資料1　Minutes of Discussions (Progress Report、ＴＤＩＰ、ＰＤＭを含む)

THE MINUTES OF MEETING
OF
JOINT COORDINATING COMMITTEE
ON
THE DAIRY TECHNOLOGY IMPROVEMENT PROJECT IN THE REPUBLIC OF INDONESIA

The Joint Coordinating Committee (hereinafter referred to as "J.C.C.") on the Dairy Technology Improvement Project was held on August 29, 1997 with participation of the Japanese Consultation Survey Team headed by Mr. Shiro NABEYA, Director of Livestock and Horticulture Division, Japan International Cooperation Agency (hereinafter referred to as "JICA") which visited the Republic of Indonesia from 19 to 29 August, 1997 and the Authorities concerned of the Government of The Republic of Indonesia.

The J.C.C. confirmed the Major Points of the Understanding as attached in ANNEX Ⅰ and the Progress Report for the year 1997 (March-July 1997) as attached in ANNEX Ⅱ.

The J.C.C. has also drawn up the Tentative Detailed Implementation Plan (hereinafter referred to as "TDIP"), Project Design Matrix (hereinafter referred to as "PDM") and The Annual Work Plan for 1997 Fiscal Year (April 1997/March 1998) for the Project as attached in ANNEX Ⅲ, Ⅳ and Ⅴ at this stage of the Project. The TDIP and PDM may be subject to change within the framework of the R/D when necessity arises in the course of the implementation of the Project.

Jakarta, August 29, 1997

Dr. KEN NAKABAYASHI
Team Leader
The Dairy Technology Improvement Project
Japan International Cooperation Agency
Japan

Ir. ERWIN SOETIRTO
Director General
Directorate General of Livestock Services
Ministry of Agriculture
The Republic of Indonesia

Major Points of Understanding

1. Principles

(1) Technology improvement for dairy farmers

The Project is implemented under the Third Umbrella cooperation for Integrated Agriculture and Rural Development in the Republic of Indonesia with the purpose of improving the standard of living of farmers, which thus will eventually contribute to the alleviation of rural poverty.
The Project purpose is to establish the integrated technical services system for suitable dairy technology and the target farmers are small scale farmers. Therefore, the output or technique improved in the Project should be examined in consideration of whether those farmers can accept or not.

(2) Initiative of the Project

As stated in the Attached Document Ⅲ-1 of the Record of Discussions of the Project, the Indonesia side takes the initiative of implementation of the Project while JICA supports the Project.

(3) Application of the Project output to other provinces

The Project is implemented in consideration of extension of the Project output to other provinces eg. East and Central Java in future, while the Project focuses dairy farming improvement in West Java.
The application to other provinces will be carried out by the Indonesian side.

(4) Involvement of Local resources

Several government institutions and universities in Indonesia have already done research activities on dairy farming.
To implement the Project efficiently and effectively, personnel of those institutions and universities should be involved and research results should be taken into account.

2. Cooperation with other centers and projects

As stated in the R/D, collaboration with AI Centers in Singosari and Lembang, ET Center in Cipelang, Feed Assay Laboratory in Bekasi and the CCA-GKSI Project should be actively promoted.
The Indonesian side takes the initiative to coordinate the Project with them.
Transferring embryos produced in Cipelang E.T. Center to the dairy cattle of Cikole Dairy Center in Lembang (BPT-HMT Cikole) and Bunikasih Dairy Center in Cianjur (BPT-HMT Bunikasih) is planned and welcomed for improvement of the dairy cattle in both Centers. However, this embryo transfer program in both centers should be implemented in consideration of the original purpose and activities of the Project.

3. Assignment of Indonesian counterpart personnel and supporting staff

(1) Two (2) counterparts at DGLS, eight (8) counterparts at DINAS, four (4) counterparts at BPT-HMT Cikole and Four (4) counterparts at BPT-HMT Bunikasih are assigned for the Project. One of the lessons learned from the past projects is that frequent change of counterparts is one of causes of poor result of the projects. Therefore, the counterparts personnel basically should not be changed during the Project period. Furthermore supporting staff have important role of the Project implementation. Assignment of staff(s) in charge of machinery and equipment's

maintenance and operation in the Centers is required to sustain the Project.

(2) According to the Attached Document I -5-(1) of the R/D, sub-counterpart personnel are expected to be assigned in each field:

4. The Activities of the Project

(1) Feeding and Management of Dairy Cattle

Improvement of milk hygiene and ensuring milk quality is an expected outcome of the Project, however milk quality except for fat and SNF (Solid Non-Fat) does not reflect milk price at present.

The political consideration is necessary to arise farmer's interest in quality improvement of milk.

(2) Reproductive Health Management

Acquirement of prevention technique is prior to treatment to avoid reproductive disorder.

(3) Forage Production and Utilization

Due to limited land of small holders, forage production is recognized as one of main problems in dairy farming development, so forage production in community lands as well as individual farmer must be examined.

(4) Training for Technical Staff as well as Selected Farmers

Detail of training program including extension activities in certain areas should be discussed and decided carefully in consideration of the budget and staff limitations.

5. Demarcation of Project activities in BPT-HMT Cikole and BPT-HMT Bunikasih

BPT-HMT Cikole is defined as a main site of the Project while BPT-HMT Bunikasih as a sub-site. Due to limitation of inputs from both sides and the Project period, demarcation of the Project activities and input distribution should be considered quickly to carry out the Project efficiently.

6. Evaluation of the Project

Evaluations of the Project will be carried out in the mid-and final stage of the Project period. The following issues in principle will be examined using PDM in the final evaluation.

(1) Achievement of the Project
: degree on the achievement of the Project output.

(2) Effectiveness of the Project
: degree on content and extension of the effectiveness of the Project.

(3) Efficiency of the Project
: 1) content and time of inputs from both sides
2) project organization to implement the Project

(4) Adequacy of the Project
: relation between the Government policy on dairy farm and the Project.

(5) Sustainability of the Project
: degree on institutional, financial and technical sustainability, and continuation of the government support.

7. Agenda and List of Attendants

7.(1) Agenda

THE FIRST JOINT COORDINATING COMMITTEE MEETING
of
THE DAIRY TECHNOLOGY IMPROVEMENT PROJECT
August 29, 1997 (09:00 - 11:00)
at DGLS - Jakarta

09:00-09:10	Opening address by Ir. Erwin Soetirto, Director General, DGLS.
09:10-09:20	Adress by Mr. Shiro NAGEYA, the Team Leader of the Consultation Study Team, JICA.
09:20-09:40	Progress Report by Provincial Livestock Services of West Java.
09:40-10.00	Project Design Matrix (PDM), Tentative Detailed Implementation Plan (TDIP) and Annual Work Plan for 1997, by Mr. Yoshihiro SHIMIZU.
10:00-10:45	General Discussion.
10:45-10:50	Signing of Minutes.
10:50-11:00	Closing address by Ir. Erwin Soetirto, Director General, DGLS.

7.(2) List of Attendants

The First Joint Coordinating Committee Meeting
of
Dairy Technology Improvement Project
on August 29, 1997

Indonesian side

1. Ir. Erwin Soetirto	Director General, Directorate General of Livestock Services (DGLS), MOA
2. Drh. Sri Dadi	Director, Directorate of Livestock Programming, DGLS,MOA
3. Dr. Sofjan Sudardjat D. MS	Director, Directorate of Livestock Production, DGLS,MOA
4. Ir. Djarsanto	Director ,Directorate of Animal Breeding, DGLS, MOA
5. Drh. Zulkifli Surahamdani	Head, Provincial Livestock Services of West Java
6. Mr. Syahbami Hamid	Bureau for Technical Cooperation , Cabinet Secretariat
7. Ir. Yandri	International Cooperation Bureau, MOA
8. Drh. Djafar Makka, M.Phil	Head, Sub-Directorate Farming System, Directorate Livestock Production,DGLS
9. Ir. Gafrie Zainuddin	Head, Dairy Section,Sub-Directorate Farming System, Directorate Livestock Production,DGLS
10. Ir. Harjowaluyono	Head, Cikole Dairy Center,Provincial Livestock Services of West Java
11. Drh. Henry Eko. S	Head, Bunikasih Dairy Center, Provincial Livestock Services of West Java
12. Ir. Djoni Liano	Staff, Directorate Livestock Programming,DGLS
13. Ir. Maimunah T	Staff, Directorate Livestock Production, DGLS
14. Ir. Triastuti Andajani	Staff, Directorate Livestock Programming,DGLS
15. Ir.H. Adang Suderadjat	Head , Livestock Extension Division, Provincial Livestock Services of West Java
16. Ir.H. Iman Nugraha	Head, Livestock Production , Provincial Livestock Services of West Java

17. Ir. Abdudah F Alih	Staff, Livestock Production, Provincial Livestock Services of West Java
18. Ir. Rukmantoro Salim	Staff, Livestock Extension Division, Provincial Livestock Services of West Java
19. Ir. Tri Widharetna	GKSI, Jakarta

Japanese side

1. Mr. Shiro Nabeya	Director, Livestock and Horticulture Division, Agricultural Development Cooperation Department, JICA
2. Mr. Shinichi Fujisawa	Chief, International Affairs Section, Administration Division, Livestock Industry Bureau, M.A.F.F.
3. Mr.Masatsugu Okita	Animal Production Division, Livestock Industry Bureau, M.A.F.F.
4. Drh.Zenichiro Kumada	Director, Breeding Stock 2nd Division, National Livestock Breeding Center Niikappu Station, M.A.F.F.
5. Ms.Junko Katsunishi	Staff, Livestock and Horticulture Division, Agricultural Development Cooperation Department, JICA
6. Drh.Ken Nakabayashi	Team Leader, Dairy Technology Improvement Project
7. Mr.Yoshihiro Shimizu	Coordinator, Dairy Technology Improvement Project
8. Mr. Tsugio Koseki	Expert on Hygiene Control for Milking, Dairy Technology Improvement Project
9. Drh.Kazuhisa Hosokawa	Expert on Reproductive Health Management, Dairy Technology Improvement Project
10. Mr.Masayoshi Nakatani	Expert on Forage Production and Utilization, Dairy Technology Improvement Project
11. Mr.Toshiaki Hidaka	Expert on Feeding Management, Dairy Technology Improvement Project
12. Drh.Hiromitsu Moriyama	JICA Expert, Livestock Development Policy
13. Drh.Shuichi Matsuda	JICA Expert, The Biotechnology Development for Animal Reproduction Project

PROGRESS REPORT
(MARCH 1997 TO AUGUST 1997)

THE FIRST JOINT COORDINATION COMMITTEE MEETING

THE DAIRY TECHNOLOGY IMPROVEMENT PROJECT
IN INDONESEA

AUGUS 28 - 29, 1997

JAKARTA INDONESIA

LIST OF CONTENTS

PROGRESS REPORT

THE FIRST JOINT COORDINATION COMMITTEE MEETING

THE DAIRY TECHNOLOGY IMPROVEMENT PROJECT

IN INDONESIA

I. INTRODUCTION

The Dairy Tecnology Improvement in Indonesian Project is implemented according to the Record of Discussion signed in Jakarta - Indonesia on September 10th, 1996 by Ir. Erwin Soetirto as Director General - Direcorate General of Livestock Services (DGLS) and Mr. Yoshizo Takizawa, as Leader Implementation Study Team - Japan International Cooperation Agency (JICA).

The Project is a five years project, commenced in March 1997, the details are as follows.

II. PLAN OF THE PROJECT

1. Object of The Project

   1) Project Goal

      Improving Dairy Technology at Farmers Level

   2) Project Purpose

      Establishing the integrated technical service system for suitable dairy technology

2. Outputs and Activities of the Project

   1) The expected output of the Project

      Improvement dairy technology at the farmers level by enhancing the capability of technical staffs engaged in the extension works for dairy technology improvement.

      (1) Improving technology for feeding and management of dairy cattle

      (2) Improving technology for reproductive health management

(3) Improving technology for forage production and utilization

(4) Improving training for technical staffs as well as selected farmers

2) The Activities of the Project

(1) Improvement of Feeding and Management of Dairy Cattle

(a) Survey and monitoring of dairy farming in Indonesia

(b) Improvement of feeding technology

(c) Improvement of management technology

(d) Improvement of Milking hygiene management

(2) Improvement of reproductive health management

(a) Survey and monitoring of reproductive health of dairy cattle

(b) Improvement of technology for diagnosis and treatment of reproductive disorders.

(c) Improvement of technology for prevention of perinatal accidents

(3) Improvement of forage production and utilization

(a) Survey of forage production and utilization

(b) Improvement of technology for forage production

(c) Utilization of by-product from agriculture and food industry.

(4) Training for Technical Staffs as well as selected farmers.

3) Project Site

The Project will be implementated through Provincial Livestock Services of West Java. Cikole Dairy Center in Lembang (BPT-HMT Cikole) will be the main site. Bunikasih Dairy Center in Cianjur (BPT-HMT Bunikasih) will be the sub site.

4) Function of the project sites and other organization

(1) Main site

(a) Development and improvement of overall relevant technique of dairy farming.

(b) Strengthening technical guidance capacity in order to promote disseminating the technique and knowledge developed in the Project.

(2) Sub site

Supplementing the activities of the main site, especially in the field of forage production and utilization.

(3) Other organization

AI Centers in Lembang and Singosari, and ET Center in Cipelang will function as supporting organizations to supply frozen semen and embryos and provide information of dairy cattle. Feed Assy Laboratory in Bekasi will function as the supporting organization to analyze nutrition components of forage.

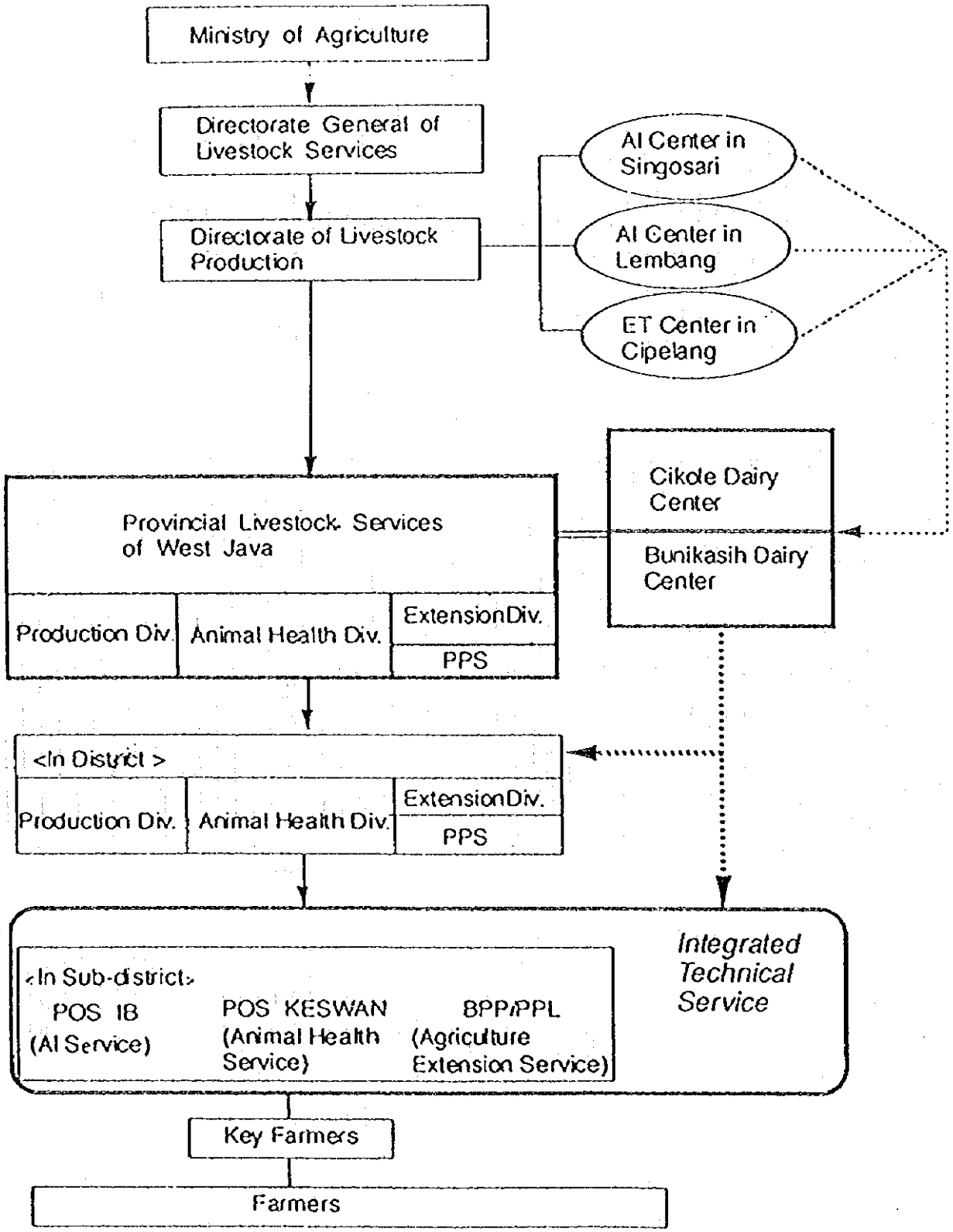
5) Consideration of Women in Development (WID)

The Project will be implementated in consideration of WID or social gender situation.

