1996). The monthly average number of approaches for these services stands at about 6,000 through personal computer-based communication, about 2,000 for fax service, and about 120,000 on the Internet.

(Figure-2) The MAFF's Information Network



#### 4. The Census of Agriculture, Forestry and Fisheries

##### (1) The Census of Agriculture and Forestry

In accordance with the FAO's Program for the World Census of Agriculture, Japan has been participating in the World Census of Agriculture and Forestry every 10 years since 1950. We conducted the 5th World Census of Agriculture and Forestry in 1990. In the middle years between those censuses, Japan has been holding the Census of Agriculture on its own.

In the 1995 Census of Agriculture, Japan conducted survey operations for data as of 1 February 1995, and released the results on 30 November the same year. For the components of this Census, Japan undertook a survey on agricultural holdings, a survey on agricultural service enterprises, and a comprehensive survey on the environment in rural community regions.

Japan is proceeding with preparations for the World Census of Agriculture and Forestry in 2000, planning to carry out survey operations in February 2000 and release the results by the end of November the same year.

(2) The Census of Fisheries

Japan has been conducting the Census of Fisheries every 5 years since 1949. In the 9th Census of Fisheries, it carried out survey operations for data as of 1 November 1993, and released the results on 31 August 1994.

As for the upcoming 10th Census of Fisheries, Japan plans to conduct survey operations in November 1998, and release the results by the end of August 1999. The 10th Census of Fisheries will be focused mainly on finding the structure of fisheries in Japan in the face of the emergence of a new ocean order after the "United Nations Convention on the Law of the Sea" came in effect in 1994, and the "Agreement for the conservation and management of straddling fish stocks and highly migratory fish stocks" adopted in 1995.

**5. International Cooperation on Statistics on Agriculture, Forestry and Fisheries**

Japan has been promoting international cooperation on statistics on agriculture, forestry and fisheries, with main emphasis on providing developing countries with technical assistance. While the Ministry of Foreign Affairs is responsible for receiving requests for technical assistance and arranging formalities in response to them, the Japan International Cooperation Agency (JICA) plays a leading role in undertaking actual cooperation activities. MAFF together with other ministries and agencies concerned, is actively taking part in those cooperation activities with their expertise. MAFF has so far undertaken the following major technical cooperation activities in the field of statistics on agriculture and fisheries.

- a) Organizing group training courses in Japan (for a total of 373 trainees in 53 countries)
- b) Dispatch of experts on an individual basis
  - ( a total of 26 to Paraguay; a total of 17 to Indonesia; )
  - ( 2 to Syria; 1 to Thailand; and 1 to Saudi Arabia )
- c) Project-type technical cooperation (Paraguay; and Indonesia)

(2) アジア太平洋地域における農業・食料分野の統計情報改善に向けた日本の提案

Japan's Proposal to set up System and  
Arrangements for better Statistics and Information  
on Agriculture and Food  
in Asia and the Pacific region

Japan's Proposal to set up System and Arrangements  
for better Statistics and Information on Agriculture  
and Food in Asia and the Pacific region

"Food and Agricultural Situations in the World"

1. The situation of supply and demand of food has changed. It is feared that the relation between supply and demand of food in the world will enter unstable phases and, under certain circumstances, even become tight for the medium/long-term. The reasons for this on the demand side are that population is to continue to increase mainly in developing countries and that, specifically in Asia, demand for grain is forecasted to expand as income levels rise because of the economic development taking place in the region. On the other hand, from the view point of production, its forecast is now uncertain because of global environmental problems including aggravation of desertification and yield fluctuations due to continued unusual weather. "Agriculture : Toward 2010" published by the FAO also forecasts that a chronically undernourished population will continue to exist in developing countries in future, although its absolute number will decrease. It stresses the need to increase sustainable food production and to eradicate poverty in order to reduce the number of the undernourished.

2. As the mutual dependence of our global economic society deepens, each country within the region has been strengthening economic ties with its neighbors and other nations around the world. As a result, the economy of one country cannot exist in isolation. Even in the field of agriculture, the effects of poor harvest caused by a flood or cold-weather damage have an immediate affect on the international grain supply and demand. Consequently, in order to promote the stabilization for the supply, demand and the price of food in individual country, it is now extremely important to promote stabilization from the view point of the whole world.

