

付 属 資 料

資料 1 ミニッツ

資料 2 改定詳細暫定実施計画 (detailed TSI)

資料 3 TSI 及び 10 項目実施課題対照表

資料 4 投入実績一覧表 (専門家、機材、日本研修、ローカルコスト負担、相手国負担等)

資料 5 機材利用・管理状況表

資料 6 研修実績一覧表

資料 7 カウンターパート配置一覧表

資料 8 インドネシア関連省庁組織図

資料 9 プロジェクト組織図

MINUTES OF DISCUSSIONS
BETWEEN THE JAPANESE ADVISORY TEAM
AND
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE REPUBLIC OF INDONESIA
ON JAPANESE TECHNICAL COOPERATION
FOR
THE QUALITY SOYBEAN SEED MULTIPLICATION AND TRAINING PROJECT

The Japanese Advisory Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") headed by Mr. Masayuki Tsuchida visited the Republic of Indonesia from March 8 to March 20, 1999.

The Team conducted an overall review and interim evaluation on the performance of the Quality Soybean Seed Multiplication and Training Project (hereinafter referred to as "the Project") and provided necessary advice for the smooth implementation of the Project.


During its stay in the Republic of Indonesia, the Team carried out a field survey, exchanged views and had a series of discussions with the relevant authorities of the Government of the Republic of Indonesia on the Project from technical and administrative points of view.

As a result of the discussions and the field study, the Team and Indonesian authorities agreed to recommend to their respective Governments the matters described in the document attached hereto.

Jakarta, March 19th, 1999

土田 政行

Mr. Masayuki Tsuchida
Leader,
Advisory Study Team,
Japan International Cooperation Agency,
Japan



Mr. Chairil Anwar Rasahan
Director General of Food
Crops and Horticulture,
Ministry of Agriculture,
Republic of Indonesia

ATTACHED DOCUMENT
AN INTERIM EVALUATION REPORT
BY THE JAPANESE ADVISORY TEAM
FOR
QUALITY SOYBEAN SEE MULTIPLICATION AND TRAINING PROJECT
IN
THE REPUBLIC OF INDONESIA

TABLE OF CONTENTS

1. INTRODUCTION
2. ACTIVITIES OF THE PROJECT
3. MEMBERS OF THE ADVISORY TEAM
4. OBJECTIVES OF THE EVALUATION
5. EVALUATION OF THE PROJECT
 - 5-1. ITEMS OF THE EVALUATION
 - 5-2. EVALUATION METHODS
6. RESULTS OF THE EVALUATION
 - 6-1. ACCOMPLISHMENTS IN TERMS OF INPUTS
 - 6-1-1. JAPANESE INPUTS
 - 6-1-2. INDONESIAN INPUTS
 - 6-2. PROJECT ACTIVITIES AND ACCOMPLISHMENTS
 - 6-2-1. SOYBEAN SEED PRODUCTION
 - 6-2-1-1. IMPROVEMENT OF THE TECHNOLOGY FOR SEED PRODUCTION AND MANAGEMENT
 - 6-2-1-2. IMPROVEMENT OF THE MANUAL ON SEED PRODUCTION AND MANAGEMENT
 - 6-2-2. SOYBEAN SEED INSPECTION
 - 6-2-2-1. IMPROVEMENT OF THE TECHNOLOGY FOR SEED INSPECTION
 - 6-2-2-2. IMPROVEMENT OF THE MANUAL ON SEED INSPECTION
 - 6-2-3. TRAINING
 - 6-2-3-1. PREPARATION OF THE TRAINING PLAN, CURRICULUM AND MATERIALS
 - 6-2-3-2. IMPLEMENTATION OF THE TRAINING FOR TECHNICAL STAFF CONCERNING SEED PRODUCTION AND INSPECTION IN DSD, BBI, BBU, BPSB, SPC AND KEY SEED GROWERS
 - 6-3. PROJECT ACTIVITIES TO BE COMPLETED
 - 6-3-1. SOYBEAN SEED PRODUCTION
 - 6-3-1-1. IMPROVEMENT OF THE TECHNOLOGY FOR SEED PRODUCTION AND MANAGEMENT
 - 6-3-1-2. IMPROVEMENT OF THE MANUAL ON SEED PRODUCTION AND MANAGEMENT
 - 6-3-2. SOYBEAN SEED INSPECTION
 - 6-3-2-1. IMPROVEMENT OF THE TECHNOLOGY FOR SEED INSPECTION
 - 6-3-2-2. IMPROVEMENT OF THE MANUAL ON SEED INSPECTION
 - 6-3-3. TRAINING
 - 6-3-3-1. PREPARATION OF THE TRAINING PLAN, CURRICULUM AND MATERIALS
 - 6-3-3-2. IMPLEMENTATION OF THE TRAINING FOR TECHNICAL STAFF CONCERNING SEED PRODUCTION AND INSPECTION IN DSD, BBI, BBU, BPSB, SPC AND KEY SEED GROWERS
 - 6-4. PROJECT IMPACT
 - 6-4-1. IMPACT

h f

- 6-4-2. EXTENT OF IMPACT
- 7. CONCLUSIONS AND RECOMMENDATIONS
- 7-1. CONCLUSIONS (SUMMARY OF EVALUATION)
- 7-2. RECOMMENDATIONS

ANNEX

- ANNEX 1. Input from both the Japanese and Indonesian side
- ANNEX 2. List of Major Machinery and Equipment provided
- ANNEX 3. List of Counterparts Assigned
- ANNEX 4. Revised Detailed Tentative Schedule of Implementation
- ANNEX 5. Out line of Training Courses conducted from 1997 to 1999

27

1. INTRODUCTION

Agriculture is the key industry that amounts to 19 % of Gross National Product (GDP) and 51% of employment in the Republic of Indonesia. Apart from rice, the Government of the Republic of Indonesia has been promoting the production of secondary crops as soybean, corn, cassava, sweet potato, and peanut. Among these crops the Government of the Republic of Indonesia has been taking a greater interest in soybean which plays a great role in their daily diet as it is the main ingredient for Tempe and Tofu. Because of its nutritional aspects and the above reasons, the Government of the Republic of Indonesia has been making efforts to attain self-sufficiency of soybean production.

Through the Fourth Agricultural Development Plan (1984-88), the harvested area of soybean expanded from 859,000 hectares to 1,100,000 hectares, the yield per hectare increased from 0.9 ton to 1.1 tons, and the total production of soybean rose to 769,000 tons. Through the Fifth Agricultural Development Plan (1989-93), the Government of the Republic of Indonesia aimed at expanding to 1,300,000 hectares of the harvested area, increasing 1.2 tons of the average yield per hectare, increasing the production to 1,550,000 tons, and enhancing the consumption demand to 1,580,000 tons.

Due to the promotion of production, although the total harvested area rose to 1,505,000 hectares in 1992, the production soared to 1,684,000 tons, and the yield per hectare reached 1.1 tons, the demand for soybean soared to 2,413,000 tons due to an increase in consumption and an increase in the amount of feed used for animals.

Under these conditions, the Government of the Republic of Indonesia has introduced a strategy that is the base of improving the awareness of farmers through the adaptation of various cropping systems suitable for the local meteorological conditions, developed new seeds of particularly high quality, and promoted the development and expansion of farms.

Taking into consideration the above-mentioned background, the Government of the Republic of Indonesia requested a project-type technical cooperation and grant aid from the government of Japan, in order to promote the multiplication and distribution plan of high quality soybean in East Java which produces 40% of the domestic production of soybean.

In response to the above-mentioned request, JICA dispatched the Preliminary Study Team from October 6th to October 20th, 1993 for the purpose of confirming the contents of the proposal submitted by the Government of the Republic of Indonesia to the government of Japan concerning the Project for Multiplication and Distribution of High Quality Soybean Seed, examining the possibility of its implementation from a technical viewpoint, and scrutinizing its justification according to the Project-type Technical Cooperation Scheme.

The Long-term Study Team was dispatched by JICA from January 13th to February 9th, 1994 for the purpose of confirming the basic framework and preconditions indicated by the Preliminary Study Team for the proposed technical cooperation program, so as to grasp the background and to formulate a clear picture of the above-mentioned Project.

Based on the above-mentioned studies, JICA dispatched the Implementation Study Team from November 12th to November 25th, 1995 for the purpose of working out the details of the technical cooperation program concerning the Quality Soybean Seed Multiplication and Training Project (hereinafter referred to as "the Project"), and signed the Record of Discussions (hereinafter referred to as "R/D") for the Project on November 22, 1995, in order to commence a five year technical cooperation starting July 1st, 1996.

In the course of the Project, JICA dispatched the Consultation Study Team for the purpose of formulating the detailed Tentative Schedule of Implementation.

2 f

2. ACTIVITIES OF THE PROJECT

In accordance with R/D and Tentative Schedule of Implementation (hereinafter referred to as "TSI") signed on November 22nd, 1995, following activities are implemented.

(1) Soybean Seed Production

1. Improvement of the technology for seed production and management
2. Improvement of the manual on seed production and management

(2) Soybean Seed Inspection

1. Improvement of the technology for seed inspection
2. Improvement of the manual on seed inspection

(3) Training

1. Preparation of the training plan, curriculum and materials
2. Implementation of training for technical staff concerning seed production and inspection in Directorate on Seed Development, Central Seed Farm / Balai Benih Induk (BBI), Main Seed Farm / Balai Benih Utama (BBU), Seed Control and Certification Service / Balai Pengawasan Setifikasi Benih (BPSB), Seed Processing Center (SPC) and key seed growers

3. MEMBERS OF THE ADVISORY TEAM

(1) Masayuki Tsuchida : Team Leader

Senior Officer, Upland Crop Division, Agricultural Production Bureau,
Ministry of Agriculture, Forestry and Fisheries

(2) Takehiko Tsuchiya : Seed Production

Director General, Hokkaido Kamikawa Agricultural Experiment Station

(3) Hidemi Saito : Seed Inspection

Chief, Upland Crop Section, Horticulture Division, Agricultural Production and Marketing Department, Kyushu Regional Agricultural Administration Office,
Ministry of Agriculture, Forestry and Fisheries

(4) Kenji Kaneko : Training

Deputy Director, Agricultural Technical Cooperation Division,
Agricultural Development Cooperation Department, JICA

(5) Keisuke Suzuki : Technical Cooperation

Staff, Agricultural Technical Cooperation Division,
Agricultural Development Cooperation Department, JICA

4. OBJECTIVE OF THE EVALUATION

The aim of this interim evaluation is to assess the accomplishments of the Project at the half way point of the cooperation term; and to make recommendations on the Project activities for more effective and efficient technical cooperation during the remaining cooperation term, to relevant authorities of both the Governments.

2/1

5. EVALUATION OF THE PROJECT

5-1. ITEMS OF THE EVALUATION

5-1-1. PROJECT INPUTS

- (1) Japanese inputs
 - (a) Dispatch of Japanese Experts
 - (b) Acceptance of Indonesian Counterpart Personnel in Japan for Technical Training
 - (c) Provision of machinery and Equipment
 - (d) Supplementary Expenditure for Local Costs
 - (e) Dispatch of Study Team
- (2) Indonesian inputs
 - (a) Assignment of Counterpart Personnel and Administrative personnel
 - (b) Provision of Recurrent Expenses
 - (c) Provision of Land, Buildings and Facilities

5-1-2. PROJECT ACTIVITIES AND ACCOMPLISHMENTS

5-1-3. PROJECT IMPACT

5-1-4. PROSPECTS FOR SUSTAINABILITY

5-2. EVALUATION METHODS

The evaluation was conducted in accordance with R/D and TSI by the Team through report analysis, fields visit and interviews and discussions with personnel involved in the Project.

6. RESULTS OF THE EVALUATION

6-1. ACCOMPLISHMENTS IN TERMS OF INPUTS

6-1-1. JAPANESE INPUTS

6-1-1-1. Dispatch of Japanese Experts

A total of seven (7) long-term experts have been dispatched in accordance with the R/D and the TSI. They include team leader, coordinator and experts in the fields of soybean seed production, soybean seed inspection, and training which are as stated in the R/D. Four (4) short-term experts have been dispatched.

The detail is shown in ANNEX 1.

6-1-1-2. Acceptance of Indonesian Counterpart Personnel in Japan for Technical Training

The technical training of Indonesian counterpart personnel in Japan started in the Japanese fiscal year 1996. Since then, a total of eleven (11) counterparts were accepted by JICA to provide the technical training in Japan in order to upgrade the technical skills. All the training programs have been efficiently conducted in cooperation with the Tsukuba International Center of JICA and related research institutions of MAFF. More detailed information is given in ANNEX 1.

6-1-1-3. Provision of Machinery and Equipment

Machinery and equipment shown in ANNEX 2 were provided by the Japanese side in order to carry out the Project activities. All machinery and equipment provided have no

と

doubt contributed to the Project activities.

6-1-1-4. Supplementary Expenditure for Local Costs

The Japanese side provided part of the project management cost in order to implement the Project activities in a timely manner. JICA provided a portion of the local cost expenditure necessary for the execution of the Training Program of Middle-Level Technicians. Supplementary expenditure made by the Japanese side is shown in ANNEX 1.