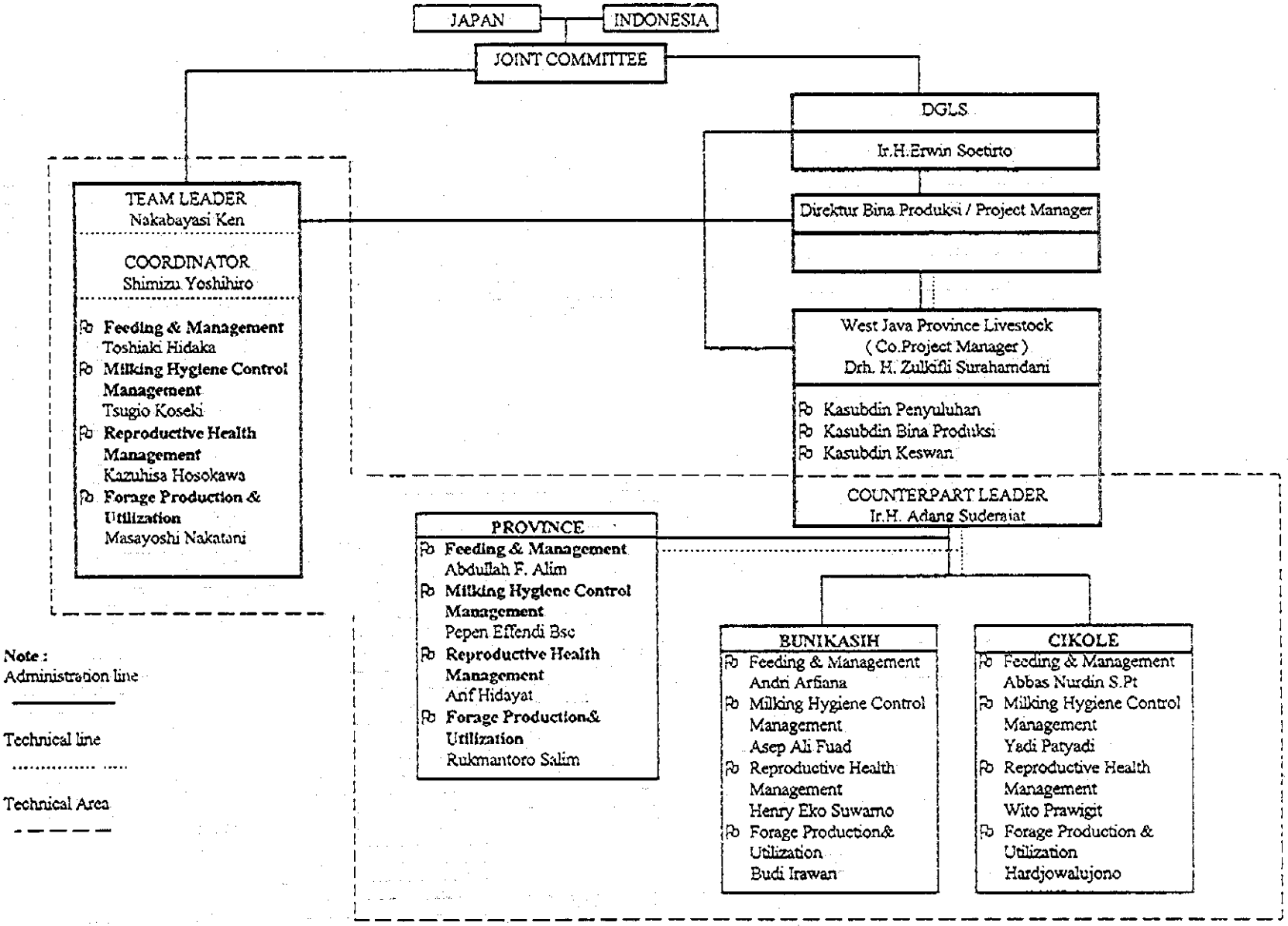
6) Other Importan Issues

The Project sholud collaborate with the CCA-GKSI project. The Indonesian side should coordinate the Project with the CCA-GKSI project. The farmers of KUD chosen as the pilot cooperative in the CCA-GKSI project will not be involved in the Project for the time being.

III. IMPLEMENTING PLAN OF THE PROJECT



ORGANIZATION OF THE DAIRY TECHNOLOGY IMPROVEMENT PROJECT IN INDONESIA



IV. LIST OF THE INDONESIAN COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Ministry of Agriculture

(1) Director General, Directorate General of Livestock Services (DGLS), as Project Director

(2) Director, Directorate of Livestock Production, DGLS, as the Project Manager

2. Provincial Livestock Services of West Java

(1) Head, as the Co-Project Manager

(2) Head of Production Division

(3) Head of Animal Health Division

(4) Head of Extension Division

(5) Counterpart personnel in the following fields:

(a) Feeding and management of dairy cattle
(a-1) General feeding and management of dairy cattle
(a-2) Hygiene control for milking
(b) Reproductive health management
(c) Forage production and utilization
(d) Other necessary fields mutually agreed upon

Note: a) One or more number of staff will be assigned to the above-mentioned technical fields respectively. If only one counterpart is assigned, sub-

counterpart(s) in the field should be assigned from counterpart(s) in other fields.

b) For extension services, persons in charge at district or sub-district level may be assigned as counterpart personnel.

(6) Administrative personnel

3. Cikole Dairy Center

(1) Head

(2) Counterpart personnel in the following fields:

(a) Feeding and management of dairy cattle
(a-1) General feeding and management of dairy cattle
(a-2) Hygiene control for milking
(b) Reproductive health management
(c) Forage production and utilization
(d) Other necessary fields mutually agreed upon

Note: One or more number of staff will be assigned to the above-mentioned technical fields respectively. If only one counterpart is assigned, sub-counterpart(s) in the field should be assigned from counterpart(s) in other fields.

(3) Administrative personnel

4. Bunikasih Dairy Center

(1) Head

(2) Counterpart personnel in the following fields:

(a) Feeding and management of dairy cattle

(a-1) General feeding and management of dairy cattle

(a-2) Hygiene control for milking

(b) Reproductive health management

(c) Forage production and utilization

(d) Other necessary fields mutually agreed upon

Note: One or more number of staff will be assigned to the above-mentioned technical fields respectively. If only one counterpart is assigned, sub-counterpart(s) in the field should be assigned from counterpart(s) in other fields.

(3) Administrative personnel

DEPARTEMEN PERTANIAN
DIREKTORAT JENDERAL PETERNAKAN

Jl. Harsono RM No. 3
Pasar Minggu, Jakarta 12550
Kotak Pos 1108/JKS, Jakarta 12011

Telp. : (021) 7815581
Fax. : (021) 7815581

SURAT KEPUTUSAN
DIREKTUR JENDERAL PETERNAKAN

Nomor: 35 /OT.210/Kpts/0697

TENTANG PENGORGANISASIAN
PROYEK PENINGKATAN TEKNOLOGI SAPI PERAH
DI INDONESIA

DIREKTUR JENDERAL PETERNAKAN,

Menimbang : a. bahwa sesuai Laporan Pembahasan Kerjasama Teknis, antara Tim Studi Implementasi Jepang dengan Instansi Terkait Pemerintah RI, yang ditandatangani tanggal 10 September 1996, telah disepakati kerjasama teknis untuk Proyek Perbaikan Teknologi Sapi Perah di Indonesia;

b. bahwa kerjasama teknis antara kedua pemerintah tersebut, diwakili oleh Direktorat Jenderal Peternakan atas nama Pemerintah RI, dan JICA atas nama pemerintah Jepang;

c. bahwa untuk efektifitas dan keberhasilan pelaksanaan kerjasama teknis tersebut, maka ditetapkan Pengorganisasian Proyek yang perlu ditetapkan dengan suatu Surat Keputusan.

Mengingat : 1. Keputusan Presiden Republik Indonesia Nomor 15 Tahun 1984 jo Keputusan Presiden Republik Indonesia Nomor 83 Tahun 1993;
2. Surat Keputusan Menteri Pertanian RI Nomor 96/Kpts/OT.210/2/94.
3. Surat Keputusan Menteri Pertanian RI Nomor 527/Kpts/OT.220/7/1994;

MEMUTUSKAN

Menetapkan : SURAT KEPUTUSAN DIREKTUR JENDERAL PETERNAKAN TENTANG PENGORGANISASIAN PROYEK PENINGKATAN TEKNOLOGI SAPI PERAH DI INDONESIA.

PERTAMA : Menetapkan Pengorganisasian Proyek Peningkatan Teknologi Sapi Perah di Indonesia, sebagai berikut :
1. Direktur Proyek;
2. Manajer Proyek;
3. Wakil Manajer Proyek;
4. Tim Leader dan Tenaga Ahli Jepang;
5. Tenaga Pendamping (Counterpart).

KEDUA : Untuk membantu manager Proyek, di bentuk Tim Teknis Pusat yang sekaligus berfungsi sebagai Tenaga Pendamping Tingkat Pusat.

KETIGA : Tim Teknis Daerah dan Tenaga Pendamping Tingkat Daerah ditetapkan sengan Surat Keputusan Kepala Dinas Peternakan Propinsi Dati I Jawa Barat.

KE EMPAT : Tugas Pokok dan Personalia Proyek seperti tercantum pada lampiran Surat Keputusan ini.

KELIMA : Surat Keputusan ini mulai berlaku pada tanggal 3 Maret 1997, dan akan berakhir dengan sendirinya setelah selesainya kerjasama teknis.

KE ENAM : Segala biaya yang diperlukan dalam kaitan dengan Surat Keputusan ini, dibebankan kepada dana pendamping yang dialokasikan pada Proyek Pengembangan Sumberdaya Sarana dan Prasarana Peternakan.

Ditetapkan di: Jakarta
Pada tanggal : 27 Juni 1997

DIREKTUR JENDERAL PETERNAKAN

DEPARTEMEN PERTANIAN Direktorat Jenderal Peternakan

Ir. ERWIN SOETIRTO
NIP. 080.019.515

Tembusan disampaikan kepada Yth:
1. Sekretaris Jenderal Departemen Pertanian;
2. Yang bersangkutan.

Lampiran : SURAT KEPUTUSAN DIREKTUR JENDERAL PETERNAKAN
NOMOR : 35 /OT.210/Kpts/0697
TANGGAL : 27 Juni 1997

TUGAS POKOK DAN PERSONALIA
PROYEK PENINGKATAN TEKNOLOGI SAPI PERAH
DI INDONESIA

I. TUGAS POKOK ORGANISASI PROYEK

1. Direktur Proyek : bertanggungjawab sepenuhnya atas adminsitrasi dan implementasi Proyek.

2. Manajer Proyek : bertanggungjawab atas hal-hal teknis, manajerial dan adminstrasi Proyek.

3. Wakil Manajer Proyek : bertanggungjawab atas koordinasi implementasi Proyek.

4. Tim Teknis Pusat : a. membantu Manajer Proyek dalam pelaksanaan tugas sehari-hari dibidang teknis dan adminstrasi Proyek.
b. sebagai tenaga pendamping (counterpart) Tingkat Pusat.

II. PERSONALIA PROYEK

1. Direktur Proyek : Direktur Jenderal Peternakan.

2. Manajer Proyek : Direktur Bina Produksi, Direktorat Jenderal Peternakan.

3. Wakil Manajer Proyek : Kepala Dinas Peternakan Propinsi Dati I Jawa Barat.

4. Tim Teknis Pusat.

a. Ketua : Kasubdit Budidaya,
Direktorat Bina Produksi.

b. Sekretaris/
Anggota : Kepala Seksi Ternak Perah,
Sub Direktorat Budidaya.

c. Anggota : (a) Kepala Subdit Kerjasama Program,
Direktorat Bina Program.
(b) Kepala Subdit Sumber Bibit,
Direktorat Bina Perbibitan.
(c) Kepala Subdit Pakan Hijauan,
Direktorat Bina Produksi.
(d) Kepala Subdit Pakan Konsentrat,
Direktorat Bina Produksi.
(e) Kepala Seksi Administrasi
Bantuan Teknik,
Direktorat Bina Program.

DIREKTUR JENDERAL PETERNAKAN

DEPARTEMEN PERTANIAN
Direktorat Jenderal Peternakan

Ir. ERWIN SOETIRTO
NIP. 080.019.515

-salinan/jica-

PEMERINTAH PROPINSI DAERAH TINGKAT I JAWA BARAT
DINAS PETERNAKAN
JALAN IR. H. JUANDA NO. 358 TELP. 2501151 - 2513842 - FAX. 2514740 BANDUNG

SURAT KEPUTUSAN
KEPALA DINAS PETERNAKAN PROPINSI DAERAH TINGKAT I
JAWA BARAT

NO : 800/SK.1508/Diklatluh/1997

TENTANG

PENETAPAN TIM TEKNIS
PADA PROYEK PENINGKATAN TEKNOLOGI SAPI PERAH
KERJASAMA PEMERINTAH INDONESIA DAN JEPANG DI JAWA BARAT

KEPALA DINAS PETERNAKAN PROPINSI DAERAH TINGKAT I JAWA BARAT

MENIMBANG :

a. bahwa dalam "Minutes of Discussions" antara Pemerintah Indonesia c.q Direktorat Jenderal Peternakan dengan Pemerintah Jepang c.q Japan International Cooperation Agency (JICA) tanggal 9 September 1996 telah ditetapkan kerjasama teknis Proyek Peningkatan Teknologi Sapi Perah.

b. bahwa pelaksanaan kerjasama ini akan melibatkan para peternak sapi perah yang menjadi anggota koperasi/KUD sapi perah di Jawa Barat.

c. bahwa untuk efektifitas dan keberhasilan pelaksanaan kerjasama teknis tersebut, maka perlu ditetapkan Pengorganisasian Proyek yang perlu ditetapkan dengan suatu Surat Keputusan.

MENGINGAT :

a. Undang-undang No. 6 Tahun 1996 tentang Ketentuan-ketentuan Pokok Peternakan dan Kesehatan Hewan.
b. Undang-undang No. 5 Tahun 1974 tentang Pokok-pokok Pemerintahan di Daerah.
c. Peraturan Pemerintah No. 30 Tahun 1951 tentang Penyerahan Sebagian Urusan Pemerintahan Pusat dalam Lapangan Kehewanan kepada Propinsi Jawa Barat.
d. Peraturan Daerah Propinsi Jawa Barat No. 13 Tahun 1983 jo Peraturan Daerah No. 6 Tahun 1986 tentang

Susunan Organisasi dan Tata Kerja Dinas Peternakan Propinsi Daerah Tingkat I Jawa Barat.

MEMPERHATIKAN : • List of The Indonesian Counterpart and Administrative Personnel pada Dokumen Perjanjian Proyek Peningkatan Teknologi Sapi Perah di Indonesia.

• Surat Keputusan Direktur Jenderal Peternakan No.35/OT.210/Kpts/0697 tentang pembentukan Tim Teknis Tingkat Daerah.

MENETAPKAN :

Pertama : Tim Teknis Daerah Tingkat I Jawa Barat pada Proyek Peningkatan Teknologi Sapi Perah di Indonesia seperti tercantum dalam lampiran Surat Keputusan ini.

Kedua : Dalam melaksanakan tugas, Tim Teknis Daerah Tingkat I Jawa Barat bertanggung jawab kepada Kepala Dinas Peternakan Propinsi Dati I Jawa Barat.

Ketiga : Untuk kelancaran pelaksanaan tugas Tim Teknis Daerah Tingkat I Jawa Barat baik secara teknis maupun administratif dapat memberikan pengarahan kepada para Counterpart/ pendamping ditetapkan sesuai dengan fungsi dan kedudukannya sebagai berikut :

a. Kepala Sub Dinas Penyuluhan sebagai Counterpart Leader bertugas mengkoordinasikan baik administratif maupun teknis
b. Counterpart/Pendamping yang berkedudukan di Kantor Dinas Peternakan Propinsi Daerah Tingkat I Jawa Barat mendampingi kegiatan Expert di seluruh wilayah Jawa Barat, memonitor, mengkoordinir, menganalisa, mengevaluasi dan melaporkan seluruh aktivitas di lapangan kepada Kepala Dinas Peternakan Propinsi Dati I Jawa Barat

sesuai dengan bidangnya masing-masing.

c. Counterpart/Pendamping yang berkedudukan di Lokasi kegiatan, mendampingi kegiatan Expert setiap saat dan bertanggung-jawab secara penuh dibidang teknisnya masing-masing, mengevaluasi dan melaporkan seluruh aktivitas di lapangan kepada Kepala Dinas Peternakan Propinsi Daerah Tingkat I Jawa Barat.

