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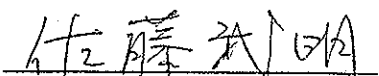
MINUTES OF MEETING ON
THE JOINT COORDINATING COMMITTEE FOR
THE WATER BUFFALOES AND BEEF CATTLE IMPROVEMENT PROJECT

The Japan International Coopération Agency (hereinafter referred to as "JICA") dispatched the Final Evaluation Team, headed by Mr. Takeaki SATO, to the Republic of the Philippines from May 24, 2005 to June 9, 2005 for the purpose of the final evaluation for the Project on the Water Buffaloes and Beef Cattle Improvement Project (hereinafter referred to as "the Project").

The Joint Evaluation Team (hereinafter referred to as "the Team"), which consists of four members from JICA and four members from the Republic of the Philippines, was jointly organized for the purpose of conducting the final evaluation and preparation of necessary recommendations to the respective governments.

After intensive study and analysis of the activities and achievements of the Project, the Team prepared the Joint Evaluation Report (hereinafter referred to as "the Report"), which was presented to the Joint Coordinating Committee. The Joint Coordinating Committee accepted the Report and agreed on the following matters attached hereto.

Manila, June 8, 2005



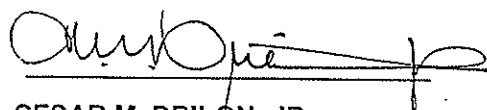
TAKEAKI SATO

Leader
Final Evaluation Team, JICA
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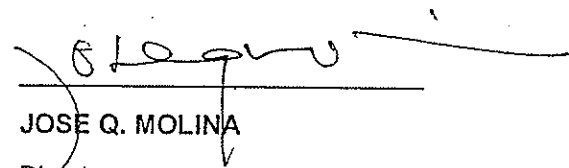
LIBERTADO C. CRUZ

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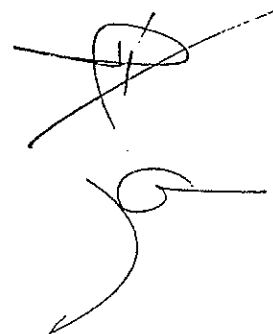


JOSE Q. MOLINA

Director
Bureau of Animal Industry
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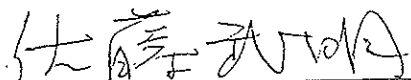
ATTACHMENT

1. The Project is to be completed on October 1, 2005 as planned.
2. The Philippine side will continue the activities initiated by the Project and will disseminate the technologies learned from the Project to the centers/stations, technicians and farmers.

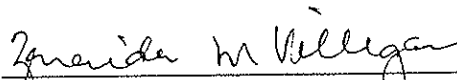


JOINT EVALUATION REPORT
ON
THE WATER BUFFALOES AND BEEF CATTLE IMPROVEMENT PROJECT

Manila, June 7, 2005



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Leader
Japanese Evaluation Team
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SUMMARY OF ABBREVIATIONS

AI	Artificial Insemination
APO	Annual Plan of Operation
ARCs	Agrarian Reform Communities
BAI	Bureau of Animal Industry
BC	Beef Cattle
CDP	Carabao Development Program
DA	Department of Agriculture
DPT	Direct Performance Test
GDP	Gross Domestic Product
GMA	<i>Ginintuang Masaganang Ani</i>
JCC	Joint Coordinating Committee
LDPC	Licaong Dairy Producers' Cooperative
LGUs	Local Government Units
MTPDP	Medium-Term Philippine Development Plan
NESF	Nueva Ecija Stock Farm
ODA	Official Development Assistance
PCC	Philippine Carabao Center
PDM	Project Design Matrix
PO	Plan of Operations
PTM	Post Thaw Motility
PVO	Provincial Veterinarian Office
R/D	Record of Discussions
UNAIP	Unified National Artificial Insemination Program
WB	Water Buffaloes
WBBCIP	Water Buffaloes and Beef Cattle Improvement Project

1. Evaluation of the Project

1.1 Objectives

- (1) To evaluate the overall achievement of "Water Buffaloes and Beef Cattle Improvement Project (hereafter referred to as "the Project") based on the Record of Discussions (R/D), Project Design Matrix (PDM) and Plan of Operations (PO).
- (2) To identify remaining problems and recommend appropriate measures that need to be undertaken by the relevant government agencies after the completion of the Project, and
- (3) To consider the lessons obtained from the Project activities in order to reflect them on future projects in the interest of making them more effective and efficient.

1.2 Methodology

(1) Joint Evaluation

The Project was evaluated by the Philippine and Japanese team (hereinafter referred to as "the Joint Evaluation Team") in accordance with the R/D, the PDM and the PO. The activities included report analysis, field survey, and interview with staff of the Philippine Carabao Center (PCC), Nueva Ecija Stock Farm (NESF), and Provincial Veterinarian Office (PVO), Japanese experts and other concerned personnel in the Project based on the five Evaluation Criteria. The Joint Evaluation Team was composed of four members from the Philippine side and four members from the Japanese side who were not involved in the Project activities.

(2) Five Evaluation Criteria

1) Relevance

Relevance refers to the validity of the Project Purpose and the Overall Goal in connection with the development policy of the Philippine government as well as the needs of beneficiaries.

2) Effectiveness

Effectiveness refers to the extent to which the expected benefits of the Project have been achieved as planned. It also examines whether these benefits have been brought about as a result of the Project.

3) Efficiency

Efficiency refers to the productivity of the implementation process. It examines whether the inputs of the Project have been efficiently converted into outputs.

4) Impact



Impact refers to direct and indirect, positive and negative impacts caused by the implementation of the Project, including the extent to which the overall goal has been attained.

5) Sustainability

Sustainability refers to the extent to which the Project can be further developed by the Philippines, and the extent to which the benefits generated by the Project can be sustained under national policies, technology, systems and financial state.

1.3 Members of the Joint Evaluation Team

(1) Japanese Evaluation Team

1) Mr. Takeaki Sato (Team Leader)

Group Director, Group I (Poverty Reduction/ Paddy Field Based Farming Area)
Rural Development Department, JICA

2) Mr. Kenji Yamauchi (Technology of Animal Husbandry)

Beef Cattle Improvement Division Director, National Livestock Breeding Center
Tokachi Station

3) Mr. Isao Dojun (Evaluation and Analysis)

Sub-Section Chief, Rural Development, International Project Department
Chuo Kaihatsu Corporation

4) Mr. Keisuke Ito (Project Planning)

Staff, Paddy Field Based Farming Area Team II, Group I
Rural Development Department, JICA

(2) Philippine Evaluation Team

1) Ms. Zenaida M. Villegas (Team Leader)

Team Leader/Officer-in-Charge, Project Development Service,
Department of Agriculture

2) Dr. Edwin C. Villar

Director, Livestock Research Division, Philippine Council for Agriculture,
Forestry and Natural Resources Research and Development (PCARRD)

3) Mr. Eric P. Palacpac

Chief, Program Monitoring and Evaluation Division,
Philippine Carabao Center

4) Ms. Marilyn T. Maestrado

Project Development Officer III, Special Projects Coordination Management

1.4 Schedule of the Joint Evaluation Team

The schedule is attached as ANNEX I.

2. Outline of the Project

2.1 Background of the Project

Agriculture in the Philippines is an important sector. It accounts for 15% of the GDP and employs about 33% of the workforce. Of the total production of the agricultural sector, livestock products account for 25% of outputs. At this rate, however, the country is still not producing enough livestock products such as milk and beef to attain self-sufficiency. In this connection, the Department of Agriculture (DA) has classified water buffaloes and beef cattle as key commodities that can make good use of the grassland, promote the milk and meat production, and increase the income of small-scale farmers.

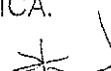
In the Philippines, DA has been promoting and implementing Artificial Insemination (AI) in collaboration with the Local Government Units (LGUs) to improve livestock quality and productivity. However, due to the shortage of AI technicians, the program has not made remarkable achievements. In addition, the Philippines' insufficient techniques of sire and dam selection, and low AI success rate of the farmers are also serious problems.

Under such situation, the Government of Japan has received an official request from the Government of Philippines for a Project-Type Technical Cooperation to promote AI training for technicians and improve sire and dam selection.

For that purpose, JICA dispatched the Preliminary Study Team in October 1999 and the Second Study Team in July 2000. Both governments signed the Record of Discussions (R/D). The Project commenced in October 2000 for a five year implementation period.

At the beginning of the Project, the Project Consultation Team was dispatched to review and make recommendations in the preparation of the Project's Plan of Operation (PO) and Annual Plan of Operation (APO), and to provide assistance in revising the Project Design Matrix (PDM) and in identifying implementation problems. In January 2003, the Joint Japan-Philippines Mid-Term Evaluation was conducted to give the necessary recommendations to the respective governments. As a result of observations and discussions, the Joint Mid-Term Evaluation Team has come up with the following recommendations.

- (1) For the success of the Project, it is important that the Philippine side should play a main role and make efforts as an owner of the Project.
- (2) Both sides should fully invest during the remaining term to accomplish the remaining tasks. The following measures should be undertaken immediately for the achievement of the Project Purpose;
 - To conduct the data collection and recording of milk yield, body weight and body measurement accurately in PCC and NESF
 - To improve conception rate of AI in PCC and NESF
 - To produce forage in accordance with the necessary number of cattle in NESF
- (3) Bureau of Animal Industry (BAI), PCC and the provincial government of Nueva Ecija should extend the major outputs of the Project to AI technicians and farmers in Nueva Ecija, considering financial as well as technical assistance. In this sense, it is necessary to continue and enhance the existing close relationship between the Unified National Artificial Insemination Program (UNAIP) and the Project.
- (4) In order to coordinate the Project's activities more effectively, it is recommended to have a close communication between Philippine counterparts and JICA experts in the Project. Steering and monitoring meetings, which are the useful instruments to identify problems and solutions, should be held regularly.
- (5) Overstocking at NESF and PCC is one of the causes of the shortage of forage and feeds which negatively affects the performance of the cattle and water buffaloes in two sites. Therefore, the number of heads should be adjusted to the optimum herd size.
- (6) A system should be established for the proper utilization and maintenance of equipment provided by JICA.
- (7) For the necessary monitoring and demonstration of the Project's activities, the Project should choose water buffaloes model farmers and beef cattle model farmers. These model farmers are expected to share the acquired techniques positively with other farmers.
- (8) The Project should hold an international seminar to extend the outputs of the Project to other Asian countries by the end of the Project, in cooperation with JICA.
- (9) The Philippine side should inform not only the personnel of the organizations concerned but also the general public of this cooperation with JICA.



2.2 Objective of the Project

The Project Purpose is "Relevant techniques for improvement of Water Buffaloes and Beef Cattle developed in the Province of Nueva Ecija". The framework of the Project is shown in the PDM modified in March 2003 (See ANNEX II). The organizational structure is shown in ANNEX III.

2.3 Inputs

(1) Philippine side

1) Assignment of personnel

Philippine counterpart personnel assigned to the Project is shown in ANNEX IV. At present, four (4) counterpart staff are assigned in "Sire and Dam Selection", nine (9) in "Feeding and Management" and seven (7) in Artificial Insemination".

2) Local Cost

The budget allocated by PCC and BAI for the Project is shown in ANNEX V.

(2) Japanese side

1) Expert assignment

A total of eleven (11) long-term experts have been dispatched as Chief Advisors, Project Coordinators, and as Experts in Sire and Dam Selection, Feeding and Management, and Artificial Insemination, as shown in the ANNEX VI. Fifteen (15) short-term experts completed their assignment in the above fields. Three (3) more short-term experts will be dispatched before the completion of the Project.

2) Training in Japan

Twenty three (23) staff from PCC, NESF, PVO, among others, have participated in the training in Japan as shown in ANNEX VII.

3) Local cost

Local costs such as facility preparation, infrastructure construction, technical exchange program, among others, have been provided by JICA. The total amount of expenditure is expected to amount to 24,608,848 pesos as shown in ANNEX VIII and ANNEX IX

4) Provision of equipment

JICA procured equipment locally and from Japan worth 52,350,459 pesos and 7,718,630 yen, respectively, for the implementation of the Project as shown in ANNEX X



3. Achievement of the Project

3.1 Outputs

The achievement level of each output is described below:

(1) Output 1: Sire and dam selection techniques for WB & BC improved.

Verifiable Indicators	Results (as of June 2005)
1-1 12 offspring male buffaloes based on account dams and sires data and 6 offspring male cattle based on direct performance test (DPT) selected.	<ul style="list-style-type: none"> For water buffaloes, 23 bulls were already selected through DPT. For beef cattle, 11 bulls were selected through DPT.

(2) Output 2: Feeding and management techniques of the PCC, BAI and LGUs technicians improved.

Verifiable Indicators	Results (as of June 2005)
2-1 Feeding and management manual developed by 2005	<ul style="list-style-type: none"> Feeding and management manual for water buffaloes and beef cattle will be made available by 2005. The manuscripts are currently being drafted.
2-2 50 PCC, BAI, and LGU technicians trained on feeding and management.	<ul style="list-style-type: none"> 53 PCC, BAI and LGU technicians already trained on feeding and management.

(3) Output 3: Artificial insemination techniques of the PCC, BAI and LGUs technicians improved.

Verifiable Indicators	Results (as of June 2005)
3-1 AI manual on WB and BC developed respectively by 2005	<ul style="list-style-type: none"> AI manual (WB and BC) will be developed by 2005. The manuscripts are currently being drafted.
3-2 Frozen semen motility rate improved more than 30% after thawing.	<ul style="list-style-type: none"> For water buffaloes, frozen semen Post Thaw Motility (PTM) is 30.7%. For beef cattle, PTM of 30% was noted in one semen identification.

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(4) Output 4: Training programs for model farms on feeding and management improved.

Verifiable Indicators	Results (as of June 2005)
4-1 Five (5) training courses for model farmers conducted and 80% of farmers adopted the technologies.	<ul style="list-style-type: none"> Four (4) training courses have been conducted. One (1) more will be undertaken before project completion. Only the farmers from the first training (n=13) have been evaluated. Of the technologies introduced, only dehorning and hay production are not readily adopted. The rest of the technologies (e.g. housing, animal identification, improved feeding system and forage production, use of feed supplements, milking and milk handling techniques, and record keeping) have an average adoption rate of 89%.

