付　属　資　料

MINTUTES OF MEETING ON THE JOINT EVALUATION COMMITTEE FOR THE PROJECT ON IMPROVEMENT OF CATTLE ARTIFICIAL INSEMINATION TECHNOLOGY IN VIETNAM

The Japan International Cooperation Agency (hereinafter referred to as "JICA"), dispatched the Final Evaluation Team, headed by Mr. Kazuhisa HOSHINO, to the Socialist Republic of Vietnam from February 23, 2005 to March 18, 2005 for the purpose of final evaluation for the Project on Improvement of Cattle Artificial Insemination Technology (hereinafter referred to as "the Project").

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

After intensive study and analysis of the achievements of the Project, the Team prepared the Joint Evaluation Report (hereinafter referred to as "the Report"), which was presented to the Joint Coordination Committee.

The Joint Coordinating Committee discussed the major issues pointed out in the Report, and agreed to recommend to the respective governments the matters attached hereto.

Hanoi, March 18, 2005

Mr. Kazuhisa HOSHINO
Leader
Japanese Final Evaluation Team
Japan International Cooperation Agency
Japan

Mr. Bui Ba Bong
Vice Minister
Ministry of Agriculture and Rural Development
S.R.Vietnam

Mr. Itsuo SHIMOHIRA
Chief Advisor/Feeding and Management Bull
Project for the Improvement of Cattle
Artificial Insemination Technology
Japan

Mr. Nguyen Dang Vang
Director
National Institute of Animal Husbandry
Ministry of Agriculture and Rural Development
S.R.Vietnam

ATTACHMENT

1. The Joint Evaluation Team, which was jointly organized by JICA and the Government of Vietnam, has presented the Report to the Joint Coordination Committee.

2. The Joint Coordination Committee has accepted the Report and taken note of its recommendations for successfully sustaining and extending the achievement of the Project.

FINAL EVALUATION REPORT
ON
THE PROJECT FOR IMPROVEMENT OF CATTLE ARTIFICIAL INSEMINATION TECHNOLOGY IN VIETNAM

HANOI, March 17th, 2005

JAPAN – VIETNAM
JOINT FINAL EVALUATION COMMITTEE

Mr. Kazuhisa HOSHINO
Leader
Japanese Final Evaluation Team
Japan International Cooperation Agency
Japan

Mr. Tran Kim Long
Leader
Vietnamese Final Evaluation Team
Ministry of Agriculture and Rural Development
Vietnam

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I . OUTLINE OF THE PROJECT

1. Background of the Project

The GDP of the agriculture, forestry and fishery industry in Vietnam is 24% (2000). The GNP of the animal husbandry sector has shown an average annual increase of 4.4% for the past ten years, and the growth rate was especially high at the latter half of the 1990s. Animal husbandry is thus considered to be an important industry in Vietnam.

However, the intake of animal husbandry products remains low among Vietnamese nationals. For example, the average annual consumption of beef is 1.2 kg, which is extremely little in comparison with other developing countries. In addition, the self-sufficiency ratio of milk is lower than 10%, thus an increase in animal husbandry production and stable supply thereof are urgent needs. The government's agricultural development plan holds up the animal husbandry sector, especially promotion of dairy husbandry, as an important issue for measures to increase farmers' income.

Meanwhile, the introduction of high-quality frozen semen production technology has been the most important issue for improving the breeding of indigenous breeding cattle and increasing productivity of dairy cattle in Vietnam; however, the management conditions of the related appliances and equipment are also poor. Furthermore, extension workers and technicians engaging in artificial insemination do not have sufficient knowledge and techniques, hindering the diffusion of artificial insemination techniques. Due to such background, the Vietnamese Government requested in 1995 that Japan implements project-type technical cooperation concerning the "Project for improving the livestock artificial insemination center in Vietnam" (initial name), and requested technical cooperation in shifting from the pellet method for frozen semen, which is adopted in the Moncada Artificial Insemination Center, to the straw method, as well as improvement of equipment and advice and instruction to personnel development training.

In response to the above requests, JICA implemented a basic study in November 1998 and a preparatory study in April 1999, and developed a draft basic project plan focusing on the improvement of frozen semen production techniques using the straw method, artificial insemination technicians' techniques as well as a network for distributing frozen semen. After that, the Project Design Team dispatched in March 2000 signed the Record of Discussions (R/D), and five-year cooperation started on October 2, 2000. In addition, the Project Consultation Team was dispatched in July 2001, and formulated PDM and PO in accordance with the R/D. Also the Mid-Term Evaluation Team was dispatched in March of 2003.

2. Contents of the Project

The Project design is stipulated as follows:

2-1.Overall Goal

The productivity of milk and beef will be increased by improving cattle artificial insemination techniques.

2-2.Project Purpose

Artificial insemination techniques for cattle will be improved through the use of straw semen.

2-3.Outputs of the Project

(1) AI technicians are trained and their skills are improved.

(2) Distribution method for frozen semen and AI recording management are improved.

(3) Production technique of straw typed frozen semen is improved.

(4) Feeding and management of sires are improved.

2-4. Activities of the Project

(1) Transfer of appropriate technical skills in artificial insemination.

(2) Improvement of distribution method for frozen semen and AI recording management.

(3) Transfer of efficient techniques for production of straw-typed frozen semen.

(4) Transfer of appropriate management techniques in feeding of sires.

Ⅱ. OBJECTIVES OF THE EVALUATION

Evaluation study was conducted with the purposes of:

(1)Evaluating the overall achievement of the Project based on the R/D, and PDM,

(2)Evaluating the Project in terms of the five criteria that are shown below,

(3)Identifying remaining problems and recommending necessary measures to be taken after the termination of the Project to the respective governments, and

(4)Considering the lessons drawn from the Project activities in order to reflect them on future projects in a sense of making them more effective and efficient.

Ⅲ. EVALUATION METHODS

Evaluation activities were conducted by the Joint Evaluation Committee, which was composed of the Japanese Evaluation Team and the Vietnamese Evaluation Team in accordance with the R/D, PO, and the PDM. These activities included report analysis, field survey, and discussions with concerned the C/Ps based on the five evaluation criteria listed below

(1) The degree of achievement of the Project Plan was assessed, using the Achievement Grid and Attainment of Activities, which was mentioned in Achievements of the Project.