3. In FAO's "World Food Summit" to be held in coming November, scheduled are serious discussions on how to eradicate starvation and malnutrition and how to attain food security. And, at the unofficial summit

meeting of the Asia Pacific Economic Cooperation (APEC) held in Osaka last year adopted a declaration stating that they would tackle as long-term tasks the new questions of how to cope with the situation in which increase in population and rapid growth of economy in Asia and the Pacific region cast heavy burdens on supply-demand of food and energy and on environment and how to secure sustainable growth. Thus, efforts at international coordination and cooperation concerning agriculture and food are now well under way.

"Roles of Statistics and Information on Agriculture, Forestry and Fisheries and Necessity of System for International Cooperation"

4. Statistics and related information on agriculture, forestry and fisheries play an important role as a compass in the formulation of policy and projects in such areas as production, rural development and food supply to the nation, and also in proceeding sustainable national economic growth. They are also used widely by people engaged in agriculture, forestry and fisheries, distributors and people engaged in other related industries as important data for their business activities. Generally they are also extensively used by consumers as information on prices of grain, meat, fresh vegetables and marine products.

5. However statistics are not necessarily well prepared in Asia and the Pacific region, due to financial, technical and other restrictions. Moreover, the lack of accuracy and promptness of these very statistics still remains a major problem. This lack of reliable statistics is a huge obstacle not only for the development of agriculture, forestry and fisheries, but also for the economic growth and social development of these many countries whose industries depend on agriculture, forestry and fisheries. Moreover, this lack makes it difficult for the countries to start take-off economically. It is compelling to say that such matters have become a major problem in the aim of ensuring sustainable economic growth in Asia and the Pacific region in the future.

6. Japan has continued technical cooperation to developing countries continuously for the improvement in their ability to prepare accurate

statistics and information based on the understanding that statistics and its related information are the basic material indispensable for the designing of policies and mapping out of programs in realizing sustainable development. For example, since 1967, Japan has conducted a group training course by inviting government employees in charge of statistics from developing countries to Japan. In recent years, we have extended technical cooperation for projects to improve statistics and information on agriculture, forestry and fisheries in developing countries. Under the scheme, we dispatch a team of experts together with the necessary equipment such as computers while accepting trainees from the country concerned. As much as possible, Japan will continue its policy of responding to requests by developing countries for technical cooperation to improve statistics and information on agriculture, forestry and fisheries.

7. Due to the recent spread of computers and the development of its international networks, like the INTERNET, the condition to promote mutual exchange of information is being established rapidly. Consequently, a mutual exchange system for statistics and information should be established utilizing these tools, and it is needed to promote better accuracy and promptness of basic data related to statistics such as production, structure, demand, price, distribution and trade. Therefore, examination of necessary items such as uniformity, appropriateness, data format, utilization system, etc. and then, how to establish a organization which is the most suitable for the system, should also be considered.

In order to meet these needs, at the same time, it is also necessary to proceed the task of standardization of these statistics because the existing statistics, have been found to be very inconvenient to use collectively due to difference in survey items, definitions and so on.

European Union countries, for instance, have already taken steps to unify a system for these statistics. Concerning trade statistics, an effort to seek to standardize has been started within the framework of APEC.

8. Japan would like to say that the roles played by the FAO, especially FAO Regional Office for Asia and the Pacific (RAP) and the Asia and Pacific Commission on Agricultural Statistics (APCAS) so far in improving statistics within the region has been extremely great. Furthermore, the

present international problems in agriculture and food make their work more important and urgent. And also, it is required to cope with standardization and promotion of mutual provision of statistics. We must then continue to promote further enrichment of the activities of RAP and APCAS for the uniform preparation, mutual provision and upgrading of statistics and information within the region and elevate the function and activities of this commission with its thirty year history to a new phase.

9. Therefore, Japan would like to submit the following proposal (Attachment) in the hope that, through our discussions in this Tokyo meeting, the countries in Asia and the Pacific region will become important promoters of these efforts to prepare accurate, unified statistics and information and to provide them mutually.

(Attachment)

**A Plan to set up System and Arrangements  
for Better Statistical Information  
on Agriculture and Food in Asia and the Pacific Region**

**1. Background**

a) The situation of supply and demand food has changed. While grain is to come in increasing demand due to population growth and rising income levels both in the whole world and in Asia in the future, the prospect of production is uncertain, even threatening to get unstable, due to global environmental problems such as expanding desertification, and yield fluctuations caused by abnormal weathers. Therefore, it is necessary to keep a careful watch on its situation.

b) On the other hand, as the mutual dependence of economic society deepens, each country in the region has been strengthening economic ties with its neighbors and other nations around the world. Even in the field of agriculture, in order to promote the stabilization for the supply, demand and the price of food in individual country, it is now extremely important to promote stabilization from the view point of the whole world.

c) Regarding to international conciliation and cooperation concerning food and agriculture, in November this year the FAO "World Food Summit" will be held to discuss the eradication of starvation, malnutrition and the achievement of food security. Under the circumstances, in the area of statistics of agriculture, forestry and fisheries, a positive contribution is expected.