3.2 Project Purpose

"Relevant techniques for improvement of WB and BC developed in the province of Nueva Ecija"

Verifiable Indicators	Results (as of June 2005)
1-1 Frozen semen of tested sire produced 1,500 straws/head/year in WB and 1,000 straws/head/year in BC.	<ul style="list-style-type: none"> For water buffaloes, 2 out of 12 bulls are now producing at least 1,500 straws/head/year. The first DPT was completed in mid-2003 and this did not allow sufficient time for the production of the targeted 1,500 straws/head/year. It is expected that the remaining 10 bulls will produce the target number of straws after project completion. For beef cattle, 2 of the 5 bulls being collected for semen have passed the

<p>2-1 Increased milk production of WB by 3% at model farmers from 2003 to 2005.</p> <p>2-2 Increase weaning weight of BC by 3% at the NESF from 2003 to 2005.</p> <p>3-1 AI conception rate in pilot area increased from 41% to 46% in WB and from 49% to 54% in BC by 2005.</p>	<p>evaluation test and are expected to produce 1,000 straws/head/year by December 2005. The first DPT was completed only in January 2004 and this did not allow sufficient time for the production of the targeted 1,000 straws/head/year. It is expected that the three (3) others will produce the same number of straws after project completion.</p> <ul style="list-style-type: none"> • Milk production increased by 3.74% from 2003 (670.1 kg) to 2004 (695.2 kg) at the model farms (LDPC). It is expected that milk production will further increase in 2005. • Weaning weight of BC increased by 6.12% at the NESF from 2003 (93.1 kg) to 2005 (98.8 kg). • AI conception rate of water buffaloes in pilot area (Nueva Ecija) increased from 41% in 2002 to 47% in 2005. • AI conception rate of beef cattle in pilot area (Nueva Ecija) of 45% in 2002 has not made any significant increase as of May 2005. This rate is below the target of 54% as set in the PDM. However, at the NESF, the conception rate increased from 49% up to 70%. Apparently, the 49% reflected in the PDM is based on the NESF benchmark and not in the pilot area (Nueva Ecija).
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4. Result of the Evaluation

4.1 Relevance

(1) National development policy of the Philippine government

The goal of the Medium-Term Philippine Development Plan (MTPDP) for the period 2004-2010 is to alleviate poverty. The magnitude of poverty is highest in the rural areas where agriculture serves as the economic base. Since agriculture plays a major role in the generation of employment and income in the countryside, the development of the agricultural sector is important in the alleviation of poverty.

The government of the Philippines is implementing the *Ginintuang Masaganang Ani* (GMA) Program which consists of a livestock program. This program aims to modernize the livestock farming where the main beneficiaries are small animal producers. The targets of the program are: 1) 10% growth rate in livestock and poultry population with corresponding 5% improvement in genetic coefficient, i.e., an increase in reproductive performance, mature weight, 2) 30% level of contribution of livestock and poultry to the total farm income, and 3) increase in the value of production of the local livestock industry by 4% annually based on 1998 records. Among the strategies being implemented toward this end are genetic improvement, herd build-up, financing, and marketing and distribution.

Consistent with the aforementioned program, the Project was designed to contribute to the increase in productivity of Water Buffaloes and Beef Cattle. Since most livestock farmers are small farmers, the improvement of productivity of livestock would contribute to the increase of their income. The Project is therefore consistent with the policy framework of the MTPDP and the targets of the GMA program.

(2) Relevance of the Project to PCC

PCC is implementing the Carabao Development Program (CDP). The main components of the program include 1) Genetic Improvement, 2) Buffaloes-Based Enterprise, and 3) Research and Development. The Project is consistent with all the above programs of PCC.

(3) Relevance of the Project to NESF

NESF was established in 1998 to produce and disseminate genetically superior beef cattle to Luzon. The NESF was a newly established farm when the Project started and needed improvements. The Project's components on artificial insemination, feeding and management, and sire and dam selection are consistent with the mandate of NESF.



(4) Relevance of the Project to the LGUs in the Province of Nueva Ecija

The LGUs play a major role in providing artificial insemination services and extending knowledge and skills to livestock farmers through training. It is for this reason that LGU technicians have to acquire improved knowledge and skills on artificial insemination, feeding and management, animal health management, among others. The Project provided the training on feeding and management and the equipment necessary for artificial insemination.

(5) Relevance of the Project to the Livestock Farmers in the Province of Nueva Ecija

A survey in 2001 by the Project showed that livestock farmers need the following to increase their income: 1) improvement of reproduction, breeding and management and dissemination of milking cows for water Buffaloes, 2) improvement of reproduction, breeding and management for beef cattle.

The Project has conducted training courses for farmers on feeding and management, and has provided regular advice and assistance to the model farmers. By producing better quality frozen semen and by enhancing the capacity of AI technicians of LGUs, the Project has contributed to the improvement of reproduction of water Buffaloes and beef cattle and has facilitated the dissemination of milking water Buffaloes.

(6) Japan's Official Development Assistance (ODA) Policy to Philippines

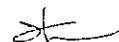
The Japanese government and JICA's priorities for assistance to the Philippines consists of four areas. 1) Strengthening of the economic structure for sustainable growth and the removal of impediments to such growth, 2) Mitigation of disparities (poverty alleviation and mitigation of regional disparities), 3) Environmental conservation and disaster management, and 4) Human resources development and institution building.

"Agricultural and rural development" through improving agricultural productivity, building of basic social and economic infrastructure in rural areas, strengthening of farmers' organizations and support to agrarian reform communities (ARCs) is one of the priority subjects for "mitigation of disparities" mentioned above.

4.2 Effectiveness

As described in chapter 3, most of the Outputs of the Project will be achieved by the completion of the Project. Although, some of the Outputs will not be fully achieved within the project duration, they are expected to be attained after completion.

The Project Purpose, which is "Relevant techniques for improvement of WB and



BC developed in the Province of Nueva Ecija”, will be mostly achieved by the completion of the Project. Relevant techniques have been developed and almost established, and the staff of PCC and NESF have satisfactorily acquired the knowledge and skills necessary for those techniques.

The achievement of the Outputs relating to the sire and dam selection, feeding and management, and artificial insemination will significantly contribute to the achievement of the Project Purpose.

4-3 Efficiency

(1) Appropriateness of the Inputs by both Japanese side and Philippine side

Most of the inputs have been provided adequately in terms of quantity, quality and timing. Below are several notable attributes that facilitated the smooth implementation of the project:

- Most of the Philippine counterparts assigned to the Project have continued to work with the Project. For example, from a total of 25 Philippine counterparts assigned, only four (4) have transferred to other positions within their organization. None of the counterparts has resigned. Moreover, there was no change in the Philippine counterparts assigned to management fields in the Project. It is considered that the retention of assigned counterparts for the whole duration of the Project has contributed to the efficiency of the Project.
- The training courses on feeding and management for farmers developed the competence of the participants. A case in point refers to one of the farmer- participants of the first batch who has now become a lecturer. He transfers his learnings, experiences and techniques by allowing other farmers the opportunity to see and observe his farm where breeding of water Buffaloes for milking is actually conducted. This is an efficient and effective way of technical transfer.

There were also some inputs that have not been provided adequately. However, these did not greatly affect the efficiency of the Project. Mentioned below are some examples:

- Communication problems between the Japanese experts and Philippine counterparts sometimes occur mainly due to the language barrier.
- The field of expertise of one of the Japanese experts dispatched did not match the

specific technical field that Philippine counterparts expected.

- At the initial stage of the Project, the implementation of some activities have been delayed due to the delayed construction of the main building of the PCC, late installation of power supply to the NESF, and the delayed construction of the access bridge going to NESF.
- The Philippine side has allocated appropriate budget for the Project activities. However, releases of the budget have occasionally been delayed.

(2) Project management and consensus building

The Joint Coordinating Committee (JCC) Meetings held twice a year served as the venue for critical discussions and decision-making on project implementation.

Monthly meetings were held from 2003, as recommended during the mid-term evaluation of the Project. The monthly meetings were held either separately or jointly with PCC and NESF. The meetings facilitated the sharing of information regarding the progress of the activities and the plans for the succeeding terms of the Project.

Harmonious working relationships have been established between Japanese experts and Philippine counterparts. This facilitated mutual understanding and cooperation, which contributed to the smooth implementation of the Project, although there were some difficulties due to the differences in culture and language.

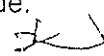
Although there was difficulty in coordinating two different organizations, exchange of information between PCC and NESF was promoted. As such, it is expected that technology of Water Buffaloes and Beef Cattle will be further developed through the sharing of information.

4-4 Impact

(1) Prospect of achieving the Overall Goal

The Overall Goal of the Project is "Productivity of Water Buffaloes and Beef Cattle in the country is improved".

The outcome of the Project will gradually contribute to the attainment of the Overall Goal in the medium term. However, the achievement of the Project Purpose alone cannot bring sufficient effects on the improvement of the productivity of water buffaloes and beef cattle in the whole country. It is therefore imperative to develop action plans and implement measures for disseminating the outcome of the Project nationwide.



(2) Other Impact

1) Distribution of frozen semen of water buffaloes in the country

The Project produced high quality frozen semen for AI. PCC is distributing frozen semen through its 13 PCC centers located all over the Philippines. The distribution of frozen semen produced from the selected bulls has not started yet. When distribution starts, this will contribute to the genetic improvement program and eventually, to the improvement of milk production nationwide.

2) Distribution of bulls by NESF to farmers in Regions 1, 2, 3 and 4 via the bull-loan program

NESF is now able to distribute bulls that have good genetic potential as a result of sire and dam selection and improved feeding and management. For example, 32 bulls have been distributed to farmers, medium size ranches and commercial ranches in regions through the above mentioned bull loan program.

3) Distribution of female beef cattle by NESF to farmers in Nueva Ecija

In collaboration with the PVO of Nueva Ecija, 77 heifers that have good genetic potential have been distributed to the farmers who are members of cooperatives in the Province under the Cattle Livelihood Project for Nueva Ecija (*Tulong Pangkabuhayan, Bakahan para sa Nueva Ecijanos*) which started in 2004 with a target of 40 animals to be distributed to farmer-recipients per year for 8 years.

4) Data collection and recording system for sire and dam selection at PCC headquarters has been extended to other PCC centers.

Data collection and recording system established by the Project has been extended to several PCC centers. Other centers can also improve sire and dam selection in the same manner as PCC National Headquarters since they can also learn to collect data uniformly.

4-5 Sustainability

(1) Institutional sustainability

PCC was established by virtue of Republic Act 7307 known as "the Philippine Carabao Act of 1992". PCC is an attached agency of the Department of Agriculture mandated to help achieve better nutrition, higher levels of income and improved general well-being of the rural farming families.

NESF is a regional station, mandated to produce and supply frozen semen of beef cattle in the main island of Luzon through the UNAIP. The NESF is also becoming a center for beef cattle production as well as for training of AI technicians of LGUs.

The benefits produced by both organizations are well recognized by farmers in Nueva Ecija and by other nearby regions.

As long as there are no changes in the government's policy on water buffaloes and beef cattle development, the current programs of PCC and NESF will be sustained.

(2) Financial sustainability

The Philippine government has allocated the necessary budget for the Project activities during the Project period. It is necessary that the Philippine government should continue to allocate sufficient budget to sustain the Project activities.

The PCC and NESF are also conducting income-generating activities. This contributes to the financial sustainability of the Project. However, only PCC is allowed to utilize the income to subsidize its operations. For NESF, efforts should be undertaken to do the same.

(3) Technical sustainability

The Philippine counterparts have satisfactorily acquired improved knowledge and skills in the fields of 1) sire and dam selection, 2) feeding and management and 3) artificial insemination from the Project. During the project period, most of the Philippine counterparts have worked continuously for the Project. Technical sustainability will be assured if they remain in their current assignments and train their co-staff. Almost all of the equipment provided by JICA is being properly utilized and maintained.

5. Conclusion

(1) Relevant techniques for improvement of Water Buffaloes and Beef Cattle have been successfully developed through the Project. Although there still remain a few indicators established in the PDM which have not been achieved yet, it is expected that they will be achieved without the Japanese assistance since the necessary techniques together with the facilities and equipment have already been transferred to the Philippine counterparts.

(2) Based on the abovementioned achievement, it is concluded that the Project will be completed on October 1, 2005 as planned.

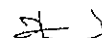


6. Recommendations

- (1) Items to implement during the remaining Project period
 - 1) The Project should fast-track the implementation of the remaining activities.
 - 2) The Project should develop an action plan to ensure that the gains derived from the project are sustained and optimized.
- (2) Items to implement after the Project period
 - 1) The Government of Philippines should ensure that the resources needed to sustain the gains achieved under the Project would be made available.
 - 2) The PCC and BAI should continue the activities initiated by the Project.
 - 3) The PCC and BAI, in collaboration with the LGUs and other relevant institutions, should disseminate the technologies learned from the Project to the centers/stations, technicians and farmers.
 - 4) The PCC and NESF should strengthen their income-generation and utilization to subsidize operations.
 - 5) The BAI should assign additional staff for the production of forage and other feed resources at NESF.
 - 6) The PVO should establish a system whereby Artificial Insemination data are gathered, analyzed and reported systematically.

7. Lessons Learned

- (1) The establishment of close linkages with LGUs and farmer's organizations has facilitated the implementation of the Project.
- (2) For projects involving large ruminants, the time schedule to achieve the indicators should be carefully planned.
- (3) Some indicators of the PDM were not clear enough to establish a common interpretation. This caused some difficulty in evaluating the achievement of the Project. The indicators should be clearly defined.
- (4) Needs assessment should be undertaken prior to the conduct of training to ensure the appropriateness of technologies to be promoted to the farmers.