(2) Analysis was made for the Five Evaluation criteria described below, based on the Evaluation Grid.

a) Relevance

Relevance refers to the validity of the Project purpose and the overall goal in connection with the development policy of the Vietnamese government as well as the needs of beneficiaries.

b) Effectiveness

Effectiveness refers to the extent to which the expected benefits of the Project have been achieved as planned, and examines if the benefit was brought about as a result of the Project (not of external factors).

c) Efficiency

Efficiency refers to the productivity of the implementation process, examining if the input of the Project was efficiently convert into the output.

d) Impact

Impact refers to direct and indirect, positive and negative impacts caused by implementing

the Project, including the extent to which the overall goal has been attained.

e) Sustainability

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

Ⅳ. MEMBERS AND SCHEDULE OF THE JOINT EVALUATION TEAM

1. Japanese Evaluation Team

(1)Mr. Kazuhisa HOSHINO : Leader
Team Director, Paddy Field Based Farming Area Team III, Group I
Rural Development Department
Japan International Cooperation Agency (JICA)

(2)Mr. Tsugio KOSEKI : Artificial Insemination Techniques
Deputy Director
Livestock Breeding Division
National Livestock Breeding Center Niikappu Station

(3)Mr. Masahiro MASUDA : Frozen Semen Production /Feeding Management
Chief of Raising cattle
Breeding stock division
National Livestock Breeding Center Iwate station

(4)Ms. Yoshiko TAKAHASHI : Evaluation and Analysis
Chief Researcher, Survey and Planning Division
C.S.J Cooperation

(5)Ms. Yasuko NAKAYA : Planning Evaluation
Project Planning staff, Paddy Field Based Farming Area Team III, Group I
Rural Development Department
Japan International Cooperation Agency (JICA)

(6)Ms. Izumi TAKAHASHI : Interpreter
Coordinator
Japan International Cooperation Center (JICE)

2. Vietnamese Evaluation Team

(1) Mr. Tran Kim Long

Vice director, International Cooperation Department

Ministry of Agricultural and Rural Development. (MARD)

(2) Mr. Dang Tat Nhiem

Member of Veterinary association of Vietnam

(3) Dr. Nguyen Tan Anh

Member of Animal Husbandry Association of Viet Nam (AHAV)

(4) Dr. Nguyen Thanh Duong

Officer-Project Coordinator,Forcal point for Rural Development

Ministry of Planning and Investment. (MPI)

(5) Dr. Hoang Kim Giao

Deputy Director, Department of Agriculture

Ministry of Agricultural and Rural Development. (MARD)

3. Schedule of the Final Evaluation

3-1. Schedule of the consultant

No	Date		Activities	Place
1	Feb.23	Wed.	Narita 9:50 (JL731) – Hanoi 15:55 (CX791)	Hanoi
2	Feb.24	Thu.	(AM) Meeting at NIAH 9:00-10:00 Group Interview : Japanese Experts 13:30-16:30 Workshop : Explain the Evaluation Scheme Group Work (Making the report for each activities): Counterpart, Experts, Other Authorities Concerned	
3	Feb.25	Fri.	<MAIC> 9:00- 9:30 Observation of facilities and activities of MAIC 9:40-10:20 Individual Interview : Director Mr. Le Ba Que 10:30-11:20 Group Interview : Semen Processing Unit: Ms. Hoa, Mr.Chau Technical Unit: Mr. Hoa, Mr. Hai 11:20-12:00 Individual Interview : Ms. Hoa, Mr. Hoa <Bavi Center> 13:30-14:30 Group Interview/Individual Interview for AI	

			inseminators : AI Inseminators (Trained and Not-trained) 14:30-15:30 Individual Interview : Mr. Cao and Non-trained person 15:30-16:30 Observation of dairy farmers : Mr. Lang, Mr. Thuc
4	Feb.26	Sat.	Analysis of the Data / Preparing the Report
5	Feb.27	Sun.	Analysis of the Data / Preparing the Report
6	Feb.28	Mon.	<Tu son Center> 9:00-9:30 Observation of facilities and activities of the Tu son Center : Mr. Thinh, Director 9:40-11:30 Individual Interview : Mr. Tue, Mr. Tiem <Bac Ninh Extention Center> 13:30-14:30 Group Interview / Individual Interview : AI Inseminators (Trained and Not-trained) 14:30-16:30 Individual Interview: Mr. Soan and Non-trained person 16:30-17:30 Observation of dairy farmers
7	Mar.1	Tue.	<NIAH> 9:00-9:45 Individual Interview :Mr. Vu Chi Cuong, Vice-Director 10:00-12:00 Individual Interview :(Heads of each Department) Mr. Kiem, Mr.Khanh, Mr.Luong, Mr. Kim Cuong 13:00-16:15 Group Interview : 1) Embryo Tans. Dept. : Mr. Ly, Ms.Thoa 2) AI Dept. : Mr.Tha, Mr.Phong, Ms.Hoa 3) National Dairy Program : Mr. Ha, Mr. long 4) Cattle Science : Mr. Hung Cuong, Mr. Kim Cuong
8	Mar.2	Wed.	9:00- Individual Interview : Japanese Experts
9	Mar.3	Thu.	9:00- 10:30 TV Meeting at JICA Vietnam office
10	Mar.4	Fri.	9:00- Individual Interview : Dr. Van, Mr. Dung
11	Mar.5	Sat.	Analysis of the Data / Preparing the Report
12	Mar.6	Sun.	Analysis of the Data / Preparing the Report

3-2. Schedule of the Joint Evaluation Team

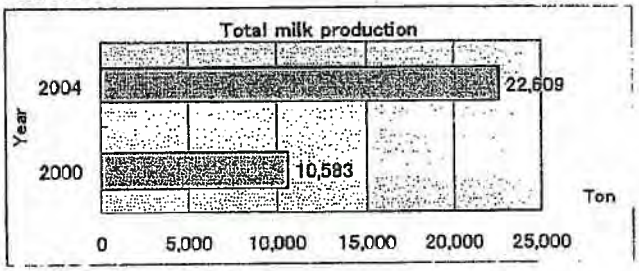
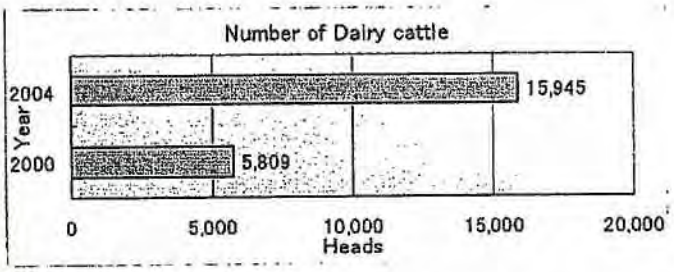
No	VN side	Date		Activities	Place
1 (13)		Mar. 7	Mon	Narita 9:50 (JL731) – Hanoi 15:55 (CX791) Internal Meeting	Hanoi
2 (14)		Mar. 8	Tue	9:00 Meeting at JICA Vietnam Office 10:00 Meeting on evaluation program with Representative of MPI : Foreign Economic Relations Department (FERD) 11:00 Embassy of Japan 14:00 Meeting on evaluation program with Representative of MARD : International Cooperation Department (ICD) 16:00 Meeting on evaluation program with Director of NIAH Discussion on evaluation method, schedule, confirmation	
3 (15)	○	Mar. 9	Wed	9:00 1st Joint Evaluation Committee Meeting on Evaluation Method 13:30-17:30 Progress Report of Counterparts : Mr. Kiem, Mr. Phong, Mr. Luong, Mr. Tiem, Mr. Que	
4 (16)	○	Mar. 10	Thu	< MAIC> 9:00 Observation & Field survey 13:30 Group Interview or Individual Interview : 1) Mr. Le Ba Que Director of MAIC 2) Ms. Vo Thi Thu Hoa, Mr. Tran Trung Chau (semen processing Unit) 3) Mr. Tran Cong Hoa, Mr. Phung The Hai (Technical Department) 16:00- Observation of dairy farmers	