Keempat : Surat Keputusan ini mulai berlaku pada tanggal ditetapkan.

Kelima : Apabila terdapat kekeliruan dalam Surat Keputusan ini, akan diadakan perbaikan sebagaimana mestinya.

Ditetapak di : Bandung
Pada Tanggal : Juli 1997

Kepala Dinas Peternakan Propinsi
Daerah Tingkat I Jawa Barat

Drh. H. Zulkifli Surahmdani
NIP. 480 025 257

Tembusan, disampaikan kepada Yth. :

1. Gubernur Kepala Daerah Tingkat I Jawa Barat.
2. Direktur Jenderal Peternakan di Jakarta.
3. Kepala Kanwil Pertanian Propinsi Jawa Barat
4. Team Leader Expert JICA
5. Yang bersangkutan.

Lampiran : Surat Keputusan Kepala Dinas Peternakan Propinsi Daerah Tingkat I Jawa Barat

Nomor : ....800/..SK..1508../Diklatluh /1997
Tanggal : .....Juli..1997.....

Susunan Tim Teknis Propinsi Daerah Tingkat I Jawa Barat
Pada Proyek Peningkatan Teknologi Sapi Perah
Kerjasama Pemerintah Indonesia dan Pemerintah Jepang di Jawa Barat

Penanggung Jawab/ Wakil Manager Proyek	:	Kepala Dinas Peternakan Propinsi Daerah Tingkat I Jawa Barat
Penasehat	:	1. Kepala Biro Penyusunan Program, Sekwilda Tingkat I Jawa Barat 2. Kepala Bidang Ekonomi, Bappeda Tingkat I Jawa Barat
Ketua/merangkap anggota	:	Counterpart Leader
Sekretaris/Anggota		Kepala Seksi Tata Penyuluhan
Anggota	:	1. Kepala Sub Dinas Bina Penyuluhan 2. Kepala Sub Dinas Bina Produksi 3. Kepala Sub Dinas Bina Kesehatan Hewan 4. Kepala BPT-HMT Cikole 5. Kepala BPT-HMT Bunikasih

Ditetapkan di : Bandung
Pada Tanggal : Juli 1997

Kepala Dinas Peternakan Propinsi
Daerah Tingkat I Jawa Barat

Drh. H. Zulkifli Surahamdani
NIP. 480 025 257

PEMERINTAH PROPINSI DAERAH TINGKAT I JAWA BARAT
DINAS PETERNAKAN
JALAN IR. H. JUANDA NO. 358 TILP. 2501151 - BANDUNG 40135

SURAT KEPUTUSAN
KEPALA DINAS PETERNAKAN PROPINSI DAERAH TINGKAT I
JAWA BARAT

NO : 800 / SK.800/Kepeg/97

TENTANG

PENETAPAN COUNTERPART (PENDAMPING)
PADA PROYEK PENINGKATAN TEKNOLOGI SAPI PERAH
DI INDONESIA

KEPALA DINAS PETERNAKAN PROPINSI DAERAH TINGKAT I JAWA BARAT

MENIMBANG :

a. bahwa dalam "Minutes of Discussions" antara Pemerintah Indonesia c.q Direktorat Jenderal Peternakan dengan Pemerintah Jepang c.q Japan International Cooperation Agency (JICA) tanggal 9 September 1996 telah ditetapkan kerjasama teknis Proyek Peningkatan Teknologi Sapi Perah;

b. bahwa pelaksanaan kerjasama ini akan melibatkan para peternak sapi perah yang menjadi anggota koperasi/KUD sapi perah di Jawa Barat;

c. bahwa dalam rangka kelancaran dan koordinasi dengan pihak Jepang perlu ditetapkan Counterpart/Pendamping pada Proyek Peningkatan Teknologi Sapi Perah di Indonesia.

MENGINGAT :

a. Undang-undang No. 6 Tahun 1967 tentang Ketentuan-ketentuan Pokok Peternakan dan Kesehatan Hewan;
b. Undang-undang No. 5 Tahun 1974 tentang Pokok-pokok Pemerintahan di Daerah;
c. Peraturan Pemerintah No. 30 Tahun 1951 tentang Penyerahan Sebagian Urusan Pemerintahan Pusat dalam Lapangan Kehewanan kepada Propinsi Jawa Barat;

d. Peraturan Daerah Propinsi Jawa Barat No. 13 Tahun 1983 jo Peraturan Daerah No. 6 Tahun 1986 tentang Susunan Organisasi dan Tata Kerja Dinas Peternakan Propinsi Daerah Tingkat I Jawa Barat.

MEMPERHATIKAN : List of The Indonesian Counterpart and Administrative Personnel pada Dokumen Perjanjian Proyek Peningkatan Teknologi Sapi Perah di Indonesia.

MENETAPKAN : Counterpart/pendamping pada Proyek Peningkatan Teknologi Sapi Perah di Indonesia dengan nama-nama seperti tercantum dalam lampiran Surat Keputusan ini.

Pertama

Kedua Counterpart/pendamping mempunyai tugas :

a. Mendampingi setiap kegiatan Tim Expert JICA baik sebelum maupun selama kegiatan proyek.
b. Melaksanakan koordinasi dengan Instansi terkait dan pihak Koperasi/KUD sapi perah yang menjadi sasaran kegiatan proyek.
c. Melaksanakan monitoring dan evaluasi kegiatan pelaksanaan proyek dan melaporkannya kepada Kepala Dinas Peternakan Propinsi Daerah Tingkat I Jawa Barat.
d. Menerapkan teknologi di bidang sapi perah kepada peternak baik selama proyek berjalan maupun setelah proyek berakhir.

Ketiga : Dalam melaksanakan tugas, Counterpart/pendamping sebagai Tim Pelaksana Teknis bertanggung jawab kepada Kepala Dinas Peternakan Propinsi Dati I Jawa Barat.

Keempat : Untuk kelancaran pelaksanaan tugas baik secara teknis maupun administratif maka tugas Counterpart/ pendamping ditetapkan sesuai dengan fungsi dan kedudukannya sebagai berikut :

a. Counterpart/Pendamping yang **berkedudukan di Dinas Peternakan Propinsi** mendampingi kegiatan Expert di seluruh wilayah kegiatan sewaktu-waktu, memonitor, mengkoordinir, menganalisa, mengevaluasi dan melaporkan seluruh aktivitas di lapangan kepada Kepala Dinas Peternakan Propinsi Dati I Jawa Barat sesuai dengan bidangnya masing-masing.

b. Counterpart/Pendamping yang berkedudukan di Lokasi kegiatan, mendampingi kegiatan Expert setiap saat dan bertanggung-jawab secara penuh dibidang teknisnya masing-masing, mengevaluasi dan melaporkan seluruh aktivitas di lapangan ke Dinas Peternakan Propinsi.

Kelima : Segala biaya yang berhubungan dengan pelaksanaan tugas ini dibebankan kepada APBN dan anggaran lain yang ditetapkan sesuai peraturan yang berlaku.

Keenam : Surat Keputusan ini mulai berlaku pada tanggal ditetapkan.

Ketujuh : Apabila terdapat kekeliruan dalam Surat Keputusan ini, akan diadakan perbaikan sebagaimana mestinya.

Ditetapkan di : Bandung
Pada Tanggal : 7 Maret 1997

Kepala Dinas Peternakan Propinsi
Daerah Tingkat I Jawa Barat

Ir. H. Zulkifli Surahamdani
NIP. 480 025 257

Tembusan, disampaikan kepada Yth. :

1. Gubernur Kepala Daerah Tingkat I Jawa Barat.
2. Direktur Jenderal Peternakan di Jakarta.
3. Kepala Kanwil Departemen Pertanian Propinsi Jawa Barat
4. Team Leader Expert JICA
5. Yang bersangkutan.

Lampiran : Surat Keputusan Kepala Dinas Peternakan Propinsi Daerah Tingkat I Jawa Barat

Nomor : 800 / SK.800/Kepeg/97
Tanggal : 7 Maret 1997

Susunan Tim Counterpart/Pendamping Pada Proyek Peningkatan Teknologi Sapi Perah di Indonesia

URAIAN	DINAS PETERNAKAN PROPINSI DT I JAWA BARAT	MAIN SITE (BPT-HMT CIKOLE)	SUB SITE (BPT-HMT BUNIKASIH)
Project Administration (Administrasi Proyek)	Drh.H.ZulkifliSurahamdani	Ir. Hardjo Waluyono	Drh.H. Eko Suwarno
Feeding and Management of Dairy Cattle (Pakan dan Tatalaksana Sapi Perah)			
1.General Feeding and Management	Ir. R. Abdullah F. Alim	Abbas Nurdin, Spt	Ir. Andri Arfiana
2. Hygiene Control for Milking	Pepen Effendi BSc	Yadi Patyadi	Ir. Asep Ali Fuad
Reproduction Health Management (Tatalaksana Kesehatan Reproduksi)	Drh. Arif Hidayat	Wito Prawigit	Drh. H. Eko Suwarno
Forage Production and Utilization (Produksi Hijauan dan Pemanfaatannya)	Ir. Rukmantoro Salim	Ir. Hardjo Waluyono	Ir. Budi Irawan

Ditetapkan di : Bandung
Pada Tanggal : 7 Maret 1997

Kepala Dinas Peternakan Propinsi Daerah Tingkat I Jawa Barat

Drh. H. Zulkifli Surahamdani
NIP. 480 025 257

V. BUDGET FROM THE INDONESIAN GOVERNMENT

In 1996 Indonesian fiscal year, Indonesian Government provided Rp. 58.000.000 and in 1997 Indonesian fiscal year has provided of National Counter Budget Rp. 180.000.000.

The name of 1997 fiscal project is to developing of man powers, Livestock facility in West Java. Purpose of the project is to improve of quality and livestock business productivity through developing of human resources, purcuasing of livestock production fascilities and institution guidance.

Local budget of West Java provide Rp. 800.000.000 for construction of Daiy Training Center in Cikole.

VI

THE ANNUAL WORK PLAN FOR 1997 FISCAL YEAR

The Annual Work Plan for 1997 Fiscal Year DRAFT (1)

Items	4	5	6	7	8	9	10	11	12	1	2	3	Remark
1. Improvement of feeding and management of dairy cattle													
a) Survey and monitoring of dairy farming in Indonesia													
a-1)Survey on the present situation of dairy farming in West Java	———	———	———	———	———	———	———	———	———	———	———	———	
a-2)Survey on the present situation of dairy farming at pilot area							———	———	———	———	———	———	Follow-up surveys
c) Improvement of management technology													Cikole and Bunikasih Center
c-2) Recording of cow's conditions													
c-2-1) Recording format for individual animals		———	———	———	———	———	———	———	———	———	———	———	
c-2-2) Body measurement		———	———	———	———	———	———	———	———	———	———	———	
c-3) Recording of calve's condition													
c-3-1)Recording format for individual objects		———	———	———	———	———	———	———	———	———	———	———	
c-3-2)Management and measurement of raising cows		———	———	———	———	———	———	———	———	———	———	———	
c-3-3)Standard growing curve		———	———	———	———	———	———	———	———	———	———	———	
c-4) Nursing and weaning													
c-4-1)Shortening of weaning period							———	———	———	———	———	———	
c-4-2)Nursing by suitable calf hutch method									———	———	———	———	
c-5) General management													
c-5-1)Hoof trimming techniques									———	———	———	———	
c-5-2)Deborning techniques									———	———	———	———	
c-6) Improvement of cow shedes													
c-6-1)Improvement of existing facilities of cow shed at Cikole and Bunikasih Centre		———	———	———	———	———	———	———	———	———	———	———	

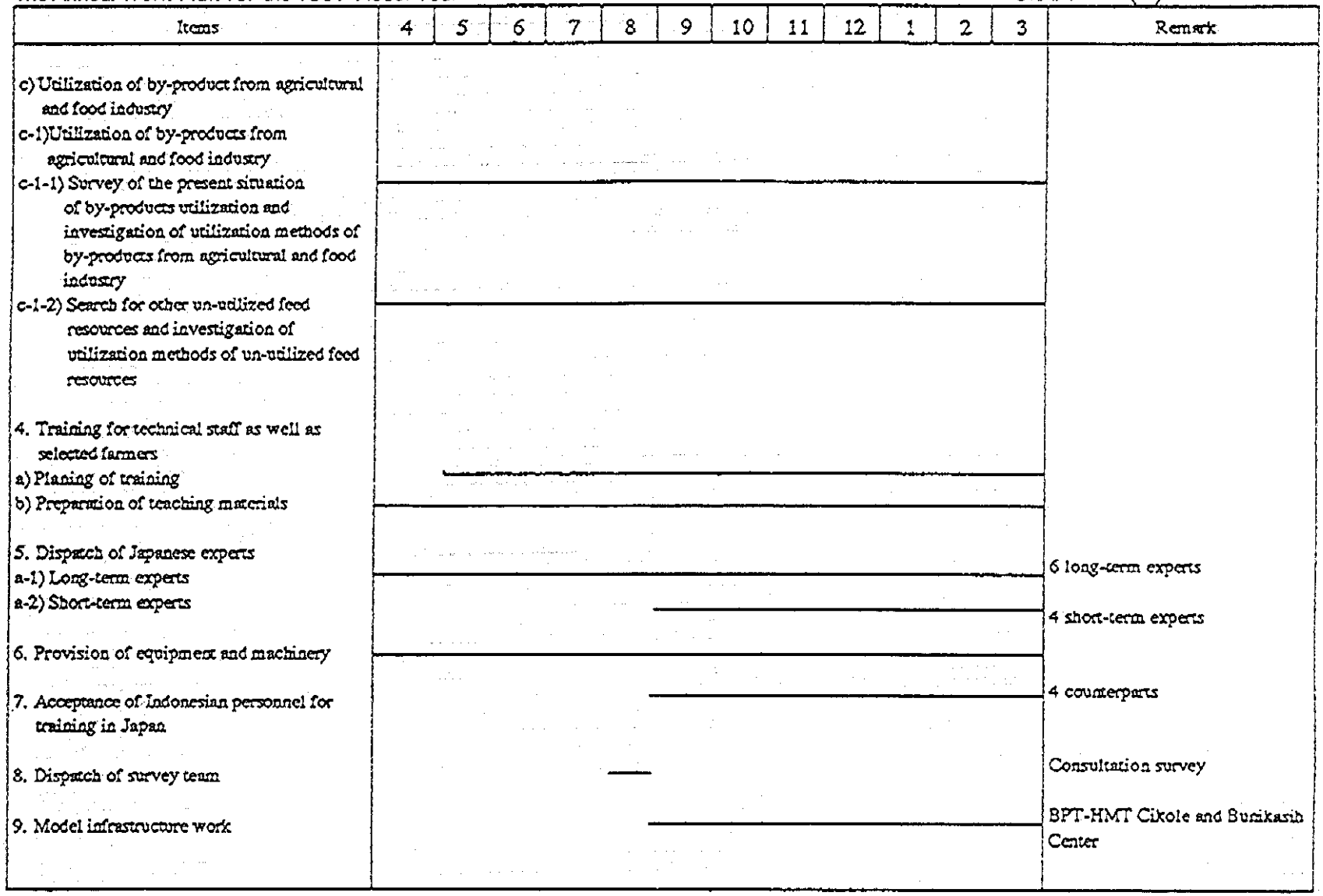
The Annual Work Plan for the 1997 Fiscal Year DRAFT (2)