ANNEX I

Schedule of Project the Joint Evaluation Team

(May 24~June 9, 2005)

No.	Date	Time	Venue	Object	Person to meet/contact
1	24-May-05	Tue	13:00 Manila International Airport (JAL741) 14:30 JICA Office	Arrival of Mr. Dojun, Consultant Previous Arrangement and Meeting	Mr. Imamura
2	25-May-05	Wed	9:00 JICA Office 14:00 MNL→Nueva Ecija (NE) 18:00 NE	Previous Arrangement Briefing and Meeting Traveling	Mission Members of Philippine Side
3	26-May-05	Thu	8:00 PCC (Whole Day)	Supplementary Survey (Interview, Questionnaire Collection, etc.)	Counterparts (CPs), Cooperative Farmer, Model Farmers and Experts (Exps)
4	27-May-05	Fri	8:00 Digidig Ranch (Half Day) 11:00 San Jose, Munoz 14:00 Licaong Village, Munoz (Half Day)		
5	28-May-05	Sat	PM Munoz→Cabanatuan (CBT), NE	Traveling	
6	29-May-05	Sun			
7	30-May-05	Mon	9:00 NESF (Whole Day)	Supplementary Survey (Interview, Questionnaire Collection, etc.)	CPs and Exps
8	31-May-05	Tue	9:00 PVO (Half Day) PM CBT→Munoz		
6	29-May-05	Sun	13:00 Manila International Airport (JAL741)	Arrival of Mr. Sato and Mr. Ito	
7	30-May-05	Mon	9:00 JICA Office 13:00 Manila International Airport (JAL741) 14:00 JICA Office 16:00 Embassy of Japan (EOJ)	(Meeting on Agricultural Sector's Projects) Arrival of Mr. Yamauchi Previous Arrangement and Meeting Courtesy Call	(Mr. Sato and Mr. Ito) Mr. Matsuura and Mr. Takata Mr. Ishii, 1st Secretary
8	31-May-05	Tue	9:00 NEDA, Quezon, MNL 11:00 BAI, Quezon, MNL 12:00 MNL→NE	Courtesy Call Courtesy Call and Meeting Traveling	Dr. Victor, Director, PMS Div. Dr. Molina, Director
9	01-Jun-05	Wed	8:30 PCC 9:00 19:00 Savannah Restaurant, Munoz	Courtesy Call 1st Joint Evaluation Team Meeting to confirm Evaluation Objective and Methodology Report on Project Achievement by CPs Meeting and Interview Dinner Meeting	Dr. Cruz, Executive Director Members concerned CPs in PCC and Digidig Ranch
10	02-Jun-05	Thu	7:00 Munoz→NESF 9:00 12:00 17:00 NESF→CBT	Traveling Report on Project Achievement by CPs Meeting and Interview Lunch Meeting Traveling	CPs in NESF
11	03-Jun-05	Fri	9:30 PVO, Palayan, NE 15:00 PVO→PCC 17:00 PCC	Report on Project Achievement by CPs Meeting and Interview Traveling Meeting and Interview	CPs in PVO Exps
12	04-Jun-05	Sat	8:15 Gene Pool, PCC 10:00 Digidig Ranch 12:00 San Jose, Munoz 15:30 Licaong Village, Munoz 17:00 PCC	Site Visit Site Visit Site Visit Site Visit Document Preparation	Model Farmer Cooperative Farmer

Schedule of Project the Joint Evaluation Team (May 24 ~ June 9, 2005)

No.	Date	Time	Venue	Object	Person to meet/contact	
13	05-Jun-05	Sun	AM	NE→MNL	Traveling	
14	06-Jun-05	Mon	9:00	BAI, Quezon, MNL	2nd Joint Evaluation Team Meeting for Formulation of Joint Report Draft	Members concerned
15	07-Jun-05	Tue	9:00	BAI, Quezon, MNL	Previous Discussion	Members concerned
			15:00		3rd Joint Evaluation Team Meeting for Formulation and Sign of Joint Evaluation Report	
			16:00	DA, Quezon, MNL	Courtesy Call	Mr. Drilon, Under Secretary
16	08-Jun-05	Wed	9:00	Networld Hotel, Pasay, MNL	9th JCC Meeting/Report on Joint Evaluation	Members concerned
			14:00	EOJ	Courtesy Call	Mr. Ishii, 1st Secretary
17	09-Jun-05	Thu	10:00	JICA Office	Report	Mr. Matsuura and Mr. Takata
			14:20	Manila International Airport (JAL742)	Departure	

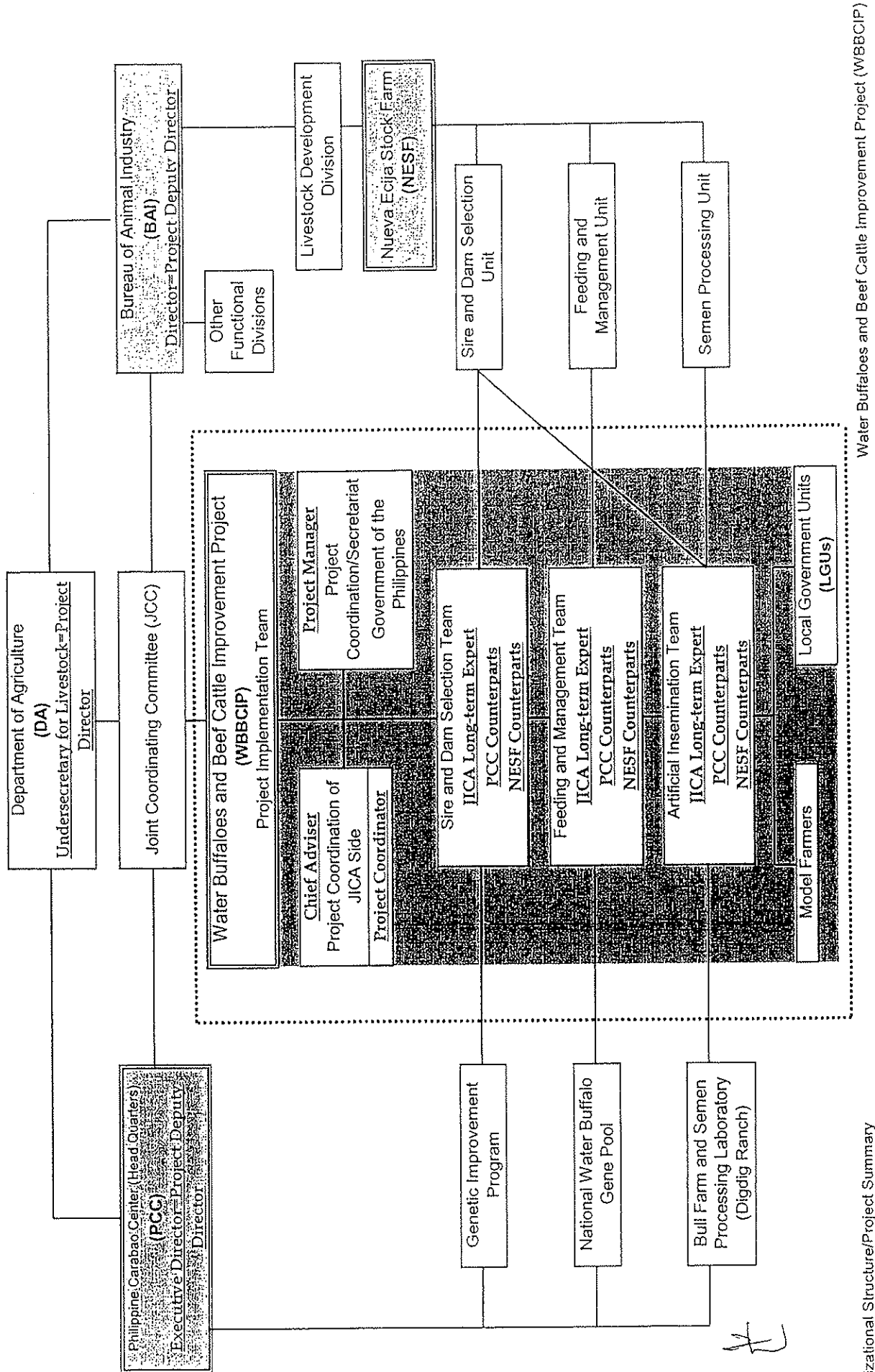



Project Title: WATER BUFFALOES AND BEEF CATTLE IMPROVEMENT PROJECT

Target Group: Technicians of PCC (National Water Buffalo Gene Pool & Philippine Carabao Center at CLSU), BAI (Nueva Ecija Stock Farm (NESF)), Local Government Units (LGUs) in Nueva Ecija Province
Target Area: Province of Nueva Ecija, Philippines
Project Implementation: JICA, PCC/DA, BA/DA
Duration: 5 years (October 2, 2000 - October 1, 2005)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>OVERALL GOAL: Productivity of Water Buffaloes (WB) and Beef Cattle (BC) in the country improved.</p> <p>PROJECT PURPOSE: Relevant techniques for improvement of WB and BC developed in the Province of Nueva Ecija.</p>	<p>1. Milk production in WB will be increased. 2. Weight gaining rate in BC will be increased.</p> <p>1-1) Frozen semen of tested sire produced 1,500 straws/head/year in WB and 1,000 straws/head/year in BC. 2-1) Increased milk production of WB by 3% at model farmers from 2003 to 2005. 2-2) Increase weaning weight of BC by 3% at the NESF from 2003 to 2005. 3-1) AI conception rate in pilot area increased from 41% to 46% in WB and from 49% to 54% in BC by 2005.</p>	<p>Bureau of Agriculture Statistics - PCC, BAI annual report</p> <p>Project survey records - Record of frozen semen production</p>	<p>- Livestock production policies will not drastically change - Economic fundamentals remain strong - The Department of Agriculture replicates the results of the Project in other areas of the country</p> <p>- Trained personnel will stay with the implementing organizations - LGUs will extend AI service in the pilot area - Farmers from other modules will attend training programs for model farmers - Farm level marketing especially for milk is existing</p>
<p>OUTPUTS</p> <p>1. Sire and dam selection techniques for WB & BC improved. 2. Feeding and management techniques of the PCC, BAI and LGUs technicians improved. 3. Artificial insemination techniques of the PCC, BAI and LGUs technicians improved. 4. Training Programs for model farms on feeding and management improved.</p>	<p>1-1) 12 offspring male buffaloes based on accurate dams and sires data and 6 offspring male cattle based on direct performance test selected. 2-1) Feeding and management manual developed by 2005. 2-2) 50 PCC, BAI and LGUs technicians trained on improved technologies on feeding and management. 3-1) AI manual on WB and BC developed respectively by 2005. 3-2) Frozen semen motility rate improved more than 30% after thawing. 4-1) 5 training courses for model farmers conducted and 80% of farmers adapted the technologies.</p>	<p>PCC, BAI annual report - Manual for sire selection methods - Animal management ledger - Manual for feeding and health management - UNAIIP artificial insemination statistics - Post training evaluation report - IEC (Information, Education and Communication) materials produced</p>	<p>- No major animal diseases outbreak at the project sites - PCC and BAI should maintain the equipment - LGUs send technicians to AI seminar - Model farmers will positively accept the improved technology - No extreme weather condition</p>
<p>ACTIVITIES</p> <p>1. Improvement of selection techniques of sire and dam 1-1) To survey and analyse of actual situation. 1-2) To establish selection methods of sire and dam. 2. Improvement of feeding and management techniques 2-1) To survey and analyse of actual situation. 2-2) To establish a systematic technique for feeding and management. 2-3) To establish health management techniques for mastitis, diarrhea and pneumonia 2-4) To implement training courses for technicians of the PCC, BAI and LGUs. 3. Improvement of artificial insemination techniques 3-1) To survey and analyse of actual situation. 3-2) To produce high-quality frozen semen. 3-3) To implement training courses for technicians of the PCC, BAI and LGUs. 3-4) To review and update AI manual used by the PCC and BAI. 4. Development of training programs for model farmers on feeding management 4-1) To develop training program and material for model farmers and LGUs technicians. 4-2) To implement training courses for model farmers and LGUs technicians. 4-3) To evaluate the results of training courses.</p>	<p style="text-align: center;">INPUT</p> <p>1. JICA experts 1-1) Long-term - Chief adviser (may serve concurrently as an expert) - Project coordinator - Selection of sire and dam - Feeding and management - Artificial insemination 1-2) Short-term (when necessary arises) 2. Equipment and machinery 3. Counterpart training in Japan 4. Operating budget 5. Mission dispatched (when necessary arises)</p>	<p style="text-align: center;">The Philippines</p> <p>1. Personnel - Project Director - Project Deputy Director - Project Manager - Project Sub-manager - Counterparts to Japanese experts - Clerk, secretary and other necessary staff 2. Land, buildings and facilities 3. Operating budget 4. Supplies for frozen semen production</p>	<p>- Stable acquisition of liquid nitrogen - Stable acquisition of supplies for semen production - No drastic change in implementing organizations</p> <p>PRECONDITIONS - Steady cooperation JICA and BAI - Buflis will be infused to NESF - PCC, BAI budget will be prepared on schedule - Counterparts, including those trained in Japan, will stay with the Project - Additional personnel will be appropriately designated to the project - PCC and NESF prepare training expenses - Basic infrastructure are built in NESF</p>

Water Buffaloes and Beef Cattle Improvement Project (WBBCIP) Organizational Structure



COUNTERPART ALLOCATION

No.	Assignment of the Project	Site	Name	Field	Title
1	<i>Project Director</i>	DA	Hon. Usec Cesar M. Drilon, Jr.		Under Secretary, DA
2	<i>Project Deputy Director, BAI</i>	BAI	Dr. Jose Q. Molina		Director, BAI, DA
3	<i>Project Deputy Director, PCC</i>	PCC	Dr. Libertado C. Cruz		Executive Director, PCC, DA
4	<i>Project Manager</i>	BAI	Dr. Rubina O. Cresencio		Information Officer V, PCC, DA
5	<i>Project Sub-manager</i>	NESF	Dr. Baltazar P. Mateo		Center Chief IV, NESF, BAI, DA
6	<i>Sire and Dam Selection</i>	NESF	Dr. Edwin D. Eusebio		Farm Veterinarian II, NESF, BAI, DA
7	(Dr. Norio Saito)	NESF	Ms. Diosamia V. Mallari	Data Processing	Agriculturist I, NESF, BAI, DA
8		PCC	Dr. Ester B. Flores		Project Development Officer IV, PCC, DA
9		PCC	Ms. Jennifer B. Fernandez	Data Processing	Laboratory Aide II
10	<i>Feeding and Management</i>	NESF	Mr. Clodualdo F. Mariano	Cum-forage Production	Agriculturist I, NESF, BAI, DA
11	(Mr. Toshiaki Hidaka)	NESF	Mr. Bonifacio R. Godoy		Agriculturist I, NESF, BAI, DA
12		PCC	Dr. Daniel L. Aquino		Supervisor Science Research Specialist, PCC, DA
13		PCC	Dr. Apolinario L. Salazar, Jr.	Health Management	Science Research Specialist I, PCC, DA
14		PCC	Mr. Nomer P. Garcia	Model Farmers	Senior Science Research Specialist, PCC, DA
15		PCC	Dr. Perla DC. Florendo	Feed Analysis	Senior Science Research Specialist, PCC-CLSU
16		PCC	Ms. Mina P. Abella	Milk Quality Analysis	Senior Science Research Specialist II, PCC-CLSU
17		PCC	Ms. Ferrymar I. Gaspar	Data Processing	Data Encoder
18		PCC	Mr. Ronaldo S. Sadural	Forage Production	Supply Officer III
19	<i>Artificial Insemination</i>	NESF	Ms. Rosalinda P. Mateo	Frozen Semen Processing	Agriculturist II, NESF, BAI, DA
20	(Mr. Kazuhito Kudo)	NESF	Ms. Ursula G. Serafica	Frozen Semen Processing	Farm Worker II, NESF, BAI, DA
21		PCC	Dr. Felomino V. Mamuad		Deputy Executive Director, PCC, DA
22		PCC	Ms. Emma V. Venturina	Frozen Semen Processing	Science Research Specialist II, PCC-CLSU
23		PCC	Mr. Hermandio V. Venturina	Artificial Insemination	Supervisor Science Research Specialist, PCC, DA
24		PVO	Dr. Mario P. Deifin	Artificial Insemination	Chief of Animal Propagation Divisions, Nueva Ecija Provincial Veterinary Office
25		PVO	Mr. Jose III. H. Inza Cruz	AI Diffusion Plan	Farm Worker II, Nueva Ecija Provincial Veterinary Office

COUNTERPART ALLOCATION

No.	Assignment of the Project	Site	Name	Field	Title
	Project Office Staff	PCC	Ms. Ma Victoria D. Abesamis	Secretary	PCC, DA
			Ms. Sonia D. Pol	Technical Assistant	Contractor, PCC
			Ms. Kristalyn A. Parala	Technical Assistant	Contractor, PCC
			Mr. Imael A. Gajonera	Office Assistant	Contractor, PCC
			Mr. Paulo F. Romero	Driver	Contractor, PCC
			Mr. Roderick V. Javier	Driver	JICA

Allocation of Budget by Philippine Side

(1) Budget Allocation of PCC and BAI

Unit: Peso

Year	2000*			2001*			2002*			2003*		
	GAA	MAKAMASA/ GMA	Total	GAA	MAKAMASA/ GMA	Total	GAA	GMA-L	Total	GAA	GMA-L	Total
PCC	185,275		185,275	175,256	37,024	212,280	178,433	21,735	200,168	103,486	3,000	106,486
BAI	65,550	60,449	125,999	63,226	68,925	132,151	56,324	47,605	103,929	56,438	40,760	97,198
Total			311,274			344,431			304,097			203,684

Year	2004			2005		
	GAA	GMA-L	Total	GAA	GMA-L	Total
PCC	96,612	5,000	101,612	100,733		100,733
BAI	43,766	35,879	79,645	43,766	35,879	79,645
Total			181,257			180,378

* Budget was allocated for facilities, manpower and services.