5 (17)	○	Mar. 11	Fri	<Tu son Center> 9:00-9:30 Observation of facilities and activities of the Center : Mr. Thin, Director 9:40-10:30 Group Interview / Individual Interview : Mr. Tue, Mr. Tiem <Bac Ninh Agriculture Extention Center> 13:30-14:30 Group Interview : AI Inseminators 14:30-16:30 Individual Interview : Mr. Soan and Non-trained persons 16:30-17:30 Observation of dairy farmers
6 (18)		Mar. 12	Sat	Internal Meeting Preparing the Report
7 (19)		Mar. 13	Sun	Internal Meeting Preparing the Report
8 (20)		Mar. 14	Mon	9:00 Discussion on management and sustainability of the project at NIAH 13:00 Internal Meeting
9 (21)	○	Mar. 15	Tue	9:00 2nd Joint Evaluation Committee Meeting Discussion on Evaluation report (based on 5 criteria, future view) 13:30 Supplemental Interview and Survey
10 (22)		Mar. 16	Wed	9:00 Preparation of Evaluation report (based on 5 criteria, future view) 13:00 Preparation of Minutes draft
11 (23)	○	Mar. 17	Thu	9:00 3rd Joint Evaluation Committee Meeting **Signing** the Evaluation report Preparation of Minutes draft 13:30 Explanation of Evaluation report to MARD and MPI
12 (24)	○	Mar. 18		9:00 Joint Coordinating Committee Meeting **Signing** the Minutes (PM) Report to Embassy of Japan in Vietnam Report to JICA Office Hanoi 23:55 (JL5136) – Narita 06:40(Mar.19)

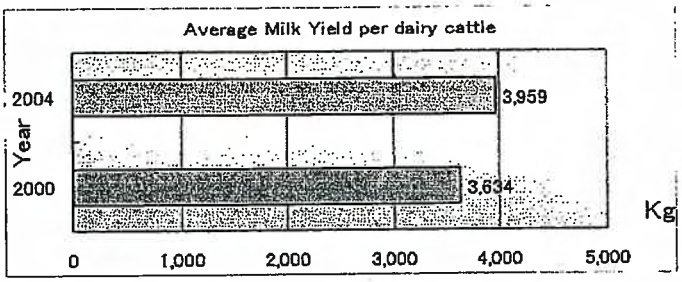
V. RESULTS OF EVALUATION

1. Performance of the Project

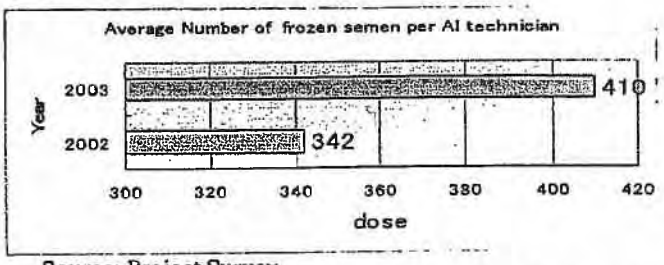
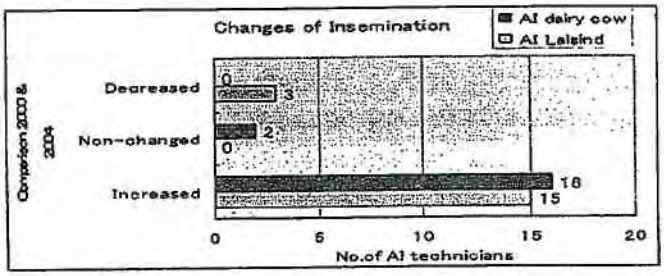
Achievement Grid

Narrative Summary of PDM	Verifiable Indicators and Results	Sources
Overall Goal The productivity of milk and beef will be increased by improving cattle artificial insemination techniques.	**1 Milk production increases in focused areas.** *(Performance)* ・Since the duration of the Project is only five years, more time is needed to conclude if the Overall Goal is fully achieved. ・The total quantity of milk production in the focused area (9 provinces) has been increased 12,026 tons (114 %) between 2000 and 2004. ・The Overall Goal is not achieved only by the Project (Cattle AI techniques) but also other factors, particularly National Dairy Development Project activities and results.  Source: Project Servey The data collected from focused area (9 provinces), but the data has not been reported 100% from the all AI provinces.	・C/P and Exp. (Interview) ・The Project Report
	2 The number of dairy cattle increases in focused areas. *(Performance)* ・Since the duration of the Project is only five years, more time is needed to conclude if the Overall Goal is fully achieved. ・The total headcount of dairy cattle in the focused area (9 provinces) has been increased 10,136 heads (174 %) between 2000 and 2004. ・The Overall Goal is not achieved only by the Project (Cattle AI techniques) but alsoother factors, particularly National Dairy Development Project activities and results.  Source: Project Servey The data collected from focused area (9 provinces), but the data has not been reported 100% from the all provinces.	・C/P and Exp. (Interview) ・The Project Report

Achievement Grid

Narrative Summary of PDM	Verifiable Indicators and Results	Sources
	3 Annual milk yield per cow increase in focused areas *(Performance)* ・Since the duration of the Project is only five years, more time is needed to conclude if the Overall Goal is fully achieved. ・The average milk yield per dairy cattle in the focused area (9 provinces) has been increased 325kg (9 %) between 2000 and 2004. ・The Overall Goal is not achieved only by the Project (Cattle AI techniques) but also other factors, particularly National Dairy Development Project activities and results.  Source: Project Report The data collected from focused area (9 provinces), but the data has not been reported 100% from the all provinces.	・C/P and Exp. (Interview) ・The Project Report
Project Purpose Artificial insemination techniques for cattle will be improved through the use of straw semen. Focused Area: (9 provinces) 1.Hanoi 2.Ha Tay 3.VinhPhuc 4.Bac Ninh 5.Son La 6.Dong Nai 7.An Giang 8.Can Tho 9.Binh Duong	**1 Rate of AI by straw type frozen semen for dairy cattle increased to more than 95% in focused area** *(Performance)* ・"Rate of AI by straw type frozen semen" is not available in this moment. ・The distribution ratio of straw type frozen semen for dairy cattle is 95% in focused area (9 provinces) at the end of 2004. VINALICA distribution ratio of frozen semen for dairy cattle in focused areas in 2004. Straw-type 32,217 (95%) Pellet-type 1,667 (5%) ・ According to the Questionair to the AI technicians in Bac Ninh, in 2000 any straw type frozen semen had not used but Pellet type for dairy cattle AI , but in 2004 straw type semen is used 100%. Breakdown ratio is MAIC product (76%) and Imported semen (24%).	・VINALICA report ・AI technicians (Questionnaire) (Interview)
	2 NIAH/MAIC can manage AI information of focused areas (recording, collecting, analyzing, utilizing). *(Performance)* ・As utelizing AI data which collected by the Project introduced AI recording method and the Project modified system "VDM-AI", NIAH has started to manage the Conception rate by sire bulls and by AI technicians.	・The Project Report ・C/P and Exp. (Interview)