Items	4	5	6	7	8	9	10	11	12	1	2	3	Remark
c) Hygiene control for milking													
c-1) Survey of local conditions	———	———	———	———	———	———	———	———	———	———	———	———	Follow-ups Survey
c-1-1) Survey on the present situation of dairy farmers and KUDs at pilot area	———	———	———	———	———	———	———	———	———	———	———	———	Including CM test
c-2) Milking techniques													
c-2-1) Improvement of milking method		———	———	———	———	———	———	———	———	———	———	———	Cikole and Bunikasih Center
c-2-2) Hygiene control of milking equipment		———	———	———	———	———	———	———	———	———	———	———	
c-3) Control techniques for milking													
c-3-1) Survey for the present situation of milk tests			———	———	———	———	———	———	———	———	———	———	
c-4) Prevention of Mastitis													
c-4-1) Techniques for CM test				———	———	———	———	———	———	———	———	———	
c-4-2) Treatment of Mastitis				———	———	———	———	———	———	———	———	———	
c-5) Recording of milk yield													
c-5-1) Improvement of recording form and method		———	———	———	———	———	———	———	———	———	———	———	
c-5-2) Data management by personal computer			———	———	———	———	———	———	———	———	———	———	
2. Improvement of reproductive health													
a) Survey and monitoring of reproductive health management													
a-1) survey of reproductive health management at BPT-HMT Cikole	———	———	———	———									
a-2) survey of reproductive health management at BPT-HMT Bunikasih			———	———	———	———	———						
a-3) Observation of main dairy areas and institutions concerned in West Java			———	———									
a-4) Survey of reproductive health management in the pilot area						———	———	———	———	———	———	———	

The Annual Work Plan for the 1997 Fiscal Year DRAFT (3)

Items	4	5	6	7	8	9	10	11	12	1	2	3	Remark
3. Improvement of forage production and utilization													
a) Survey of forage production and utilization													
a-1) Collection of research papers concerning recommended forage crops in Indonesia													
a-2) Analysis of the soil, climate data and herbage mass at BPT-HMT Cikole and Bunikasih													
a-3) Technical situation and basal forage field													
b) Improvement of forage production and utilization													
b-1) Grassland fertilization and manuring practice													
b-1-1) Improvement of grassland fertilization and manuring practice techniques													
b-2) Introduction of recommended forage crops													
b-1-2) Improvement of pasture productivity by culture of forage crop and forage tree legumes													
b-3) Ensiling													
b-3-1) Improvement of ensiling techniques													
b-4) Hay making													
b-4-1) Improvement of hay making techniques													
b-5) Operation and maintenance of farm machineries													

The Annual Work Plan for the 1997 Fiscal Year DRAFT (4)



The Annual Work Plan for the 1997 Fiscal Year DRAFT (5)

Items	4	5	6	7	8	9	10	11	12	1	2	3	Remark
9. Allocation of the counterpart personnel 1) Project Director 2) Project Manager 3) Co-Project Manager 4) Heads of production, Animal health, Extension Division of Provincial Livestock Services of West Java 5) Heads of Cikole and Bunikasih Dairy Centers 6) Technical staff for each experts of the following fields; a. General feeding and management b. Hygiene control for milking c. Reproductive health management e. Forage production and utilization 7) Administrative personnel													Cikole: 4C/P Bunikasih:4C/P Provincial Livestock Services : 4C/P
10. Provision of land, buildings and other facilities													Including building and facilities for training at Cikole
11. The supply or replacement of equipment, machinery, vehicles, instruments, tools and other materials other than those provided by the Government of Japan													
12. Necessary measures to meet all current expenses													

VII

QUARTERLY REPORTS COUNTERPARTS AND EXPERTS TEAM

I. INTRODUCTION

The Dairy Technology Improvement in Indonesia Project was implemented according to the Record of Discussions signed in Jakarta - Indonesia on September 10, 1996 by Ir. Erwin Soetirto as Director General Directorate General of Livestock Services (DGLS) and Mr. Yoshizo Takizawa, as Leader Implementation Study Team Japan International Coopertion Agency (JICA). The project is a five years project and it was started in March 1997.

The Dairy Technology Improvement Project is a realization on technical cooperation of dairy technology matter between Indonesian Government e.q. DGLS and Japanese Government e.q. JICA as means to improve of dairy technology at farmer levels, by enhancing the capability of the technical staff engaged in the extension work for dairy technology improvement.

A moment ago of JICA Expert Teams were coming here on March 1997 till now, a series of monthy meeting has been carried out for four times. DGLS, West Java Province Livestock Services, Expert Teams and Counterparts were joint as implementation of a tentative working plan for the coming 6 months were formulated.

The first year of technical cooperation has carried out of the Survey and monitoring activities, as a moment to construct of activity models it was wished available to involve final target of the project that is The Dairy Technology Improvement at Farmer Levels.

For implementating of the project activity smoothly, initial stage of the survey and monitorng activities in main site, sub site and some area of a Dairy Cattle in West Java have been carried out.

a. Survey and monitoring on feeding and management of dairy cattle in BPT-HMT Cikole, BPT-HMT Bunikasih and 5 (Five) District in West Java Province were survey of conventional feeding system, conventional lactating and rearing management, dairy productivity, quality and quantity of feed materials and consentrates, barn facility, machinary and equipment and manure treatment;
b. Survey on Milking Hygiene Control, were survey of dairy farming condition and milk collecting at KUD including milk production, milk treatment and mastitis;

c. Survey and monitoring on Reproductive Health of dairy cattle, including information of reproductive recording system, the first AI, calving interval, reproductive dishorder, technique of heat detection, AI service, others useful information abouth reproductive condition:

d. Survey on Forage production and utilization were acumulation of data informtion including forage culture in Indonesia be recomended, soil analyse, data of agroclimate and group legium in West Java, technical situation and main field grass.

e. Formulation of Extension and trainning method as well as instuctures, technical staffs at district, sub district/KUD or trainning programe at farmers level.

II. SURVEY AND MONITORING

1. Survey and Monitoring at Main Site and Sub Site

a. Feeding and Management

At the beginning of the project, there were 55 cows in BPT-HMT Cikole and 56 cows in BPT-HMT Bunikasih kept in conventional barns. Averages of milk production at both of them were 9,5 kg/cow/day. There were fed with concentrate and elephant grass/king grass, sometimes tested for blood parasite, conventional milk recording and the dairy cattle were never weighed and measured. Feed formulation was supplied from factory but feeding system did not based on the standard of feeding. At the dry season was almost has water consumetion and forages supllay problems. Milking cows in ones period lactation have had not to get ideal curve yet and there were anstable peak productions.
Calves and growing cows were almost below of standard, there were not body condition scoring.

Problem and Discussion

At the beginning of the project, feeding for each stage lactation cows are similar because feeding system did not based on the standard of feeding, so there were never get ideal peak production in lactation. To estimated body weight of dairy cattle acurately is rather difficult it is effected to be feeding of concentrate and grass were rough estimated only.

Genetly, calves rering did not perform the recording system, as the result there were some difficulties to know of birth weight and the latter growth parameters such as body measurement and growth abiity of the calves.

The time needed for weaning period is still various, so it is not planning of milk production efficiently and efectively. Effect of it, growing of the ruinent capacity is not optimal.

According to calves rearing management problem, raising of heifers after weaning is reduced and the calf temporarily los its body weight, because stress by feeding adaptation. Eventually, the body weight on 15 months old (ideal on the first AI) and 24 months of old age less then suggested body weight are 285 Kg and 450 Kg respectivelly.

Recomendation

1) Improvement of feeding management

(2) Establishment of the basic feeding system using availabel feed materials based on feeding standard to acquire of feeding by designing technique based on the feeding standard.

(3) In order to acquire of year round feeding constantely, the technique to supply feeds to maintenant of feed throughout the year using high quality of storage feeds.

(4) Improvement of the feeding system adapted to the milk lactation stages of milking cow including the dry period to acquire of the technique to raise the milking cows.

(5) In order to acquire of technique for suitable feeding, planning of the theoritical feeding system for efficient feeding using personal computer will be established.

(6) In order to improve of feeding system adapted to the growing stages of cows and calves, the technique to rear the calves will be established.

7) Improvement of general management

(8) In order to establish both of BPT-HMT Cikole and Bunikasih that function as the demonstrative dairy farm, the demonstation of improved techniques in both of center mush be programed.

(9) Establishment of the proper management system of raising cow by adopting of the technique to record the milking cows condition properly.

(10)Establishment of the recording system on the health and growing condition of calves and introduction of calf-hatch system and improvement of the existing facilities, therefore healthy calves can be grown in the improved facilities.

(11)In order to establishment of the suitable management system to nurse and wean calves at an early stage, the technique of nursing an wean calves mush be established in a suitable way.

(12)The management work for milking cows is to be carried out efficiently in the improved facilities, so demonstration the improved facilities using new cow sheds and facilities, and improvement of the present facilities mush be established.

b. Milking hygiene control.

The milking method on centers are not carried out according to established procedure. The worker use two fingers and pulled the teats, so the teats become long and diseases susceptible.

The housing system is uncorrectly built (used as the shelter ony), ventilation, and distribution of the sunlight are not optimized yet. The floor is always wet and the manger is very simple.

The worker's view of point, cleanliness of milking equipments is not a function as necessity. It results the low quality of milk decreasing larg enough.

Traditionally most of the worker in the centers milking mall amount (4 to 10 kg a day) during the first week after parturation. So by stopping to milk in middle of milking and leaving the milk inside the udders, the milk production is not optimize.

Problem and Discussion

The puling down teat method by two finger for miking makes udders as well as teat orifice become longer and also causes mastitis. It also causes udder swart.

By stopping to milk in the middle of milking and leaving the milk inside the udders, cows become mastitis and this way one of the biggest causes for not being able to have high milk production.

Recomendation

(1) In order to improve of milking procedure and method, sanitary management of milking equipment and introducing the standard of milking equipment, acquirement of proper milking technique and to maintain the milking equipment sanitary mush be established.

(2) Acquirement of milk analysis technique and to handle the sanitary milk storage, so the milk analysis technique and storage method after milking wil be established.

(3) In order to improve of method for mastitis test and improvement of method for mastitis prevention and treatment, can be acquired by adopting of prevention and treatment technique of mastitis.

(4) Improvement of recording form, method an improvement of herd management method based on milk record by personnel computer will improve farm management efectively and efficientely.

c. Forage Production and Utilization.

At the beginning of the project, there were 4 ha and 11 ha of the grass production field in the BPT-HMT Cikole and the BPT-HMT Bunikasih respectivelly. Main forages that suitable for dairy consumtion are Naiper Grass and King Grass and small of them subtituted by field grass and legium. The grass production field has constructed by a farming conventional (worker). It has slope of 10 to 40 degrees toward east.

Total forage production at both stasion are 1.101,205 tons (in BPT-HMT Cikole) and 945.050 tons (in BPT-HMT Bunikasih). So, the productivity of forage areas in BPT-HMT is not maximize yet (about 40%-50% effective land area.

Problem and Discussion

Up to now, roughage supply during the dry seasons still biggest problem in both of statsion, also water capacity is not enaugh. To Improve of forage production, land area management has to carry out intensivelly by pasture fertilization and manuring practice, introduction of recommended forage crop, ensiling, hay making and forage analysis.

The problem of roughage supply during the dry seasons will be much more improve by introducing the farming machinary, by improving the feeding grass field and by the better manure management. However, the difficulty of hay production in Indonesia is that when the production of the grass is high during the rainy seasons but the grass does not get dry during the seasons and it is difficult to produce the high quality hay. During the dry sesons, on the other hand, it is easy for the grass to get dry but the production of the grass is low. Thus, we plan to introduce the silage because by using silage system the supply of hay feeding is not influenced by the weather. Balancing with the nutrition of fresh grass, we decided to make demonstration use king grass and corn silage.

d. Reproductive Health Management

Basically reproductivity of a cow is closely related to its general health condition. And this health condition is greatly affected by worker technique in feeding and management. Some surveys showd that much sterility seemed to be caused by low nutrition. For improvement of animal reproduction, workers/farmers techniques in feeding and management must be immedietely.

Problems and Discussions

The object of technical guidance and the demonstration of technique in both of station to C/P has been implemented stap by stap, but he situation of reproduction of cow in station must be improved further by improvement of technology for diagnosis and treatment of reproductive disorders and imrpovement of technology for prevention of perinatal accident. Because some of dairy cattle in BPT-HMT has detected have long day open.

Recomendation

1) Inorder to improve of technology for diagnosis and treatment of reproductive disorders, the technology for diagnosis such as utilization of case history and record, body condition scoring, rectal palpation, culture of uterine content, diagnosis by ultra sonic wave and introduce of floresence Mycroscoope must be establihed.

2) Technology for treatment with hormonal product, uterine irrigation and infusion of antibiotic has to be improved, to get result of dairy healthely.

3) To get technology for prevention of reproductive disorder, C/P will be adopted study for prevention technic of reproductive disorder.

4) In order to improve of technology for prevention of perinatal accident, such as reproductive health management during perinatal period and treatment of perinatal accident and diseases must be established.

2. Field Survey and Monitoring

In the early period of the project, Bandung, Garut, Cianjur, Sukabumi and Sumedang Districts were the focus areas where we researched on and give guidance in the area of selected areas. This is because these districts were initially designed area for the extension of the dairy technology improvement programme.

In West Java, dairy farmers are still in the beginning stage in their development, most of them have small scale business. It was a wuite challenge for us to help them improve their general management of dairy cattle, because most of the dairy farmers are not familiar with the feeding management, reproductive management, milking hygiene management and they don't own land to grow roughages feed.

Concerning of the dairy farming, Indonesian political structure consists of Province (Propinsi), Districts (Kabupaten-kabupaten), Sub-districts/prefectures (Kecmatan), Co-operative (KUD), Villages, Farmers. Farmer's co-operative consists of several su-group (kelompok). In some areas, co-operative has project of producing an distributing the formula feed to the farmers. The co-operative uses the sub-group leaders front yard for this distribution.

In Indonesia, there are a few farms (dairy farming) that exceed the numbers of the cows they manage more than 100 cows. However, the big private farm usually carries only 30 cows, and the majority of the farm has three to four. Field surveyed areas located in the high elevation area, generally farms have small land (less than 0,5 ha) to farm and they supplement the roughage feed with Napier Grass (Elephant Grass) or King Grass on the side of the streets, vegetable waste, stems of corn, and field grass. In the dry season, dairy cattle got high stress from the high temperatur and dificulties got watter supply. They feed old Napier grass or King

grass, field grass, rice straw and others. Formula feed is sold through the cooperative but there are many farms which prefer to use the cheaper rice bran.

The barn is usually located in the back of the residential house and its walls are very tall for, they say, theft proof and the protection against cold. Its ceiling is very low, and inside the barn is usually dark. It also has had air circulation. The floor is made by boards or concrete but it is quite slippery because of constant washing and thus cows are kept in unstable conditions. The back of the barn is too narrow to do artificial insemination or diagnosis pregnancy.

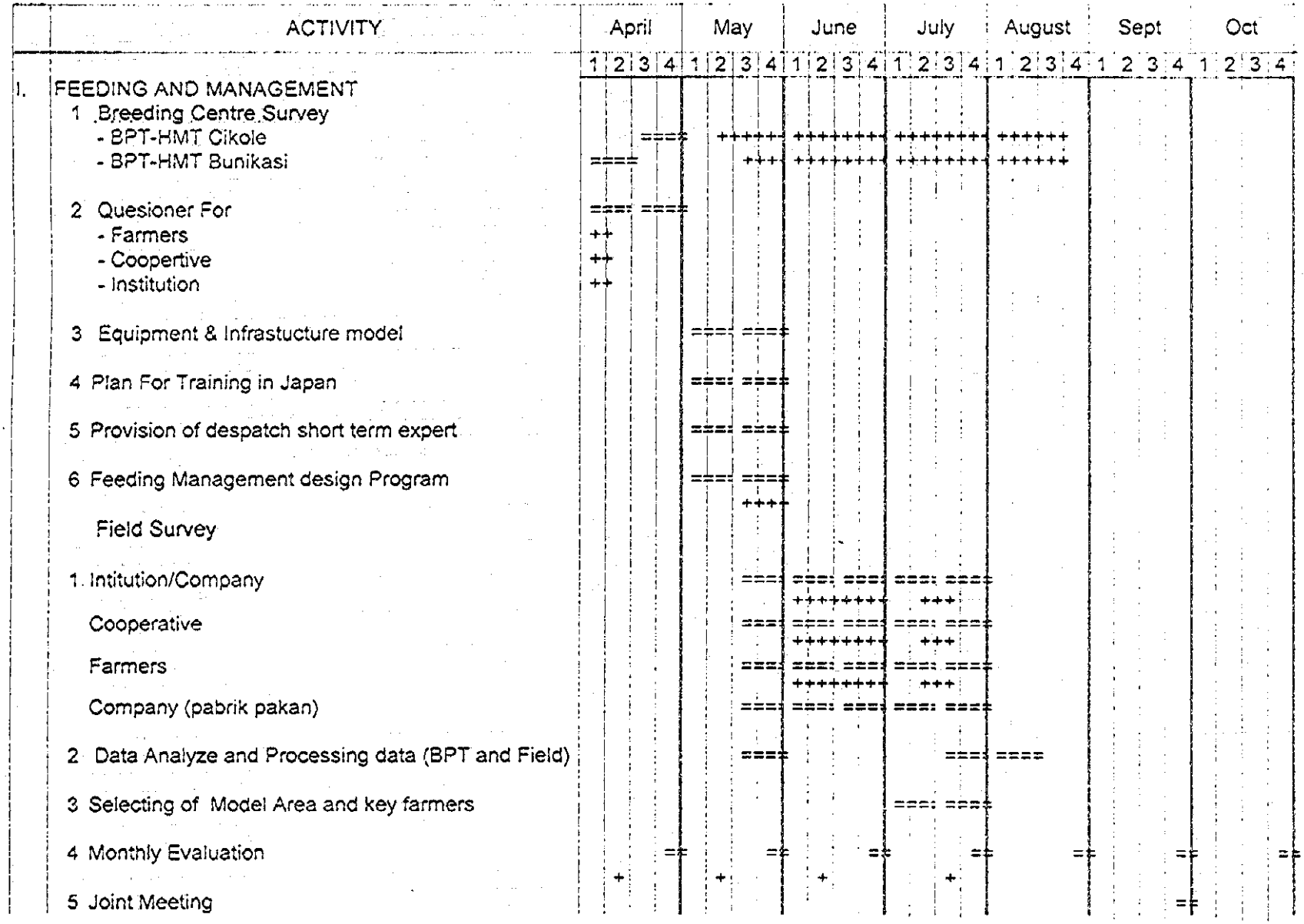
According to the report weight and chest girth show almost the similar growth curve for the first 4 to 6 months as the standar. Homever, the growth for 6 month to 12 month shows only 0,3 kg for the daily gain and 0,4 kg for the 12 month to 16 month. Also, wither height and other bone structure shows the slowness in growth after 12 month. In a common farm in Indonesia, sucking has done up to 3 t 4 month and during that time they do not feed pellet to their calf. Because of that, the rumen does not develop enaugh to go into weaning. Thus the change of the feed has caused the problem. In some area, they use the starter feed but it is a small number and most of the farms use rice bran or other formula feed.