GAA=General Appropriation Act

GMA=Gintuang Masaganang Ani

FAPs=Foreign Assisted Project Fund

MAKAMASA

(2) Budget Allocation of PCC and NESF-BAI for the Project (WBBCIP)

Unit: Peso

Year	2002			2003			2004			2005		
	GMA-L	FAPS	GAA & REGULAR BUDGET	Total	GMA-L	FAPS	GAA & REGULAR BUDGET	Total	GMA-L	FAPS	Total	Total
PCC	10,935	1,462,000	32,478	1,505,413		1,444,800.0	138,096	1,582,896		680.2	680.2	2,401
BAI-NESF	11,565	847,000	1,204,230	2,062,795		1,576,900.0	557,010	2,133,910		680.2	680.2	2,401
Total				3,568,208				3,716,806			1,360.4*	4,802

Note: In 2000 and 2001, budget was not allocated for WBBCIP, however, expenditures necessary for WBBCIP were covered by PCC's ordinary budget for that period.

2000: 6 units of air conditioners, some office desks and 1 set of furniture for reception room.

2001: car insurance, maintenance costs for the project office, costs for seminar, meetings and some office supplies.

GAA & Regular Budget-these are the regular budget of PCC & BAI that are used by the operating units involved in WBBCIP.

*For 2004 the total amount released to the project is Php 1,432.0 but deducted 5% tax for Job Orders amounting to 71.6 so the actual amount released is Php 1,360.4.

DISPATCH OF JAPANESE EXPERTS

1. Long-term Experts

No.	Name	Component	Period of Assignment							
			From	To	H12 2000	H13 2001	H14 2002	H15 2003	H16 2004	H17 2005
1	Dr. Norito Saito	Chief Advisor/Sire and Dam Selection	2-Oct-04	1-Oct-05						
2	Dr. Tomoaki Kurimoto	Chief Advisor/Sire and Dam Selection	1-Nov-02	31-Oct-04						
3	Mr. Yutaka Matsumoto	Chief Advisor/Sire and Dam Selection	27-Nov-00	26-Nov-02						
4	Mr. Kohei Kuroiwa	Project Coordinator	8-Sep-03	7-Sep-05						
5	Mr. Hideyuki Adachi	Project Coordinator	2-Oct-00	1-Oct-03						
6	Mr. Toshiaki Hidaka	Feeding and Management	3-Mar-03	1-Oct-05						
7	Mr. Osamu Tanaka	Feeding and Management	1-Feb-01	31-Jan-03						
8	Mr. Masayoshi Nakatani	Feed Production	20-Apr-03	20-Apr-04						
9	Mr. Kazuhiro Kudo	Artificial Insemination	2-Oct-04	1-Oct-05						
10	Dr. Hiroshi Saito	Artificial Insemination	17-Dec-02	16-Dec-04						
11	Dr. Hidetoshi Kinoshita	Artificial Insemination	2-Oct-00	1-Oct-02						

2. Short-term Experts

No.	Name	Component	Sire and Dam Selection	For One Month	Period of Assignment						
					From	To	H12 2000	H13 2001	H14 2002	H15 2003	H16 2004
18	Mr. Ken Nakabayashi	Milking Hygiene	種畜選抜	Aug-05							
17	Mr. Seijun Kikuchi	Grassland Management and Utilization	搾乳衛生	13-Jun-05	12-Aug-05						
16	Dr. Norio Saito	Artificial Insemination (Improvement of Reproductive Disorder)	草地管理・利用	13-Jun-05	17-Sep-05						
15	Mr. Sontyo Morita	Grazing Management (Feeding and Management)	人工授精(低受胎対策)	28-Jun-04	20-Aug-04						
14	Dr. Michitaka Hashimoto	Hygiene Management	放牧管理(飼養管理)	22-Jun-04	18-Sep-04						
13	Mr. Tadashi Kawamura	Direct Performance Test on Beef Cattle	衛生対策	22-Jun-04	18-Sep-04						
12	Dr. Motomitsu Taguchi	Nursing and Health	肉用牛直接検定	9-Feb-04	6-Mar-04						
11	Dr. Atsushi Hatsugaya	Improvement of Conception Rate	哺育・衛生	25-Aug-03	22-Nov-03						
10	Mr. Tsutomu Yoshizawa	Methodology of Selection Data and Performance Test	低受胎対策	18-Jul-03	17-Oct-03						
9	Dr. Yukio Kanai	Reproductive Disorder	選抜手法分析	19-May-03	14-Jun-03						
8	Mr. Masahiro Masuda	Test for Milk Quality	繁殖障害	9-Mar-03	15-Mar-03						
7	Mr. Tsutomu Yoshizawa	Methodology of Selection Data and Performance Test	乳質検査	24-Jan-03	25-Mar-03						
6	Dr. Toshiaki Hayakawa	Feed Analysis	選抜手法分析	8-Oct-02	15-Nov-02						
5	Dr. Fuminori Nagai	Reproductive Disorder	飼料分析	20-Aug-02	29-Sep-02						
4	Dr. Hiroshi Saito	Frozen Semen Production	繁殖障害	22-Feb-02	22-Mar-02						
3	Mr. Takatoshi Nakanishi	Sire and Dam Selection	凍結精液製造	6-Feb-02	8-Mar-02						
2	Dr. Shuichi Matsuda	Call Management	種畜選抜	20-Nov-01	19-Dec-01						
1	Mr. Kazuhiro Kudo	Call Management	子牛飼養管理	20-Nov-01	19-Dec-01						

Written in *Italics* : Proposed Plan

COUNTERPART TRAINING IN JAPAN

No.	Assignment of the Project	Site	Name	Period of Assignment in the Project (Upper)/Counterpart Training in Japan (Lower)							
				From	To	H12	H13	H14	H15	H16	H17
1	Project Manager	BAI	Dr. Rubina O. Cresencio	Oct-00	Present	2000	2001	2002	2003	2004	2005
				17-Sep-00	29-Sep-00	12 Days					
				(Project Management/プロジェクト運営管理)							
				Oct-00	Present						
2	Sire and Dam Selection	NESF	Dr. Edwin D. Eusebio	30-Jan-01	20-Mar-01	49 Days					
				(Selection of Sire and Dam/家畜育種)							
3		NESF	Ms. Diosamia V. Mallari	Sep-02	Present	33 Days					
				17-Aug-04	19-Sep-04	(Direct Performance Test on Beef Cattle/肉用牛直接検定)					
4		PCC	Dr. Ester B. Flores	Aug-03	Present	47 Days					
				17-Aug-04	03-Oct-04	(Pedigree Registration System/血統登録システム)					
5		PCC	Ms. Jennifer B. Fernandez	Apr-01	Present	45 Days					
				2-Oct-03	16-Nov-03	(Dairy herd Performance Test/乳用牛群検定)					
				Iwate Station, NLBC/岩手・家畜改良センター							
6		PCC	Dr. Claro N. Mingala	Apr-01	Mar-02	42 Days					
				3-Jul-01	14-Aug-01	(Sire and Dam Selection/種畜選抜)					
				Nikkappu Station, NLBC/新冠・家畜改良センター							

7	Feeding and Management	NESF	Mr. Ciodualdo F. Marfano	Present 5-Aug-02 Tottori Station, NLBC/鳥取・家畜改良センター Present Oct-01 15-May-03 Ouu Station, NLBC/奥羽・家畜改良センター Present Oct-00 30-Jan-01 Niikappu Station, NLBC/新潟・家畜改良センター Present Apr-01 3-Jul-01 NLR/Iwate Station, NLBC/岩手・家畜改良センター Present Jul-02 9-May-05 NLBC HQ/家畜改良センター本所 Present Aug-01 18-Jun-02 NLBC HQ/家畜改良センター本所 Present Aug-01 2-Jul-02 Iwate Station, NLBC/岩手・家畜改良センター Present Jul-02 6-Oct-03 Tottori Station, NLBC/鳥取・家畜改良センター Present Jul-02 1-Oct-01 Ouu Station, NLBC/奥羽・家畜改良センター	48 Days (Reproductive Disorder on Beef Cattle/肉用牛繁殖障害) 43 Days (Calf Management on Beef Cattle/肉用牛子牛管理) 49 Days (Feeding and Management/飼養管理) 42 Days (Calf Management/子牛飼養管理) 90 Days (Forage Production and Utilization/飼料生産・利用) 28 Days (Feed Analysis/飼料成分分析) 42 Days (Test for Milk Quality/乳質検査) 48 Days (Frozen Semen Production/凍結精液製造) 39 Days (Frozen Semen Production/凍結精液製造)
8		NESF	Mr. Bonifacio R. Godoy		
9		PCC	Dr. Daniel L. Aquino		
10		PCC	Dr. Apolinario L. Salazar, Jr.		
11		PCC	Dr. Norner P. Garcia		
12		PCC	Dr. Perla DC. Florendo		
13		PCC	Ms. Mina P. Abella		
14		NESF	Ms. Ursula G. Serafica		
15		PCC	Ms. Emma V. Venturina		

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16	Artificial Insemination	PCC	Dr. Nancy S. Abes	Jul-01 1-Oct-01	May-02 9-Nov-01	39 Days (Reproductive Disorder/繁殖障害)	
17		PVO	Mr. Jose III. H. Inza Cruz	May-02 13-May-03	Present 6-Jul-03	54 Days (Artificial Insemination Distribution Plan/牛育種・人工授精技術集団コース)	
18		PCC Digdig	Mr. Everlito A. Mendoza	Jul-02 31-Aug-04	Present 16-Oct-04	46 Days (Artificial Insemination/人工授精技術)	
19		PCC Module	Mr. Elizaide S. Ringor	Sep-02 31-Aug-04	Present 16-Oct-04	46 Days (Artificial Insemination/人工授精技術)	
20		PVO	Mr. Richard F. Aquino	31-Aug-04	16-Oct-04	46 Days (Artificial Insemination/人工授精技術)	
21		PVO	Mr. Lito R. Lopez	31-Aug-04	16-Oct-04	46 Days (Artificial Insemination/人工授精技術)	
22		Munic. Office (Talugtug City)	Mr. Gregorio M. Ordonez	31-Aug-04	16-Oct-04	46 Days (Artificial Insemination/人工授精技術)	
23		Munic. Office (San Jose City)	Ms. Gina G. Tuquero	31-Aug-04	16-Oct-04	46 Days (Artificial Insemination/人工授精技術)	

LOCAL COST IMPLEMENTATION ON JAPAN SIDE

Unit: Peso

No.	Items of Expenditure	Fiscal Year												Total
		H12年		H13年		H14年		H15年		H16年		H17年		
		2000		2001		2002		2003		2004		2005		
		Year 2000	Year 2001	Year 2002	Year 2003	Year 2004	Year 2005	Year 2005	Year 2005	Year 2005	Year 2005	Year 2005	Year 2005	
	Oct	Mar	Apr	Mar	Apr	Mar	Apr	Mar	Apr	Mar	Apr	Oct. 1		
1	General Local Cost(一般現地業務費) (1) Technical Exchange Program	1,170,480.00		2,128,720.00		1,711,978.60 431,572.00		1,398,384.83 683,509.62		5,664,585.62		2,366,000.00		14,440,149.05 1,115,081.62
2	Local Application Cost(現地適応化事業費) (1) Facility (2) Activity (3) Infrastructure Maintenance (Contract Basis)					40,140.00 94,860.00		1,321,516.50 1,287,983.50 6,309,118.00 ##						1,361,656.50 1,382,843.50 6,309,118.00
	Total	1,170,480.00		2,128,720.00		2,278,550.60		11,000,512.45		5,664,585.62		2,366,000.00		24,608,848.67

Remarks:

* Written in *italic*: Proposed Plan

##: For seven cases with "O" marks on the list of "Infrastructure Maintained by Japan Side"

3	Provided Equipment (1) Local Procurement (Peso) (2) Procured in Japan (Yen)	2,854,492.00 1,240,000	12,874,852.00 1,121,300	14,258,512.00 501,000	15,635,743.75 263,640	6,712,560.00 1,149,190	14,300.00 3,443,500	52,350,459.75 7,718,630.00
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Item No. 3 is summarized based on the date-in of equipment to the project, not its proposed JFY.