Achievement Grid

Narrative Summary of PDM	Verifiable Indicators and Results	Sources
	3 The number of inseminated cows per retrained AI technicians increases in focused areas. *(Performance)* ・According to the Project servey on re-trained AI technicians in focused area, the average semen number of AI technician as below. The numbers were calculated from total frozen semen number of all AI technicians devided by number of AI technicians.The number of AI technicians of 2002 was twenty-six (26) and 2003 was fourty-two (42).  Source: Project Survey ・According to the AI technicians in Ha Tay province and Bac Ninh province, 86% of comparable (2000 and 2004) eighteen (18) re-trained AI technicians increased the number of AI cattles (Dairy cow and Laisind).  	・Project Servey ・AI technicians (Questionnaire) (Interview)
	4 Reproduction performances of dairy cattle increase in focused areas. *(Performance)* ・According to the Project Survey on fourty two (42) re-trained AI technicians, the average of six (6) out of fourty two (42), the conception rate was 56.1% in 2000 and is 57.5% in 2003 (increased 1.4 points). ・It is difficult to assess how much conception rate have been improved, there was not AI data collection system in Vietnam at the beggining of the Project. ・In the Questionnaire survey, some C/Ps mentioned that there are many problems in reproductive diseases and management as one of the inhibited factors.	・The Project Report ・C/P (Questionnaire)
OUTPUTS Output 1 AI technicians are trained and their skills are improved.	**1-1 200 AI technicians in focused areas are retrained.** *(Performance)* ・As a results of eight (8) Re-Training courses for AI technicians, 199 AI technicians from the focused area and 12 from other three provinces were trained by the Project. More over, 28 AI technicians out of 211 also participated in advanced course.	・The Progress Report (Report on results of Training couse)

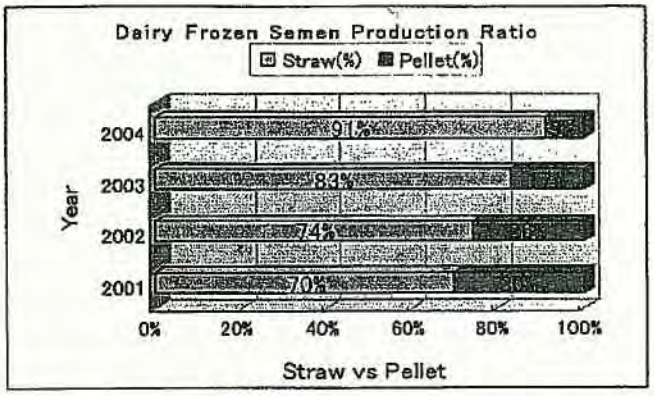
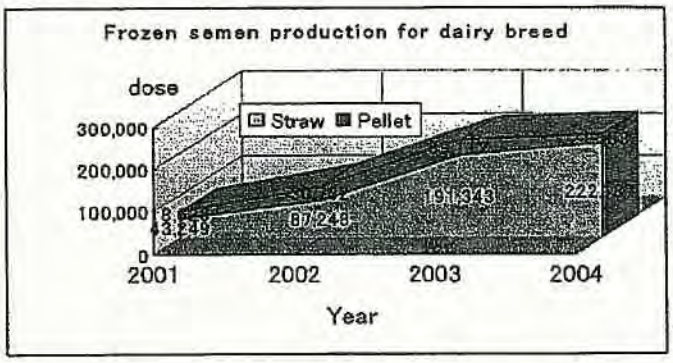
Achievement Grid

Narrative Summary of PDM	Verifiable Indicators and Results	Sources
	1-2 Manual and teaching materials are made for AI training. *(Performance)* ・For the purpose of implementing re-training courses for AI technicians, 11 Manuals and 21 Training Text books have produced by the Project.	・The Project Report
	1-3 Content, methodology and teaching materials of the AI training are applied to the training in the National Dairy Development Project. *(Performance)* ・The AI Training method implemented by the Project, it had adopted to their National Dairy Development Project. ・Currently, about 1,700 AI technicians are registered in Vietnam. There are 480 AI technicians were trained under the National Dairy Development Program in Vietnam.	・The Project Report ・Project Director (Interview)
Output 2 Distribution method for frozen semen and AI recording management are improved.	**2-1. The motility of straw type frozen semen is maintained in the distribution network.** *(Performance)* ・According to the Project survey data on fourty-two (42) AI technicians in the seven (7) provinces out of nine (9) focused provinces, the semen motility examination which take out the semen from nitrogen tank of participated AI technicians. The semen motility rates were listed below. According to the results, most of the low motility rates were in southern provinces, thus it could be assessed that those places far from Tu Son distribution center, there were some causes in transfering and keeping semen which reduce motility rates. Northern provinces: (The examination took place at well equiped NIAH.) 1. Bach Ninh: 5/5 samples were more than 35% motility 2. Vinh Phuc: 9/9 samples were more than 40% motility 3. Son La (Moc Chau): 9/9 samples were more than 45% motility Southern provinces:(The examination took place at less equiped local places.) 4. An Giang: 3/5 samples were more than 35% motility 2/5 samples were low motility 20% - 25% motility 5. Can Tho: 6/11 samples were more than 35% motility 5/11 samples were low motility 15% - 30% motility 6. Binh Duong: 4/10 samples were more than 35% motility 6/10 samples were low motility 15% - 30% motility 7. Dong Nai : 10/12 samples were more than 35% motility 2/12 samples were low motility 0% - 30% motility	・Project Servey Report (Jul.&Sep.2004) ・C/P and Expert (Interview)