6-1-1-5. Dispatch of Study Team

1) Preliminary Study Team

The Preliminary Study Team was dispatched from October 6th to October 20th, 1993 in order to clarify the background of the request, identify problems for the implementation of the Project, and study the feasibility of the proposed technical cooperation program.

2) Long-term Study Team

The long-term Study Team was dispatched from January 13th to February 9th, 1994 for the purpose of confirming the basic framework and preconditions indicated by the Preliminary Study Team, and jointly formulating with Indonesian side a tentative master plan of the proposed project.

3) Implementation Study Team

The Implementation Study Team was dispatched from November 12th to November 25th, 1995 in order to finalize the master plan and TSI of the Project.

The R/D and TSI were then signed on November 22nd, 1995.

4) Consultation Study Team

The Consultation Study Team was dispatched from June to July, 1997 in order to formulate the detailed TSI as well as discussing the major issues related to the Project.

6-1-2. INDONESIAN INPUTS

6-1-2-1. Assignment of Counterpart Personnel and Administrative personnel

The Indonesian counterparts and other personnel as administrative personnel and support staff were assigned to the Project as shown in ANNEX 3.

6-1-2-2. Provision of Recurrent Expenses

The Indonesian side allocated approximately 961 million Rupiah from the commencement of the Project, up to the present.

6-1-2-3. Provision of Land, Building and Facilities

The Indonesian side provided land, building and facilities necessary for the implementation of the Project. All the facilities of the project sites have been very effectively utilized for the Project.

6-2. PROJECT ACTIVITIES AND ACCOMPLISHMENTS

6-2-1. SOYBEAN SEED PRODUCTION

6-2-1-1. IMPROVEMENT OF THE TECHNOLOGY FOR SEED PRODUCTION AND MANAGEMENT

28 1/2

6-2-1-1-1. MAINTENANCE OF FS

(A) IMPROVEMENT OF THE TECHNOLOGY ON FS PURIFICATION

The basic techniques on roguing works for genetic off-types and infected plants have been effectively transferred by the Japanese experts.

To eliminate undesirable compositions in major varieties which contain much variability in important agronomic characters the mass-pedigree method is applied to "Wilis" and "Bromo".

(B) PURIFICATION AND MAINTENANCE OF FS FOR SELECTED VARIETIES

266 lines derived from "Wilis" are grown with two replications and evaluated on important agronomic characters and 380 lines selected based on seed quality are also grown. Original materials of "Bromo" are prepared for purification in the next season.

6-2-1-1-2. IMPROVEMENT OF THE TECHNOLOGY ON FS, SS AND ES PRODUCTION AND MANAGEMENT

(A) FS PRODUCTION AT BBI

Importance of cropping system, weed control, and protection to seed-borne virus diseases has been strongly instructed and the much progress is recognized though the protection to virus diseases is now not yet satisfied.

(B) SS PRODUCTION AT MODEL BBU

The same instructions have been conducted in BBU.

(C) ES PRODUCTION AND PROCESSING AT MODEL SPC

The instructions of the technology have been little extended to ES production. A large seed-processing machine is now under the installation in SPC, Jombang. The Survey of actual soybean cultivation by farmers was conducted during the dry season 1998.

(D) ESTABLISHMENT OF TECHNOLOGY FOR ELONGATING SEED VIABILITY

The viability tests of major soybean varieties are being planned.

6-2-1-1-3. DEMONSTRATION OF CHARACTERISTICS OF PREVAILING AND PROMISING VARIETIES

Comparison of promising varieties are started on the rainy season, 1996 to select extension varieties which will be applied to a large-scale of seed multiplication system.

6-2-1-1-4. STRENGTHENING THE RELATIONSHIP BETWEEN BBI, MODEL BBU AND MODEL SPC

(A) MAKING OPERATION PROGRAM OF SOYBEAN SEED PRODUCTION THROUGHOUT BBI, MODEL BBU AND MODEL SPC

The operation program of seed production throughout BBI, model BBU and model SPC is not yet established because the construction of BBU fields is much delayed.

(B) MANAGEMENT OF IMPLEMENTATION OF THE PROGRAM

26 hectares of FS mostly in BBI and 168 ha of SS including those by other BBUs were grown 1998.

6-2-1-2. IMPROVEMENT OF THE MANUAL ON SEED PRODUCTION AND MANAGEMENT

6-2-1-2-1. COLLECTION AND REVIEWING OF THE PRESENT MANUALS

Six literatures were collected and were reviewed by the Japanese expert and the Indonesian counterparts to grasp the real conditions of seed production technology.

b 7

6-2-1-2-2. IMPROVEMENT OF THE MANUAL ON SEED PRODUCTION AND MANAGEMENT

Some of improved cultural methods and cleaning of genetic off-types are proposed and are tried in the project sites and in Demonstration trials of seed production in farmers' fields.

6-2-2. SOYBEAN SEED INSPECTION

6-2-2-1. IMPROVEMENT OF THE TECHNOLOGY FOR SEED INSPECTION

6-2-2-1-1. IMPROVEMENT OF THE TECHNOLOGY FOR FIELD INSPECTION

(A) FIELD REGISTRATION

The present registration system for soybean seed fields and seed growers has been inspected. It was recognized that there were few problems in the procedure of the present systems.

(B) FIELD INSPECTION

To improve the knowledge and skill of field inspectors, check-plot experiments have been organized at twenty(25) local farmers fields in East Java for three cropping seasons. Seminars, training courses, and an evaluation meeting followed the experiments, and the technique of field inspectors has been substantially improved. From rainy season in 1998, the variety Comparison of promising varieties are installing at five locations in cooperation with production and training fields.

(C) DISEASE IDENTIFICATION

Through the above check-plot experiments and seminars, the field inspectors have learned the importance of controlling seed-borne diseases, especially virus diseases. A short-term expert in the field of entomology also gave lectures and field training for aphid control.

(D) DATA MANAGEMENT

The present forms and tables of field registration have been collected and inspected to install a computerized data processing (data-base) system. System designing and training for inspectors is now under way.

6-2-2-1-2. IMPROVEMENT OF THE TECHNOLOGY FOR LABORATORY INSPECTION

(A) SEED REGISTRATION

The registration procedure for soybean seed has been investigated. It was found that the present procedure for seed sample collection and registration basically follow the international rules for seed testing. It is not necessary to revise the system immediately.

(B) LABORATORY TEST

A new modified purity test, which is more detailed and accurate to evaluate soybean seed quality, was proposed and introduced into laboratory inspection. The laboratory inspectors have learned the technique for the new purity test. Results of certified seeds by the new test have been accumulated for two years. The samples from Comparison of promising varieties and Demonstration trials are to be examined by the new purity test.

(C) DISEASE IDENTIFICATION

A short-term expert in the field of pathology has successfully transferred a virus identification technique of Dot-ELISA test to a laboratory inspector. A training course of seed health test for laboratory inspectors was organized with an instructor invited from Jakarta.

(D) DATA MANAGEMENT

A computerized data-base system for seed laboratory test has designed and now

db

being developed. The file design and some data-input programs were completed. Training on the system development and computer operation for inspectors is being organized, as the data-base system is being developed.

6-2-2-1-3. STRENGTHENING THE INSPECTION AND GUIDANCE SYSTEM OF BPSB

(A) STRENGTHENING RELATIONSHIP BETWEEN BPSB AND DINAS OR SPC

The relationship between BPSB ,DINAS, and SPC is strengthening through Demonstration trials with production and training sections since the last rainy season. So far, the trials that are organized in the area of 13hectares at 8 districts in rainy season 1998 are going and being harvested as scheduled.

(B) POPULARIZING SOYBEAN SEED INSPECTION AND CERTIFICATION PROGRAM TO SOYBEAN SEED GROWERS

The soybean seed inspection and certification program is being advertised to soybean seed growers through Demonstration trials and training at local districts.

6-2-2-2. IMPROVEMENT OF THE MANUAL ON SEED INSPECTION

6-2-2-2-1. IMPROVEMENT OF THE MANUAL ON FIELD INSPECTION

(A) STANDARD FOR FIELD INSPECTION

As a result of examination on the present regulations, it was revealed that there was no regulation for preventing seed-borne soybean diseases. New guidelines for seed-borne diseases are necessary. Timing and methods of field inspection also have room for improvement.

(B) MANUAL ON FIELD INSPECTION

As examination on the present regulations is progressing, the plan for the manual on field inspection is being worked out.

6-2-2-2-2. IMPROVEMENT OF THE MANUAL ON LABORATORY INSPECTION

(A) STANDARD FOR LABORATORY INSPECTION

The new method for purity test has proposed and implemented on trial.

(B) MANUAL ON LABORATORY INSPECTION

A tentative manual on the new purity test in Indonesian language is already used for training and inspection.

6-2-3. TRAINING

6-2-3-1. PREPARATION OF THE TRAINING PLAN, CURRICULUM AND MATERIALS

6-2-3-1-1. IMPROVEMENT OF THE TRAINING SYSTEM

(A) IMPROVEMENT OF THE PLANNING METHODS OF TRAINING

The training courses regarding soybean seed production and inspection have been carried out under the supervision of the Indonesian counterparts in accordance with the annual training program formulated by DINAS. In addition, the planning methods of training have been improved by the Project Implementation Unit of DINAS in cooperation with the Japanese experts.

(B) PREPARATION OF TRAINING PLAN AND CURRICULUM

The training plan and curriculum of all the training courses have been developed by the Indonesian counterparts through the discussion with the Japanese experts. Therefore, the training plan and curriculum of each training course have been prepared satisfactorily in accordance with the original plan in the R/D. The curriculum has been examined to avoid conflict with regular training organized by DINAS.

28/1

6-2-3-1-2. PREPARATION OF THE TRAINING MANUAL AND MATERIALS

(A) TRAINING MANUAL

The training manuals which are required to conduct all the training courses have been prepared by the Indonesian counterparts in cooperation with the Japanese experts. As the need arises, the training manuals have been revised in order to meet the training needs of participants and improve the quality of the training courses.

(B) TRAINING MATERIALS

The training materials which are required to conduct all the training courses have been prepared by the Indonesian counterparts under the technical guidance provided by the Japanese experts. The training materials prepared by the Indonesian counterparts are being examined by the Japanese experts.

(C) TRAINING FIELD

The training field has not yet been established. Therefore, the training field plan was modified with consideration of the importance of the introduction of field training at Demonstration trials of farmer's field should be introduced in order to improve the present training activities being implemented mainly at BBI training center.

In addition, a demonstration field where training participants can observe the different growing stages of soybean plants was prepared until last year.

The demonstration of soybean seed production and the variety test in a farmer's field have been conducted as a part of field practice for participants order to upgrade the technical skill.

6-2-3-2. IMPLEMENTATION OF THE TRAINING FOR TECHNICAL STAFF

CONCERNING SEED PRODUCTION AND INSPECTION IN DSD, BBI, BBU, BPSB, SPC AND KEY SEED GROWERS

The soybean seed production basic training course has been conducted for technical staff of BBI, BBU, BB, BPSP, SPC and key seed growers for the purpose of disseminating the basic technology of soybean seed production and field inspection. The soybean production basic training course has been conducted for technical staff of BBU and BBP, extension officers of soybean producing areas, and key seed growers utilizing the local farms for field practice.

The following advanced training courses have been conducted for technical staff of BBI, BBU, BPSP, BBP, SPC and key seed growers for the purpose of transferring specific techniques and knowledge which are required to produce soybean seed. These advanced training courses include: soybean seed production course, seed processing course, seed inspection course, seed production machinery course, and soybean seed inspection course and soybean seed management course.

In addition, further specialized training courses have been conducted for the purpose of improving the diagnostic methods of common diseases and pests damaging to soybeans and sampling techniques at the seed grower's field.

Also, an evaluation for ex-participants who completed the basic training course was conducted in 1998. The total number of participants who completed the above-mentioned training reached 429. (refer to Annex 5) All the training courses have been conducted by the Indonesian counterparts in cooperation with the Japanese experts.

The training course for the technical staff engaging in soybean seed production, management and inspection have been conducted satisfactorily in accordance with the annual training plan.

6-2-3-2-1. TRAINING FOR THE STAFF OF DSD, BBI, BBU, BPSB AND SPC

Starting from 1997 about twelve training courses have been conducted through the Training Program of Middle-Level Technicians in the fields of soybean seed production and inspection, accepting approximately one hundred (100) participants annually. The

2/1

Indonesian counterparts have been playing a great role as training officers in implementing the training courses. Among the training courses which have been / are being conducted by the Project, there is one long-term training course which started from 1998 that is particularly noteworthy. This four-month training course corresponds with the soybean growth cycle.

(A) SEED MANAGEMENT

The soybean seed production basic training course and the advanced training courses have been conducted. In addition, the further specialized training courses have been conducted. Therefore, the soybean seed management techniques have been transferred to the persons concerned through the above-mentioned training courses.