INFRASTRUCTURE MAINTAINED BY JAPAN SIDE

No.	Description	Component	Site	Date Completed	Budget	Amount	Contractor (Contract Basis)	Unit: Peso
1	Manure Barn	FM	NESF	Sep 24, 2003	2003	155,600.00	WIRO CONSTRUCTION	+
2	Hey Shed	FM	NESF	Nov 27, 2003	2003	792,800.00	WIRO CONSTRUCTION	+
3	Performance Testing Shed & Stanchion	SDS	NESF	Jan 12, 2004	2003	500,453.00	RG CASTRO CONSTRUCTION	+
4	Motor Pool & Watering Trough	General/FM	NESF	Feb 11, 2004	2003	665,365.00	RG CASTRO CONSTRUCTION	+
5	Forage Land Readjustment No. 1 (Materials Only)	FM	NESF	Apr 21, 2004	2003	1,305,000.00	NAKAGAWA CHEM. EQUIPT. PHILS.	+
6	Exercise Paddocks	FM	PCC	Apr 26, 2004	2003	1,012,205.25		+
7	Simple Access Road for Beef Cattle	General/FM	NESF	Apr 27, 2004	2003	794,343.00		+
8	Relocation Survey	General/FM	NESF	May 05, 2004	2003	990,000.00	RASA SURVEY	+
9	Roof Extension of Cow Sheds A and B	FM	NESF	Jul 14, 2004	2004	450,509.05		+
10	Rehabilitation of Drainage of Calf Shed	FM	NESF	Jul 19, 2004	2004	1,100.00		+
11	Pastureland Development/Canal Rehabilitation	FM	PCC	Jul 28, 2004	2004	146,306.50		+
12	Rehabilitation of Bunker Silos and Manure Barn	FM	NESF	Aug 25, 2004	2004	41,009.00		+
13	Rectification of Railing on Feeding Trough	FM	PCC	Sep 23, 2004	2004	20,000.00		+
14	Rehabilitation of Access Road	General	Digidig/PCC	Sep 30, 2004	2003	1,899,900.00	WIRO CONSTRUCTION	+
15	Mineral Feeding Drum Stand	FM	NESF	Dec 27, 2004	2004	22,933.00		+
16	Rehabilitation of Working Corral	FM	NESF	Dec 27, 2004	2004	72,208.50		+
17	Bull Exercise Railing (Materials Only)	AI	Digidig/PCC	Jan 10, 2005	2004	25,070.00		+
18	Rehabilitation of Access Road	General/FM	NESF	Jan 13, 2005	2004	516,098.75		+
19	Model Cow Shed in Model Farm	FM	Licaoong/PCC	Jan 26, 2005	2004	268,730.00		+
20	Repair on Roof, Railings and Feeding Trough of Calf Shed	FM	NESF	Jan 27, 2005	2004	23,701.00		+
21	Rehabilitation of Feeding & Watering Troughs of Bull Shed	AI/FM	NESF	Apr 12, 2005	2005	116,702.50		+
22	Follow-up for No. 7 & No. 18 (Materials Only)	General/FM	NESF	Apr 18, 2005	2005	36,000.00		+
Total						9,856,034.55		
	<i>Bull Exercise Pen (Materials Only)</i>	AI	NESF	<i>On-going</i>	2005	470,000.00		((Sharing))
	<i>Forage Land Readjustment No. 2 (Materials Only)</i>	FM	NESF	<i>Planning</i>	2005	350,000.00		((Sharing))

Remarks:

* Written in *Italics* : Proposed Plan

EQUIPMENT LEDGER PROVIDED BY JAPAN SIDE

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A: Good B: Moderate C: Bad

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No.	Equipment	Manufacturer	Model	Date-in	Price	Budget	Deployment	Section	Condition	Frequency
1	PC (Desktop)	FUJITSU	FMV C4/66L	06-Nov-00	¥ 288,000	AE	PCC	GEN	A	A
2	Color scanner	EPSON	GT-7000U	06-Nov-00	¥ 19,800	AE	PCC	GEN	A	A
3	Voltage regulator		SVC-1000ND	06-Nov-00	¥ 26,000	AE	PCC	GEN	A	A
4	Printer	EPSON	PM820C	06-Nov-00	¥ 47,000	AE	PCC	GEN	A	A
5	PC (Laptop)	FUJITSU	FMV BIBLO	06-Nov-00	¥ 270,500	AE	PCC	GEN	A	A
6	Printer	EPSON	PM3300C	06-Nov-00	¥ 67,800	AE	PCC	GEN	A	A
7	Digital Camera	OLYMPUS	C-990 Zoom	06-Nov-00	¥ 80,000	AE	PCC	GEN	A	A
8	Color Scanner	EPSON	GT-7000U	06-Nov-00	¥ 27,800	AE	PCC	GEN	A	A
9	Voltage Regulator		SVC-600ND	06-Nov-00	¥ 28,200	AE	PCC	GEN	A	A
10	PC (Desktop)	COMPAQ	Presario 5000	20-Dec-00	P 71,788	GLC	PCC	GEN	A	A
11	File Cabinet		200 LFU03GF	21-Dec-00	P 13,202	GLC	PCC	GEN	A	A
12	File Cabinet		200 LFU03GF	21-Dec-00	P 13,202	GLC	PCC	GEN	A	A
13	File Cabinet		200 LFU03GF	21-Dec-00	P 13,202	GLC	PCC	GEN	A	A
14	Center Table		500 F50CND	21-Dec-00	P 7,865	GLC	PCC	GEN	A	A
15	Punch Binder Machine		Combi ECO-S	21-Dec-00	P 39,500	GLC	PCC	GEN	A	A
16	Computer, Monitor, Software and UPS	COMPAQ	Presario 5BW260 5000 Series	21-Dec-00	P 85,664	GLC	PCC	GEN	A	A
17	PC (Laptop)	FUJITSU	FMV-BIBLO	28-Dec-00	¥ 254,000	AE	PCC	GEN	A	A
18	Printer	EPSON	PM3300C	28-Dec-00	¥ 38,000	AE	PCC	GEN	A	A
19	MO Drive		MOS-U 1300	28-Dec-00	¥ 67,900	AE	PCC	GEN	A	A
20	Voltage Regulator		SVC-600ND	28-Dec-00	¥ 25,000	AE	PCC	GEN	C	Out of Order
21	Heavy Box		Chubb	12-Feb-01	P 18,500	GLC	PCC	GEN	A	A
22	File Cabinet		200 LFU03GF	21-Mar-01	P 13,202	GLC	PCC	GEN	A	A
23	File Cabinet		200 LFU03GF	21-Mar-01	P 13,202	GLC	PCC	GEN	A	A
24	Locker		4 Cabins	21-Mar-01	P 70,000	GLC	PCC	GEN	A	A
25	Desk		500 F51AXIS	21-Mar-01	P 8,380	GLC	PCC	GEN	A	A
26	PC (Desktop)	APPLE	iMac G3	22-Mar-01	P 105,895	H12	PCC	GEN	A	A
27	Photocopier	SHARP	AR-QE1	22-Mar-01	P 42,100	GLC	PCC	GEN	A	A
28	Generator	HONDA	2.5KV	23-Mar-01	P 35,000	GLC	PCC	GEN	A	A
29	PC (Desktop)	HP	Vectra VL400DT	23-Mar-01	P 107,780	H12	Digidig/PCC	GEN	A	B
30	PC (Desktop)	HP	Vectra VL400DT	23-Mar-01	P 107,780	H12	NESF	GEN	A	A

EQUIPMENT LEDGER PROVIDED BY JAPAN SIDE

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NO.	Equipment	Manufacturer	Model	Date-in	Price	Budget	Deployment	Section	Condition	Frequency	
31	PC (Laptop)	HP	Omni Book 6000	23-Mar-01	190,000	H12	PCC	GEN	A	A	
32	Printer	HP	DeskJet 930C	23-Mar-01	9,500	H12	Digidig/PCC	GEN	A	A	
33	Printer	HP	DeskJet 930C	23-Mar-01	9,500	H12	NESF	GEN	A	A	
34	Printer	HP	DeskJet 930C	23-Mar-01	9,500	H12	PCC	GEN	A	A	
35	Printer	HP	LaserJet 4050	23-Mar-01	51,650	H12	PCC	GEN	A	A	
36	Pickup	TOYOTA	HILUX 4WD	23-Mar-01	1,189,790	H12	NESF	GEN	A	A	
37	Liquid Nitrogen Tank		XC33/22	28-Mar-01	62,829	H12	Digidig/PCC	AI	A	A	
38	Liquid Nitrogen Tank		XC33/22	28-Mar-01	62,829	H12	Digidig/PCC	AI	A	A	
39	Liquid Nitrogen Tank		XC33/22	28-Mar-01	62,829	H12	Digidig/PCC	AI	A	A	
40	Liquid Nitrogen Tank		XC33/22	28-Mar-01	62,829	H12	Digidig/PCC	AI	A	A	
41	Liquid Nitrogen Tank		XC33/22	28-Mar-01	62,829	H12	Digidig/PCC	AI	A	A	
42	Liquid Nitrogen Tank		XC33/22	28-Mar-01	62,829	H12	Digidig/PCC	AI	A	A	
43	Liquid Nitrogen Tank		XC33/22	28-Mar-01	62,829	H12	Digidig/PCC	AI	A	A	
44	Liquid Nitrogen Tank		XC33/22	28-Mar-01	62,829	H12	Digidig/PCC	AI	A	A	
45	Liquid Nitrogen Tank		XC33/22	28-Mar-01	62,829	H12	NESF	AI	A	A	
46	Liquid Nitrogen Tank		XC33/22	28-Mar-01	62,829	H12	NESF	AI	A	A	
					P	2,854,492.00					
					¥	1,240,000					
					Sub-total of JFY 2000/H12 (Oct. 2000 - Mar. 2001)						

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EQUIPMENT LEDGER PROVIDED BY JAPAN SIDE

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No.	Equipment	Manufacturer	Model	Date-in	Price	Budget	Deployment	Section	Condition	Frequency
47	PC (Laptop)	FUJITSU	FMV-BIBLO	02-Apr-01	¥ 233,000	AE	PCC	GEN	A	A
48	Printer	EPSON	PM880C	02-Apr-01	¥ 46,500	AE	PCC	GEN	C	Out of Order
49	Voltage Regulator		SVC-600ND	02-Apr-01	¥ 29,000	AE	PCC	GEN	A	A
50	Portable Radio	MOTOROLA	GP68	09-Apr-01	P 19,000	SM	Hilux (NESF)	GEN	A	A
51	Portable Radio	MOTOROLA	GP68	09-Apr-01	P 19,000	SM	Hilux (Digdig/PCC)	GEN	A	A
52	Portable Radio	MOTOROLA	GP68	09-Apr-01	P 19,000	SM	Hilux (PCC)	GEN	A	A
53	Portable Radio	MOTOROLA	GP68	09-Apr-01	P 19,000	SM	PCC	GEN	A	A
54	Portable Radio	MOTOROLA	GP68	09-Apr-01	P 19,000	SM	NESF	GEN	A	A
55	Portable Radio	MOTOROLA	GP68	09-Apr-01	P 19,000	SM	L-300 Truck	GEN	A	A
56	Portable Radio	MOTOROLA	GP68	09-Apr-01	P 19,000	SM	Expert's Car	GEN	A	A
57	Base Radio	MOTOROLA	Radius GM300	09-Apr-01	P 36,500	SM	PCC	GEN	A	A
58	Base Radio	MOTOROLA	Radius GM300	09-Apr-01	P 36,500	SM	NESF	GEN	A	A
59	Base Radio	MOTOROLA	Radius GM300	09-Apr-01	P 36,500	SM	Prado	GEN	A	A
60	Photocopier	SHARP	AR336 ADF	16-Apr-01	P 462,000	AE	PCC	GEN	A	A
61	Pickup	TOYOTA	HILUX 4WD	19-Apr-01	P 1,188,000	H12	Digdig/PCC	GEN	A	A
62	Pickup	TOYOTA	HILUX 4WD	19-Apr-01	P 1,188,000	H12	PCC	GEN	A	A
63	Artificial Vagina	NASCO	C06180N	24-Apr-01	P 68,900	H12	Digdig/PCC	AI	A	A
64	Amplifier	YAMAHA	Celestion	25-Apr-01	P 24,990	H12	Digdig/PCC	GEN	A	A
65	Speaker			25-Apr-01	P 18,990	H12	Digdig/PCC	GEN	A	A
66	Microphone	SENNHEISER	Wireless	25-Apr-01	P 33,990	H12	Digdig/PCC	GEN	A	A
67	Weighting Scale Portable		Workhorse (2t)	05-May-01	P 396,439	H12	PCC	FM	A	A
68	Weighting Scale Portable		Workhorse (2t)	05-May-01	P 396,439	H12	NESF	FM	A	A
69	Distilling Apparatus		GP3 52857-889	18-May-01	P 75,591	H12	Digdig/PCC	AI	A	A
70	Weighting Scale Station	RUDD	Weight 2000FL	01-Jun-01	P 56,018	H12	NESF	FM	A	A
71	Weighting Scale Station	RUDD	Weight 2000FL	01-Jun-01	P 56,018	H12	PCC	FM	A	A
72	Microscope		XSP-13A	19-Jun-01	P 12,604	GLC	PCC	FM	A	A
73	Organ Washer	FUJIHIRA KOGYO (FHK)	FA4	22-Jun-01	P 900,000	H12	Digdig/PCC	AI	A	A
74	LCD Projector	PLUS	U2-1130XGA	22-Jun-01	P 352,000	H12	PCC	GEN	A	A
75	OHP	PLUS	CX-500	22-Jun-01	P 80,000	H12	PCC	GEN	A	A
76	TV	SONY	Wega 29	22-Jun-01	P 53,760	H12	PCC	GEN	A	A