Achievement Grid

Narrative Summary of PDM	Verifiable Indicators and Results	Sources
	2-2. Using the AI records reported from re-trained AI technicians, the distributed semen quality can be monitored. *(Performance)* ・According to the progress report by the C/Ps, the monitoring servey of distributed semen quality have done at Moc Chau state dairy farm in Son La province and agricultural extention center in Binh Duong province. Those two servey areas were selected because of the high technical and management ability. As a results of the monitoring servey, it was able to collect conception rates from the collected AI records.	・The Progress Report ・C/P and Exp. (Interview)
	2-3. A computer program for frozen semen stock and distribution management is made and put into practice. *(Performance)* ・Direct observation on Tu Son AI center (VINALICA), a database program for frozen semen stocking and distribution had installed and one C/P has been update the data everyday and make report monthly since September 2004. ・VINALICA has plan to extend the database program to other regional distribution centers.	・Tu Son AI center (Observation) ・The Project Report
	2-4. The developed materials by the project for AI information recording are utilized by the National Dairy Development Project. *(Performance)* ・According to the Project report, the method of AI recording and materials (AI recording book and other related materials) which developed by the Project had adopted by the National Dairy Development project and its have been used by AI technicians in 29 provinces. ・According to Project Director, after the Project developed AI recording system and introduced to nine (9) provinces (the Project focused area) at the end of 2001,the National Dairy Development Project decided adopting the AI recording system to their project after careful consideration.	・The Project Report ・Project Director (Interview)

Achievement Grid

Narrative Summary of PDM	Verifiable Indicators and Results	Sources
Output 3 Production technique of straw typed frozen semen is improved.	**3-1. 100% of frozen semen for dairy breed is produced in straw form in MAIC.** *(Performance)* ・According to VINALICA Report:"The result of production/KD (2001-2004) and the Plan (2005-2010)", ratio of Straw frozen semen for dairy breed produced in MAIC is 91% in 2004. The 9% of the production is Pelett-type frozen semen. ・Currently, there are still some demands of Pellet-type frozen semen. It suppose AI in the remote area still have some difficult coditions using straw-type frozen semen. Those conditions are limited availability of liquid Nitrogen, nitrogen tank or AI gun.  Source: Data from VINALICA Report (Jan.2005) ・The production volume of frozen semen for dairy breeding is as below.  Source: Data from VINALICA Report (Jan.2005)	・VINALICA Report (Jan. 2005) ・AI technicians (Interview)

Achievement Grid

Narrative Summary of PDM	Verifiable Indicators and Results	Sources
	3-2. The rate of straw-typed frozen semen passed the quality examination increase from 75%-80% to more than 95% in MAIC. *(Performance)* ・According the progress report, the discard semen rate had been decreased. The rate which passed quality examination was 66% in 2002, it has increased to 96.4% in 2004. *(Factors contributed)* ・A part of technical improvement, the semen production line has renovated and temperature and humidity management method had changed.	・The Progress Report ・Director, MAIC (Interview)
	3-3. All the data on production and distribution of semen is managed by using computer in MAIC. *(Performance)* ・According to Director of MAIC, all the production and distribution of semen data has been updated every day and managed by the computer system. The distribution data continue to manage by Tu Son distribution center through VINALICA headquarter under VINALICA system.	・Director, MAIC (Interview)
Output 4 Feeding and management of sires are improved	**4-1. The rate of sire bulls to be used for semen processing increases from the present 50% to more than 85% in MAIC.** *(Performance)* ・According to Director of MAIC, presently 25 sire bulls out of 30 are used for semen processing. The ratio is 83%. Although it has increased 33 points from the beggining of the Project, the ratio reached nearly 85%. ・The discard rateof collection semen remarkably decreased in 2003. The changes of the discard rates were; 56% in 1999, 60% in 2000, 66% in 2001, 60% in 2002, 30% in 2003 and then 18% in 2004. *(Factors contributed)* ・According to Director of MAIC, MAIC decided to weed out low motility sire bulls in 2002, thus the number of bulls decreased from 59 heads to 30 heads. ・Since the Project implemented, several renovetions on bull shed such as setup funs/sprinkle system to avoid heatstress, soften floor and paddock to reduce hoof strain were conducted.	・Director, MAIC (Interview) ・The Progress Report ・Director, MAIC (Interview) ・MAIC (Observation)
	4-2. MAIC can manage the sire by using individual animal data. *(Performance)* ・According to the C/P in MAIC, for the purpose of manage sires individually, MAIC operate regular helth check for sires which contained semen collection record mesurement of weight (monthly), heights, chest size, body length indiagonal, body length, hip width, hip lenghth (every six month) and collect the all data then recorded.	・The Progress Report ・Director, MAIC (Interview)

Achievement Grid

Narrative Summary of PDM	Verifiable Indicators and Results	Sources
	4-3. The feeding programme is produced and practiced in MAIC. *(Performance)* ・According to the C/P in MAIC, the feeding program for sire bulls of MAIC has developed and practiced. But it has not been practical enough, there are some difficult conditions in MAIC such as 1.) few varieties of feed, 2.) deficient knowledge of feed nutrition which changes by four seasons. ・According to the C/P of Cattle science in NIAH, some research activities such as visiting farmers, experimental field in Dong Anh dist. are on going to improve feeding program.	・C/P in MAIC (Interview) ・C/P in NIAH (Interview)
ACTIVITIES	See ANNEX 9. "Progress conditions of the Project activities"	・ANNEX 9.
INPUTS	**Inputs by the Vietnamese side** *(Performance)* 1. Offices and Facilities : Project offices and facilities for in NIAH 2. Counterparts assignment : (44) a)Project Director b)Project Manager c)Planning & International Coop. Div. d)Embryo Transfer Dept. e)Cattle Science Dept. f)Artificial Insemination Dept. g)National Dairy Project h)Animal Husbundary T.T. & Research Center i)Administrational Divisions j)MAIC/VINALICA (10) 3. Budget Inputs of NIAH : VND3,220,000,000 (2000 - 2004) a)Working Expenditure b)Personnel Cost c)Facility Expenditure (Repairing & Renovation) d)Research & Training e)Others (Custom declarations & Registaration)	ANNEX 3. (2) ANNEX 6.

Achievement Grid

Narrative Summary of PDM	Verifiable Indicators and Results	Sources
	Inputs by the Japanese side *(Performance)* 1. Dispatch of Japanese Experts: Long-term experts (6) a)Chief Advisor/Feeding and Management of Sire b)Project Coordinator c)Frozen Semen Processing d)Artificial Inseminator Short-term experts (22) a)Frozen Semen Processing Facility Improvement Plan b)Planning of Artificial Insemination Training c)Frozen Semen Distribution Plan d)Frozen Semen Processing (Extender preparation) e)Feeding & Management of Sire (2) f)Semen Collection Technique h)Reproduction Hormone Assay Technology i)Evaluation on AI Redording Program & its Applied Activities (3) j)Forage Production & Feed Adjustment k)Reproduction Management l) Sire Health & Diseases Control m)Bull Feeding System n)Feeds Analysis o)Survey & Solution Method for Difficult Coeption p)Management of Frozen Semen Distribution Network q)Evaluation of Feeding Program for bull r)Application of Artificial Insemination Technology s)Veterinary practice for dairy cow (as planned) 2. Counterparts Training in Japan (27) + (3 as planned) 3. Provision Equipment : Yen157,450,000 (2000 - 2005) 4.Local cost budget : Yen65,633,000 (2000 - 2005)	ANNEX 2. - 5.