(B) PRODUCTION TECHNIQUES

The soybean seed production training course is one of the advanced training courses that has been conducted for the technical staff of BBU, BBP, SPC and key seed growers who have completed the basic training, for the purpose of transferring the specific knowledge concerning the seed production and improving the cultivation techniques.

(C) INSPECTION TECHNIQUES

The soybean seed inspection basic training course has been conducted for the technical staff engaging in seed inspection at BPSB, for the purpose of transferring diagnostic and preventive methods of soybean diseases and pests, as well as seed inspection methods.

6-2-3-2. TRAINING OF PRODUCTION TECHNIQUES FOR KEY SEED GROWERS

The soybean seed production advanced training courses have been conducted for the ex-participants, particularly the key seed growers who completed the soybean seed production basic training course, for the purpose of improving the cultivation techniques as well as transferring specific knowledge and expertise to produce quality soybean seeds.

It is considered that Demonstration of soybean seed production in farmer's fields started from 1998 is one of the important activities for soybean seed growers and potential farmers. The soybean seed production training courses for key seed growers have been conducted for 140 participants from eight (8) provinces of East Java. These training courses emphasize the field practice training and are beneficial for training officers to accurately understand the problems and current conditions of soybean cultivation at the farmer's field during the rainy season.

6-3. PROJECT ACTIVITIES TO BE COMPLETED

6-3-1. SOYBEAN SEED PRODUCTION

6-3-1-1. IMPROVEMENT OF THE TECHNOLOGY FOR SEED PRODUCTION AND MANAGEMENT

6-3-1-1-1. MAINTENANCE OF FS

(A) IMPROVEMENT OF THE TECHNOLOGY ON FS PURIFICATION

The mass-pedigree method will be continued to be applied to "Wilis" and "Bromo".
The cooperation with the breeding institution in Indonesia is much expected.

(B) PURIFICATION AND MAINTENANCE OF FS FOR SELECTED VARIETY(IES)

Tentative compositions of high quality seed of "Wilis" will be decided and will be tested in Comparison of promising varieties in the dry season 1999. 780 lines of "Bromo" will be grown and evaluated on important agronomic characters.

2 1
P

6-3-1-1-2. IMPROVEMENT OF THE TECHNOLOGY ON FS, SS AND ES PRODUCTION AND MANAGEMENT

(A) FS PRODUCTION AT BBI

More effective protections to seed-borne virus diseases should be investigated. A short-term expert of insect will be dispatched in 1999. Mutual checking system of BS, FS, SS and ES during growing stages should be proposed.

(B) SS PRODUCTION AT MODEL BBU

The problem of field construction of BBU should be quickly solved.

(C) ES PRODUCTION AND PROCESSING AT MODEL SPC

A short term expert in the field of seed processing will be dispatched to instruct to a large seed-processing machine in SPC. The survey of actual soybean cultivation will be continued.

(D) ESTABLISHMENT OF TECHNOLOGY FOR ELONGATING SEED VIABILITY

The viability tests of seeds among varieties and various treatments will be conducted jointly with seed inspection, production and training sections.

6-3-1-1-3. DEMONSTRATION OF CHARACTERISTICS OF PREVAILING AND PROMISING VARIETIES

The comparison of promising varieties will be conducted at five locations in the dry season, 1999. The discussion with RILET is scheduled about the materials tested.

6-3-1-1-4. STRENGTHENING THE RELATIONSHIP BETWEEN BBI, MODEL BBU AND MODEL SPC

(A) MAKING OPERATION PROGRAM OF SOYBEAN SEED PRODUCTION THROUGHOUT BBI, MODEL BBU AND MODEL SPC

If the construction of BBU fields will be more delayed, discussion to use other locations should be started.

(B) MANAGEMENT OF IMPLEMENTATION OF THE PROGRAM

Planting of FS for the dry season 1999 in BBI is started.

6-3-1-2. IMPROVEMENT OF THE MANUAL ON SEED PRODUCTION AND MANAGEMENT

6-3-1-2-1. COLLECTION AND REVIEWING OF THE PRESENT MANUALS

Collections of useful literatures including those from other tropical countries will be continued.

6-3-1-2-2. IMPROVEMENT OF THE MANUAL ON SEED PRODUCTION AND MANAGEMENT

More desirable technologies will be proposed and tried.

6-3-2. SOYBEAN SEED INSPECTION

6-3-2-1. IMPROVEMENT OF THE TECHNOLOGY FOR SEED INSPECTION

6-3-2-1-1. IMPROVEMENT OF THE TECHNOLOGY FOR FIELD INSPECTION

(A) FIELD REGISTRATION

The present registration procedure will be continued for the moment.

(B) FIELD INSPECTION

The variety comparison and demonstration trials will be put as the main tactics and continued to improve the experience and skill of field inspectors.

(C) DISEASE IDENTIFICATION

Handwritten signature/initials

Training and instructions will be continued to make the field inspectors to understand the importance of controlling and eliminating seed-borne disease, especially virus diseases, in fields.

(D) DATA MANAGEMENT

The database system for seed production fields and seed growers will be developed. The technique for database development and computer operation will be transferred to field inspectors.

6-3-2-1-2. IMPROVEMENT OF THE TECHNOLOGY FOR LABORATORY INSPECTION

(A) SEED REGISTRATION

As the database system is installed, procedure and forms for seed registration will be revised to minimize the period of seed testing.

(B) LABORATORY TEST

The accumulated data of the new purity test will be analyzed. Through the laboratory test of seed samples from variety comparison and demonstration trials, the skill of laboratory inspectors will be improved

(C) DISEASE IDENTIFICATION

Necessary training on the health test and virus identification will be continued for laboratory inspectors.

(D) DATA MANAGEMENT

The development of the seed test database system will be completed. The technique for database development and computer operation will be transferred to laboratory inspectors.

6-3-2-1-3. STRENGTHENING THE INSPECTION AND GUIDANCE SYSTEM OF BPSB

(A) STRENGTHENING RELATIONSHIP BETWEEN BPSB AND DINAS OR SPC

The demonstration trials will be continued to strengthen the relationship. In dry season 1999, 30 hectares of demonstration trials will be installed at six(6) districts.

(B) POPULARIZING SOYBEAN SEED INSPECTION AND CERTIFICATION

PROGRAM TO SOYBEAN SEED GROWERS

Training on the seed certification programs will be continued for seed growers at the local sites. The seeds produced in the demo-fields will be distributed to the seed growers to make them recognize the certified quality soybean seeds.

6-3-2-2. IMPROVEMENT OF THE MANUAL ON SEED INSPECTION

6-3-2-2-1. IMPROVEMENT OF THE MANUAL ON FIELD INSPECTION

(A) STANDARD FOR FIELD INSPECTION

A draft for new regulations on seed-borne diseases and procedure for field inspection will be proposed and discussed with the Indonesian authorities. The regulations will be revised after reaching a consensus among the authorities in Indonesia.

(B) MANUAL ON FIELD INSPECTION

Manuals on field inspection will be revised after reaching a consensus in Indonesia. If the consensus is not made in time, the project will leave tentative manuals as suggestion.

6-3-2-2-2. IMPROVEMENT OF THE MANUAL ON LABORATORY INSPECTION

(A) STANDARD FOR LABORATORY INSPECTION

Storage tests on soybean seed viability as affected by seed-moisture, variety, and packaging will be conducted to confirm the present regulations on the expiration of certification labels. The newly introduced purity test, procedure, and regulations for

2 1/2

laboratory inspection will be proposed and discussed with the Indonesian authorities. The regulations will be revised after reaching a consensus among the authorities in Indonesia.

(B) MANUAL ON LABORATORY INSPECTION

Manuals on laboratory inspection will be revised after reaching a consensus in Indonesia. If the consensus is not made in time, the project will leave tentative manuals as suggestion.

6-3-3. TRAINING

6-3-3-1. PREPARATION OF THE TRAINING PLAN, CURRICULUM AND MATERIALS

6-3-3-1-1. IMPROVEMENT OF THE TRAINING SYSTEM

(A) IMPROVEMENT OF THE PLANNING METHODS OF TRAINING

Any further technical advice aiming at implementing the training, according to the original plan, will be continuously provided by the Japanese experts. The implementation methods of the training plan will be transferred by the Japanese experts to the Indonesian counterparts. In addition, the planning of training courses based on the training needs of the persons concerned will be improved during the remaining cooperation term. On the other hand, a detailed plan for the Training Program of Middle-Level Technicians should be urgently formulated emphasizing the training needs of the provincial level.

(B) PREPARATION OF TRAINING PLAN AND CURRICULUM

Any further technical advice on the budgetary planning for training courses should be provided by the Japanese experts in order to improve the training plan. In addition, the existing training curriculum will be continuously improved and developed by the Indonesian counterparts in cooperation with the Japanese experts in order to meet the training needs and improve future training courses. In spite of setting up various levels of training such as basic, intermediate and advanced course according to the training methods, it is difficult to obtain participants who have the same level of knowledge and techniques for the implementation of these training courses. Therefore, the contents of the training courses should be focusing on, and consisting of various levels in its training course, and a curriculum will be formulated according to the objectives of the respective training courses.

6-3-3-1-2. PREPARATION OF THE TRAINING MANUAL AND MATERIALS

(A) TRAINING MANUAL

There are a few substantial amendments on the training manuals prepared. The existing training manuals will be constantly improved in order to meet the training needs of the persons concerned, the change of training environment, and the necessity of new training courses such as long-term training course.

(B) TRAINING MATERIALS

Training materials will be continuously developed and improved in order to further strengthen the existing training courses. The training materials will be further developed in cooperation with the persons concerned with both the fields of soybean seed production and inspection.

(C) TRAINING FIELD

The production field of soybean seed production division will be used as a practical field for training activities during the remaining cooperation term. Therefore, a training field will not be set up.

2/5

6-3-3-2. IMPLEMENTATION OF THE TRAINING FOR TECHNICAL STAFF CONCERNING SEED PRODUCTION AND INSPECTION IN DSD, BBI, BBU, BPSB, SPC AND KEY SEED GROWERS

The training courses of each field will be conducted according to the annual training plan in order to promote the further technical dissemination for technical staff engaging in the seed production, management and inspection. And the long-term technical training is expected to further improve.

6-3-3-2-1. TRAINING FOR THE STAFF OF DSD, BBI, BBU, BPSB AND SPC

The training plan aiming at human resources development based on the mid and long-term viewpoint, particularly for technicians engaging in soybean seed development and the persons involved in soybean seed production, will be formulated through the discussions with the persons concerned with both the central and regional institutions. The training courses will be conducted under the initiative of the Indonesian counterparts through the Training Program of Middle-Level Technicians.

The Indonesian side should allocate enough budget for training activities and increase the budgetary items to secure the sustainability of the Project training activities.

In addition, in order to obtain the results of the training, the training should be conducted so as to include the process of soybean seed production in the farmer's fields, as well as the monitoring and follow up for ex-participants.

(A) SEED MANAGEMENT

The soybean seed management basic training courses will be continuously conducted by the Indonesian counterparts in cooperation with the Japanese experts in accordance with the Tentative Schedule of Implementation.

(B) PRODUCTION TECHNIQUES

The soybean seed production training courses will be continuously conducted by the Indonesian counterparts in cooperation with the Japanese experts in accordance with the Tentative Schedule of Implementation.

(C) INSPECTION TECHNIQUES

The soybean seed inspection training courses will be continuously conducted by the Indonesian counterparts in cooperation with the Japanese experts in accordance with the Tentative Schedule of Implementation.

6-3-3-2-2. TRAINING OF PRODUCTION TECHNIQUES FOR KEY SEED GROWERS

It is necessary to further develop the technical training for key seed growers of respective provinces through the continuous implementation of the demonstration activities at farmer's fields.

Effective training courses such as long-term technical training course are expected to be developed and expanded.

The training for soybean seed growers which will be able to be applied directly to farmers will be improved, and it is expected to improve and disseminate the technology of soybean seed production of farmers, as well as the management of the demonstration field.

In addition, the training contents and the curriculum should be further improved emphasizing the practical training.

6-4. PROJECT IMPACT

6-4-1. IMPACT

(1) Technical Impact

The soybean seed production and inspection techniques of the Indonesian counterparts have been/are being upgraded through the technical guidance made by

to f

Japanese experts, thus these techniques have been/are being systematized.

After this, the further technical improvement and its systematization which contribute to improve the quality of soybean seed will be continuously conducted.

It is expected that through the training courses, the expertise of participants of relevant institutions as well as the Indonesian counterparts will be strengthened.

The relevant techniques and knowledge concerning the seed production, seed management and inspection have been/are being disseminated by training activities throughout East Java.

(2) Institutional Impact

The technical capability on soybean seed production and inspection at relevant institutions such as BPSB, DINAS, BBI, BBU and seed processing centers have been improving through the implementation of the Project, thus the Project has been contributing to upgrade the function of the concerned institutions.

6-4-2. EXTENT OF IMPACT

The techniques and knowledge which are required to produce the high quality seed are being / have been disseminated to technicians who engage in the soybean seed production and seed inspection and key seed growers through the implementation of the training courses. The quality of soybean seed is expected to improve.

The quality of soybean seed is expected to improve during the remaining cooperation term through the further development of techniques disseminated.