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No.	Equipment	Manufacturer	Model	Date-in	Price	Budget	Deployment	Section	Condition	Frequency
77	Video Deck	SONY	Hi-Fi GF85	22-Jun-01	8,399	H12	PCC	GEN	A	B
78	Wagon	TOYOTA	Prado	25-Jun-01	2,475,020	H12	PCC	GEN	A	A
79	Generator	HONDA	EM1000F	26-Jun-01	28,500	GLC	NESF	GEN	A	B
80	Washing Machine		NA-W60R2	26-Jun-01	9,500	GLC	PCC	GEN	A	A
81	OHP Screen		DA-LITE	29-Jun-01	30,000	GLC	PCC	GEN	A	B
82	Tire Cover		For Prado	02-Jul-01	18,673	GLC	Prado	GEN	A	A
83	Printer	EPSON	580C	20-Aug-01	6,488	GLC	NESF	GEN	A	A
84	Shnoker		For Hilux	29-Aug-01	18,000	GLC	Digdig/PCC	AI	A	A
85	Shnoker		For Hilux	29-Aug-01	18,000	GLC	NESF	AI	A	A
86	Bus	MITSUBISHI	FE635	30-Oct-01	1,850,000	H12	PCC	GEN	B	A
87	Generator	HONDA	2.9 KV	26-Nov-01	25,500	GLC	NESF	GEN	A	A
88	Digital Camera	KODAK	DC 4800	04-Jan-02	38,888	GLC	PCC	GEN	A	A
89	Scanner	EPSON	1650	10-Jan-02	11,995	GLC	PCC	GEN	A	A
90	Portable Radio	MOTOROLA	GP88	17-Jan-02	16,700	GLC	NESF	GEN	A	A
91	Portable Radio	MOTOROLA	GP88	17-Jan-02	16,700	GLC	Bus	GEN	A	A
92	Portable Radio	MOTOROLA	GP88	17-Jan-02	16,700	GLC	L-300 Truck	GEN	A	A
93	Submersible Water Pump	JACUZZI	Well Pump	24-Jan-02	38,000	GLC	Digdig/PCC	AI	A	A
94	Pump Motor	FRANKIN	5HP	24-Jan-02	48,000	GLC	Digdig/PCC	AI	A	A
95	Photocopier	RICOH	FT3320	25-Jan-02	16,000	GLC	NESF	GEN	C	Out of Order
96	Photocopier	RICOH	FT3320	25-Jan-02	16,000	GLC	PVO	GEN	C	Out of Order
97	Photocopier	RICOH	FT3320	05-Feb-02	16,000	GLC	Digdig/PCC	GEN	A	A
98	Temperature Recorder		NFA34 (FA1735)	10-Feb-02	320,000	AE	PCC	AI	A	A
99	Truck	MITSUBISHI	L-300 Cab FB	01-Mar-02	550,000	H14	PCC	GEN	A	A
100	PC Software	FILE MAKER	File Maker Pro 6.5	05-Mar-02	39,000	AE	PCC	GEN	A	A
101	Vagina Speculum		NFA161	05-Mar-02	44,000	AE	PCC	AI	A	A
102	Vagina Speculum		NFA161	05-Mar-02	44,000	AE	PCC	AI	A	A
103	Cervical Forceps	UTERO	NFB10	05-Mar-02	38,800	AE	PCC	AI	A	A
104	Surgical Instrument Set		NFCS	05-Mar-02	47,000	AE	PCC	AI	A	A
105	PC (Laptop)		FMV NE890W	05-Mar-02	280,000	AE	PCC	GEN	A	A
106	Skid Steer Loader	BOBCAT	751 (Bucket & Pallet Fork)	13-Mar-02	1,000,000	H14	NESF	FM	A	A

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No.	Equipment	Manufacturer	Model	Date-in	Price	Budget	Deployment	Section	Condition	Frequency
107	PC Set (Printer, Software and UPS)	IBM	Net Vista A40/1160	18-Mar-02	P 104,350	H14	PCC	GEN	A	A
108	PC Set (Printer, Software and UPS)	IBM	Net Vista A40/1160	18-Mar-02	P 104,350	H14	PCC	GEN	A	A
109	PC Set (Printer, Software and UPS)	IBM	Net Vista A40/1160	18-Mar-02	P 104,350	H14	NESF	GEN	A	A
110	PC Set (Printer, Software and UPS)	IBM	Net Vista A40/1160	18-Mar-02	P 104,350	H14	NESF	GEN	A	A
111	PC Set (Printer, Software and UPS)	IBM	Net Vista A40/1160	18-Mar-02	P 104,350	H14	PVO	GEN	A	A
112	Hot Plate Stirrer	PERKINS	Ecoltherm HS10-2	20-Mar-02	P 17,800	H13	NESF	AI	A	A
113	Generator 34KVA	PERKINS	34KVA 3Phase	22-Mar-02	P 455,000	LAC	NESF	GEN	A	A
Sub-total of JFY 2001/H13 (Apr. 2001 - Mar. 2002)					P 12,874,852.00					
					¥ 1,121,300					

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No.	Equipment	Manufacturer	Model	Date-in	Price	Budget	Deployment	Section	Condition	Frequency
114	Generator 50KVA	PERKINS	50KVA	05-Apr-02	P 515,000	H13	Digdig/PCC	GEN	A	A
115	LN2 Field Tank		MVE SC 3/3	10-Apr-02	P 32,000	H13	Digdig/PCC	AI	A	A
116	LN2 Field Tank		MVE SC 3/3	10-Apr-02	P 32,000	H13	Digdig/PCC	AI	A	A
117	LN2 Field Tank		MVE SC 3/3	10-Apr-02	P 32,000	H13	Digdig/PCC	AI	A	A
118	LN2 Field Tank		MVE SC 3/3	10-Apr-02	P 32,000	H13	Digdig/PCC	AI	A	A
119	LN2 Field Tank		MVE SC 3/3	10-Apr-02	P 32,000	H13	Digdig/PCC	AI	A	A
120	LN2 Field Tank		MVE SC 3/3	10-Apr-02	P 32,000	H13	Digdig/PCC	AI	A	A
121	LN2 Field Tank		MVE SC 3/3	10-Apr-02	P 32,000	H13	Digdig/PCC	AI	A	A
122	LN2 Field Tank		MVE SC 3/3	10-Apr-02	P 32,000	H13	NESF	AI	A	A
123	LN2 Field Tank		MVE SC 3/3	10-Apr-02	P 32,000	H13	NESF	AI	A	A
124	LN2 Field Tank		MVE SC 3/3	10-Apr-02	P 32,000	H13	NESF	AI	A	A
125	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	Digdig/PCC	AI	A	A
126	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	Digdig/PCC	AI	A	A
127	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	Digdig/PCC	AI	A	A
128	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	Digdig/PCC	AI	A	A
129	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	Digdig/PCC	AI	A	A
130	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	Digdig/PCC	AI	A	A
131	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	Digdig/PCC	AI	A	A
132	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	Digdig/PCC	AI	A	A
133	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	Digdig/PCC	AI	A	A
134	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	Digdig/PCC	AI	A	A
135	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	NESF	AI	A	A
136	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	NESF	AI	A	A
137	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	NESF	AI	A	A
138	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	NESF	AI	A	A
139	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	NESF	AI	A	A
140	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	NESF	AI	A	A
141	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	NESF	AI	A	A
142	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	NESF	AI	A	A
143	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	P 54,000	H13	NESF	AI	A	A

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No.	Equipment	Manufacturer	Model	Date-in	Price	Budget	Deployment	Section	Condition	Frequency
144	Liquid Nitrogen Tank		MVE XC33/22	10-Apr-02	54,000	H13	NESF	AI	A	A
145	LN2 Storage Tank		MVE-MDX 119L	10-Apr-02	1,060,000	H14	Mobile/PCC	AI	A	A
146	Artificial Vagina Inner Liner (5 pcs)		C06154N	23-Apr-02	4,065	H13	NESF	AI	Supplies	-
147	AV Rough Surface Liner (15 pcs)		C06179N	23-Apr-02	7,337	H13	NESF	AI	Supplies	-
148	AV Collection Funnel (15 pcs)		C08157N	23-Apr-02	8,371	H13	NESF	AI	Supplies	-
149	Pro-Grip Applicator (4 pcs)		C17245N	23-Apr-02	4,492	H13	NESF/PCC	AI	A	A
150	Semen Straw Cutter (20 pcs)		C03340N	23-Apr-02	6,260	H13	PVO	AI	Supplies	-
151	Water Distilling Bamstead		D7382-33	23-Apr-02	199,000	H14	PCC	AI	A	A
152	Hemacyto Meter		IMV USA090 Neubauer	08-May-02	11,000	H13	Digidig/PCC	AI	A	A
153	Hemacyto Meter		IMV USA090 Neubauer	08-May-02	11,000	H13	NESF	AI	A	A
154	Analytical Balance		IMV USA057	08-May-02	37,800	H13	PCC	AI	A	A
155	Analytical Balance		OHAUS CS-5000	08-May-02	46,800	H13	PCC	AI	A	A
156	Microscope Stage Slide Warmer		IMV USA056	08-May-02	43,200	H13	PCC	AI	A	A
157	Microscope Stage Slide Warmer		IMV USA056	08-May-02	43,200	H13	Digidig/PCC	AI	A	A
158	Microscope Stage Slide Warmer		IMV USA056	08-May-02	43,200	H13	NESF	AI	A	A
159	Automatic Straw Printing Machine		MIA	08-May-02	598,000	H13	Digidig/PCC	AI	A	A
160	Boreal Digital/Analog Microscope		B30003-00	08-May-02	153,450	H13	Digidig/PCC	AI	A	A
161	Boreal Digital/Analog Microscope		B30003-00	08-May-02	153,450	H13	NESF	AI	A	A
162	Babcock Centrifuge		IEC HN-SII	08-May-02	259,798	H13	PCC	AI	A	A
163	Analytical Mill Grinder		Tekmar 3388E26	09-May-02	60,546	H14	PCC	FM	A	A
164	Cyclone Sample Mill Grinder		UDY CORP3383N80	09-May-02	194,663	H14	PCC	FM	A	A
165	Bench-top Muffle Furnace		Neytech Vulcan 5329A04/A-130	09-May-02	52,867	H14	PCC	FM	A	A
166	Laboratory Oven		Labline 7188A10	09-May-02	41,552	H14	PCC	FM	A	A
167	Laboratory Oven		Labline 7188A10	09-May-02	41,552	H14	PCC	FM	A	A
168	Water Bath		Memmert WB-77	14-May-02	17,800	H13	NESF	FM	A	A
169	Cooling Chamber		Hotpack Incubator	15-May-02	216,220	H13	NESF	FM	A	A
170	Kjeldahl System		Velp Scientifica	22-May-02	745,255	H13	PCC	FM	A	A
171	Kjeldahl System		Velp Scientifica	22-May-02	745,255	H13	PCC	FM	A	A
172	Fat Extractor		Velp Scientifica	22-May-02	653,317	H13	PCC	FM	A	A
173	Fiber Extractor		Velp Scientifica	22-May-02	447,381	H13	PCC	FM	A	A

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174	Micro Scan		Foss S54B PIN392800	29-May-02	P 3,711,192	H14	PCC	FM	A	A
175	Manure Spreader		H & S 175	31-May-02	P 675,000	H14	NESF	FM	A	A
176	Drying Oven		Scientific 276	06-Jun-02	P 110,055	H14	PCC	FM	A	A
177	Autoclave Steam Sterilizer		Cat S50395	19-Jun-02	P 78,838	H13	NESF	FM	A	A
178	Drying Oven		ED53	19-Jun-02	P 45,360	H13	NESF	FM	A	A
179	Draft Chamber		ESCO EQU-0A-4EDFC	25-Jun-02	P 281,873	H14	PCC	AI	A	A
180	Freezer Upright		Jencons PLS FS345G	25-Jun-02	P 99,675	H14	PCC	AI	A	A
181	Artificial Vagina Sterilizer	FUJIHIRA KOGYO (FHK)	74-16301	17-Jul-02	P 133,070	H14	NESF	AI	A	A
182	Semen Straw Sterilizer	FUJIHIRA KOGYO (FHK)	FA340	17-Jul-02	P 231,770	H14	NESF	AI	A	A
183	Gas Sterilizer	FUJIHIRA KOGYO (FHK)	FL172	17-Jul-02	P 492,800	H14	Digidig/PCC	AI	A	A
184	Slide for Motility Evaluation (3 pcs)	FUJIHIRA KOGYO (FHK)	FA225	02-Aug-02	P 18,024	H14	Digidig/PCC	AI	A	A
185	Slide for Motility Evaluation (4 pcs)	FUJIHIRA KOGYO (FHK)	FA225	02-Aug-02	P 12,016	H14	NESF	AI	A	A
186	Slide for Motility Evaluation (5 pcs)	FUJIHIRA KOGYO (FHK)	FA225	02-Aug-02	P 6,008	H14	PCC	AI	A	A
187	Vagina Speculum (20 pcs)	FUJIHIRA KOGYO (FHK)	FA1652	02-Aug-02	P 6,000	H14	PCC/NESF	AI	A	A
188	Freezing Chamber		3M M2090	10-Oct-02	P 535,000	H13	NESF	AI	A	A
189	OHP		AE-450	21-Nov-02	¥ 158,000	AE	PCC	GEN	A	A
190	Spectrophotometer			20-Dec-02	¥ 343,000	AE	Digidig/PCC	AI	A	A
					P 14,258,512.00					
					¥ 501,000					
Sub-total of JFY 2002/H14 (Apr. 2002 - Mar. 2003)										

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No.	Equipment	Manufacturer	Model	Date-in	Price	Budget	Deployment	Section	Condition	Frequency
191	Forage Harvester	JOHN DEERE	972 Flail Chopper	17-Jun-03	P 808,780	H15	NESF	FM	A	A
192	Hay Baler	STAR	THB2031 Trailed Hay Baler	25-Jun-03	P 950,005	H15	NESF	FM	A	A
193	Disk Mower	STAR	MDM 2450	25-Jun-03	P 701,550	H15	NESF	FM	A	A
194	Hay Tedder	STAR	MGH 310	25-Jun-03	P 467,025	H15	NESF	FM	A	A
195	Cooling Chamber	FUJIHIRA KOGYO (FHK)	FA102	10-Jul-03	P 2,975,000	H15	Digidig/PCC	AI	A	A
196	Computer		NTC KM-777-1	11-Jul-03	P 41,000	GLC	PCC	GEN	A	A
197	Air-conditioner	CARRIE	APXRM-195BA	17-Jul-03	P 20,000	GLC	NESF	GEN	A	A
198	Back Hoe Loader	CATERPILLAR	Caterpillar 416D	26-Aug-03	P 3,766,000	H15	NESF	FM	A	A
199	Tractor	KUBOTA	M8200DT	27-Aug-03	P 1,461,500	H15	NESF	FM	A	A
200	Submersible Water Pump		Ground Submersible Pump	17-Sep-03	P 134,200	JICA Office	NESF	GEN	A	A
201	Air-conditioner	CARRIE	APXRM-195BA	19-Sep-03	P 20,000	JICA Office	NESF	GEN	A	A
202	Balling Gun for Bovine	FUJIHIRA KOGYO (FHK)	F14	23-Sep-03	¥ 28,320	AE	PCC	FM	A	B
203	Balling Gun for Bovine	FUJIHIRA KOGYO (FHK)	F14	23-Sep-03	¥ 28,320	AE	PCC	FM	A	B
204	Tipper Tie White Poly Tape	FUJIHIRA KOGYO (FHK)	C16074N	06-Oct-03	¥ 25,800	AE	NESF	FM	A	A
205	Tipper Tie White Poly Tape	FUJIHIRA KOGYO (FHK)	C16074N	06-Oct-03	¥ 25,800	AE	NESF	FM	A	A
206	Field Solar Pack	FUJIHIRA KOGYO (FHK)	C14757N	06-Oct-03	¥ 77,700	AE	NESF	FM	A	A
207	Field Solar Pack	FUJIHIRA KOGYO (FHK)	C14757N	06-Oct-03	¥ 77,700	AE	NESF	FM	A	A
208	Manual Alphabetor Printing System	IMV	CO11	20-Oct-03	P 79,950	AE	Digidig/PCC	AI	A	A
209	Rotary Tiller	CELLI	E180/CL	28-Nov-03	P 256,000	H15	NESF	FM	A	A
210	Water Purifier Bamstead			01-Dec-03	P 22,515	H15	Digidig/PCC	AI	A	A
211	Ultra Sound Scanner	VETCO		03-Dec-03	P 645,000	H15	PCC	AI	A	A
212	Forage Harvester	JOHN DEERE	JD972	07-Dec-03	P 820,780	H15	PCC	FM	A	A
213	Irrigation System for Pasture Land	KUBOTA	Pump: DS03220 38 GPM/Engine: RK125	17-Dec-03	P 210,500	H15	NESF	FM	A	A
214	Laboratory Mill	PERTEN INSTRUMENTS	3303	19-Dec-03	P 294,525	H15	PCC	FM	A	A
215	Water Bath Shaker	MRC	BT-350	19-Dec-03	P 162,000	H15	PCC	FM	A	A
216	Liquid Nitrogen Tank	MVE	SC33/26	06-Jan-04	P 54,355	H15	Digidig/PCC	AI	A	A
217	Liquid Nitrogen Tank	MVE	SC33/26	06-Jan-04	P 54,355	H15	Digidig/PCC	AI	A	A
218	Liquid Nitrogen Tank	MVE	SC33/26	06-Jan-04	P 54,355	H15	Digidig/PCC	AI	A	A
219	Liquid Nitrogen Tank	MVE	SC33/26	06-Jan-04	P 54,355	H15	Digidig/PCC	AI	A	A
220	Liquid Nitrogen Tank	MVE	SC33/26	06-Jan-04	P 54,355	H15	Digidig/PCC	AI	A	A