2. Implementation Process

Implementation Process Grid

		Evaluation Questions and Results	Sources
1. Appro-priatene ss of the Imple-mentatio n process	1. 1 Activities implemen-tation	**1.1.1 The activities of the Project has been implemented as scheduled.** + According to the Questionnaire, almost all the C/Ps and most of the experts answered its have been implemented as scheduled.	C/P & Exp. (Questionnaire)
	1.2 Project managemen t system	**1.2.1 Appropriateness of the Project decision making process.** + The Project has been held the meetings when the occation arised among the C/Ps and Experts, although the Project has not carried any regular meeting.	C/P & Exp. (Questionnaire)
		1.2.2 Monitoring activities Utilization of the Monitoring results for modification of planned PO/PDM. + To utilize the Recommendation of the Mid-term Evaluation in March 2003, the Project modified PDM for two (2) times. The first modification of PDM, PO and APO have done on the 4th JCC Meeting in September 2003, and the second modification of PDM have done on the 5th JCC Meeting in April 2004.	C/P & Exp. (Questionnaire) (Interview)
		1.2.3 Communication between Vietnamese C/Ps and Japanese Experts. + According to the C/Ps and experts, Japanese experts and Vietnamese C/Ps always try to show the meaning of activities, and to discuss before start the activities. _ Some of the C/Ps and experts concerned about English speaking ability of the C/Ps if the communication between C/Ps and experts was not good enough. + According to the observation during the interview to C/Ps, ten (10) out of fifteen (15) C/P were able to interviewed in English. + There are four (4) bilingual secretaries hired by Japanese side budget. It support the translation work for the Project document into Vietnamese. The Vietnamese side also supported the translation work for the Project.	C/P & Exp. (Questionnaire) (Interview) (Observation) (Observation)
	1.3 Ownership of the Project	**1.3.1 C/Ps understanding of PDM and JICA's technical cooperation scheme** + According to the observation during the workshop on February 24 2005, it looked like the C/Ps understand PDM logical framework well. It may because of that the Project had modified PDM two times during the implementation period thus they had a dozen of discussion on PDM.	Workshop (Observation)

Implementation Process Grid

	Evaluation Questions and Results		Sources
		1.3.2 Commitment of the C/Ps, Target groups and related organizations + Most of the C/Ps, Target groups (AI technicians, Local officers) and related organizations were committed the Project activities. _ In the interveiw and observation servey, it looked like the Japanese experts + played more leading role than the C/Ps in some activities of the Project. That role has been being transferred to the C/Ps gradually by the end of the Project.	C/P & Exp. (Interview) (Observation)
	1.4 Appropriate-ness of collabora-tion with the other related agencies	**1.4.1 Collaboration with VINALICA (MAIC) or Local offices** + The Project has been collaborated with MAIC/VINALICA and Local offices to carry on the Project activities.	C/P & Exp. (Interview)
2. Other changes during impleme ntation period	2.1 Changes	**2.1.1 Changes of Important Assumptions** _ *Changes in the Important Assumption (Project Purpose to Overall Goal)* + VINALICA has established in August 2001 consolidating some of the state owned companies which related livestock industry. MAIC was reorganized as one of the centers of VINALICA.	The Project Report
3. Situation of other related Projects	3.1 Progress of the other projects	**3.1.1 Progress of National Dairy Development Project** + The National Dairy Development Project has been implemented in Vietnam since October 2001, according to the Government decition of (No.167/2001/QD-TTg). The first Phase was from 2001 to 2005 and the second Phase will be from 2006 to 2010. The plan of the National Dairy Development project for the Phase II is now under preparation.	Director, NIAH (Interview)

3. Five Criteria

Summary of the evaluation by the five Criteria

3-1. Relevance

Overall goal and Project purpose are consistent with the needs of AI technicians and local officers as well as dairy farmers, and in accordance with the Vietnamese national policy and Japan's Official Development Assistance policy for Vietnam. Relevance of the Project is very high.

3-2. Effectiveness

Project Purpose has been almost achieved as verified by the indicators in PDM. The results of each Output (Output 1 ~ Output 4) contributed to achieve Project Purpose. More over, the implementation of Vietnamese "National Dairy Development Project (2000-2005-2010)" is an external factor to achieve Project Purpose effectively. Effectiveness of the Project is substantially high.

3-3. Efficiency

Efficiency of the Project is nearly high, since necessary and sufficient Inputs produced adequate Outputs. However, the dispatch of successor Chief Advisor was not appropriate timely, and the counter budget for the Project borne by the Vietnamese Government was hardly adequate.

3-4. Impact

The positive impact of the Project is substantially high. However, further assessment of effectiveness of the AI technique improvement through the use of straw-type frozen semen on status of milk and beef productivities is needed. There is a little negative impact on non-retrained AI technicians. The Project should continue to be concerned about emergence of the negative impact by the Project.

3-5. Sustainability

In terms of technical and organizational aspect, outcome of the Project will sustain and will be extended to the other provinces in Vietnam. However, technical and organizational sustainability should be substantiated financially by the Vietnamese government.

3. Five Criteria Evaluation Grid

3-1. Relevance

Evaluation Questions	Evaluation Questions and Results	Sources
1.1 Relevance of Overall Goal and Project Purpose	**1.1.1 Consistency with the needs of Target Groups**	
	+ In the questionnaire survey, all twenty four (24) Artificial Inseminators (AI technicians) at both Ha Tay and Bac Ninh provinces mentioned that the Project Purpose of the Project was matches AI technician's and farmer's needs.	AI technicians (Questionnaire) (Interview)
	+ AI technicians also mentioned the reasons why did they think so; 1) feel secure about quality of straw-type frozen semen as the project introduced advanced production technology to MAIC, 2) AI technicians and farmers have recognized that straw semen is suitable for AI with present condition in VN, 3) make sure that by using straw semen we can get good breeding management, and also most of the AI technicians satisfied with the Project activities.	
	1.1.2 Consistency with the needs of Dairy Farmers and Livestock Industry	
	+ In the questionnaire survey, all of the C/Ps and Experts mentioned that the Project Pupose matches needs of dairy farmers and livestock industry very much.	C/P and Exp. (Questionnaire)
	+ According to C/Ps and Long-term experts, just around the same time that the Project started those farmers who newly started dairy farming were in serious conditions because lack of their knowledge, and it's not only farmers but also Artificial Inseminators and Veterinarians have not enough knowlege, skills and experiences.	C/P and Exp. (Interview)
	+ Director of NIAH also mentioned, around year 2002 batches of farmers rushed into dairy farming and some of them had only a little knowledge of dairy farming. At the same time price of dairy calf had jumped up, thus those farmers who bought calf with high price could not make any profit.	Director, NIAH (Interview)
	1.1.3 Consistency with the Vietnamese National Policies.	
	+ The productivity of milk and beef will be increased by improving cattle artificial insemination techniques (Overall Goal) is consistent with Vietnamese agriculture development policy Hunger Eradication & Poverty Reduction Campain in Vietnam.	Hunger eradication and poverty reduction Campain
	+ Artificial insemination techniques for cattle will be improved through the use of straw semen (Project Purpose) is consistent with "Project on Development Milk Production in Vietnam 2000-2005 -2010" (National Dairy Development Project) and "Promotion of programme of Crop and Animal breeding 2000-2005".	National Dairy Development Project (Document Review)
	1.1.4 Consistency with the Japan's Official Development Assistance Policy for Vietnam	
	+ According to the Japan's Official Development Assistance Policy for Viet Nam, The Japanese government holds rural development policy for institutional research as one of the priority promotion for Vietnam.	Japan's ODA country policy