6-5. PROSPECTS FOR SUSTAINABILITY

The Project activities are being satisfactorily implemented in accordance with the Tentative Schedule of Implementation, and the techniques concerning the soybean seed production and seed inspection is being systematized as well as disseminated to the persons concerned.

The key seed growers trust the Project, and the further development of the Project activities are expected during the remaining cooperation term.

The Indonesian side has been making utmost efforts to fund the necessary budget for the smooth implementation of the Project, therefore, there aren't any crucial factors obstructing the further progress of all the Project activities.

The machinery and equipment provided by JICA are well used and managed, the further progress of the Project activities to attain the Project objective are expected.

The training courses are being conducted through the Training Program of Middle-Level Technicians provided by the Japanese side. The concerned persons of the Indonesian side have a deeper understanding of the training activities. The Indonesian side should take appropriate measures to ensure a sufficient amount of the Project's budget to be used for training activities, in order to strengthen the sustainability of the respective activities of the Project.

2 1/2

7. CONCLUSIONS AND RECOMMENDATIONS

7-1. CONCLUSION (SUMMARY OF EVALUATION)

In the field of soybean seed production, the technology of soybean seed production at BBI and model BBU is being continuously transferred. In addition, the seed distribution among farmers, the activity to improve the seed and soybean cultivation, and the variety valuation have begun.

In the field of soybean seed inspection, the techniques of field inspectors have been improved through the coordination of the check-plot/variety comparison and demonstration trials at local farmers' fields. The techniques of laboratory inspector have also been improved through the newly introduced laboratory test and several training courses. As the present regulations on seed inspection was examined, it was revealed that the regulations may need some amendment to control seed-borne diseases, which is very important for the quality soybean seed production.

In the field of training, the training plan, the training manuals and curriculum, and training materials are being prepared and improved under the cooperation with DINAS. The Indonesian counterparts have been actively conducting the training courses under the technical guidance provided by the Japanese experts. As a result, the technological dissemination is being promoted.

Under the close cooperation between seed production, seed inspection and training fields, Demonstration trials of soybean seed production 17 in farmer's fields are started from 1998, at major soybean productive areas of East Java.

As described above, the Project activities are being smoothly conducted through the efforts of the persons concerned of both the Japanese and Indonesian sides, and the expectation for achieving the Project's purpose set up on R/D has been increasing, although there are some pending problems to be solved.

On the other hand, some Project activities have been a little delayed due to temporary interruption of the Project activities caused by the emergency return of the Japanese experts due to Indonesia's unstable political and social situation in May, 1998.

So it is expected that the Project objective will be satisfactorily attained through the further cooperation by the Japanese side during the remaining cooperation term.

Taking these conditions into consideration, and also considering the importance of promoting the dissemination and the enlightenment activities and the strengthening the distribution system of soybean seeds being expected by the Indonesian side, keeping pace with the further improvement of the quality of soybean seeds, the Detailed Tentative Schedule of Implementation (DTSI) for the remaining cooperation term of the Project was set up as shown in ANNEX 4.

7-2. RECOMMENDATIONS

1. The Indonesian side should take more initiative to eliminate factors obstructing for the smooth and successful implementation of the project. On the other hand, the Japanese side is expected to provide necessary support to lead the Project to success in a more flexible and timely manner.

2. With respect to the acquisition of land at model BBU for the soybean stock seed production, it is expected that land at model BBU will be acquired as soon as possible in order to attain the increased production of high quality soybean seed as the Goal of the Project. The Team has shown a sincere respect for the efforts made by the Indonesian side so as to secure land for cultivating on an appropriate scale of the model BBU. On the other hand, the Team has considered that the transfer of soybean seed production technology at the level of stock seeds should be carried out utilizing the other existing

b t

BBUs until progress has been made to acquire land at model BBU. Therefore, unless the Indonesian side is able to find any way to solve the acquisition of land for model BBU, the Team advises the Indonesian side to secure enough production field in other existing BBUs in order to attain the overall goal of the Project at an early stage.

3. The Japanese side has considered that it would be important to hold a Joint Committee Meeting in a timely manner in terms of utilizing the limited cooperation term effectively, in order to inform the current conditions of the Project to the persons concerned and obtain the necessary advice to contribute to the successful implementation of the Project from the members of the Joint Committee.

4. The Team has considered that the sound budgetary allocation for the Project's activities by the Indonesian side would be crucial for the smooth implementation of the Project in accordance with the Tentative Schedule of Implementation.

5. The Project activities should be developed involving relevant organizations such as seed production institutions, inspection institutions, seed processing institutions, seed grower's cooperatives, seed growers, farmers and research institutions, as well as DINAS, thus strengthening the soybean seed production system in East Java. To put it concretely, the Team emphasizes that it will be advisable to build the consensus of the related research institutes, in order to promote the smoother and more intensive dissemination of the results to be obtained through the implementation of the Project. On that point, the Team proposes to set up and strengthen a research and extension cooperation system between the organizations involved in the Project and the related research institutes of the Ministry of Agriculture for effective and efficient dissemination of the Project's outcomes. There should be close consultation between the Project and the related research institutes under the above-mentioned research and extension cooperation system.

6. The Project should contribute to increase the food production in Indonesia through the stable supply of quality soybean seeds in accordance with the aim of GEMA PALAGUNG 2001 formulated by the Ministry of Agriculture, and also the cooperation policy of the Third Umbrella Cooperation between Indonesia and Japan.

Therefore, the Japanese side will continuously cooperate with the Indonesian side aiming at further technological improvement of soybean seed production and the development of human resources such as technicians, inspectors and seed growers during the remaining cooperation term of the Project.

7. The Team has stressed the significance and importance of continuous self-help efforts of the Indonesian side, in order to promote the further development of human resources that will contribute to quality soybean seed production in Indonesia, particularly East Java.

2 f

ANNEX 1 Input from the both the Japanese and Indonesian sides

Date of draw up: March 1999

1-1, Dispatch of Japanese experts, Donated equipment

Item	FY Month	1996				1997				1998				1999				2000			
		4	7	10	1	3	4	7	10	1	3	4	7	10	1	3	4	7	10	1	3
E X P E R T S	Long term Expert	1.Jul.96 Nagaaki Sekiya: Team Leader 14.Jul.98 / 22.Jul.98 Takashi Sanbuichi: Team Leader 21.Jul.00																			
		1.Jul.96 Takeshi Nabeta: Coordinator 30.Jun.99																			
		29.Oct.96 Keizo Higashiyama: Training 28.Oct.98 / 15.Oct.98 Yuza Shozaki: Training 14.Oct.00																			
		26.Nov.96 Yuki Ichikawa: Seed Inspection 25.Nov.99																			
		8.Jan.97 Takayuki Tsuruuchi: Seed Production 7.Jan.99																			
	Short term Expert	3.Feb~28.Feb.98 Tetsuo Tamaki: Production Machinery																			
		3.Feb~21.Mar.98 Kunio Nemoto: Processing																			
		22.Sep~19.Oct.98 Yoshiro Mikoshiba Pathology																			
		22.Sep~19.Oct.98 Tadatora Okada Entomology																			
E Q U I P M E N T	FY Equipment Budget.	O Clippers, Seed winnowers, etc ¥16,089,000- : FY96 Purchased in Japan Δ Vehicles, Copy Machines, etc Rp.378,220,700- : FY96 Purchased in Indonesia O Seed processing plant, Storage Unit, etc ¥JICA : FY97 Japan Δ Small hand tractors, Computers, etc US\$ 55,459- : FY98 Purchased in Indonesia Δ Vehicle, Computer, etc : FY98 Indonesia Plan O Tip of plow, etc : FY98 Japan Plan																			
	Carried Equipment by Expert	O Sekiya / Nabeta (Computer, Planter, etc) ¥1,394,169- O Higashiyama (Sieves set, Net bags, etc) ¥833,335- O Ichikawa (Computer set, etc) ¥873,510- O Tsuruuchi (Hand planting machine, etc) ¥609,000- O Tamaki/Nemoto (Seed plates, Hand planting machine, etc) ¥500,500- O Sanbuichi (Minuteness barnacle, etc) ¥555,500- O Shozaki (Computer, Digital video camera) ¥619,000- O Mikoshiba/Okada (Micro pipits, Drug net, etc) ¥1,648,320-																			

1-2, Counterpart training and budget and etc.

Date of draw up: March 1999

Item	FY Month	1996					1997					1998					1999					2000				
		4	7	10	1	3	4	7	10	1	3	4	7	10	1	3	4	7	10	1	3	4	7	10	1	3
C/P Training in Japan		Mr.Jamaluddin Seed production 29.Mar.96~14.Oct.96 (FY95, arranged by individual expert)																				Note: Seed system =				
		Mr.Riyadi Seed multiplication system 29.Sep.96~18.Oct.96 (FY96)																				Seed Multiplication				
		Mr. Soekoreno: Seed multiplication system 29.Sep.96~18.Oct.96 (FY96)																				System				
		Mr.Suparno: Seed multiplication system 29.Sep.96~27.Nov.96 (FY96)																								
		Ms.Sri Suharti: Seed inspection 24.Sep.97~24.Oct.97 (FY97)																								
		Mr.Munawir: Seed system 13.Nov.97~3Dec.97 (FY97)																								
		Mr.Djoko: Seed system 13.Nov.97~3.Dec.97 (FY97)																								
		Mr.Nurdin: Seed production 30.Mar 98~15 Oct 98 (FY97)																								
		Mr.Tony: Training 7.Sep 98~10 Nov 98 (FY98)																								
		Ms.Sri Susila: Seed inspection 7.Sep 98~10 Nov 98 (FY98)																								
	Ms.Sefti: Seed system 4.Oct 98~5 Nov 98 (FY98)																									
	Mr.Suyono: Seed system 4.Oct 98~5 Nov 98 (FY98)																									
Budget From Japan		Imple : Rp.83,333,000- Note: Imple = Implementation					Imple : Rp120,000,000- Training : Rp73,769,426- (Rp83,168,074 to '98)					Plan Imple : ¥5,994,000- Training : ¥5,048,000-														
Indonesia's Local cost		Arrangement of budget for C/Ps. Equipment budget: Desks and chairs for Training.					Arrangement of budget for C/Ps. Imple : Rp.120,403,000- Equipment : Desks					Arrangement of budget for C/Ps. Imple : Rp.840,735,000-														
Mission		The Japanes Consultation Team 24.Jun~5.Jly.97																								
JICA team leaders meeting		FY96: 27.Jan~31.Jan.97 FY97: 30.Jan~10.Feb.98 FY98: 29.Jan~6.Feb.97																								
Coordinators meeting		FY97 7.Oct~31.Oct.97																								
Month		4	7	10	1	3	4	7	10	1	3	4	7	10	1	3	4	7	10	1	3	4	7	10	1	3

26

ANNEX 2 List of Major Machinery and Equipment provided

Date of draw up: March 1999

Notes:

1、Number of equipment

9 7 E I 0 * * * : FY、Color of budget、Place of purchase、Number
 Number
 I : INDONESIA , J : JAPAN (place of purchase)
 E : Equipment budget, C : Carried by expert, O : Office budget
 例 97 : 1997 (Fiscal year of budget)

2、Place of installation

BBI, BBU, BPSB, SPC= PT. Pertani Jombang, TC= Training center
 MLG= Malang Project office, SBY= Surabaya project office

3、Utilization and condition of the equipment

Utilization	A : Very	B : Usually	C : Often	D : Hardly
Condition	A : Good	B : Normally	C : Badly	D : Scrapped

2/6

Donated equipment on FY1996 (purchase in Indonesia)

FY	No.	Item	Qty	Unit Price Rp	Total Price Rp	Installed Place	Utiliza- tion	Condi- tion	Memo Install Date etc.
1996	96EI001	Isuzu Panther Royal 2500cc solar	3	43,700,000	131,100,000	SBY Office-1, MLG Office-1, Inspection field-1,	A A A	A A A	Feb-March '97
"	96EI003	Portable pH Meter: Small type, TOA	4	2,315,000	9,260,000	TC-4	B	A	Feb-March '97
"	96EI009	Seed Crusher, CEMOTEC	1	18,018,000	18,018,000	BPSB-1	B	A	Feb-March '97
"	96EI010	Thermostatic Drying Oven: Inside dimensions 45x45x45 cm, 40~250 c ± 1.0c, AC 220 V, Single phase, ADVANTEC	2	11,781,000	23,562,000	BPSB-1, BBI-1	A	A	Feb-March '97
"	96EI011	Large Thermostatic Drying Oven: Inside Dimensions: 100x100x100 cm, 40~200 c ± 1.0 c, 9kW, AC 380V, 3pH, ADVANTEC	1	36,981,000	36,981,000	BBI-1	A	A	Feb-March '97
"	96EI015	Direct Projector :Model: DP - 30 , Plus	1	4,380,000	4,380,000	TC-1	B	A	Feb-March '97
"	96EI019	Over Head Projector: - CX - 900, Plus - Part Lamp, Plus	1 1	5,327,375 179,500	5,327,375 179,500	TC-1 TC-1	A A	A A	Feb-March '97
"	96EI028	PC HP Vectra VL 4 Mini tower	2	7,755,000	15,510,000	SBY Office-1, MLG Office-1	A	A	Feb-March '97
"	96EI029	PRINTER HP 6P	2	2,280,000	4,560,000	SBY Office-1, MLG Office-1	A	A	Feb-March '97
"	96EI030	Scanner HP 4c For IBM	1	2,980,000	2,980,000	MLG Office-1,	B	A	Feb-March '97
"	96EI036	Video Camera: Handy camera, Zoom type, Panasonic RX 7	1	2,154,750	2,154,750	TC-1	B	A	Feb-March '97
"	96EI038	TV: Video Displayer , Panasonic TX-28 WG10x	1	4,429,775	4,429,775	TC-1	B	A	Feb-March '97
"	96EI042	Machine Copier: NP 2120 type, ADF A1 + KIT, Mini Sorter + KIT, CANON	2	23,421,750	46,843,500	SBY Office-1, MLG Office-1	A	A	Feb-March '97
"	96EI043	Electronic Typewriter: AP 8100, CANON	2	2,268,750	4,537,500	SBY Office-1, MLG Office-1	A	A	Feb-March '97

Explanatory notes :

- Utilization : A : Very, B : Usually, C : Often, D : Hardly.
- Condition : A : Good, B : Normally, C : Badly, D : Scrapped.