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No.	Equipment	Manufacturer	Model	Date-in	Price	Budget	Deployment	Section	Condition	Frequency
221	Artificial Vagina, Smooth (30pcs)	IMV	#098	06-Jan-04	P 29,820	H15	Digidig/PCC	AI	A	A
222	Artificial Vagina, Rough (30pcs)	IMV	#093	06-Jan-04	P 31,350	H15	Digidig/PCC	AI	A	A
223	Elevation Apparatus	FUJIHIRA KOGYO (FHK)	NFA33	14-Jan-04	P 243,500	H15	Digidig/PCC	AI	A	A
224	Meeting Table		Table with 6 Seats	25-Feb-04	P 12,500	GLC	PCC	FM	A	A
225	Motorbike	HONDA	XRM110	26-Feb-04	P 49,800	H15	PCC	FM	A	A
226	Motorbike	HONDA	XRM110	26-Feb-04	P 49,800	H15	PVO	FM	A	A
227	Motorbike	HONDA	XRM110	26-Feb-04	P 49,800	H15	NESF	FM	A	A
228	Motorbike	HONDA	XRM110	26-Feb-04	P 49,800	H15	NESF	FM	A	A
229	Front-end Loader Attachment	WOODS	1027	02-Mar-04	P 825,000	H15	NESF	FM	A	A
230	Slotted Shelves (3 Units)	VICTOR	5 Levels	04-Mar-04	P 14,520	GLC	PCC	GEN	A	A
231	Slotted Shelves (2 Units)	VICTOR	5 Levels	04-Mar-04	P 9,680	GLC	NESF	GEN	A	A
232	Pressure Water	COMMANDO	RD3003	10-Mar-04	P 5,575	H15	PCC	GEN	A	A
233	Pressure Water	COMMANDO	RD3003	10-Mar-04	P 5,575	H15	Digidig/PCC	GEN	A	A
234	Pressure Water	COMMANDO	RD3003	10-Mar-04	P 5,575	H15	NESF	GEN	A	A
235	Safety Box	SENTRY	S5381	10-Mar-04	P 27,850	GLC	PCC	GEN	A	A
236	Mixer	KATO	Engine: KAMA 178F	18-Mar-04	P 32,000	H15	PCC	FM	A	A
237	UPS (4 Units)	APC	CS500VA	23-Mar-04	P 17,596	LAC	PCC	GEN	A	A
238	Voltage Regulator (2 Units)	GIANT	1000VA UPS w/AVR	23-Mar-04	P 7,998	LAC	NESF	GEN	A	A
239	Computer (Server)	VPC	Virtus XVPC-PCDL24	26-Mar-04	P 59,900	LAC	PCC	GEN	A	A
					P 15,635,743.75					
Sub-total of JFY 2003/H15 (Apr. 2003 - Mar. 2004)					¥ 263,640					

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No.	Equipment	Manufacturer	Model	Date-in	Price	Budget	Deployment	Section	Condition	Frequency
240	Trailer	R.G. CASTRO	Order-made	01-Apr-04	P	85,000	PCC	FM	A	A
241	LN2 Container for Transport and Storage	FUJHIRA KOGYO (FHK)	FAZ000/NFA302/DR10N	14-Apr-04	P	100,000	Digidig/PCC	AI	A	A
242	LN2 Refrigerator for Storage and Shipping	FUJHIRA KOGYO (FHK)	FA1995/NFA301/DR3.6L	14-Apr-04	P	85,000	Digidig/PCC	AI	A	A
243	LN2 Refrigerator for Storage and Shipping	FUJHIRA KOGYO (FHK)	FA1995/NFA301/DR3.6L	14-Apr-04	P	85,000	Digidig/PCC	AI	A	A
244	LN2 Refrigerator for Storage and Shipping	FUJHIRA KOGYO (FHK)	FA1995/NFA301/DR3.6L	14-Apr-04	P	85,000	Digidig/PCC	AI	A	A
245	LN2 Refrigerator for Storage and Shipping	FUJHIRA KOGYO (FHK)	FA1995/NFA301/DR3.6L	14-Apr-04	P	85,000	Digidig/PCC	AI	A	A
246	LN2 Refrigerator for Storage and Shipping	FUJHIRA KOGYO (FHK)	FA1995/NFA301/DR3.6L	14-Apr-04	P	85,000	Digidig/PCC	AI	A	A
247	Temperature Recorder	FUJHIRA KOGYO (FHK)	NFA35/FA1736/EH100, 1 Pen	14-Apr-04	P	232,000	NESF	AI	A	A
248	AI Gun (10 pcs)	FUJHIRA KOGYO (FHK)	FA651/NFA140, 0.5cc	14-Apr-04	P	159,000	Digidig/PCC	AI	A	A
249	Forage Chopper	AGRI COMPONENT COR	8HP Gasoline Engine	16-Apr-04	P	62,944	PCC	FM	A	A
250	Forage Chopper	AGRI COMPONENT COR	8HP Gasoline Engine	16-Apr-04	P	62,944	NESF	FM	A	A
251	Forage Chopper	AGRI COMPONENT COR	8HP Gasoline Engine	16-Apr-04	P	62,944	Model Farm	FM	A	A
252	USB 2.0 Portable Hard Drive	IOMEGA	HDD 20GB	21-Apr-04	P	9,999	PCC	SDS	A	A
253	USB 2.0 Portable Hard Drive	IOMEGA	HDD 20GB	21-Apr-04	P	9,999	NESF	SDS	A	A
254	USB Mobile Disk II (2 Units)	TWINMOS	128MB	29-Apr-04	P	5,376	PCC	GEN	A	A
255	USB Mobile Disk II (2 Units)	TWINMOS	128MB	29-Apr-04	P	5,376	NESF	GEN	A	A
256	IMV Rubber Sheet for Straw Printer	IMV	Numbers	21-Apr-04	P	12,000	Digidig/PCC	AI	A	A
257	Airtight Silo Mini	CHUGOKU INDUSTRY	C/ASS-5B	06-May-04	¥	569,940	PCC	FM	A	A
258	Goblet (300 pcs)	IMV	65 mm	17-Jun-04	P	18,600	Digidig/PCC	AI	A	A
259	Grass Cutter	KAWASAKI	TD40	05-Jul-04	P	12,500	PCC	FM	A	A
260	Grass Cutter	KAWASAKI	TD40	05-Jul-04	P	12,500	PCC	FM	A	A
261	Grass Cutter	KAWASAKI	TD40	05-Jul-04	P	12,500	PCC	FM	A	A
262	Grass Cutter	KAWASAKI	TD40	05-Jul-04	P	12,500	PCC	FM	A	A
263	Grass Cutter	KAWASAKI	TD40	05-Jul-04	P	12,500	PCC	FM	A	A
264	Forage Elevator Wagon	STAR	TFE1860	24-Aug-04	P	1,885,520	NESF	FM	A	A
265	Chisel Plow	TAKAKITA	CP767	24-Aug-04	P	747,700	NESF	FM	A	A
266	A3 Paper Inkjet Printer	CANON	i6500	09-Aug-04	P	18,500	PCC	PC	A	A
267	Field Solar Pack	NASCO	C14575N	15-Sep-04	¥	79,100	NESF	FM	A	A
268	Cow Lifter	NASCO	Z09820N	15-Sep-04	¥	141,550	PCC	FM	A	A
269	Laser Printer	Hewlett-Packard	Laserjet 1150	16-Sep-04	P	20,800	PCC	PC	A	A

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270	Rubber Sheet for Straw Printer	IMV	Alphabets	11-Oct-04	P 12,804	GLC	Digidig/PCC	AI	A	A
271	AI Tester	FUJHIRA KOGYO (FHK)	FA1012	02-Oct-04	¥ 165,800	AE	PCC	AI	A	A
272	Prepuce Douche Washer Nozzle	FUJHIRA KOGYO (FHK)	NFA4-1	23-Nov-04	¥ 47,700	AE	NESF	AI	A	A
273	Micropipette (2 pcs)	TOKYO GLASS KIKAI	AJ-1000	23-Nov-04	¥ 49,000	AE	NESF	AI	A	A
274	Test Tube with Transformer	TOKYO GLASS KIKAI	MS-1	23-Nov-04	¥ 43,900	AE	NESF	AI	A	A
275	AI Gun (2 pcs)	FUJHIRA KOGYO (FHK)	FA651/NFA140, 0.5cc	23-Nov-04	¥ 52,200	AE	PVO	AI	A	A
276	4WD Pick-up Vehicle	TOYOTA	Hilux 4WD SR5	07-Jan-05	P 1,260,000	H16	PVO	AI	A	A
277	Rear Canopy	CAMPERSHELLS		07-Jan-05	P 39,000	H16	PVO	AI	A	A
278	Desktop Computer	Intel Pentium 4-3.0GHz, Asus Board, 7200 RPM-80GB HDE		07-Jan-05	P 69,500	H16	PCC	SDS	A	A
279	Laptop Computer	TOSHIBA	Satellite A60-S535	07-Jan-05	P 115,700	H16	PCC	SDS	A	A
280	Mixer	FAIRES	Horizontal Compulsory, Model 1	17-Jan-05	P 390,000	H16	PCC	FM	A	A
281	Hammer Mill	FAIRES	Model 1100	17-Jan-05	P 195,000	H16	PCC	FM	A	A
282	Front-end-Loader	KUBOTA	WOODS Model 1027	09-Feb-05	P 644,354	H16	PCC	FM	A	A
					Sub-total of JFY 2004/H16 (Apr. 2004 - Mar. 2005)					
					P 6,712,560.00					
					¥ 1,149,190					
283	Chest Freezer	GE	FHV5SD	27-Apr-05	P 14,300	GLC	NESF	AI	A	A
284	High Temperature Sterilizer	ADVANTEC TOYO	STA620DA	27-May-05	¥ 180,500	H16	Digidig/PCC	AI	A	A
285	Quick LNG Freezer	FUJHIRA KOGYO (FHK)	NFA33	27-May-05	¥ 936,000	H16	Digidig/PCC	AI	A	A
286	Ultraviolet Rays Sterilizer for Straw	FUJHIRA KOGYO (FHK)	NFA80	27-May-05	¥ 394,000	H16	Digidig/PCC	AI	A	A
287	Microscope	TOKYO GLASS KIKAI	CBMB-6	27-May-05	¥ 130,000	H16	NESF	AI	A	A
288	Artificial Vagina Warmer	FUJHIRA KOGYO (FHK)	NFA5	27-May-05	¥ 777,000	H16	NESF	AI	A	A
289	Ustensil Dryer	ADVANTEC TOYO	DRU600TB	27-May-05	¥ 310,000	H16	NESF	AI	A	A
290	Eazi Breed	PHIZER	Cider 1900	27-May-05	¥ 716,000	H16	PCC	AI	A	A
					Sub-total of JFY 2005/H17 (Apr. 2005 - Oct. 2005)					
					P 14,300.00					
					¥ 3,443,500					

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2. Achievement of Activities in each field (Sire & Dam Selection)

Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
Item	Contents					
1. Selection of sire and dam		Selection technique of sire and dam of water buffalo and beef cattle will be improved	(BC) 11 bulls were selected by three times DPTs. Out of 5 bulls of 1st DPT, 3 are regularly evaluated of their semen quality, and hopefully processed.	3	The time necessary for selected bulls to be trained for semen collection was not considered in making the PDM target.	
		12 offspring male buffaloes base on accurate dams and sires data and 6 offspring male cattle based on direct performance test selected	(PCC) 7 bulls selected so far. 2 bulls to be selected from 3rd PT bull's group and 3 bulls from the 4th group in December or earlier if possible to complete the 12 bulls needed for project.	3		
1-1) To survey and analyze actual situation		Actual situation of selection will be grasped and further selection method will be studied	Actual situation of PCC, NESF and farmers in Pilot area was surveyed and analyzed.	4		
	1-1-1) To analyze existing data and survey actual situation of project sites	Actual situation of selection at project sites will be grasped		4		
	1) PCC		The verification of the existing data/record and the arrangement and analysis of the milk records of the water buffalo were done.	4		
	2) NESF		The survey showed that there was no identification system at the site.	4		
	1-1-2) To survey and analyze actual situation of farmers	Actual selection and culling at farmer in N.E. province will be grasped	The results of the survey on the actual situation of 393 farmers in the pilot area were analyzed in respective items.	4		
	1) Pilot area					
	1-1-3) To be advised by mission and review PO	Appropriate PO will be made	We had 3 missions, Implementation Study Team, project Consultation Team, and Mid-Term Evaluation. PO was modified according to these Teams' suggestion and discussion in JCC.	4		

2. Achievement of Activities in each field (Sire & Dam Selection)

Item	Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
	Item	Contents					
1-2) To establish selection methods of sire and dam			Proposed selection methods will be tested		4		
	1) PCC	1-2-1) To make a detailed plan of improvement	Test will be commenced by certain methods	Guideline on data collection and the detailed plan of the test were made. Culling/selection/replacement plan drawn up.	4		
		1-2-2) To collect animal performance data	Accurate performance data will be collected	Enrollment of calves in pedigree data base is continuous. Recording of milk, and reproductive performance is on-going.	4		
		1-2-3) To implement selection and mating	Selection and mating of animals will be implemented according to accurate data	Identification of selected bulls as well as cows for culling is done per schedule. The number of replacement heifers acquired from outside source were limited due to fact that it is difficult to find herds with better recording and milk performance than Gene Pool. 7 bulls selected so far. 2 bulls to be selected from 3rd PT bull's group and 3 bulls from the 4th group in December or earlier if possible to complete the 1-2 bulls needed for sirement	3	Identifying cows and bulls for culling is no problem but PCC process of disposing culled animals is very slow. The animal get culled after approval of cull list but these are not taken out of the herd immediately.	
	1-2-4) To conclude selection method	Appropriate selection methods in the Philippines will be proposed	At the end of Project the techniques and procedures used in Project will be reviewed and the guide for appropriate selection methods in WB and BC under Philippine condition will be proposed.	3	2 bulls in the 3rd group undergoing training for semen collection died of Surra. The training of the remaining 3 bulls will be delayed.		