**2. Promotion of international cooperation**

To cope with these themes,

a) In order to contribute to future development of statistics and information on agriculture, forestry and fisheries in Asia and the Pacific

region, it is necessary to sum up the current situation and problems in each country, and then to formulate basic policies on the future direction for their preparation and improvement, including the standardization of statistics. And at the same time, it is necessary to carry out positive steps in keeping with these matters to cooperate with member countries, and to examine ways of promoting international cooperation, including bilateral or multilateral technical cooperation, that will produce concrete results in countries where implementation is difficult due to financial and technical restrictions.

b) In view of stabilizing the demand-supply situation on food and promoting development of agriculture, forestry and fisheries in Asia and the Pacific region, it is necessary for these countries to cooperate in trying to quickly collect, analyse and supply accurate statistics and information. For this purpose, it is necessary to set up a system for preparing, providing and utilizing the statistics and information as common property of Asia and the Pacific region. These efforts should contribute to stabilize the world demand-supply situation on food, exterminate starvation and cope with global environmental issues in a long term.

### **3. Necessity to establish the International Statistics and Information System and Arrangements**

In order to promote above-mentioned international cooperation, we believe it necessary to establish international system and arrangements, capable of:

- a) collecting and supplying statistics and information on agricultural structure, situation of production such as main crops planted acreage, harvest forecast, harvest result and so on, demand for food, trade of agricultural products in the region,
- b) promoting international cooperation in statistics and information on agriculture, forestry and fisheries for smooth collection and exchange, and,

- c) expanding technical cooperation to help developing countries improve arrangements for conducting statistical work and to raise accuracy.

We think that remote-sensing techniques using picture taken by satellites, which have been enjoying a remarkable technological progress recently, are highly useful in grasping situation in agricultural production.

#### 4. Japan's Proposal and Contribution

##### (1) Proposal at the 16th Session of the Asia and Pacific Commission on Agriculture Statistics of the FAO

Japan, as a host country of the 16th Session of the APCAS, would like to make proposal, to contribute to the resolution on above mentioned necessity consisting of:

- a) raising the issues of a need to promote the required cooperation among member countries and to establish the system and arrangements which supports these objectives (for instance, setting-up a "Statistics and Information Center on Agriculture and Food for Asia and the Pacific Region"),
- b) requesting FAO Regional Office for Asia and the Pacific (RAP) to make effective activities for dealing with those tasks, and,
- c) proceeding preparation of the budget for the fiscal year 1997 so that Japan may contribute a trust fund to RAP.

##### (2) Contribution of Trust Fund to FAO Regional Office for Asia and the Pacific and Forming Consensus on International Cooperation

Japan believes that contribution of trust fund to RAP, if the budget authorities approves it, will help member countries proceed those tasks and encourage the FAO Asia Office to make necessary activities to work out a concrete plan for implementation (a blueprint).

As dealing with those tasks common to member countries requires to

build international consensus and cooperation, Japan would like to express its hope that member countries will also give constructive response to those tasks.

(3) データ収集と分析への挑戦

**“Challenge for Data Collection and Analysis”**

by

**Mitsugi KAMIYA**

**President, Food and Agriculture Policy Research Center**

## Keynote Address

### The 16th Session of the Asia and Pacific Commission on Agricultural Statistics October 28, 1996

On behalf of the Japanese participants in this Commission, I would like to say cordial welcome to all participants from abroad. Now, the 16th Session of the Asia and Pacific Commission on Agricultural Statistics has been convened in Tokyo after a long interval of 30 years. The first Session of the Asia and Pacific Commission on Agricultural Statistics was held in 1966 in Tokyo. During the last three decades, as well known, many developing economies in the region made great strides forward, and now the Asia and Pacific Region is looked upon as a center of economic growth in the world. The agriculture in the region as a whole has also shown a spectacular development in the same period. Such a development, needless to say, was attributable mainly to the 'Green Revolution', and the improvement of agricultural productivity caused by the technological innovation has resulted in diversification of agricultural production and increase in income level of rural people, and has turned out changes in economic structure in a number of countries.