27

Donated equipment on FY1996 (purchase in Japan)

FY	No.	Item	Qty	Unit Price ¥	Total Price ¥	Installed Place	Utiliza- tion	Condi- tion	Memo Install Date etc.
1996	96EJ001	Hot Air Sterilizer, SANYO, Model: MOV-212	2	227,500	455,000	BBI-1, BPSB-1	C	A	4Sep'97
"	96EJ002	Tools for Hot Air Sterilizer							4Sep'97
	1.	- Stainless Steel Sterilization Box: IUCHI, Model: 74-194-01 Size: 70x80x480mm	10	3,200	32,000	BBI-5, BPSB-5	A	A	
	2.	- Stainless Steel Sterilization Box: IUCHI, Model: 74-197-01 Size: 240x240x200mm	20	8,850	177,000	BBI-10, BPSB-10	A	A	
	3.	- Stainless Steel Sterilization Box: IUCHI, Model: 74-197-01 Size: 218x212x173mm	20	7,920	158,400	BBI-10, BPSB-10	A	A	
"	96EJ003	Rainfall Recorder, 3-6030-01	2	130,000	260,000	BBI-1, BBU-1	A	A	Sep'97
"	96EJ010	Small Rice Polisher, CP-18	2	450,000	900,000	BBI-2	A	A	Sep'97
"	96EJ011	Small Winnowing, T-20	2	170,000	340,000	BBI-2	A	A	Sep'97
"	96EJ012	Multi Auto Counter, IC-1	2	700,000	1,400,000	BBI-1, BPSB-1	A	A	Sep'97
"	96EJ013	Turn Table, IC-1UR	2	300,000	600,000	BBI-2	A	A	Sep'97
"	96EJ014	Sieve Grador, MH-601	1	1,674,000	1,674,000	BBI-1	A	A	Sep'97
"	96EJ015	Working Tool, C-500 (Air Compressor, Garage Jack, Rigit Rack, Tool Tray, Air Bow Gun, Oil Bucket Pump, Grease Gun, Oil Measure, Drum Pump, Tire Service Kit for Car, Tire Pressure Gauge, Air Chuck, Battery Quick Charger, Battery, Tester, Battery Hydrometer Set, Boster Cable, Mechanic Tool Set, Air Hose with Band, Water Hose, Wire Brush, Volt Ampere Meter, Electric Drill, Drill Bit for 22) Electric Drill, Electric Disc Sander.	24 item	900,000	900,000	BBU-1 set	—	—	Sep'97 *BBU's 1 set Tool kit was stolen by burglars on 15 July 1998.
"	96EJ016	Moving Clean Bench, TPV-1000	1	400,000	400,000	BBI-1	C	A	Sep'97
"	96EJ017	Clean Bench, PAU-1300BG	1	850,000	850,000	BPSB-1	C	A	Sep'97

Explanatory notes :

- Utilization : A : Very, B : Usually, C : Often, D : Hardly.
- Condition : A : Good, B : Normally, C : Badly, D : Scrapped.

27

Donated equipment on FY1997 (purchase in Indonesia)

FY	No.	Item	Qty	Unit Price Rp	Total Price Rp	Installed Place	Utiliza- tion	Condi- tion	Memo Install Date etc.
1997	97EI001	HP Vectra Personal Computer Kayak XA PC Work installation Soft Windows NT, speaker, mouse, etc	3	3,950.00	11,850.00	BPSB-2, DSD-1	A A A	A A A	March '98
"	97EI004	Back-ups Pro-PNN APC (American Power Conversion)	3	300.00	900.00	BPSB-2, DSD-1	A	A	March '98
"	97EI007	Wooden Shelter Model: TM-1001, Tec Inter	1	6,500.00	6,500.00	BBU-1	A	A	March '98
"	97EI014	Camera Adapter for Nikon Microscope SMZ-U, Photo Adapter, F Mount Photo Adapter, Projector Lens PL, Nikon	1	930.00	930.00	BPSB-1	A	A	March '98
"	97EI015	Electric Drying Oven, Model: BE 200, 400x320x250, 32 liter, Memmart	2	1,905.17	3,810.34	BPSB-2	A	A	March '98
"	97EI018	Dessicator For Binocular, Model: 11-5221-03, BIG DRY B3, W/ Trans, Dehumidifier, Inside Dim: (W) 580x(D)300x(H) 1,600mm, Iuchi	2	3,970.00	7,940.00	BPSB-2	A	A	March '98
"	97EI022	Hand Tractor, Remodel MK5, 4.8Ps, Yamindo	4	2,434.29	9,737.16	BBI-2, BBU-3	A	A	March '98

Explanatory notes :

- Utilization : A : Very, B : Usually, C : Often, D : Hardly.
- Condition : A : Good, B : Normally, C : Badly, D : Scrapped.

Donation equipment on FY1997 (purchase in Japan)

FY	No.	Item	Qty	Unit Price ¥	Total Price ¥	Installed Place	Utiliza- tion	Condi- tion	Memo
1997	97EJ001	Robitzsgh Actinograph, 3-7030-01 Shart Sheet	1 set 2 vol	120,000 2,000	120,000 4,000	BBU-1			Still in installation
"	97EJ002	Hygro Thermograph, St100VE AC Adaptor, AC220OV50HZ Shart Sheet	1 set 1 1box	120,000 5,000 25,000	120,000 5,000 25,000	BBU-1			Still in installation
"	97EJ006	Vacuum Sealer V-400	1	560,000	560,000	BBI-1			Still in installation
"	97EJ008	Electronic Balance AC220V 50HZ BP2100S AC Adapter	4 4	100,000 5,000	400,000 20,000	BPSB-4			Still in installation
"	97EJ009	Electronic Analytical Balance BP210S AC Adapter	4 4	160,000 5,000	640,000 20,000	BPSB-4			Still in installation
"	97EJ010	Stereoscopic Microscope SMZ-1-3 Fluorescent Lamp 6V-10W	2 set 10	200,000 2,500	400,000 25,000	BBI-2			Still in installation
"	97EJ011	Visual Presenter EV-450AFPAL Fluorescent Lamp	1 2	370,000 2,500	370,000 5,000	TC-1			Still in installation

26

"	97EJ013	Low Temperature Room AC380V 50HZ * Look the attached detail list.	1 unit	6,147,500	6,147,500	BBI-1 unit	A	A	Feb '99
"	97EJ014	SEED PROCESSING PLANT * the Items is the following :	1 unit			SPC-1 unit			Still in installation
"	1	SEED PROCESSING PLANT Receiving Hopper, Bucket etc.	1 set		18,384,100				
"	2	HAND TOOLS FOR MAINTENANCE AND INSTALLATION CONSISTS ;	1 set		305,900				
"	3	HAND TOOLS FOR MAINTENANCE AND INSTALLATION CONSISTS ;	1 set						
"	4	Spare Parts for Pre-Cleaner Model:MH-8005 (Seed Processing Plant)	5 item		92,400				
"	5	Spare parts for Gravity Separator Model:MH-502 (Seed Processing Plant)	6 item		181,200				
"	6	Spare Parts for 4 Units of Bucket Elevators Model:MHN-199 (Seed Processing Plant)	3 item		134,000				
"	7	Spare Parts for 2 Units of Scale Packer Model:SP-10 (Seed Processing Plant)	7 item		112,400				

Equipment by Office Budget

FY	No.	Item	Qty	Unit Price Rp.	Total Price Rp.	Installed Place	Utiliza- tion	Condi- tion	Memo Install Date etc.
1996	96OI001	Oven Memmert UM-400	1	1,970,000	1,970,000	BBI-1	A	A	6Jan'97
		Stavvolt 2000W (for Oven UM-400)	1	800,000	800,000	BBI-1			6Jan'97
1997	97OI001	Laboratory Table	1	10,870,000	10,870,000	BBI-1	A	A	29June'98 set up:5Aug'98
"	98OI003	Gasoline Generator XA2400, Engine Yamaha	1	2,950,000	2,950,000	MLG-1	A	A	28March'98
"	98OI006	Gasoline Generator 27KVH for processing unit	1	60,759,500	60,759,500	SPC-1	A	A	3 March '99

Carried equipment by Expert

FY	No.	Item	Qty	Unit Price ¥	Total Price ¥	Installed Place	Utiliza- tion	Condi- tion	Memo Carried by
1997	98CJ002	Mettler Toledo PG/SG Balances PG5001	1	169,000	169,000	BBI-1	A	A	Mr.Sanbuichi
"	98CJ043	Digital Video Camera, DCR-PC1	1 set	175,800	175,800	TC-1set	B	A	Mr.Syozaki
		Accessory Kit, Acckit-F10	1	14,200	14,200				
		PC Card, DVBK-CW-200	1	36,600	36,600				
		Digital Video Cassette Tape, DVM30NM2	10	850	8,500				
		Digital Video Cassette Tape, DVM60NM2	10	1,080	10,800				

Explanatory notes :

- Utilization : A : Very, B : Usually, C : Often, D : Hardly.
- Condition : A : Good, B : Normally, C : Badly, D : Scrapped.

to 1/6

ANNEX 3 List of Counterpart Assigned

Date of draw up: March 1999

Field	FY Name / Month	Term of the project : 1 Jul 1996 ~ 30 Jun 2001						Staff arrangement			Training		Memo		
		1996		1997		1998		1999		2000		2001		FY	Place
		4	7	10	1	4	7	10	1	4	7	10		1	4
Production	Mr. Soekoreno	Management of BBI (Head of BBI)											96	Hokkaido	
	Mr. Jamaluddin	Production of BBI (Production staff)											95	Hokkaido	
	Mr. Suparno	Management of BBU(Head of BBU)											96	Hokkaido	
	Mr. Nurdin	Production of BBI(BBI staff)											97		
Inspection	Ms. Sri Susila	Head of Laboratory (BPSBTPH-3)											98	Hokkaido	
	Ms. Sri Suharti	Head of Malang office(BPSBTPH-3)											97	Hokkaido	
	Mr. Susanto					Check plot staff									
Traini	Mr. Tony	Management training (DINAS)											98		
	Ms. Sutji	Management training (DINAS)													
Seed multiplication system	Mr. Tarkim	Coordinator(Head of sub Dir of food crops seed)													
	Mr. Riyadi	Sub coordinator (Chief of beans section)											96	Tokyo	
	Mr. Soekardi	Head of PIU (Head of secondary crops production)													To 12May 1997
	Mr. Suyono	Head of PIU (Head of secondary crops production)											98		From 12May 1997
	Mr. Djoko	Person in-charge of the Project site (Head of DINAS)											97	Tokyo	To 21May 1998
	Mr. M. Maksum	Acting Head of DINAS: Ir. Soehardjo Person-in-charge of the Project site (DINAS)													From Nov 1998
P D	Mr. Munawir	The Project director(Director of DSD) Apl,96~											97	Tokyo	To January 1999
	Mr. Subagyono D.	The Project director(Director of DSD)													From January 1999

27

ANNEX 4 Revised Detailed Tentative Schedule of Implementation

Activities of the Project

Item	Fiscal Year Quarter	1996			1997				1998				1999				2000				2001
		2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1
1) Soybean seed production.																					
a) Improvement of the technology for seed production and management.																					
(1) Maintenance of FS.																					
(a) Improvement of the technology on FS purification.																					
(b) Purification and maintenance of FS for selected variety(ies).																					
(2) Improvement of the technology on FS, SS and ES production and management.																					
(a) FS production at BBI.																					
(b) SS production at model BBU.																					
(c) ES production and processing at model SPC.																					
(d) Establishment of technology for elongating seed viability.																					
(3) Demonstration of characteristics of prevailing and promising varieties.																					
(4) Strengthening the relationship between BBI, model BBU and SPC																					
(a) Making operation program of soybean seed production throughout BBI, model BBU and model SPC.																					
(b) Management of the manual on seed implementation of the program.																					
b) Improvement of the manual on seed Production and management.																					
(1) Collecting and reviewing of the present manuals.																					
(2) Improvement of the manual on seed production and management.																					