Milking cows are kept in tie system in the tie stall. There are very few farms that use paddocks and they usually keep the cows in the barn after the birth until it is culled. Hoofs are usually kept long. They never use bedding so many of the cows have problems in the feet joints. Milking time is influenced by the time when milk collectors come and most of the time they milk at 3 to 4 AM and 1 to 3 PM. Before milking they wash cow floor as well as the body and the cows are always kept in the wet place. The method of milking is manual but they do not milk in the right way so the udders are bothered. Then they had to use Vaseline and it fell into the vicious cycle. Udders are not wiped off after the wash and dipping had never been done at all.

Basically reproductivity of a cow is closly related to its general health condition. And this health condition is greatly affected by farmers technique in feeding and management. For improvement of animal reproduction, farmers techniques in feeding and management must be immediately.

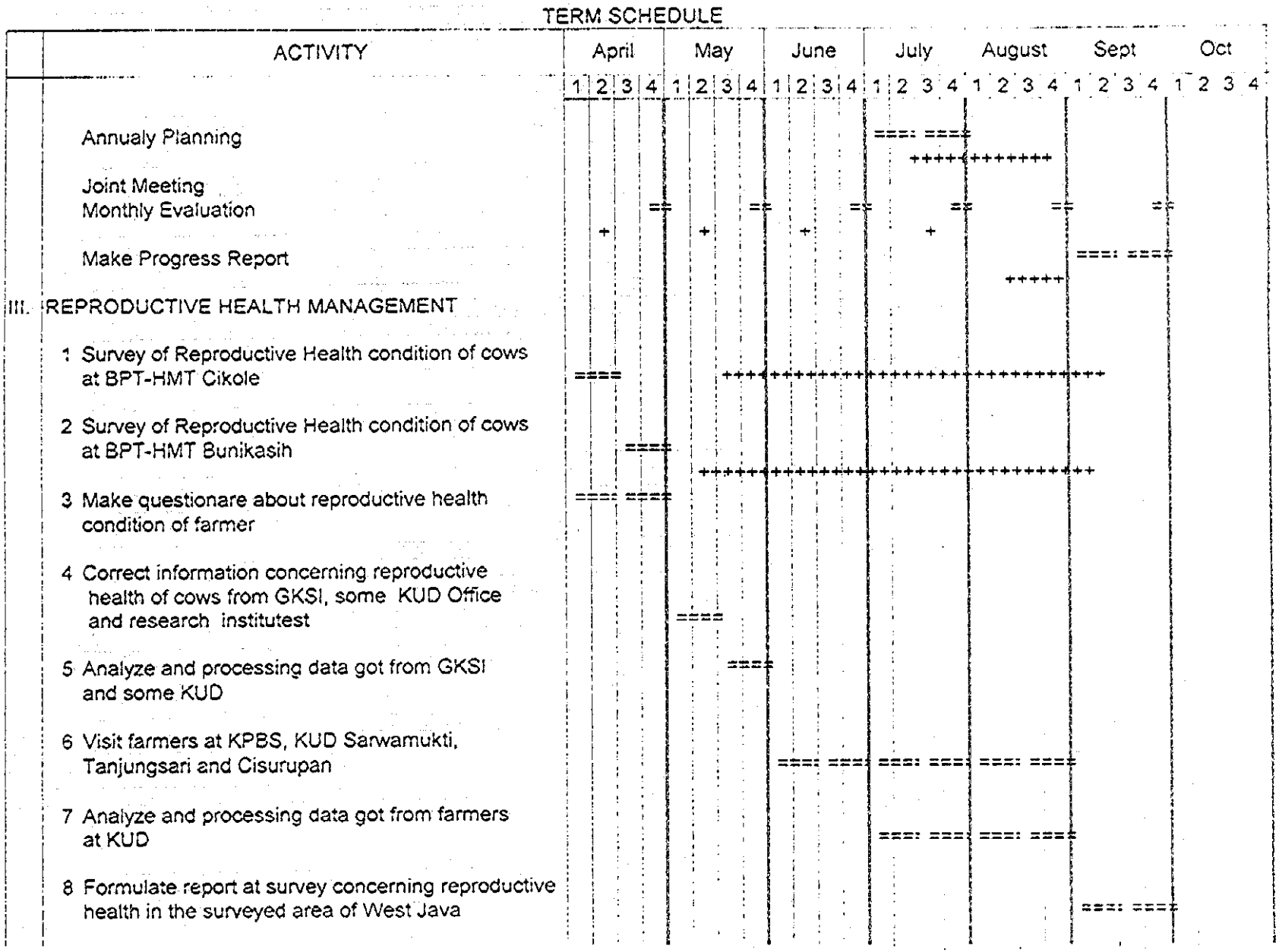
Reproduction condition, such as the interval of parturation and empty period after parturation are still problems. Averages empty period abouth 150 days and interval parturation about 400 days.

TERM SCHEDULE



TERM SCHEDULE

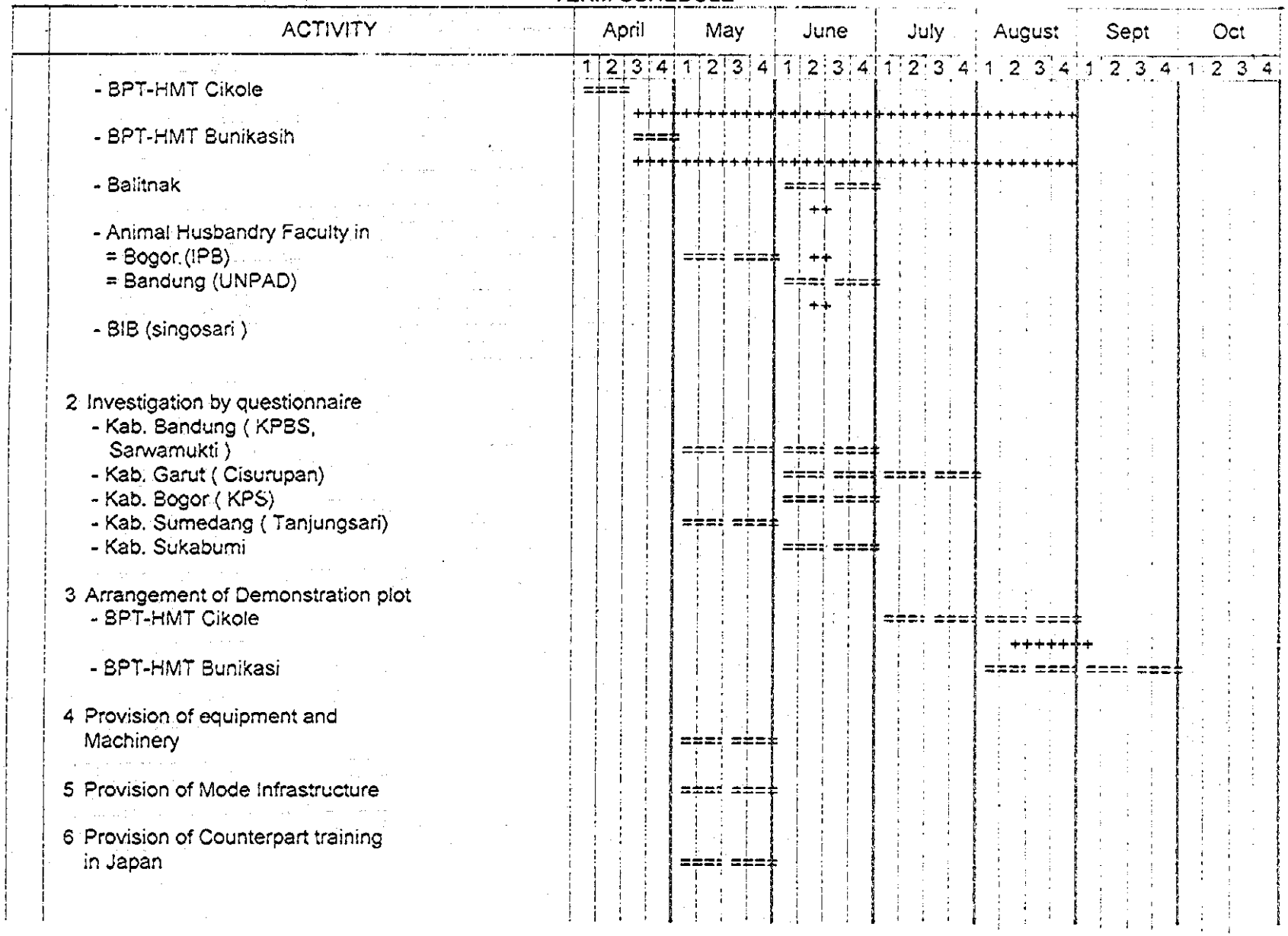
	ACTIVITY	April				May				June				July				August				Sept				Oct			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	6 Annualy Plan													====	====			++++++											
	7 Formulate Tentative Detailed Implementation Plan													++++++++				====	====										
																		++++++											
	8 Progress Report																					====	====						
																		+++++											
II.	MILK HYGIENE CONTROL																												
	1 Survey to :																												
	- Cikole			====		++++++				++++++++				++++++++				++++++++											
	- Bunikasih	====				++++++				++++++++				++++++++				++++++++											
	To Make questioner :	====	====																										
	- Farmers	++																											
	- Cooperative	++																											
	- livestock services district	++																											
	Monitoring of Infrastructure					====	====																						
	Milk Hygiene Equipment									====																			
	Plan for Trainnig in Japan					====																							
	Milk Hygiene Design													====	====														
	2 Field Survey																												
	- Livestock Services Districk					====	====			+++++++				++		+++													
	- Cooperative					====	====			+++++++				++		+++													
	- Farmers					====	====																						
	- Company					====	====																						
	Analyze and processing data											+++						====	====										
	To Make Tentative Detail Implemen tation Project													====	====														


TERM SCHEDULE
ACTIVITY
April
May
June
July
August
Sept
Oct
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4
Annualy Planning
Joint Meeting
Monthly Evaluation
Make Progress Report
III. REPRODUCTIVE HEALTH MANAGEMENT
1 Survey of Reproductive Health condition of cows at BPT-HMT Cikole
2 Survey of Reproductive Health condition of cows at BPT-HMT Bunikasih
3 Make questionare about reproductive health condition of farmer
4 Correct information concerning reproductive health of cows from GKSI, some KUD Office and research institutest
5 Analyze and processing data got from GKSI and some KUD
6 Visit farmers at KPBS, KUD Sarwamukti, Tanjungsari and Cisurupan
7 Analyze and processing data got from farmers at KUD
8 Formulate report at survey concerning reproductive health in the surveyed area of West Java

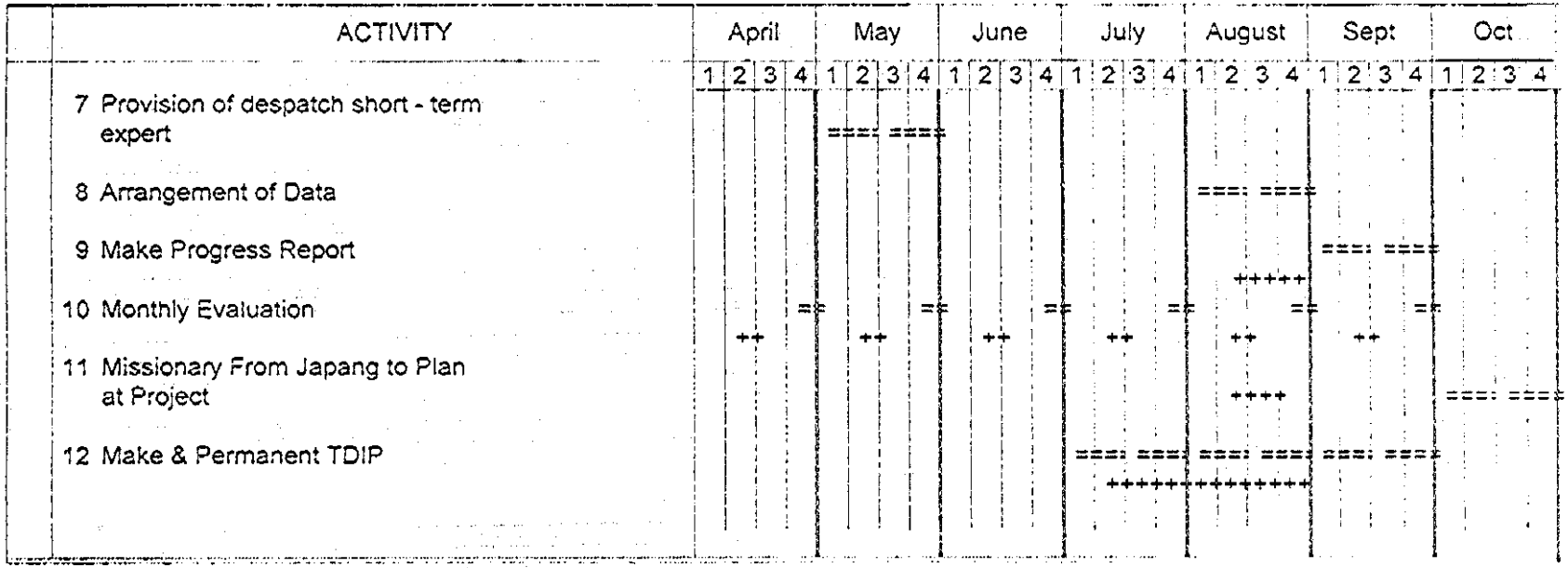
TERM SCHEDULE

	ACTIVITY	April				May				June				July				August				Sept				Oct			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	9 Selection of Pilot Area and Pilot Farm																												
	10 Formulate TDIP																												
	11 Transfer of technique to C/P																												
	12 Prepartion of the following requests to the Japan Goverment																												
	1. Plan of physical model infrastructure																												
	2. Determine the special field and the arrivel time of short term expert for the badget year 1998																												
	3. Determine the name of C/P and the content of study in Japan for the badget year 1998																												
	4. Preparation of the list of machineries and equipment which will be donated from Japanese Goverment																												
	13 Monthly evaluation (joint meeting)																												
	14 Progress repport																												
IV.	FORAGES PRODUCTION																												
	1 Inspection																												
	- Farmer																												
	= KPBS Bandung																												
	= Kab. Garut																												
	= Kab. Sumedang																												
	= Kab. Sukabumi																												
	= Kab. Bogor																												
	= Kab. Kuningan																												
	- Company																												
	= Taurus (Kab. Sukabumi)																												
	= BPT-HMT Baturraden																												

TERM SCHEDULE



TERM SCHEDULE



========= Tentative
+++++++++ Realization

VIII

PROGRESS REPORT FOR THE YEAR 1997(MARCH - JULY 1997)BY JAPANESE EXPERTS TEAM

Progress Report for the year 1997(Mar. - Jul.1997) by Japanese Experts Team
on the activities of the Dairy Technology Improvement Project
in Indonesia

1.Outline of the Project

The Dairy Technology Improvement Project was started in March 1997 with the aim to improve dairy technology, at the farmers' level, by enhancing the capability of the technical staff engaged in the extension works for dairy technology improvement. The project activities consist mainly of improving conventional dairy farming technology and improved technology training at main site BPT-HMT Cikole and sub-site BPT-HMT Bunikasih, through Provincial Livestock Services of West Jawa.