There is no doubt that agriculture is a vital sector in many economies in the region in terms of not only output but also employment, especially in relatively less developed countries. It is also important to note that among the developing countries in the region, those that expanded their agricultural trade surplus in the course of development of mutual dependence of economies in the 1980s, e.g., Thailand, Malaysia, Indonesia and India, are also the countries that registered sharp declines in the share of agriculture to total national output, suggesting that robust agricultural performance provides a facilitative role for robust and sustained higher industrial growth. The agricultural and industrial growth is the joint effect of policy and market environments, both macroeconomic and sectorial, as well as structural factors like population density.

I understand that many items, including arrangement for the World Agricultural Census for 2000 and promotion of mutual cooperation in the field of agricultural statistics among the member countries, are placed on the agenda of the

Commission. Under Article 6 of the FAO Charter, the objectives of the Commission on Agricultural Statistics are stipulated to exchange information on activities related to agricultural statistics in each country and to discuss the ways to intensify those activities. In other words, the overall objective of this Commission is to develop a common understanding of present situation of systems and operations concerning agricultural statistics in the region and to find the solution of the matters in hand which can be addressed through concerted actions, collaborative researches and technical cooperation. We are now required to draw up appropriate plans for further and sustainable development of agriculture, and to answer such a purpose close observations and analyses of the recent changes in agrarian structure and macro economic conditions surrounding agriculture, which are differ from country to country, are needed.

As statistics have impregnated every sphere of life, formation of an economic and social policies is unthinkable without exact observations and statistical analyses. One of the major sources of socio-economic knowledge is observation of socio-economic affairs, and statistical data and other information describe various aspects of socio-economic situations. These facts described by data and information, however, cannot necessarily tell their own story. We must add economic analysis to recorded story to find factors, which affected changes in economic structure and so on. By testing economic theory we can simplify and organize the jumble of data and facts into a coherent view of reality. On the basis of such analyses we get the right perspective.

A complete understanding of socio-economic situation relies on the use of data concerned and statistical analysis. Various data issued by governments and businesses and information derived from surveys can help us analyze the socio-economic situation and the behavior of individuals or groups concerned. Advanced tools are required for elaborate analysis of these data, and the careful reading by using common sense is also required to understand the results of analysis. Through statistical analysis we can understand the reality, and these analyses pave the way for formation of policies and plans. Socio-economic planning aims at attaining the higher level of welfare through setting an explicit set of objectives and coordinating effective use of resources, of which availability is perceived by observation and analysis. Needless to say, a planning carried on with inadequate or incorrect information and data may result in poorer

achievement.

We explain some features of a certain phenomenon by applying specific quantitative factors, i.e. data. However, reliability and validity of data are always required to explain exactly the features of a certain phenomenon. Further, careful examination in validity of data and assumption, which the analysis is based on, is required to generalize a phenomenon and to compare situations by group or region observed. For drawing appropriate policies and plans, it is also important to provide policy makers with data, information and results of analysis timely and properly.

There is another problem for analysts. Analysts may be responsible for interpretation of facts, which are clarified by statistical analysis, and for forecasting what will happen in the future if certain things are changed. Some differences in interpretation or assessment of statistical data are observed among analysts, even if statistical data seem to be accurate or reliable.

Recently, some organizations, including international organizations, released the food supply and demand projections for the beginning of 21st century. Those projections have basically the same views on future trend of population and economic growth in the developing regions, and on conditions which impose restraints on expansion of resource use for increase in food production. Nevertheless, some projections, mainly of the international organizations, indicate relatively optimistic views on the future food situation of the world, while serious food problems are forecast by others.

It may be considered that the gaps in views on the future food situation among various projections are caused by the discrepancies in assessment of possibility of increase in productivity among the respective analysts. For instance, the analysts, who have pessimistic views, express grave concern over environmental constraint on food production, both globally and regionally, and worry much about the possibility of increase in productivity or improvement in farming techniques in the developing regions. On the other hand, the analysts, who make a rather optimistic picture of future food situation, entertain expectations of progress in technological researches, which subject to the extent of investments, and are expectant of more efficient use of agricultural inputs in the low input areas.

The projections based on the equilibrium models of supply and demand are generally useful for drawing the future picture of food situation. However, the existence of gaps in views on the future picture means that the preconditions given may have some controversial points to be discussed. One of them is how the restraints on the availability of production resources are dealt with. They may include the recent stagnation of land productivity, the difficulties in expanding cultivated land, the higher costs for making additional irrigation facilities as well as degradation of production resources, soil and water.

In addition, the more important issues to be pointed out are the socio-economic problems which agriculture and rural areas have in each country. There are no econometric models which pay any attention to these socio-economic problems and social factors. In order to make the results more realistic, however, we have to evaluate these socio-economic problems and social factors in the model-based analyses.