2/1

Item	Fiscal Year Quarter	1996			1997			1998			1999			2000			2001
		2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1
2) Soybean seed inspection.																	
a) Improvement of the technology for seed inspection.																	
(1) Improvement of the technology for field inspection.																	
(a) Field registration.																	
(b) Field inspection.																	
(c) Disease identification.																	
(d) Data management.																	
(2) Improvement of the technology for Laboratory inspection.																	
(a) Seed registration.																	
(b) Laboratory test.																	
(c) Disease identification.																	
(d) Data management.																	
(3) Strengthening inspection and guidance system of BPSB.																	
(a) Strengthening relationship between DINAS, BPSB and model SPC.																	
(b) Popularizing soybean seed inspection and certification program to soybean seed growers.																	
b) Improvement of the manual on seed inspection.																	
(1) Improvement of the manual of field inspection.																	
(a) Standard for field inspection.																	
(b) Manual on field inspection.																	
(2) Improvement of the manual on laboratory inspection.																	
(a) Standard for laboratory inspection.																	
(b) Manual on laboratory inspection.																	

2/6

Item	Fiscal Year Quarter	1996			1997			1998			1999			2000			2001
		2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1
3) Training.																	
a) Preparation of training plan, curriculum and materials.																	
(1) Improvement of the training system.																	
(a) Improvement of the planning methods of training.																	
(b) Preparation of training plan and curriculum.																	
(2) Preparation of the training manual and materials.																	
(a) Training manual.																	
(b) Training materials.																	
(c) Training field.																	
b) Implementation of training for technical staff concerning seed production and inspection DSD, BBI, BBU, BPSB, SPC and key seed growers.																	
(1) Training for the staff of DSD, BBI, BBU, BPSB and SPC.																	
(a) Seed management.																	
(b) Production techniques.																	
(c) Inspection techniques.																	
(2) Training of production techniques for key seed growers.																	

● The duration of the technical cooperation for the Project is from July 1, 1996 to June 30, 2001 (five years).

Note; _____ : Scheduled on July 7, 1997 (signed between Consultation study team and DGFCH)

_____ : Implemented by March 18, 1999 (Advisory team)

— — — — : Rescheduled on March 18, 1999 (Advisory team)

2

ANNEX 5 Outline of Training Courses Conducted from 1997 to 1999

Outline of Training Courses Conducted from 1997 to 1998

	Name of Training Course	Duration	Participants		Training Institute	Budgetary Allocation
			Organization	Number		
1	Soybean Seed Production Basic Training Course I	97. 11.03-97. 11.08	DINAS KT1, KT2, BPSB, SPC	20	BBI	JICA
2	Soybean Seed Production Basic Training Course II	97. 12.01-97. 12.06	DINAS KT1, KT2, BPSB, SPC	20	BBI	JICA
3	Soybean Production Specialized Training Course	97. 12.15-97. 12.19	DINAS KT1, KT2, BPSB, SPC	13	BBI	JICA
4	Soybean Seed Processing Specialized Training Course	98. 02.16-98. 02.20	DINAS KT1, KT2, BPSB, KSG	14	BBI	JICA
5	Soybean Inspection Specialized Training Course	97. 08.18-97. 08.23	DINAS KT1, KT2, BPSB, KSG	10	BBI	JICA
6	Agricultural Machinery Advanced Training Courses	98. 02.16-98. 02.20	BBI, BBU, SPC	8	BBI	JICA
7	Seed Inspection Advanced Training Courses	97. 12.15-97. 12.19	BPSB, SPC	11	BBI	JICA
8	Evaluation for ex-participants	98. 06.17-98. 06.19	DINAS KT1, KT2, BBI	24	BBI	JICA
9	Observation Course	98. 05.13-98. 05.15	DSB, DINAS KT1, C/P	14	NTB	JICA
				Total	134	

4p f

Outline of Training Courses Conducted from 1998 to 1999

	Name of Training Course	Duration	Participants		Training Institute	Budgetary Allocation
			Organization	Number		
1	Varietal Comparison Trial Training Course	98. 12.03	BPSB	14	BPSB	JICA
2	Demonstration Trial Training Course	98. 12.23	DINAS KT2, BPSB, SPC	25	BBI	JICA
3	Soybean Seed Production Long-term Training Course	98. 11.30-99. 03.29	BBU	4	BBI	JICA & Indonesian Side(RI)
4	Soybean Seed Production Basic Training Course I	99. 02.15-99. 02.19	DINAS KT2, BPSB	20	BBI	JICA & RI
5	Soybean Seed Production Basic Training Course II	99. 02.08-99. 02.12	DINAS KT2, KSG, Extension Office	20	BBI	JICA & RI
6	Soybean Production Specialized Training Course I	99. 02.22-99. 02.26	BBP	10	BBI	JICA & RI
7	Soybean Production Specialized Training Course II	99. 03.01-99. 03.05	DINAS KT2	10	BBI	JICA & RI
8	Soybean Seed Processing Specialized Training Course	99. 03.01-99. 03.05	Seed Growers	10	BBI	JICA & RI
9	Soybean Inspection Specialized Training Course	99. 02.22-99. 02.26	BPSB	10	BBI	JICA & RI
10	Agricultural Machinery Advanced Training Courses	99. 03.01-99. 03.05	BBU	10	BBI	JICA & RI

2/10

	Name of Training Course	Duration	Participants		Training Institute	Budgetary Allocation
			Organization	Number		
11	Soybean Seed Management Techniques Course	99. 02.08-99.02.12	BBU	10	BBI	JICA & RI
12	Soybean Inspection Specialized Training Course II	98. 11.23-98.11.27	BPSB	10	BBI	JICA
13	Specialized Training on Soybean Diseases and Pests Control	98. 10.05-98. 10.07	BBI, BPSB, DINAS KT1	11	BBI	JICA
14	Specialized Training on Soybean Seed Selection	98. 10.08	BBU	18	BBI	JICA
15	Technical Training Course for Soybean Seed Growers	98. 12.15	KSG Jombang Nganjuk	20	Jombang	JICA
16	Technical Training Course for Soybean Seed Growers	98. 12.17&99. 02.16	KSG Jember lumajang	20	Jember	JICA
17	Technical Training Course for Soybean Seed Growers	98. 12.01	KSG Malang Pasuruan	30	BBI	JICA
18	Technical Training Course for Soybean Seed Growers	99. 02.11	KSG Bojonegoro	13	Bojonegoro	JICA
19	Technical Training Course for Soybean Seed Growers	99. 03.10	KSG Ngawi	15	Ngawi	JICA
20	Technical Training Course for Soybean Seed Growers	99. 03.11	KSG Ponorogo	15	Ponorogo	JICA
				Total	295	

2/1

資料 2 改定詳細暫定実施計画 (detailed TSI)

Ⅱ. プロジェクト5ヶ年計画詳細 (TSI 詳細)、日本語版、

Tentative Schedule of Implementation

Activities of the Project

Item Quarter	Fiscal Year					
	1996	1997	1998	1999	2000	2001
	2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1
1) 大豆種子生産						
a) 種子生産・管理技術の向上						
(1) FS の維持						
(a)FS 純化技術の向上						
(b)選定され品種の FS の純化と維持						
(2) FS、SS、ES 生産、管理技術の向上						
(a)BBI における FS 生産						
(b)モデル BBU における SS 生産						
(c)モデル SPC における ES 生産と選別						
(d)種子寿命延長・維持技術の確立						
(3)普及品種、有望品種の特性の展示						
(4) BBI、モデル BBU、モデル SPC 間の連携強化						
(a)BBI、モデル BBU、モデル SPC を通した種子生産計画の作成						
(b)計画の実施管理						
b) 種子生産・管理マニュアルの改善						
(1) 既存マニュアルの収集、検討						
(2) 種子生産、管理マニュアルの改善						

Item Quarter	Fiscal Year	1996	1997	1998	1999	2000	2001
		2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1
2) 大豆種子検査							
a) 種子検査技術の向上							
(1) 圃場検査技術の向上							
(a)圃場登録							
(b)圃場検査							
(c)病害虫同定							
(d)データ管理							
(2) 室内検査技術の向上							
(a)種子登録							
(b)室内検査							
(c)病害虫同定							
(d)データ管理							
(3) BPSB の検査、指導体制の強化.							
(a)DINAS、BPSB、モデル SPC 間の連 帯強化.							
(b)採種農家への種子検査、証明制 度の啓蒙							
b) 種子検査マニュアルの改善							
(1) 圃場検査マニュアルの改善							
(a)圃場検査基準							
(b)圃場検査マニュアル							
(2) 室内検査マニュアルの改善							
(a)室内検査基準							
(b)室内検査マニュアル							

Item Quarter	Fiscal Year					
	1996	1997	1998	1999	2000	2001
	2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1
3) 研修						
a) 研修計画、カリキュラム及び教材の準備						
(1) 研修体系の改善						
(a) 研修の計画方法の向上						
(b) 研修計画とカリキュラムの準備						
(2) 研修マニュアルと教材の準備						
(a) 研修マニュアル						
(b) 研修教材						
(c) 研修園場						
b) DSD、BBI、BBU、BPSB、SPC の種子生産と種子検査に携わる技術 職員及び中核採種農家への研修実施						
(1) DSD、BBI、BBU、BPSB、SPC 職員への研修 種子管理						
(a) 生産技術						
(b) 検査技術						
(2) 中核採種農家への種子生産技術研修						

- The duration of the technical cooperation for the Project is from July 1, 1996 to June 30, 2001 (five years)

資料3 TSI 及び 10 項目実施課題対照表

大豆種子増殖・研修計画 TSI・10課題マトリックス

TSI 項目	10項目実施課題									
	BBUおよびBBUにおける良質種子の生産技術の向上	「Wile」の優良種子生産	主要品種の作付による生育日数変動解析	種子検査技術の向上	種子生産および検査に関する研修	イントネシア品種における繁殖能力の選抜	施肥および施肥法に関する試験	農家大豆の実態調査	農家施設における大豆種子生産の受託試験	有収品種の特性および生産力比較試験
1) 大豆種子生産										
a) 種子生産・管理技術の向上										
(1) FSの維持		◎								
(a) FS 純化技術の向上		◎								
(b) 選定され品種のFSの純化と維持		◎								
(2) FS, SS, ES生産・管理技術の向上										
(a) BBUにおけるFS 生産	○		○		○		○			
(b) モデルBBUにおける SS 生産	○		○		○		○			○
(c) モデルSPCにおける ES生産と選別			○		○		○		○	
(d) 種子寿命延長・維持技術の確立					○					
(3) 普及品種、有望品種の特性の展示			○							○
(4) BBU, モデルBBU, モデル SPC間の連携強化										
(a) BBU, モデルBBU, モデルSPCを通した種子生産計画の作成			○							
(b) 計画の実施管理							◎			
b) 種子生産・管理マニュアルの改善										
(1) 既存マニュアルの収集、検討										
(2) 種子生産・管理マニュアルの改善										
2) 大豆種子検査										
a) 種子検査技術の向上										
(1) 圃場検査技術の向上				◎	◎		◎		◎	◎
(a) 圃場登録										
(b) 圃場検査										
(c) 病害虫同定										
(d) データ管理										
(2) 室内検査技術の向上				◎	◎					
(a) 種子登録										
(b) 室内検査					○					
(c) 病害虫同定										
(d) データ管理										
(3) BPSBの検査、指導体制の強化									◎	
(a) DINAS, BPSB, モデル SPC間の連携強化										
(b) 採種農家への種子検査、証明制度の啓蒙										
b) 種子検査マニュアルの改善				◎			◎			
(1) 圃場検査マニュアルの改善										
(a) 圃場検査基準										
(b) 圃場検査マニュアル										
(2) 室内検査マニュアルの改善						◎				
(a) 室内検査基準										
(b) 室内検査マニュアル										
3) 研修										
a) 研修計画、カリキュラム及び教材の準備					◎					
(1) 研修体系の改善										
(a) 研修の計画方法の向上										
(b) 研修計画とカリキュラムの準備										
(2) 研修マニュアルと教材の準備	◎									
(a) 研修マニュアル										
(b) 研修教材								○	○	
(c) 研修圃場								○	○	
b) DSD, BBU, BBU, BPSB, SPCの種子生産と種子検査に携わる技術職員及び中核採種農家への研修実施					◎				◎	◎
(1) DSD, BBU, BBU, BPSB, SPC職員への研修	◎									
(a) 種子管理										
(b) 生産技術										
(c) 検査技術										
(2) 中核採種農家への種子生産技術研修										

○関係項目、◎下位項目を含める (作成:市川)