Since the project was started, a series of meetings and discussions have been held between the Indonesian and Japanese staff. The organization of the Project, and a tentative working plan for the coming 6 months, were formulated. In accordance with the working plan, both sides prepared the draft of the Tentative Detailed Implementation Plan (T.D.I.P.) for the next 5 years, and The Annual Work Plan for the 1997 Fiscal Year. Regarding the project activities, the survey and monitoring have been emphasized at initial stage, to make clear the present situation on each subjects of dairy farming in the areas concerned. In addition, some other activities of the improvement of dairy technology have also been started. Full scale activities are expected to commence on and after the second year of the Project.

2. Administration System

This Project is an attempt at integrated activities of dairy farming development. The Project will be administrated by following Directors and head;

(a) Director General, Directorate General of Livestock Services (DGLS), Ministry of Agriculture will take the position of the Project Director. He/She will bear overall responsibility for the administration.
and implementation of the Project.
(b) Director, Directorate of Livestock production, DGLS, Ministry of Agriculture will take the position of the Project Manager. He/She will be responsible for the administrative, managerial and technical matters of the Project.
(c) Head of Provincial Livestock Services of West Java will take the position of the Co-project Manager. HE/She will be responsible for the coordination of the implementation of the project.

3. Plan of Operation

In order to carry out the Project activities smoothly, three counterpart meeting have been organized by the Indonesian and Japanese staff.

(1) Quarterly Meeting, chaired by the Project Manager
To discuss the administrative, managerial and technical matters.
To discuss the progress of the Project activities.
(2) Monthly Meeting, chaired by the Co-Project Manger
To coordinate the Project implementation.
To discuss the progress of the Project activities.
(3) Working Group, chaired by the Counterpart Leader
To discuss the practical handling of the Project .

4.The assignment of the experts

In the 1997 fiscal year, a total of six long term experts have been assigned to the Project. Additionally, four short term experts are expected to be assigned to the Project. For details see attached table .

5. Provision of Machinery and Equipment

Machinery and equipment equivalent to about 24 million yen, were provided in the 1996 fiscal year. Other equipment and materials, brought by experts was equivalent to 6.5 million yen.

Additionally, about 48 million yen worth of machinery and equipment will be provided in the 1997 fiscal year.

Further more, the budget for model infrastructure work will be applied in the 1997 fiscal year.

6. Counterpart study in Japan

Two counterparts were accepted, for a study tour in Japan, in the 1996 fiscal year.

For the 1997 fiscal year, JICA will accept four counterparts to study in Japan. See attached list .

List of Japanese Experts Assigned to the Project

Table-1-1

EXPERTS	1st Year(Mar.1997 -)	2nd Year(Mar.1998 -)	3rd Year(Mar.1999 -)	4th Year(Mar.2000-)	5th Year(Mar.2001 -)
1.Long-term Experts Team Leader Dr.Ken Nakabayashi Mar.3,1997-Mar.2,1999					
Coordinator Mr.Yoshihiro Shimizu Mar.3,1997-Mar.2,1999					
General Feeding and Management Mr.Toshiaki Hidaka Mar.3,1997-Mar.2,1999					
Hygiene Control for Milking Mr.Tsugio Koseki Mar.3,1997-Mar.2,1999					

List of Japanese Experts Assigned to the Project

Table-1-2

EXPERTS	1st Year(Mar.1997 -)	2nd Year(Mar.1998 -)	3rd Year(Mar.1999 -)	4th Year(Mar.2000-)	5th Year(Mar.2001 -)
Reproductive Health Management Dr.Kazuhisa Hosokawa Mar.3,1997-Mar.2,1999	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX			
Forage Production and Utilization Mr.Masayosi Nakatani Mar.3,1997-Mar.2,1999	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX			
2.Short-term Experts 1997 Fiscal year (Planned) General Feeding and Management					
Hygiene Control for Milking					
Reproductive Health Management					
Forage Production and Utilization					

List of Counterparts study in Japanese

Table-2

Counterparts	1st Year(Mar.1997 -)	2nd Year(Mar.1998 -)	3rd Year(Mar.1999 -)	4th Year(Mar.2000-)	5th Year(Mar.2001 -)
1996 Fiscal year Observation Study 1.Dr.Endang Suharya Feb.25 - Mar.14,1997 2.Dr.Zulkifli Surahamdani Feb.25 - Mar.14,1997 1997 Fiscal year Nominated *Milk Hygine Mr.Yadi Patyadi *Feeding and Management Ir.Abbas Nurdin *Reproductive Health Drh.Arif Hidayat *Forage Production Ir.Hardjowalujono	※ ※				

ANNEX III-1 . The Tentative Detailed Implementation Plan (1)

Items	Project Activities	Outputs (Goal of Activities)
1. Improvement of feeding and management of dairy cattle a) Survey and Monitoring of dairy farming in Indonesia	Survey on the present situation of the dairy farming concerning the following matters: : Conventional feeding system : Conventional management of milking cows and calves : Productive abilities of milking cows : Qualities and quantities of feed materials and concentration : Barn, facilities and equipment : Manure treatment	: The general situation of dairy farming in Indonesia and the main problems which should be improved for dairy farming development are to be clarified.
b) Improvement of feeding management b-1) Feeding system based on the standard of feeding	: Analysis of available feed material : Publication of manual for feed formulation by personal computer.	: Acquirement of feeding designing techniques based on the feeding standard.
b-2) Year-round feeding	: Constant maintenance of feeds throughout the year using storage feeds.	: Acquirement of the technique to supply feeds by the planned year-round feeding system.
b-3) Feeding technology of milking cows	: Improvement of the feeding system for the milk lactation stages of milking cow including the dry period.	: Acquirement of the techniques to raise the milking cows.
b-4) Feeding technology of growing cows and calves	: Improvement of feeding system for the growing stages of cows and calves.	: Acquirement of the techniques to rear the calves.
c) Improvement of general management c-1) Demonstration of improved technique	: Demonstration of improved techniques in BUT-HMT Cikole and BUT-HMT Bunikasih.	: Cikole and Bunikasih Center can function as the demonstrative dairy farm.
c-2) Recording of cow's conditions	: Improvement of the management system of raising cow by recording each cow's condition.	: Acquirement of the technique to record the milking cows conditions properly and use them for improving management.
c-3) Recording of calve's condition	: Improvement of the recording system on the health and growing condition of calves.	: Acquirement of the technique to record the calve's conditions properly.
c-4) Nursing and weaning	: Introduction of calf-hatch system and improvement of the existing facilities. : Improvement of the management system to nurse and wean calves at an early stage.	: Healthy calves can be grown in the improved facilities. : Acquirement of the technique to nurse and wean calves in a suitable way.

The Tentative Detailed Implementation Plan (2)

Items	Project Activities	Output(Goal of Achievement)
c-5) General management	: Improvement of the general management system including hoot trimming, dehorning and etc. of calves.	: Acquirement of general management skills
c-6) Improvement of cow sheds and facilities for farmers	: Demonstrating the improved facilities using new cow sheds and facilities, and improvement of the present facilities. : Demonstrating the manure treatment using new manure facilities, and improvement of the present manure treatment.	: The management work for milking cows is to be carried out efficiently in the improved facilities. : The manure treatment is to be carried out efficiently in the improved facilities.
d) Hygiene control for milking d-1) Survey of local condition	Survey on present situation at dairy farmers and milk collecting points(KUD) concerning the following matters: ・Milk yield ・Handling of fresh milk ・Mastitis	: The general condition of hygiene control of milking and the main problems are to be clarified.
d-2) Milking techniques	: Improvement of milking procedure and method : Sanitary management of milking equipment : Introducing the standard of milking equipment	: Acquirement of proper milking techniques : Acquirement of the technique to maintain the milking equipment sanitarily
d-3) Control technique for milk quality	: Improvement of milk analysis techniques	: Acquirement of milk analysis techniques.
	: Improvement of storage method after milking	: Acquirement of technique to handle the sanitary milk storage.
d-4) Prevention of Mastitis	: Improvement of method for Mastitis test	: Acquirement of Mastitis test techniques.
	: Improvement of method for Mastitis prevention and treatment	: Acquirement of prevention and treatment techniques of Mastitis.
d-5) Recording of milk yield	: Improvement of recording form and method	: Acquirement of milk recording technique.
	: Improvement of herd management method based on milk record by personnel computer	: Acquirement of technique to apply the milk record for improving the herd management.

The Tentative Detailed Implementation Plan (3)

Items	Project Activities	Outputs(Goal of Achievement)
2. Improvement of reproductive health management		
a) Survey and monitoring of reproductive health of dairy cattle	Survey and monitoring of the following items	Grasp the following situation at BPT-HMT Cikole, BPT-HMT Bunikasih and selected KUD
	: Recording situation on the reproductive information	: Recording situation on the reproductive information
	: Age of the first insemination	: Age of the first insemination of heifers
	: Calving interval	: Calving interval, days from parturition to insemination and No. of insemination for conception
	: Reproductive disorder	: Reproductive disorder
	: Technique of the detecting heat	: Technic of the detecting heat
	: Situation of AI service	: Situation of AI service
	: Other useful information on reproduction	: Other useful information on reproduction
b) Improvement of reproductive management		
b-1) Recording of reproductive management	: Improvement of reproductive management recording	: Master reproductive management recording
b-2) AI and pregnancy test techniques	: Improvement of AI and pregnancy test techniques	: Master AI and pregnancy test techniques
b-3) Appropriate age of heifers and days after parturition for insemination	: Guidance of appropriate age of heifers and days after parturition for insemination	: Guidance of appropriate age of heifers and days after parturition for insemination
b-4) Technology for prevention of reproductive disorder	: Study for prevention techniques of reproductive disorder	: Master prevention techniques of reproductive disorder
c) Improvement of technology for diagnosis and treatment of reproductive disorders		
c-1) Technology for diagnosis		
・Utilization of case history and record	・Improvement of utilization of case history and record	: Master how to utilize case history and record
・Body condition scoring	・Improvement of Body condition scoring techniques	: Master Body condition scoring techniques
・Rectal palpation	・Improvement of rectal palpation techniques	: Master rectal palpation techniques
c-2) Technology for treatment		
・Treatment with hormonal product	・Improvement of treatment techniques with hormonal product	: Master treatment technic with hormonal product
・Uterine irrigation and infusion of antibiotic etc.	・Improvement of techniques on uterine irrigation and infusion of antibiotic etc.	: Master techniques on uterine irrigation and infusion of antibiotic etc.
d) Improvement of technology for prevention of perinatal accident		
d-1) Reproductive health management during perinatal period	: Improvement of reproductive health management during perinatal period	: Master reproductive health management during perinatal period
d-2) Treatment of perinatal accident and diseases	: Improvement of treatment techniques of perinatal accident and diseases	: Master treatment techniques of perinatal accident and diseases

The Tentative Detailed Implementation Plan

Items	Project Activities	Out put(Goal of Achievement)
3. Forage production and utilization		
a) Survey of forage production and utilization	Survey on the present situation of forage production and utilization concerning the following matters: : Collection of research papers concerning about recommended forage crops in Indonesia : Analysis of the soil, climate data and herbage mass at the Project site : Technical situation and basal forage field	: The general situation of forage production and utilization and the main problems are to be clarified at the Project sites and daicy farmers
b) Improvement of forage production and utilization		
b-1) Grassland fertilization and manuring practice	: Improvement of grassland fertilization and manuring practice techniques	: Acquirement of grassland fertilization and manuring practice techniques
b-2) Introduction of recommended forage crops	: Improvement of grassland productivity by culture of forage crop and forage tree legumes	: Acquirement of techniques for the practical grassland management
b-3) Ensiling	: Improvement of ensiling techniques	: Acquirement of the ensiling techniques
b-4) Hay making	: Improvement of hay making techniques	: Acquirement of the hay making techniques
c) Utilization of by-products from agriculture and food industry	: Survey on the present situation of by-products utilization and investigation of utilization methods of by-products from agriculture and food industry	
c-1) Utilization of by-products from agriculture and food industry	: Search for the other un-utilized feed resources and investigation of utilization methods of un-utilized feed resources	: Establishment of the utilization methods of local by-products and un-utilized feed resources after evaluation of feeding value

The Tentative Detailed Implementation Plan (5)

Items	Project Activities	Out put(Goal of Achievement)
4. Training for technical staffs as well as selected farmers		
a) Planing of training	: Planing of training courses (target group, number of participant, courses curriculum and etc.)	
b) Preparation of teaching materials	: Publication of manuals and other teaching material	: Teaching material are to be published
c) Implementation of training		
c-1) Training for instructors	: Training on dairy technology, extension method and dairy farming development to instructors of District Livestock Services	: Effective and substantial implementation of training
c-2) Training for technical staffs in sub-district	: Training on dairy technology at practical level for extension work to technical staff of Sub-district Livestock Services and KUD	
c-3) Training for farmers	: Training on basic knowledge and techniques of dairy farming : Follow-up of training in selected area	

ANNEX III - 2. The 5-year Tentative Detailed Implementation Plan (1)

Items	1997.Mar - 1998.Feb	1998.Mar - 1999.Feb	1999.Mar - 2000.Feb	2000.Mar - 2001.Feb	2001.Mar - 2002.Feb
1. Improvement of feeding and management of dairy cattle					
a) Survey and monitoring of dairy farming in Indonesia					
b) Improvement of feeding technology					
b-1) Feeding system based on the feeding standard					
b-2) Year-round feeding					
b-3) Feeding technology of milking cows					
b-4) Feeding technology of growing cows and calves					
c) Improvement of management technology					
c-1) Demonstration of improved techniques					
c-2) Recording of cow's condition					
c-3) Recording of calve's condition					
c-4) Nursing and weaning					
c-5) General management					
c-6) Improvement of cow shade and facilities for farmers					
d) Hygiene control for milking					
d-1) Survey of local condition					
d-2) Milking techniques					

The 5-year Tentative Detailed Implementation Plan (2)

Items	1997. Mar - 1998. Feb	1998. Mar - 1999. Feb	1999. Mar - 2000. Feb	2000. Mar - 2001. Feb	2001 Mar - 2002. Mar
d-3) Control techniques for milking					
d-4) Prevention of Mastitis					
d-5) Recording of milk yield					

The 5-year Tentative Detailed Implementation Plan (3)

ITEMS	1997.Mar.-1998.Feb.	1998.Mar.-1999.Feb.	1999.Mar.-2000.Feb.	2000.Mar.-2001.Feb.	2001.Mar.-2002.Feb.
2. Improvement of reproductive health management					
a) Survey and monitoring of reproductive health of dairy cattle					
b) Improvement of reproductive management					
b-1) Recording of reproductive management					
b-2) AI and pregnancy test technique					
b-3) Appropriate age of heifers and days after parturition for insemination					
b-4) Technology for prevention of reproductive disorder					
c) Improvement of technology for diagnosis and treatment of reproductive disorders					
c-1) Technology for diagnosis					
· Utilization of case history and record					
· Body condition scoring					
· Rectal palpation					
c-2) Technology for treatment					
· Treatment with hormonal product					
· Uterine irrigation and infusion of antibiotic etc.					
d) Improvement of technology for prevention of perinatal accident					
d-1) Reproductive health management during perinatal period					
d-2) Treatment of perinatal accident and diseases					

The 5-year Tentative Detailed Implementation Plan (4)

Items	1997. Mar - 1998. Feb	1998. Mar - 1999. Feb	1999. Mar - 2000. Feb	2000. Mar - 2001. Feb	2001. Mar - 2002. Feb
3. Improvement of forage production and utilization					
a) Survey of forage production and utilization					
b) Improvement of forage production and utilization					
b-1) Grassland fertilization and manuring practice					
b-2) Introduction of recommended forage crops					
b-3) Ensiling					
b-4) Hay making					
c) Utilization of by-product from agriculture and food industry					
c-1) Survey of utilization of by-product from agriculture and food industry					

The 5-year Tentative Detailed Implementation Plan (5)