1.2 Relevance of project design	**1.2.1 Appropriateness of the technical cooperation framework (Justification of the period, area, level of objectives, contents of activities and inputs)** + According to the questionnaire survey, most of the experts and C/Ps assessed that the technical cooperation framework of the Project is appropriate. An expert mentioned about the relation between the Overall Goal and the Project Purpose "Improving AI techniques for cattle through the use of straw-type semen" was indispensable for livestock farming.	C/P and Exp. (Questionnaire)
	1.2.2 Appropriateness of the PDM modifications (Two times) + To utilize the Recommendation of the Mid-term Evaluation in March 2003, the Project modified PDM for two (2) times. The first modification of PDM, PO and APO have done on the 4th JCC Meeting in September 2003, and the second modification of PDM have done on the 5th JCC Meeting in April 2004.	The Project Report
	+ According to C/Ps and Expert, some mentioned about the modification of PDM. One mentioned its have done to clarify the purpose of the AI recording system and also some mentioned its made it's more suitable / appropriate with the development situation. Most of them assessed the modifications of PDM were appropriate.	C/P and Exp. (Questionnaire)

3-2. Effectiveness

Evaluation Questions	Evaluation Questions and Results	Sources
2.1 Achievement of Project Purpose	**2.1.1 Achievement of Project Purpose** + According to the results of survey as verified by the indicators listed in the Achievement Grid, the Project Purpose was almost successfully achieved.	Achievement Grid (Project Purpose)
2.2 Achievement of each Outputs	**2.2.1 Achivement of each Output** + The four (4) Outputs were almost successfully produced as verified by the indicators listed in the Achievement Grid.	Achievement Grid (Outputs)
2.3 Contribution of each Output to achieve Project Purpose	**2.3.1 Contribution of Output 1: AI technicians are trained and their skills are improved** + According to the results of questionnaire servey, most of the experts and C/Ps assessed that Output 1 has contributed to the achievement of the Project Purpose very much. + According to the AI technicians, almost all AI technicians being surveyed mentioned that their improvement of knowledge and techniques are remarkable which because of the re-training couse by the Project.	C/P and Exp. (Questionnaire) AI technicians (Questionnaire) (Interview)
	2.3.2 Contribution of Output 2: Distribution Method for frozen semen and AI recording management are improved + According to the C/Ps and experts, Output 2 has contributed to the achievement of the Project Purpose in good amount.	C/P and Exp. (Questionnaire) (Interview)
	2.3.3 Contribution of Output 3: Production technique of straw-typed frozen semen is improved + According to the questionnaire, C/Ps and experts assessed Output 3 has successfully contributed to the achievement of the Project Purpose. + In the interview survey, some AI technicians mentioned that MAIC produced straw-type frozen semen improved very much if they compair with it before, and not only AI technicians but also farmers understand which because of the Project.	C/P and Exp. (Questionnaire) AI technicians (Interview)

	2.3.4 Contribution of Output 4: Feeding and management of sires are improved	
	+ According to the questionnaire, most of the C/Ps and experts assessed Output 4 has contributed to the achievement of the Project Purpose.	C/P and Exp. (Questionnaire)
	+ In the interview survey, C/Ps who is in charge of feeding of sires mentioned it improved very much but it still need some research on veriaty of feed and feed analysis.	C/P (Interview)
	2.3.5 External factors contributed to achieve Project Purpose	
	+ In the questionnaire survey, almost all the C/Ps answered there are external factors to achieve Project Purpose.	C/P (Questionnaire)
	+ In the questionnaire survey, some experts mentioned that implementation of the National Dairy Development project has supported material supply as well as training for AI technicians of not only JICA focused nine (9) provinces but also many other provinces.	Expert (Questionnaire)
	+ According to the Director of NIAH, currently six hundreds ninty one (691) AI technicians were re-trained out of 1,700 AI technicians in Viet Nam. Breakdown is as follows; ・Trained by the JICA Project 211 AI technicians ・Trained by the Natinal Dairy Development Project 480 AI technicians Total re-trained AI technicians in VN 691 AI technicians	Director, NIAH (Interview)