資料 4 投入実績一覧表（専門家、機材、日本研修、ローカルコスト負担、相手国負担等）

資料 1-1)、日本側／相手国側投入実績一覧表

平成 10 年度 第 4 四半期現在

1-1、専門家派遣実績、供与機材投入

予算年		1996年 (H.8)				1997年 (H.9)				1998年 (H.10)				1999年 (H.11)				2000年 (H.12)				
細目		月	4	7	10	1	3	4	7	10	1	3	4	7	10	1	3	4	7	10	1	3
専 門 家 派 遣	長 期		1.Jul.96 関谷 長昭 チームリーダー				14.Jul.98 / 22 Jul 98 三分一 敬 チームリーダー				21 Jul 00											
			1.Jul.96 鍋田 剛 業務調整				30.Jun.99															
			29.Oct.96 東山 啓三 研修				28.Oct.98 / 15 Oct 98 正崎 雄三 研修				14 Oct 00											
			26.Nov.96 市川 雄樹 種子検査				25.Nov.99															
			8.Jan.97 鶴内 孝之 種子生産				7.Jan.99															
	短 期																					
							3.Feb~28.Feb.98 玉木 哲夫 種子生産機械															
							3.Feb~21.Mar 98 根本 国夫 種子調製															
							22.Sep~19.Oct 98 御子柴 義郎 植物病理															
							22.Sep~19.Oct 98 岡田 忠虎 虫害															
機 材	供 与 機 材	当 年 度	△サービスジープ、複写機、その他 Rp.378,220,700- / 約¥18,911,000- : H8 現地) ○粒形選別機、その他 ¥16,089,000- (うち輸送費¥1,463,000- : H8 本邦) △百葉箱・小型中耕機、その他 US\$ 55,459- (H9 現地) ○種子選別機、低温恒温室、その他 ¥金額本部 (H9 本邦) △サービスジープ、CP、その他 (H10 現地調達予定)																			
	携 行 機 材		○関谷・鍋田専門家 (パソコン、プリンター、他) ¥1,394,169-(輸送費込み) ○東山専門家 (粒形選別篩、ネット袋、他) ¥833,335-(輸送費込み) ○市川専門家 (パソコン、インクリボン、他) ¥873,510-(輸送費込み) ○鶴内専門家 (播種機、パソコン、他) ¥609,000-(輸送費込み) ○玉木・根元短期専門家 (種子盆、篩、人力播種機、他) ¥500,500- ○三分一専門家 (精密天秤、パソコン、他) ¥555,500- ○正崎専門家 (パソコン、デジタル ビデオ カメラ) ¥619,000- ○御子柴・岡田短期専門家 (マイクロベクトル、捕虫網、他) ¥1,648,320-																			

1-2)、C/P日本研修、ローカルコストその他

平成10年度 第4四半期現在

細目	予算年 月	1996年 (H.8) 4 7 10 1 3	1997年 (H.9) 4 7 10 1 3	1998年 (H.10) 4 7 10 1 3	1999年 (H.11) 4 7 10 1 3	2000年 (H.12) 4 7 10 1 3
C/P 日本研修		Mr.Jamaluddin 種子栽培 29.Mar.96~14.Oct.96 (95年度、個別専門家枠)				
		Mr.Riyadi 種子増殖システム 29.Sep.96~18.Oct.96 (96年度)				
		Mr.Soekoreno 種子増殖システム 29.Sep.96~18.Oct.96 (96年度)				
		Mr.Suparno 種子増殖システム 29.Sep.96~27.Nov.96 (96年度)				
		Ms.Sri Suharti 種子検査 24.Sep.97~24.Oct.97 (97年度)				
		Mr.Munawir 種子増殖システム 13.Nov.97~3Dec.97 (97年度)				
		Mr.Djoko 種子増殖システム 13.Nov.97~3.Dec.97 (97年度)				
		Mr.Nurdin 種子生産 30.Mar.98~15 Oct 98 (97年度)				
		Mr.Tony 研修 7.Sep 98~10 Nov 98 (98年度)				
		Ms.Sri Susila 種子検査 7.Sep 98~10 Nov 98 (98年度)				
現地活動経費		現業費 : Rp.83,333,000-	現業費 : Rp120,000,000- 中堅費 : Rp73,769,426- (+Rp83,168,074 繰越)	計画時 現業費計画 : ¥5,994,000- 中堅費計画 : ¥5,048,000-		
相手国側 投入状況		C/Pと職員の配置 : 中央 機関(JKT)とプロジェクトサイト 機材 : 事務機器・机等 BBUほ場柵	C/Pと職員の配置 : 中央 機関(JKT)とプロジェクトサイト 予算 : Rp.120,403,000- 機材 : 事務機器・机等	C/Pと職員の配置 : 中央 機関(JKT)とプロジェクトサイト 予算 : 生産総事業費 98/99 申請額 Rp.840,735,000-		
調査団		計画打ち合わせ調査団 24. Jun~5, Jly.97				
リーダー会議		平成8年度リーダー会議 27.Jan~31.Jan.97 平成10年度リーダー会議 30.Jan~10.Feb.97 (予定) 平成9年度リーダー会議 29.Jan~6.Feb.97				
調整員会議		平成9年度調整員会議 27.Oct~31.Oct.97				
	月	4 7 10 1 3	4 7 10 1 3	4 7 10 1 3	4 7 10 1 3	4 7 10 1 3

資料 5 機材利用・管理状況表

資料 — 2、機材の利用・管理状況表

平成 10 年度 第 4 四半期現在

機材の利用・管理状況表の記載に当たって下記の記号を汎用した。

1、機材番号（機材番号には、現地事務所の機材管理台帳と同番号を記載）

機材番号の内容

9 7 E I 0 * * * : 予算年度、機材区分、調達地、番号

I : INDONESIA , J : JAPAN

E : 供与機材 , C : 携行機材 , O : 現業費対応機材

例 97 : 1997 年度機材

2、機材管理場所

管理場所 BBI : 原原種農場、 BBU : 原種農場、 BPSB : 種子検査所、 SPC : 種子処理センター
MLG : マランプロジェクト事務所、 SBY : スラバヤプロジェクト事務所、 及び専門家管理

3、機材利用、管理状況

利用状況 A : 良く使う B : 普通 C : 時々使う D : あまり使わない (未 : セッティング 中のため未活用)

管理状況 A : 良い B : 普通 C : 悪い D : 廃棄処分

8) 機材の利用・管理状況表

平成10年度 第4四半期現在

(10万円以上160万円未満の機材)

供与年度	番号	機材名 (メーカー名・型式)	価格、¥ (Rp)	数量	利用 (保管) 場所	利用 状況	管理 状況	備考 (特記事項)
1996.携	96CJ001	パーソナルコンピュータ DynaBookGT 575	295,000	1	MLG,	A	A	MLG 事務所事務員使用
1996.携	96CJ001	上記 PC 用メモリー PA2032UJ	178,000	1	同上	A	A	上記 CP に組み込み
1996.携	96CJ003	パーソナルコンピュータ Compaq LTE 5280	438,000	1	鍋田専門家管理	—	A	故障にて修理申請中
1996.携	96CJ008	パーソナルコンピュータ IBM TinkPad 560	280,000	1	MLG,	A	A	MLG 事務所で管理
1996.携	96CJ014	据付型コンピュータ GATEWA2000	349,800	1	市川専門家管理	A	A	
1996.携	96CJ026	パーソナルコンピュータ DynaBookSat200	248,000	1	轟内専門家管理	A	A	
1998.携	98CJ001	パーソナルコンピュータ IBM TinkPad315	292,000	1	三分一専門家	A	A	
1998.携	98CJ002	精密電子天秤 PG5001	169,000	1	BBI 1,	B	A	
1998.携	98CJ042	パーソナルコンピュータ PCG-733/A	275,000	1	正崎専門家管理	A	A	
1998.携	98CJ043	デジカメラ DCR-PC1	175,800	1	BBI 1,	B	A	
1996.現	96EI003	携帯用 pH 測定器 TOA HM-12P	118,065 (2,315,000)	4	BBI 3, BPSB 1,	B	A	換算 Rp1=¥0.051
1996.現	96EI009	種子粉碎機、 CEMOTEC-1090	918,918 (18,018,000)	1	BPSB 1,	B	A	換算 Rp1=¥0.051
1996.現	96EI010	定温通風乾燥機 ADVANTEC FV-430	600,831 (11,781,000)	2	BPSB 1, BBI 1,	A	A	換算 Rp1=¥0.051
1996.現	96EI011	大型通風乾燥機 ADVANTEC FV-1000	1,882,818 (36,918,000)	1	BBI 1,	A	A	換算 Rp1=¥0.051
1996.現	96EI015	実物投影機 Plus DP-30	223,000 (4,380,000)	1	TC 1,	B	A	換算 Rp1=¥0.051
1996.現	96EI019	オーバーヘッドプロジェクター PLAS CX900	271,696 (5,327,375)	1	TC 1,	A	A	換算 Rp1=¥0.051
1996.現	96EI028	据付型コンピュータ +17in display CP HP Vectra VL4 MiniTower	395,505 (7,755,000)	2	SBY 1, MLG 1,	A	A	換算 Rp1=¥0.051

(10 万円以上 160 万円未満の機材)

供与年度	番号	機材名 (メーカー名・型式)	価格、¥ (Rp)	数量	利用 (保管) 場所	利用 状況	管理 状況	備考 (特記事項)
1996.現	96EI029	プリンター HP 6P	116,280 (2,280,000)	2	SBY 1, MLG 1,	A	A	換算 Rp1=¥0.051
1996.現	96EI030	CP スキャナー HP 4C For IBM	152,980 (2,980,000)	1	MLG 1,	B	A	換算 Rp1=¥0.051
1996.現	96EI036	ビデオカメラ 8 mm ハンディカメラ Panasonic RX 7	109,892 (2,154,750)	1	MLG 1,	B	A	換算 Rp1=¥0.051
1996.現	96EI038	ビデオディスプレイ Panasonic TX-28	225,919 (4,429,775)	1	TC 1,	B	A	換算 Rp1=¥0.051
1996.現	96EI042	複写機 Canon NP2120type, ADF A1 + KIT, Sorter+KIT	854,651 (16,759,875)	2	SBY 1, MLG 1,	A	A	換算 Rp1=¥0.051 .
1996.現	96EI043	電動タイプライナー Canon AP8100	115,706 (2,268,750)	2	SBY 1, MLG 1,	B	A	換算 Rp1=¥0.051
1998.事	98OI001	実験台	152,180 (10,870,000)	1	BBI 1,	A	A	換算 Rp1=¥0.014
1997.現	97EI001	据付型コンピュータ +17in display CP HP Vectra Kayak XA&Win NT	493,750 US\$ 3,950.00	3	DSD 1, BPSB 2,	A	A	換算 \$100=¥125
1997.現	97EI004	OHP オーバーヘッドプロジェクター HP-A380 Solar Zoom、Elmo	311,458 US\$ 2,491.67	1	TC 1,	A	A	換算 \$100=¥125
1997.現	97EI007	百葉箱 Model TM-1001、Tec Inter	812,500 US\$ 6,500.00	1	BBU 1,	A	A	換算 \$100=¥125
1997.現	97EI014	カメラアダプター (実態顕微鏡用) For NIKON Microscope SMZ-U	116,250 US\$ 930.000	1	MLG 1,	A	A	換算 \$100=¥125
1997.現	97EI015	定温乾燥装置 Model BE200,32 litter, Memmart	238,146 US\$ 1,905.17	1	BBI 1,	C	A	換算 \$100=¥125

(10 万円以上 160 万円未満の機材)

供与年度	番号	機材名 (メーカー名・型式)	価格、¥ (Rp)	数量	利用 (保管) 場所	利用 状況	管理 状況	備考 (特記事項)
1997.現	97EI018	顕微鏡収納ケース (大型) 11-5221-03 BIG DRY B3, Iuch	496,250 US\$ 3,970.00	2	BPSB 2,	A	A	換算\$100=¥125
1997.現	97EI022	中耕機 Hand Tractor, Remodel MK5, 4.8Ps, Yamondo	304,286 US\$ 2,434.29	4	BBI 2, BBU 2,	B	A	換算\$100=¥125
1996.本	96EJ001	乾熱滅菌器 SANYO MOV-212	227,500	2	BBI 1, BPSB 1,	C	A	
1996.本	96EJ003	自記雨量計 いすゞ製作所 3-6030-01	130,000	2	BBI 1, BBU 1,	A	A	
1996.本	96EJ010	小型脱穀機 白川農機具 CP-18	450,000	2	BBI 2,	A	A	
1996.本	96EJ011	小型唐箕機 白川農機具 T-20	170,000	2	BBI 2,	A	A	
1996.本	96EJ012	マルチオートカウンター アイデックス IC-1	700,000	2	BBI 1, BPSB 1,	A	A	
1996.本	96EJ013	ユニット式ターンテーブル アイデックス IC-1UR	300,000	2	BBI 1, BPSB 1,	A	A	
1996.本	96EJ014	粒形選別機 原島電気工業 MH-601	1,674,000	1	BBI 1,	A	A	
1996.本	96EJ015	ワーキングツール Working Tool, C-500 24pers kit,	900,000	1 式	BBU 1 式,	紛 失	紛 失	盗難より紛失
1996.	96EJ016	移動式クリーンベンチ (卓上型) Moving Clean Bench, TPV-1000	400,000	1	BBI 1,	C	A	
1996.	96EJ017	クリーンベンチ (排気型) Clean Bench, PAU-1300BG	850,000	1	BPSB 1,	C	A	