Items	1997.Mar - 1998.Feb	1998.Mar - 1999.Feb	1999.Mar - 2000.Feb	2000.Mar - 2001.Feb	2001.Mar - 2002.Feb
4. Training for technical staffs as well as selected farmers					
a) Planing of training					
b) Preparation of teaching materials					
c) Implementation of training					
c-1) Training for instructors					
c-2) Training for technical staffs in sub-district					
c-3) Training for farmers					

ANNEX IV

FORMAT OF THE PROJECT DESIGN MATRIX(PDM)

Version 1 (August 29, 1997)

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal Dairy technology and productivity at farmer's level is improved	Results after certain period of the post-Project 1.Milk yield 2.Number of cows	Evaluation survey of the post-Project	The policy of dairy farming development is to be maintained or strengthened
Project Purpose The integrated technical services system for suitable dairy technology is established	Results of final stage and after certain period of the post-project 1.Allocation of instructor and technical staff in the established technical services system 2.Number of dairy farms involved in the technical services system 3.The activities of the technical services	1.Report of final evaluation 2.Evaluation survey of the post-project	1.Sufficient budget is to be secured on extension 2.The situation of milk market is to be maintained or expanded. 3.The situation of dairy farmer's management level is not to be worse(eg. land scale)
Outputs 1.Technology for feeding and management of dairy cattle is improved 2.Technology for reproductive health management is improved 3.Technology for forage production and utilization is improved 4.Training for technical staff as well as selected farmers is improved	1. Content of technical standard, manual, method and extent of technical subject in each fields 2.Content of recording system in each fields 3.Number of technical staff and farmers trained	1.Report of the project activities 2.Report of the training program 3.Other report and publication by the project and DINAS 4.Report of final evaluation	1.Extension and animal health services in district and sub-district are well operated 2.Improved technology is to be applied by farmers
Activities 1.Feeding and management of dairy cattle (a)Survey and monitoring of dairy farming in Indonesia (b)Improvement of feeding technology (c)Improvement of management technology (d)Hygiene control for milking 2.Reproductive health management (a)Survey and monitoring of reproductive health of dairy cattle (b)Improvement of technology for diagnosis and treatment of reproductive disorders (c)Improvement of technology for prevention of perinatal accidents 3.Forage production and utilization (a)Survey of forage production and utilization (b)Improvement of technology for forage production (c)Utilization of by-products from agriculture and food industry 4.Training for technical staff as well as selected farmers (a)Training for instructors (b)Training for technical staff in sub-district (c)Training for farmers	Input (Japanese side) Long-term experts: Team Leader, Coordinator, General feeding and management of dairy cattle, Hygiene control for milking, Reproductive health management, Forage production and utilization Several short-term experts: when necessity arises Machinery, equipment and vehicles Receipt of the Indonesian personnel for technical training. Some part of local cost expenditures necessary for the execution of the physical infrastructure (Indonesian side) Counterpart personnel and administrative personnel Land, building and facilities Supply of replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the project other than those provided through JICA Sufficient financial support		The allocation of counterparts is not to be changed during the cooperation period **Pre-conditions** Well cooperation of organization and people concerned with the project

ANNEX v. The Annual Work Plan for 1997 Fiscal Year (1)

Items	4	5	6	7	8	9	10	11	12	1	2	3	Remark
1. Improvement of feeding and management of dairy cattle													
a) Survey and monitoring of dairy farming in Indonesia													
a-1)Survey on the present situation of dairy farming in West Java													
a-2)Survey on the present situation of dairy farming at pilot area													Follow-up surveys
c) Improvement of management technology													Cikole and Bunikasih Center
c-2)Recording of cow's conditions													
c-2-1) Recording format for individual animals													
c-2-2) Body measurement													
c-3) Recording of calve's condition													
c-3-1)Recording format for individual objects													
c-3-2)Management and measurement of raising cows													
c-3-3)Standard growing curve													
c-4) Nursing and weaning													
c-4-1)Shortening of weaning period													
c-4-2)Nursing by suitable calf hatch method													
c-5) General management													
c-5-1)Hoof trimming techniques													
c-5-2)Dehorning techniques													
c-6) Improvement of cow sheds													
c-6-1)Improvement of existing facilities of cow shed at Cikole and Bunikasih Center													

The Annual Work Plan for the 1997 Fiscal Year (2)

Items	4	5	6	7	8	9	10	11	12	1	2	3	Remark
d) Hygiene control for milking													
d-1) Survey of local conditions													Follow-ups Survey
d-1-1) Survey on the present situation of dairy farmers and KUDs at pilot area													Including CM test
d-2) Milking techniques													
d-2-1) Improvement of milking method													Cikole and Bunikasih Center
d-2-2) Hygiene control of milking equipment													
d-3) Control techniques for milking													
d-3-1) Survey for the present situation of milk tests													
d-4) Prevention of Mastitis													
d-4-1) Techniques for CM test													
d-4-2) Treatment of Mastitis													
d-5) Recording of milk yield													
d-5-1) Improvement of recording form and method													
d-5-2) Data management by personal computer													
2. Improvement of reproductive health management													
a) Survey and monitoring of reproductive health of dairy cattle													
a-1) Survey of reproductive health management at BPT-HMT Cikole													
a-2) Survey of reproductive health management at BPT-HMT Bunikasih													
a-3) Observation of main dairy areas and institutions concerned in West Java													
a-4) Survey of reproductive health management in the proposed pilot area													

The Annual Work Plan for the 1997 Fiscal Year (3)

Items	4	5	6	7	8	9	10	11	12	1	2	3	Remark
3. Improvement of forage production and utilization													
a) Survey of forage production and utilization													
a-1) Collection of research papers concerning recommended forage crops in Indonesia													
a-2) Analysis of the soil, climate data and herbage mass at BPT-HMT Cikole and Bunikasih													
a-3) Technical situation and basal forage field													
b) Improvement of forage production and utilization													
b-1) Grassland fertilization and manuring practice													
b-1-1) Improvement of grassland fertilization and manuring practice techniques													
b-2) Introduction of recommended forage crops													
b-1-2) Improvement of pasture productivity by culture of forage crop and forage tree legumes													
b-3) Ensiling													
b-3-1) Improvement of ensiling techniques													
b-4) Hay making													
b-4-1) Improvement of hay making techniques													

The Annual Work Plan for the 1997 Fiscal Year

(4)

Items	4	5	6	7	8	9	10	11	12	1	2	3	Remark
c) Utilization of by-product from agricultural and food industry													
c-1)Utilization of by-products from agricultural and food industry													
c-1-1) Survey of the present situation of by-products utilization and investigation of utilization methods of by-products from agricultural and food industry	———												
c-1-2) Search for other un-utilized feed resources and investigation of utilization methods of un-utilized feed resources	———												
4. Training for technical staff as well as selected farmers													
a) Planing of training						———							
b) Preparation of teaching materials						———							
5. Dispatch of Japanese experts													
a-1) Long-term experts	———												6 long-term experts
a-2) Short-term experts						———							4 short-term experts
6. Provision of equipment and machinery	———												
7. Acceptance of Indonesian personnel for training in Japan						———							4 counterparts
8. Dispatch of survey team					———								Consultation survey
9. Model infrastructure work						———							BPT-HMT Cikole and Bunikasih Center

The Annual Work Plan for the 1997 Fiscal Year (5)

Items	4	5	6	7	8	9	10	11	12	1	2	3	Remark
9. Allocation of the counterpart personnel 1) Project Director 2) Project Manager 3) Co-Project Manager 4) Heads of production, Animal health, Extension Division of Provincial Livestock Services of West Java 5) Heads of Cikole and Bunikasih Dairy Centers 6) Technical staff for each experts of the following fields; a. General feeding and management b. Hygiene control for milking c. Reproductive health management e. Forage production and utilization 7) Administrative personnel													Cikole: 4C/P Bunikasih:4C/P Provincial Livestock Services : 4C/P
10. Provision of land, buildings and other facilities													Including building and facilities for training at Cikole
11. The supply or replacement of equipment, machinery, vehicles, instruments, tools and other materials other than those provided by the Government of Japan													
12. Necessary measures to meet all current expenses													

資料２　西ジャワ州における酪農技術改善研修及び普及計画（案）

〈州畜産局普及課より入手したものであり、正式なものではない〉

TRAINING AND EXTENSION PROGRAMME OF IMPROVEMENT OF APPLIED DAIRY CATTLE TECHNOLOGY IN WEST JAVA

I. INTRODUCTION

The improvement of applied dairy cattle technology in West Java cooperate between Indonesian Government and Japanese government is one of the efforts to increase the farmer's knowledge, skill and attitude in order to improve animal productivity and their income so throughout this program we expect the farmers could increse their welfare.

One of the most important problems that we face is that we do not have yet the field extension that overcome the extension and service for dairy cattle. According those reason above we try to limitated the problems by making the field extension throughout a training for field extension, technicians, and key farmers.

II. THE ACTIVITIES WILL BE HELD

1. Identifying of training requirements.
2. Setting of training curriculum.
3. Selecting of training applicants.
4. Training activities : a. Training for Instructor
   b. Training for District Officer
   c. Training for Sub District Officer and KUD
   d. Training for Key Farmer
5. Field Guidance
6. Pilot Farm Making
7. Supervising and Monitoring
8. Evaluating and Reporting

III. TRAINING ACTIVITIES

a. Target

The training will be concentrated in Dairy Cattle Training Center BPT-HMT Cikole Lembang, with the target in 1997/1998 are as follow :

No.	Target	Applicant (people)	
1.	Instructor /Trainer at Cikole	25	1 exponen
2.	District Instructor : a. Extension b. Production c. Special Extension	30	1 exponen
3.	Sub District Officer a. Inseminator b.Recorder c.Animal Health Servicer d.Field Extension e. KUD Officer	90	3 exponen
4.	Key Farmer	240	8 exponen

b. Training Subject and Method

The training methods we used are :

1. Experiencial Learning Cycle, that will be carried out with step by step as follow :
   a. Experiencing
   b. Processing
   c. Generalizing
   d. Applying
2. Participation actively. It is aimed to give the applivcant the chance for discussing, giving suggestion, and exposing.
3. Problem Solving, which is aimed that the applicant could find they own problem so they will know what technology they need for increasing their farming.
4. Real experience by direct practicing , is aimed that the applicant could learn the technology directly and could apply in their farm bussiness.
5. Working Group, is aimed to make a new farmer group and to develop it as a place of farming guidance and channel for giving technology and facility for the members.

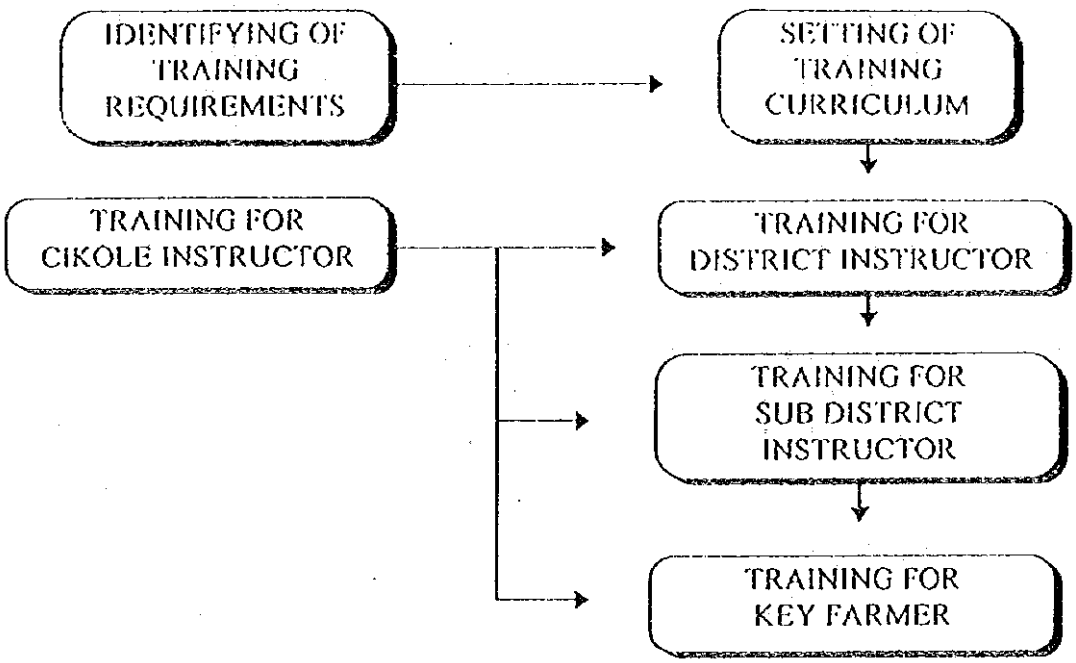
The training subject and how long it would be conveyed for each applicant target, will be classified as follow :

No	Target	Subject	Time		Method	
			Day	Time	Class	Field
1.	Instructor at Cikole	a. Teaching Method b. Field guidance Method c. Technology	25	240	90%	10%
2.	District Instructor	a. Field Guidance Method b. Monitoring and Evaluating System c. Evaluating and Reporting d. Applied Technology	20	180	50%	50%
3.	Sub District Officer	a. Field Guidance Method b. Monitoring and Evaluating System c. Evaluating and Reporting d. Applied Technology e. Using supporting material and equipment.	15	120	25%	75%
4.	Key Farmer	a. Applied Technology b.Using supporting material and equipment	15	120	10%	90%

c. Steps of Activities

The steps of activities that will be carried out in this training of improvement applied dairy cattle technology are :

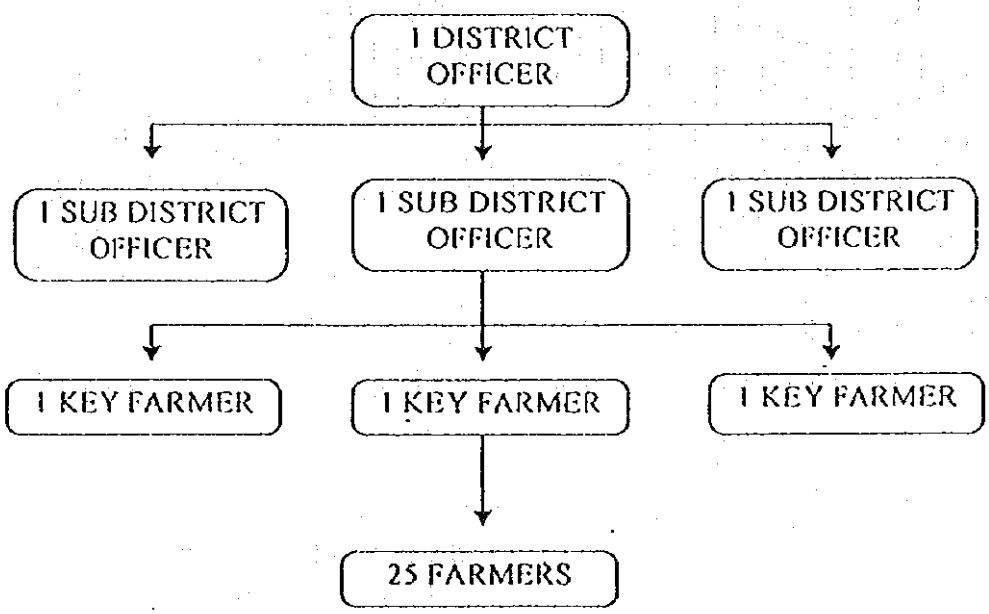
1. Identifying of of training requirements, to know the level of applicant's knowledge and skill of training subject.
2. Setting of training curriculum which is fit to the level of applicant's knowledge and their need. The applicants are consists of Distric officer, Sub district officer and Key farmer.
3. Training for Instructor at Dairy Cattle Training Center which is used special method that is Training of Trainer, with facilitator is from Agricultural Training Center.
4. Training for District Instructor, Sub District Instructor and Key Farmer will be held in Cikole and the instructor is from Cikole.