In this connection, I have made observations on the supply-demand projections of cereals announced by such international organizations as FAO, IFPRI and the World Bank, as follows:

- (1) The increase rates of cereals production in the developing regions will continue to surpass those in the developed regions, resulting in further expansion of developing regions' share in the world production.
- (2) The similar trends are shown in consumption, and the higher increase rates of cereals consumption in the developing regions are attributable to increase in both population and income level, but mainly in population.
- (3) In both developed and developing regions, rates of increase in production and consumption of cereals are anticipated to be lower than those in 1980s. The recent improvement in level of nutrition in the developing regions is considered to be reflected in the above mentioned facts.
- (4) In the developed regions as a whole, the increase rate of cereals production is forecast to be the biggest, followed by population, total demand and demand for direct food consumption in decreasing order.

While, in the developing regions as a whole, the growth rate of total demand will come to top, followed by production, population and demand for direct food consumption.

(5) According to these projections, the increased deficit in domestic supply may be inevitable, and the bigger imports will be necessary, but this deficit will be balanced with the surplus in the developed regions.

(6) It seems that the slower growth of production and the reduction in exportable surplus in the developed exporting countries, due to some policy reforms and consideration to conservation of environmental conditions, are taken into account for projection. Considerations also seem to be given to some difficulties in expanding food production in the developing regions, such as little room for expanding arable lands and increasing real costs of land improvement.

However, due considerations are not given to the socio-economic problems, such as the increasing pressure of population on farm lands and the expanding gap in income level between the rural and urban areas in the course of economic development.

As mentioned above, to evaluate the results of these projections more realistically, it may be required to examine the differences in socio-economic development among the developing countries. It is well known, the developing countries in Asia, especially those in the East Asian region, have experienced relatively high economic growth because of their accelerated industrialization, which resulted in the change in contents of GDP. As for relatively low -income developing countries, however, the speed of their structural change among sectors, especially in employment structure, is rather slow, and their economy is still dependent greatly on agriculture. Even in the East Asian countries whose economic driving force has shifted from the agricultural to the other sectors, the importance of agriculture in the aspect of employment implies that the gap in productivity between agriculture and manufacturing is becoming bigger. In addition, since the man-land-ratio of agriculture is still relatively high and the population continues to increase in these countries, it can't be neglected that the role of agriculture and rural industries is important in providing the increased population with job opportunities.

As for the food balance sheet, there are some differences between the countries, where more part of its national economy still consists of agriculture, and those of more industrialized. The first to be pointed out is the gap in nutritional supply. The dietary energy supply (DES) in Asian countries has been improved since the latter half of 1970s, and now their average DES exceeds the necessary

DES by 10 %. However, if we divide these countries into two groups, the lower-income countries' DES is merely a little larger than the requirement, while the relatively advanced countries' DES exceeds the necessary level by some 20%. On the contrary, the self-sufficiency ratio of cereals of 30% in the latter countries with relatively high DES is much lower, compared with the high self-sufficiency ratio of 90% in the former countries with low DES.

The DES in the industrialized food exporting countries exceeds the necessary level by over 30%, which implies that they are in nutritionally over-intake. The relatively advanced Asian developing countries have realized the relatively high nutritional intake with massive import to make up for the shortage of domestic food supply. That goes for Japan, too. Inversely, the less advanced countries in Asia, except for some food exporting countries, manage to barely satisfy the necessary DES mainly by domestic supply. In other words, they don't have enough foreign currency for a higher nutrition intake.

Among the Asian developing countries which have accomplished great economic growth, less industrialized countries have managed to satisfy the necessary DES mainly by self-sufficiency policy, while more advanced nations have ensured the relatively high nutritional intake with the shortage of national food supply supplemented by import, which resulted in decreasing self-sufficiency ratio in the course of economic growth with higher trade dependency of national economy. Needless to say, increase in agricultural productivity enables the relocation of agricultural production factors to the other industrial sectors. The less advanced developing countries with lower increase rate of both agricultural and industrial productivity have to expand agricultural production in order to ensure food and employment opportunities for their increasing population.

In reference to the supply-demand projections, I pointed some issues related to the food problem in the Asian developing countries. By discussing these problems, I have intended to maintain the importance of close observation of socio-economic phenomena and of collection of reliable data and information in assessing the real situation of economy in the rural areas. On the occasion of this Commission, I would like to emphasize the necessity of further efforts for intensifying the system of data collection and processing, and of more close cooperation among the member countries in exchanging information.