(10 万円以上 160 万円未満の機材)

供与年度	番号	機材名 (メーカー名・型式)	価格、¥ (Rp)	数量	利用 (保管) 場所	利用 状況	管理 状況	備考 (特記事項)
1997.本	97EJ001	自記日照日射計 Robitzsgh Actinograph, 3-7030-01	120,000	1	BBI-1,			1998 年末到着、 現在セッティング中
1997.本	97EJ002	自動温湿度計 Hygro Thermograph, St100VE	120,000	1	BBU 1,			1998 年末到着、 現在セッティング中
1997.本	97EJ006	真空脱気シーラー Vacuum Sealer V-400	560,000	1	BBI 1,			1998 年末到着、 現在セッティング中
1997.本	97EJ008	電子天秤 Electronic Balance BP2100S	100,000	4	BPSB 4,			1998 年末到着、 現在セッティング中
1997.本	97EJ009	電子分析天秤 Analytical Balance BP210S	160,000	4	BPSB 4			1998 年末到着、 現在セッティング中
1997.本	97EJ010	実態顕微鏡 Stereoscope Microscope SMZ-1-3	200,000	2	BPSB 2,			1998 年末到着、 現在セッティング中
1997.本	97EI011	ビジュアルプレゼンター Visual Presenter EV-450AFPAL	370,000	1	TC 1,			1998 年末到着、 現在セッティング中

平成 10 年度 第 4 四半期現在

(160 万円以上の機材)

供与年度	番号	機材名 (メーカー名・型式)	価格、¥ (Rp)	数量	利用 (保管) 場所	利用 状況	管理 状況	備考 (特記事項)
1996.現	96EI001	車輜、ISUZU PanTher R ディーゼル 2500cc、	2,228,700 (43,700,000)	3	SBY 2, MLG 1,	A	A	専門家の活動支援用車輜
1997.本	97EJ013	低温恒温室 LOW TEMPERATURE ROOM	6,147,500	1 室	BBI 1 室,			1998 年末到着、 機材設置準備中
1997.本	97EJ014	種子選別プラント SEED PROCESSING PLANT	19,210,000	1 式	SPC 1 式,			1998 年末到着、 機材設置準備中

資料 6 研修実績一覧表

資料 - 3

研修事業実績一覧表

97・98年度研修実績概要表(研修初年度)

大豆種子増殖・研修計画

番号	実施研修名	実施時期	研修参加者		実施場所	研修予算源
			出身機関	合計		
1.	大豆種子生産基礎Ⅰ	97年11月3日から8日までの6日間	州農業部 県農業部 種子検査所 種子公社	20名	原原種農場	JICA
2.	大豆種子生産基礎Ⅱ	97年12月1日から6日までの6日間	州農業部 県農業部 種子検査所 種子公社	20名	原原種農場	JICA
3.	種子生産専門コース	97年12月15日から19日までの5日間	州農業部 県農業部 種子検査所 種子公社	13名	原原種農場	JICA
4.	種子調整専門コース	98年2月16日から20日までの5日間	州農業部 県農業部 種子検査所 種子生産農家	14名	原原種農場	JICA
5.	種子検査専門コース	97年8月18日から23日までの5日間	種子検査所 種子公社 種子生産農家	10名	原原種農場	JICA
6.	農業機械研修コース	98年2月16日から20日までの5日間	原原種、 原原種農場 種子公社	8名	原原種農場	JICA
7.	種子検査コース	97年12月15日より19日までの5日間	種子検査所 種子公社	11名	原原種農場	JICA

8.	研修評価会	98年6月17日 より19日までの 3日間	州農業部 原原種農場 県農業部	24名	原原種農場	JICA
9.	視察研修コース	98年5月 13日より15日 までの4日間	種苗局 州農業部 C/P	14名	西ヌサテン ガラ州	JICA
			谷津計	134 名		

98・99年度研修実績概要表（研修2年度目）

大豆種子増殖・研修計画

番号	実施研修名	実施時期	研修参加者		実施場所	研修予算源
			出身機関	合計		
1.	品種比較圃運営研修	98年12月3日	種子検査所	14名	州種子検査所	JICA
2.	展示圃運営研修	98年12月23日	県農業部 種子検査所 種子公社	25名	原原種農場	JICA
3.	種子生産長期技術研修	98年11月30日 より99年3月29 日までの4ヶ月 間	原種農場	4名	原原種農場	JICA&RI
4.	大豆種子生産基礎Ⅰ その1	99年2月15日 から19日までの 5日間	県農業部 種子検査所	20名	原原種農場	JICA &RI
5.	大豆種子生産基礎Ⅰ その2	99年2月8日か ら12日までの5 日間	県農業部 普及所 種子生産 農家	20名	原原種農場	JICA &RI
6.	種子生産専門研修 その1	99年2月22日 から26日までの 5日間	県原種農場	10名	原原種農場	JICA &RI

7.	種子生産専門研修 その2	99年3月1日から5日までの5日間	県農業部	10名	原原種農場	JICA &RI
8.	種子調整専門研修	99年3月1日から5日までの5日間	種子生産 農家	10名	原原種農場	JICA/ &RI
9.	種子検査専門研修	99年2月22日から26日までの5日間	種子検査 所	10名	原原種農場	JICA/ &RI
10	農業機械研修	99年3月1日より5日までの5日間	原種農場	10名	原原種農場	JICA/ &RI
11.	種子管理技術研修	99年2月8日より12日までの5日間	原種農場	10名	原原種農場	JICA/ &RI
12.	種子検査専門研修 その2	98年11月23日より27日までの5日間	種子検査 所	10名	原原種農場	JICA
13	病虫害防除研修	98年10月5日から7日までの3日間	原原種農場 種子検査 所 州農業部	11名	原原種農場	JICA
14	種子選定技術研修	98年10月8日	原種農場	18名	原原種農場	JICA
15	採種農家現場技術研修	98年12月15日	採種農家 Jombang Nganjuk	20名	Jombang 県	JICA
	同上	98年12月17日 および99年2月 16日	採種農家 Jember Lumajang	20名	Jember 県	JICA
	同上	98年12月1日	採種農家 Malang Pasuruan	30名	原原種農場	JICA

	同上	99年2月11日	採種農家 Bojonegoro	13名	Bojonegoro 県	JICA
	同上	99年3月10日	採種農家 Ngawi	15名	Ngawi 県	JICA
	同上	99年3月11日	採種農家 Ponorogo	15名	Ponorogo 県	JICA
			合 計	295 名		

凡例：RI=インドネシア政府

資料7 カウンターパート配置一覧表

資料4 C/P 西己置一覽表

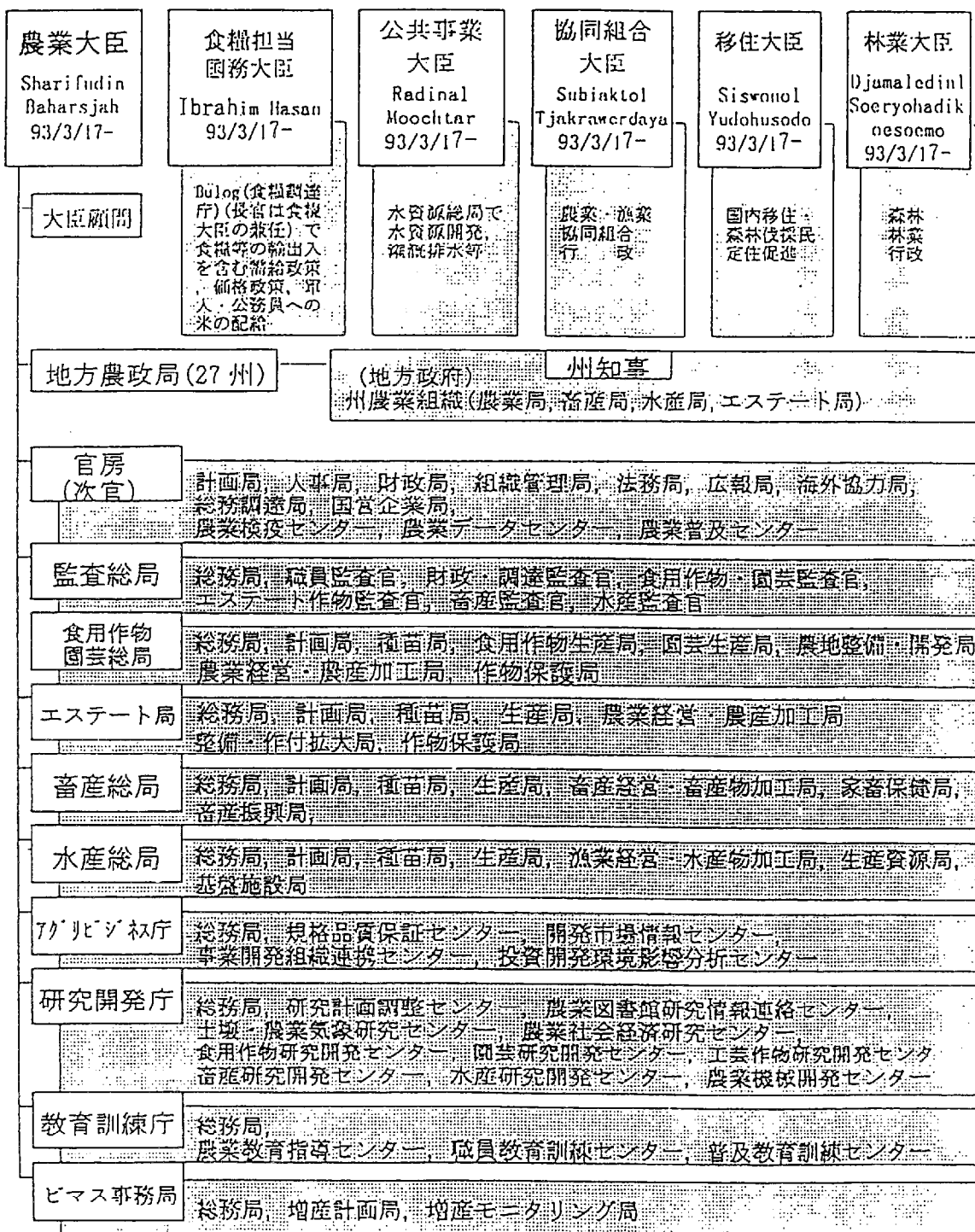
平成10年度 第4四半期現在

分野	予算年 C/P氏名 月	協力期間開始: 1 Jul, 1996 配 置 状 況						本邦研修		備考 技術移転/技術習得
		1996年	1997年	1998年	1999年	2000年	2001年	年度	主な研修先	
		4 7 10 1	4 7 10 1	4 7 10 1	4 7 10 1	4 7 10 1	4 7			
種子生産	Mr. Soekoreno	原原種農場管理 (BBI 場長)						96	北海道庁	種子増殖研修
	Mr. Jamaluddin	原原種、栽培・増殖 (BBI 生産主任)						95	北海道庁	種子増殖 6ヵ月研修有
	Mr. Suparno	原種農場管理 (BBU 場長)						96	北海道庁	種子増殖 2ヵ月研修有
	Mr. Nurdin	原原種、栽培・増殖 (BBI 栽培技術担当)								準カウンターパート
種子検査	Ms. Sri Susila	実験室長 (BPSBTPH-3 本部)						98	北海道庁	種子検査 6ヵ月研修有
	Ms. Sri Suharti	マラン支所長 (BPSBTPH-3)						97	北海道庁	種子検査 2ヵ月研修有
	Mr. Susanto			品種比較担当						
研修	Mr. Tony	研修事業管理 (DINAS 職員)								
	Ms. Sutji	研修事業管理 (DINAS 職員)								
増殖システム	Mr. Tarkim	イ国中央機関 (種苗局、食用作物種子生産課長)								
	Mr. Riyadi	イ国中央機関 (食用作物種子生産課、豆類種子生産係長)						96	農水省	行政、増殖システム研修有
	Mr. Soekardi	地方業務調整機関 (DINAS、食用作物生産課長)								12May.1997 に移動
	Mr. Suyono	地方業務調整機関 (DINAS、食用作物生産課長)								12May.1997 に就任
	Mr. Djoko	地方業務責任者 (DINAS、東ジャワ州農業部部長) 現在、州農業部長代理 (Ir. Soehardjo)						97	農水省	21May98 年退職
	Mr. M. Maksum	地方業務責任者 (DINAS、東ジャワ州農業部部長)								Nov98 年より
P D	Mr. Munawir	プロジェクトディレクター (農業省食用作物園芸総局、種苗局長 Apl.96~)						97	農水省	種子行政全般
	Mr. Sugagyo D.	プロジェクトディレクター								

資料8 インドネシア関連省庁組織図

農業関連主要省庁及び農業省組織図

(1993年9月14日付大統領令等から)



資料9 プロジェクト組織図

Figure1. Project Implementation Chart
(Tentative)