IV. EXTENSION ACTIVITY

a. Method

The extension of the improvemnet of applied dairy cattle technology use direct guidance method to the officer which is followed by field guidance to Key Farmer and farmers. This method will be held step by step as follow :



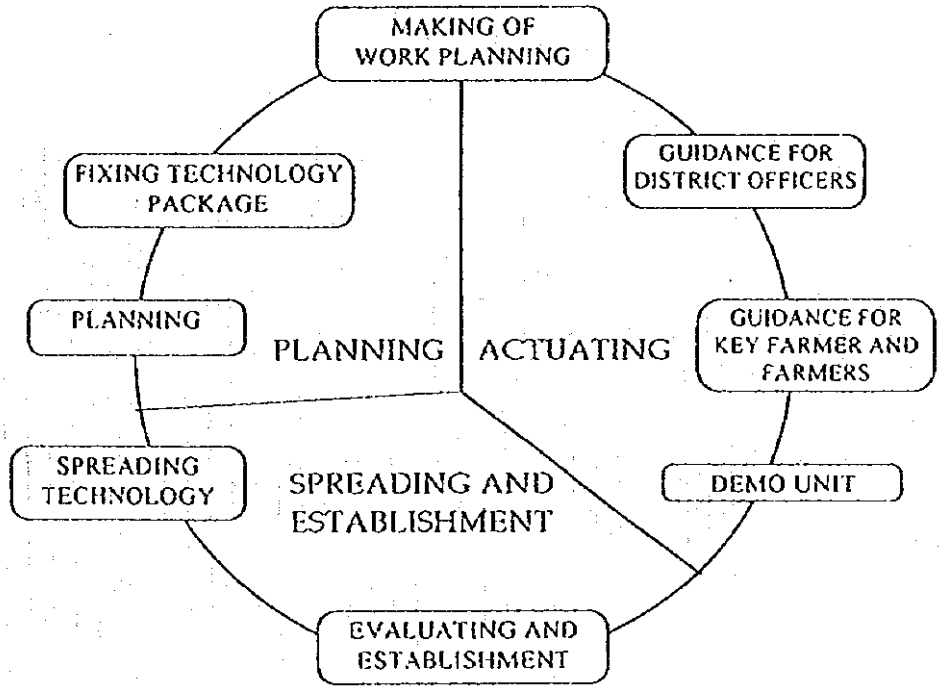
Explanation :

a) 1 District officer that is responsible for guiding, controlling and evaluating the avtivities of 3 Sub district officers.
b) 1 sub distric officer is responsible for guiding, controlling and evaluating the activities of 3 key farmers.
c) A key farmer is responsible for guiding, controlling and evaluating the activities of 25 members of his group.

If we look at the chart above , we could see that from 30 trained district officers, 90 sub district officers and 240 key farmers will guide to 600 farmers of all West Java.

(240 K.T. × 25 T. = 6,000 ?)

b. Step of Activities



Step of activities of the extension on farmer's level are :

a. Planning : Will be held in all level (Province, District, and Sub district) to make working priority fit to the fixed target.

b. Fixing Technology package : Made by Province Officers together with District and Sub district officers which is fit to the condition and ablity of farmer's level in each location.

c.	Making of Work planning	:	Will be held in all level (Province, District and Sub district) fit to planning report and package of technology will be applied.
d.	Guidance for District Officer	:	Minimum once in a month by The Province Counterpart together with The Experts from JICA.
e.	Guidance for Sub district Officer	:	a. Minimum once in a month by Province Counterpart together with JICA's Experts. b. Minimum twice a week by District Officers
f.	Guidance for Key Farmers and Farmers	:	a. Minimum once in a month by Province counterpart together with JICA's experts. b. Minimum twice a week by District Officers. c. Minimum once in a week by Sub district officers.
g.	Demo Unit	:	Made minimum 1 model for each 3 groups or 3 models for 1 Sub district.
h	Evaluating and Establishment	:	Will be held in each level together with guiding, monitoring and supervising and also for stabilizing acivities which has done.
i.	Spreading or Transfering Technology	:	Will be held after all of the recommended technology applied by the key farmer and the farmers which are their farmes had been made as pilot farms.

WORKING PLAN FOR 5 YEARS TRAINING IN DAIRY TRAINING CENTRE CIKOLE

A. CONDITION OF TRAINING SUPPORTING FACILITIES

No.	DESCRIPTION	YEAR	TOTAL	CAPACITY
1.	Office Room	1998	1	pm
2.	Facilitator room/	1998	-	
	Instructor	1999-2002	2	pm
3.	Class room	1998	2	50 people
		1999-2002	4	100 people
4.	Milk Laboratory	1998-2002	1	50 people
5.	Workshop	1998-2002	1	50 people
6.	Library	1999-2002	1 unit	100 people
7.	Dormitory	1998	14 rooms	56 people
		1999-2002	36 rooms	144 people
8.	Data Room	1999-2002	1 unit	pm
9.	Printing Room	1999-2002	1 unit	pm
10.	Equipments	1998	pm	pm
11.	Cikole Field			
	Laboratory	1998-2002	8 ha	-
	a. Area	1998-2002	91-135 heads	100 ekor
	b. Dairy Cattle	1998-2002	5 ha	100 people
	c. Pasture	1998-2002	pm	100 people
	d. Equipments			
12	Bunikasih Field			
	Laboratory			
	a. Area	1998-2002	22 ha	-
	b. Dairy Cattle	1998-2002	97-150 heads	150 ekor
	c. Pasture	1998-2002	11,5 ha	150 people
	d. Equipments	1998-2002	pm	150 people

B. TARGET OF TRAINING

No.	DISTRICT	1998/1999			1999/2000			2000/2001			20001/2002			2002/2003*		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1.	BANDUNG	5	15	45	4	4	120	-	-	150	-	-	150	-	-	100
2.	BOGOR	5	15	45	4	4	120	-	-	150	-	-	150	-	-	100
3.	SUKABUMI	4	12	30	3	3	100	-	-	100	-	-	100	-	-	75
4.	GARUT	4	12	30	3	3	100	-	-	100	-	-	100	-	-	75
5.	CIANJUR	4	12	30	3	3	100	-	-	100	-	-	100	-	-	75
6.	KUNINGAN	4	12	30	3	3	100	-	-	100	-	-	100	-	-	75
7.	SUMEDANG	4	12	30	3	3	100	-	-	100	-	-	100	-	-	50
8.	TASIKMALAYA	-	-	-	3	3	50	-	-	50	-	-	50	-	-	50
9.	MAJALENGKA	-	-	-	2	2	25	-	-	25	-	-	25	-	-	15
10.	SUBANG	-	-	-	1	1	15	-	-	15	-	-	15	-	-	15
11.	CIREBON	-	-	-	1	1	10	-	-	10	-	-	10	-	-	10
	TOTALS	30	90	240	30	30	840	-	-	900	-	-	900	-	-	640

Explanation : * = Follow Up Programme after end of cooperative.
A = District officers
B = Sub District Officers
C = Key Farmers and Farmers

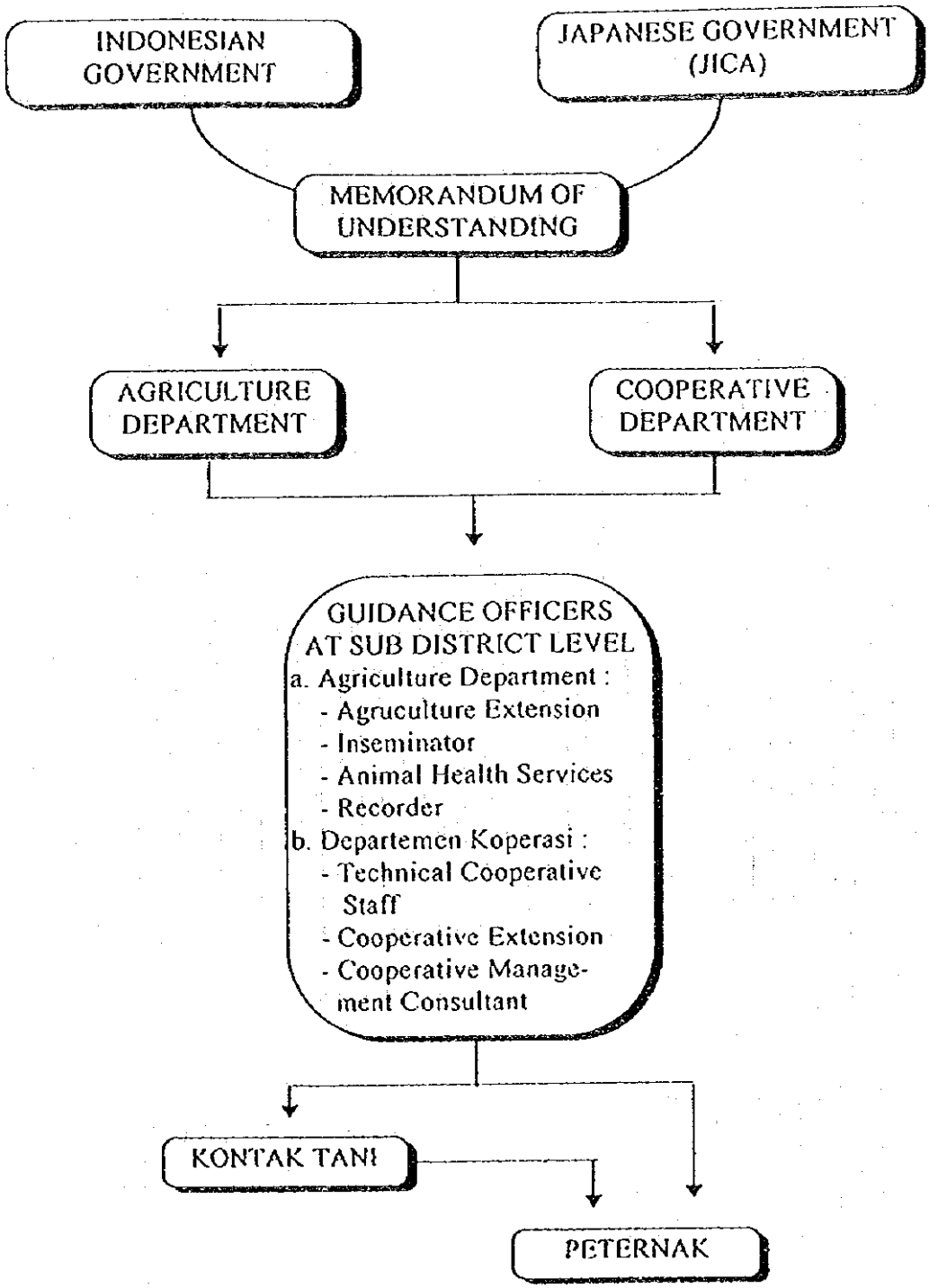
C. TRAINING APPLICANT REQUIREMENTS :

1. Training for District Officer
   a. Their job is on Extension, Production and Animal Health Field (Special extension and Head of Section/Sub Section)
   b. Only working on Extension, Production and Animal Health and will not be moved to another job or place for minimum 5 years.
   c. Education, minimum SNAKMA Plus (Animal Science High School)
   d. Age not more than 45 years

2. Training for Sub District Officer
   a. As Field Extension, Inseminator, Animal Health Services, AI Recorder and Technicians of KUD.
   b. Will not moved to another job or place for minimum 5 years.
   c. Education minimum SNAKMA Plus
   d. Age not more than 40 years.

3. Key Farmer/Farmer
   a. Group classification where they placed minimum at middle class
   b. Education minimum Yunior High School (SMP)
   c. They own dairy cow for minimum 4 heads (Smallholders Farmers)
   d. Age not more than 35 years.

PLANNING OF EXTENSION ACTIVITY DAIRY TECHNOLOGY APPLICATION WITH "UMBRELLA PROGRAMME" JICA



資料３　西ジャワ州におけるパイロットファームを通じた普及計画（案）

A PROGRAM OF EXTENSION THROUGH THE PILOT FARM IN WEST JAVA

I. BACKGROUND OF PROGRAME

To improve of the dairy technology at farmer's level, the government insitution has to establish of "the Dairy Extension Trainning Center" and improvement of professionalist man-power. Because up to now West Java Province especially never has extension specialist on dairy technology, but we have had the expert on extension technology of livestock generally only.

The project consider the factors of the limitation, therefore project team must have the strategy of the extension program by selecting only in a model areas and pilot farm in each model rea. So we will plan to give constant guidance and concentrate our efforts.

The schedule of the program are devided into phases (for instan a first and second phases). At first phase (hereafter referred to as Phase I), be planned that C/P of rural cooperative and Livestock Services in model areas take initiative to carry out program under techniel guidance JICA with C/P of Profince Livestock Services. But before that, all of C/P candidates in rural cooperative and Livestock Services in model areas will be joinned in trainning program in BPT-HMT Cikole/Bunikasih.

The plan of the second phase (Phase II) is carred out of all programs independently by the field C/P, and aded the new experiment of model areas and pilot farmers.

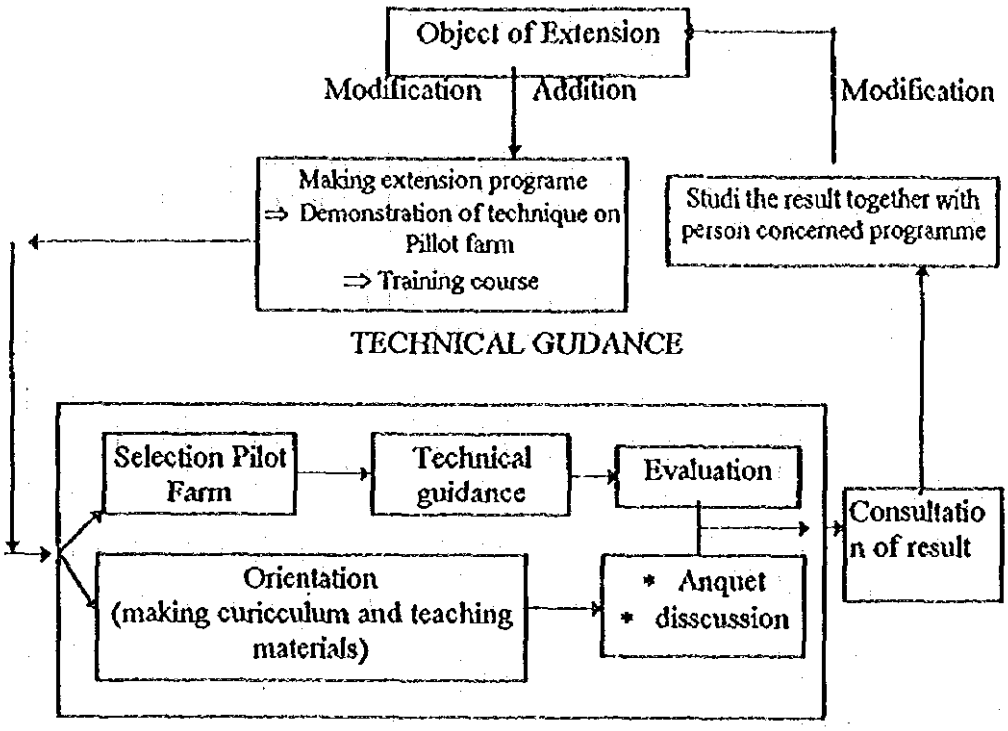
II. A METHOD OF PROGRAM

All of the activities as follow are carried out smoothly using the same plan.

1. Making the basic plan and discussion.
2. Selection the model area and pilot farm.
3. Decission of the counterpart
4. Investigation of the present situation of the pilot farm and setting up of the target of improvement technique.
5. Demonstration of technique and technical guidance on pilot farm and counterparts.
6. Making the teching materials and holding techniel training course.
7. Holding the seminar.

During the first year (1997-1998), we are planningto visit the model areas every month and guide the technique continually.

Diagram of Extension Program as follow below :



III. THE MODEL AREAS AND PILOT FARMER

No.	District	Sub-District	Name of Coopera-tive	Nam of Pilot Farmer
1.	Bandung	Cisarua Pangalengan	Sarwamukti KPBS Pangalengan	PM PM
2.	Sumedang	Tanjungsari	KUD Tanjungsri	PM
3.	Garut	Cilawu	KUD Cilawu	PM
4.	Sukabumi	Sukaraja	Sukaraja V	PM

IV. DETILE OF THE PROGRAMME METHOD

1. Making the Basic Plan and Discussion

We plan for meeting every two or three times with DGLS and Districts (Model Areas) for making the basic program of this extension. We are just plan five model areas in Sub-district and one to two pilot farmer in each model area.

2. Selection of The Model Area and Pilot Farmers

   We would like to select for five model areas (as mentioned above).

3. Decission of The Counterprt

   We would like to select a sub counterpart such as (1) Coordintor, (2) Feeding and Management, (3) Milking hygiene Control, (4) Forage Production and Utilization and (5) Reproductiv Health Management in each of organization to coordinate of the objectives nd will be instructure in model area.

4. Investigation of the present situation of the Pilot Farm and Setting Up of The Target of Improvement Technique

   We will carry out the investigation of pilot farmers with Experts in each of the District Livestock Services, Sub District and Cooperative. We will study of general routine work in dairy farming.

5. Demonstration of Technique and Technical Guidance on The Pilot Farm and Sub-Counterparts

   We consider on the results of the investigation, such as the problems, and decided the object of improvement in each field, then we give technical guidance. A technique which does not improve during project will be evaluated and arrange some modification of technical guidance.

資料4　チコレ酪農センター新施設配置図（案）