2. Achievement of Activities in each field (Sire & Dam Selection)

Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
Item	Contents					
1-2) To establish selection methods of sire and dam	2) NESF	Test will be commenced by certain methods	The detailed plan of Direct Performance Test (DPT) was made.	4		
	1-2-1) To make a detail plan of improvement	Candidate testing bulls will be produced	The system for identification, body measurement etc. was established. Four periods of AI programs were carried out to produce candidate bulls for DPT.	4		
	1-2-2) To implement mating plan	Tested bulls will be selected	Three DPTs were implemented and 11 bulls were selected. 3 bulls are already on the regular semen collection and evaluation. At present 4th and 5th DPTs are on-going.	3	The 4th and 5th DPTs will be completed before the end of the project.	
	1-2-3) To implement Direct Performance Test	Appropriate selection methods in the Philippines will be proposed	All data will be summarized at the end of the project.	3		
	1-2-4) To conclude selection method					

2. Achievement of Activities in each field (Feeding Management)

Item	Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
		Contents					
2. Improvement of feeding and management			Feeding and management techniques and related training methods of the technicians of PCC, BAI and LGUs will be improved		3		
	2-1) To survey and analyze actual situation		Actual situation of feeding and management will be grasped and further measure will be studied		4		
	1) PCC			Grasped the feeding situation under complete confinement system of feeding and management.	4		
				Grasped the improvement of herd management. Grasped the shortage of forage production and supply.			
	2) NESF			Grasped the feeding situation under the seasonal grazing condition.	4		
				Grasped a shortage of forage production on a year-round basis conservation such as silage or hay making.			
	2-1-2) To survey and analyze actual situation of farmers		Actual feeding and management at the farmers' level in N.E. province will be improved		4		
	1) pilot area			Surveyed and analyzed the feeding and management situation of farmers in pilot area of N.E. on the first year of project (Surveyed, analyzed and reported the feeding and management practices of WB and BC involving 393 farmers in N.E. province in 2001).			

2. Achievement of Activities in each field (Feeding Management)

Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
Item	Contents					
2-1) To survey and analyze actual situation	2-1-3) To be advised by mission and review PO	Appropriate PO will be made	At PCC, the suitable number of WB is estimated 360 Animal Unit (AU) in view of the situation of small forage production area. Deficiency of forage is met by sourcing rice straw and buying forage corn from farmers. In NESF, the forage area was surveyed in 2004 and the estimated forage production during the wet and dry seasons can support 340 AU of BC in a year-round basis.	3		Maintain the suitable number of stock animal by selection and culling based on the results of data of herd performance.
2-2) To establish a systematic technique for feeding and management		Appropriate feeding manual in the Philippines will be made	Feeding and management manual will be completed till August 2005. The data on feed analysis, milk production and milk analysis, body weight, BCS, reproductive status, morbidities and mortalities are regularly collected and analyzed.	3		Continue to prepare the manual.
	2-2-1) To implement feeding standard feeding techniques 1) PCC	Baseline data for systematic feeding system will be collected	Improved the feeding systems based on standard for calves, growing buffaloes, pregnant and lactating cows. Implement a consistent year-round feeding system using rice straw, silage, green forage and brewer's spent grain and concentrates.	3		After the installation of the feed mixer and hammer mill, PCC will produce home-mixed concentrate for feeding the buffalo herds.

2. Achievement of Activities in each field (Feeding Management)

Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
Item	Contents					
2-2) To establish a systematic technique for feeding and management	2) NESF		Producing enough forage from the pasture area and facilitate stocking of rice straw, silage and hay throughout a year. Improving the pasture area for intensive grazing system throughout a year.	3		
	2-2-2) To install feeding analysis equipment	Nutrient composition of forages and feed supplements from the 2 project sites will be established	Laboratory equipment and facilities for feeds and milk analysis were installed.	4	Need much time for repair in case of precision instrument because of budget situation.	Improvement of the handling and maintaining of the precision instrument.
	2-2-3) To analyze feeds 1) PCC 2) NESF	Result of analysis will be the basis for ration formulation	Continuous analysis of forages and feed supplements use in PCC and NESF.	3		
	2-2-4) To conduct feeding and management test and collect data	Systematic feeding and management techniques developed	Developed feeding and management techniques for calves from birth to weaning, ration for post weaned calves, growing bulls/heifers lactating buffalo cows and grazing BC. Body Condition Scoring (BCS) system is already mastered by C/P. Improved calf rearing and reduced weaning age from 5 to 2 months old. Weaning weight has improved from 74.8 kg (2002) to 82.8 kg (2004). Practice dehorning among female calves at 2 weeks of age. Formulated and tested home mixed calf starter concentrate mix for newly weaned calves. Re-established the existing forage areas by leveling, provision of drainage canals and planting it with Napier grass. Practice organic fertilizer production and utilize it for improving forage yield.	3		

2. Achievement of Activities in each field (Feeding Management)

Item	Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
	Contents						
2-2) To establish a systematic technique for feeding and management		Systematic feeding and management techniques developed		<p>Developed feed rations for growing bulls/heifers and lactating cows based on feeding standards using Napier silage, silage, spent grain, concentrates and rice straw.</p> <p>Mastered BCS evaluation of pregnant and lactating cows with the local counterparts.</p> <p>Developed standard milking procedure for machine milking of buffaloes.</p> <p>Improved animal facilities such as:</p> <p>a) Construction of exercise areas</p> <p>b) Improvement of individual calf pen</p> <p>c) Fabricated and tested portable calf hatch designed for farmers, and</p> <p>d) Introduced facilities for home-made concentrated feeds</p>			
				<p>Studied and improved weaning method under the grazing system under the grazing system.</p> <p>Improving feeding management throughout the year under grazing system during wet season and feeding stock forages such as rice straw, silage and hay as a main feeds and supplying molasses and urea during dry season.</p> <p>On going in improving of pasture area, so far finished repairing of shed and facilities, hay shed, manure barn, motor pool, access road, and fencing.</p> <p>Improved the forage stock production.</p>	3		

2. Achievement of Activities in each field (Feeding Management)

Item	Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan	
		Contents						
2-3) To establish health management techniques			Health management manual suitable for farmers and technicians will be made	Feeding and management and Health manuals will be made until August 2005.	3		Continued to prepare the manual.	
		2-3-1) To collect data on reproduction, health and weaning	Health management system especially nursing calves will be studied	Developed and implemented standard herd health program for WB and BC.				
		1) PCC		Continuously implement proper hygiene and sanitation.				
			Improved dehorning technique of calves.					
			Improved housing facilities for calves and lactating cows.			3		
			Improved drinking troughs and feed bunks to facilitate feeding.					
			Regularly used lime as means of disinfecting flooring and drinking troughs.					
			Reduced mortalities. a) Pre-weaning mortality: from 5.8 % (2001) to 4.5 % (2004).					
			b) Post-weaning mortality: from 6.6% (2001) to 1 % (2004).					
			Reduced morbidities. a) Prolapsed case: from 9.9% (2001) to 8.1 % (2004).					
	b) Pneumonia case: from 17.3% (2001) to 5.8% (2004).							
	c) Diarrhea case: from 57.0% (2002) to 20.5% (2004).							
	d) Mastitis case: 6.0% (2001) to 6.1% (2004). This needs immediate attention.							

2. Achievement of Activities in each field (Feeding Management)

Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
Item	Contents					
2-3) To establish health management techniques	2) NESF		Had high mortality rate (18%) of calves under the delivery at the shed last year, so we are planning in the delivery at pasture area this year. Improved salt-mineral supplying system in pastureland. Improved parasite control system for calves. Improved foot trimming technique for bulls.	3		
2-4) To implement training course for technicians of PCC, BAI and LGUs		Technique of technicians will be improved	Implemented 2 technicians training and participated 33 technicians in N.E. province.	3		The third technician training will be held on June 2005.
	2-4-1) To implement training for technicians	Training for technicians will be held at PCC				

2. Achievement of Activities in each field (Artificial Insemination)

Item	Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
	Contents						
3-1) To survey and analyze actual situation		Technique of AI technicians of PCC, BAI and LGUs will be improved					
	3-1-1) To analyze existing data and survey actual conditions of project sites	Actual situation of artificial insemination will be grasped and further measure will be studied					
1) PCC		Actual condition of AI at project sites will be grasped		Reviewed existing forms related to reproduction by querying.	4		
				Reproduction record was analyzed in detail by Dr. Kanai.			
2) NESF				Reviewed existing forms related to reproduction by querying.	4		
	3-1-2) To visit AI technicians and survey skill	Actual situation of AI in pilot area will be grasped					
1) Pilot area				Surveyed and reported actual situation in pilot area.	4		
	3-1-3) To be advised by mission and review PO	Appropriate PO will be made			4		
3-2) To produce high-quality frozen semen	3-2-1) To review process of frozen semen production	High quality frozen semen will be produced					
		Process of frozen semen will be improved					
1) PCC				Semen extending and freezing method was revised.	4		
				Seminar on standardization of motility of sperm was held.			
				Ms. Emma Venturina and Mr. Everlito A. Mendoza were trained in Japan.			

2. Achievement of Activities in each field (Artificial Insemination)

Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
Item	Contents					
3-2) To produce high-quality frozen semen	1) PCC	Process of frozen semen will be improved	Frozen semen laboratory and semen collection area were constructed. Thawed motility increased from 23.2% (2002,2) to 29.6% (2004,11) and 75,331 frozen semen were produced in 2004.			
	2) NESF		Updated method of semen processing was applied. Ms. Ursula G. Serafica was trained in Japan. Frozen semen laboratory, bull pen and semen collection area were constructed. Post thaw motility is now 25% and 5,015 frozen semen were produced in 2004.	3	Condition of the animal because of nutrition.	Try to achieve the 30% PTM thru good nutrition of the animals.
3-2-2) To renew and install equipment	1) PCC	Production system of frozen semen will be established	Refer to equipment list.	3		Dry Sterilizer, Quick Freezer and UV Sterilizer will be installed.
	2) NESF		Refer to equipment list.	3		Microscope, Incubator and Dryer will be installed.
3-2-3) To produce frozen semen	1) PCC	High quality frozen semen will be able to be distributed	Frozen semen distribution was 50,375 doses in 2004. Distributed frozen semen has 50 million sperm and over 30% motility. User report shows satisfaction with the quality of frozen semen.	4		
	2) NESF		Frozen semen distribution was 4,234 doses in 2004. Distributed frozen semen has 80 million sperm and over 20% motility. Frozen semen has enough conception rate in NESF.	4		

2. Achievement of Activities in each field (Artificial Insemination)

Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan	
Item	Contents						
3-3) To implement training courses for technicians of PCC, BAI and LGUs	3-3-1) To visit AI technicians and advise skill	Technique of AI technicians will be improved	Conducted 4 ovary palpation training courses.	4			
		Technique of individual AI technicians will be improved	Scanning apparatus was introduced/demonstrated for ovary palpation and early stage pregnancy diagnosis. Hormonal treatment using OV-SYNC and CIDR method were also introduced.				
	1) Pilot area		3 PVO and 2 LGU AI technicians were trained in Japan.				
			11 artificial insemination chutes were installed in pilot area.				
	3-3-2) To have seminar	Updated knowledge will be understood by AI technicians	13 times of seminars were held by experts.	4			
	1) Pilot area						
		3-3-3) To collect data on AI	Measure of improvement of AI will be studied	Conception Rate improved from 32.9% (2001) to 38.5% (2004).	4		
	1) PCC		Conception rate of hormonal treatment (CIDR) was 40% in 2004.				
	2) NESF			165 buffaloes impregnated in 2004.			
				Conception Rate in AI at NESF increased from 49% (2002) to 74% (2003).	4	Remaining animals were too early for pregnancy diagnosis.	Total CR will be completed by March 2005.
			Hormonal treatment was introduced in 2003. Conception rates of OVSYNC treatment was 55.5% and CIDR was 47.1% .				
			Inseminated 139 BC in 2004 including 32 hormonal treated anoestrus animal using OVSYNC method.				
			Initial conception rate was 72.4%.				

2. Achievement of Activities in each field (Artificial Insemination)

Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
Item	Contents					
3-4) To review and update AI manual used by PCC and BAI		Technique of AI technicians will be improved				
	3-4-1) To review and update AI manual	Technique of individual AI technicians will be improved	Manual for frozen semen processing is completed.	3		AI manual also will be updated.
	1) For WB 2) For BC		Manual for frozen semen processing is completed.	3		AI manual also will be updated.

2. Achievement of Activities in each field (Training)

Activities		Target	Implementing Situations and Results	Achieved Level	Reason of Delayed Implementation	Plan
Item	Contents					
4. Development of training courses for farmers	4-1) To develop training program and material	Training program of feeding and management technique for farmers will be improved	Prepared training program for farmer training on improved techniques on feeding and management.	3		
		Training program of feeding and management technique for farmers will be proposed		3		
		4-1-1) To make training materials	Training manual in local language will be made	On going in preparing manual on feeding and management technique based on results of survey at model farms and test of techniques.	3	
4-2) To implement training courses for model farmers and LGUs technicians			Established a model shed at Licaong as a show-case of technology to farmers.	3		
		Techniques of model farmers will be improved				
		4-2-1) To implement training	Knowledge of model farmers will be improved	Conducted 3 times of farmers' training courses in PCC with 45 participants.	3	
			In NESF pilot farm is not decided, we implemented 2 times of farmers' training courses with 33 participants.		Due to lack of person who can extend the techniques to farmers.	Planning to select model farmers coordinated with PVO, NE.
	4-3) To evaluate the results of training course	Data of survey of model farmers will be put together and concluded	Implemented the first survey to the trained 15 farmers with questionnaire method.	3		Implementing of survey.