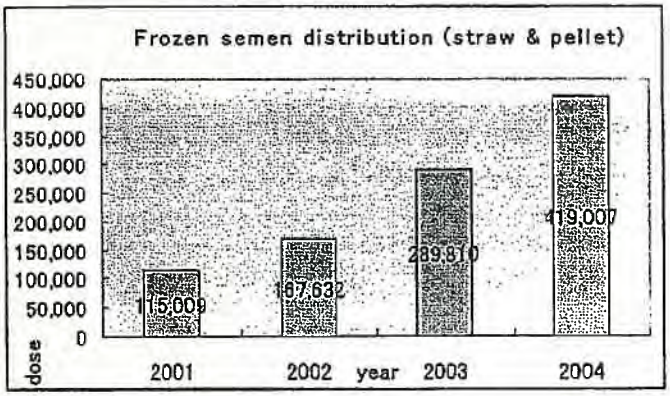
3-3. Efficiency

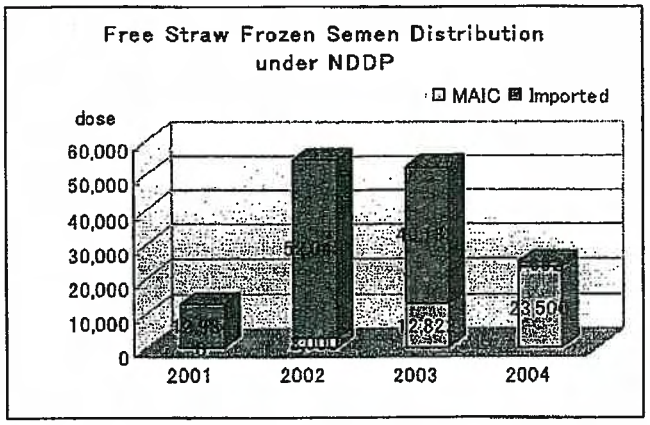
Evaluation Questions	Evaluation Questions and Results	Sources
3.1 Appropriateness of Inputs in relation to the produced Outputs.	**3.1.1 Appropriateness of Japanese experts (In terms of number, specialization, length of stay and timing of dispatch.)**	Achievement Grid (Inputs)
	+ Most of the C/Ps answered the timeliness of dispatch and expertise of both long-term and sort-term experts were appropriate.	C/P (Questionnaire)
	_ Experts assessed the timeliness of dispatch was not appropriate, because of Chief Advisor's absence for six (6) months due to delay of assignment in Japan.	Expert (Questionnaire)
	3.1.2 Appropriateness of provided equipment (In terms of type, quantity, quality and timing of installation.)	Achievement Grid (Inputs)
	+ Machinery and equipment were provided as planned. Most of the equipment are used by the Project activities efficiency, although three (3) IBM PC and one (1) scanner which provided in Jan. and Feb. in 2001 had broken in 2004. Although the Project had tried repairing several times, it could not use anymore.	C/P and Expert (Questionnair) (Observation)
	_ Some C/Ps and experts assessed on reasonable maintenance cost of provision equipment were less appropriate.	C/P and Expert (Interview)
	3.1.3 Appropriateness of Counterpart Training in Japan (In terms of number, subject, program, length of stay and timing of acceptance.)	Achievement Grid (Inputs)
	+ Most of the C/Ps and experts assessed timeliness and contents of the training program were appropriate.	C/P and Expert (Questionnair)
	+ Experts mentioned that major C/Ps were trained in Japan and all of them who participated the training course in Japan are remains.	
	_ On the other hand, some C/P answered number of trainees was not appropriate and they mentioned that there are still more requirement.	
	3.1.4 Appropriateness of the staffing of C/P (In terms of number, assignment and competence.)	Achievement Grid (Inputs)
	+ The Vietnamese side assigned twenty-two (22) C/Ps in 2000, the number has been increased every year, and currently fourty-four (44) C/Ps are assigned.	The Project Report
	3.1.5 Appropriateness of local cost supported by Japan	
	+ The local cost support by Japan was almost appropriate to conduct the Planned activities.	Achievement Grid (Inputs)
	3.1.6 Adequacy of the project cost borne by the Vietnamese side	
	_ In the interview survey to the Director of NIAH, since beginning of the Project NIAH has not been received any counter budget from Vietnamese Government for the Project however MARD agreed on the annual budget of 150 million VND (about US$10,000) for the Project in 2003. Research and Training budget inputed were diversion from the National Dairy Development project budget.	Director, NIAH (Interview)
	_ All of the Japanese experts and some of the Vietnamese C/Ps mentioned about insufficient budget of travel allowance and salary for C/Ps.	C/Ps and Expert (Questionnaire) (Interview)

3-4. Impact

Evaluation Questions	Evaluation Questions and Results	Sources
4.1 Achievement of Overall Goal	**4.1.1 Achievement of Overall Goal** + All of the indicators in PDM for Overall Goal have been achieved within the Project period. + In the questionnaire survey, most of the C/Ps and experts mentioned that the Project has contributed to achieve Overall Goal. _ However those indicators in PDM for Overall Goal have been achieved, more study + is needed on the factors contributed. Since the duration of the Project is only five (5) years, more time is needed to conclude if the Overall Goal; The productivity of milk and beef will be increased by improving cattle artificial insemination techniques, is fully achieved .	Achievement Grid (Overall Goal) C/P and Expert (Questionnair)
4.2 Emergence of other Impacts	**4.2.1 Positive Impacts** + *Straw-type frozon semen Import plan under Natinal Dairy Development project* National Dairy Development project Phase II will reduse the ratio of the import straw-type frozen semen from 72% (actual 2001-2004) to 20% (plan). + *Value of calf and dairy cattle attached a ear tag* Since the ear tag cattle identification system had introduced by the Project, the prices of calf and dairy cattle attached a ear tag have increased. The people believed the cattle has been examined scientifically. + *Revenue of re-trained AI technicians* In the interview to AI technicians in Ha Tay and Bac Ninh provinces, almost all the re-trained AI technicians told their income by AI has been increased than before.	Director, NIAH (Interview) AI technicians (Interview)
	4.2.2 Negative Impacts _ *Disparity of Non-trained and trained AI technicians* In the interview to non-trained AI technicians, they mentioned that they felt behind in knowledge and skills of AI from re-trained AI technicians and the disparity was widened from re-trained AI technicians because of AI tools which lend-lease contracted by the Project to the training participants. The tool set cost about $700 if the AI technician bought it individually, and currently there is a limited availability in market sale. According to the survey, there is no other negative impact has been reported. The Project should continue to pay attention on negative impact.	Non-trained AI technicians (Interview) Expert and C/P (Interview)

3-5. Sustainability

Evaluation Questions	Evaluation Questions and Results	Sources
5.1 Organizational sustainability	**5.1.1 Prospect in the government support to NIAH** – Since the Project has started in 2000, MARD supported some facility and assignment of personnel only. NIAH has been asking more direct support from them.	Director, NIAH (Interview)
	5.1.2 Prospect in the organizational sustainability of NIAH + According to the questionnaire survey, almost of the C/P and experts answered that management system of NIAH could sustain the project activities autonomously.	C/P and Expert (Questionnaire)
	5.1.3 Prospect in the organizational sustainability of MAIC (VINALICA) – + According to the questionnaire survey, most of the C/P and experts answered that management system of MAIC could sustain the project activities autonomously, although some mentioned that MAIC need more effort for straw-type frozen semen marketing and close relation on cattle breeding program with NIAH.	C/P and Expert (Questionnaire)
5.2 Financial viability	**5.2.1 Prospect in the Budget allocation to NIAH** – In the questionnaire survey, 81% of C/Ps are not sure about the budget allocation from Vietnamese Government. One mentioned that government will continue to support financially but it will not satisfy.	C/P and Expert (Questionnaire)
	– In the interview survey to the Director of NIAH, since beginning of the Project NIAH has not been received any counter budget from Vietnamese Government for the Project however MARD agreed on the annual budget of 150 million VND (about US$10,000) for the Project in 2003. Research and Training budget inputed were diversion from the National Dairy Development project budget.	Director, NIAH (Interview)
	5.2.2 Prospect in the financial viavility of MAIC (VINALICA) + VINALICA has been increasing production and distribution volume of the frozen semen. VINALICA Frozen Semen Distribution (2001 - 2004)  Source: VINALICA report	VINALICA report (Jan. 2005)

	+ In the interview to Secretary of National Dairy Development Project (Deputy Head of Scientific Planning and International Coop. Dep. , NIAH), NDDP has been distributed free imported straw-type frozen semen since 2001. In 2002 NDDP started purchasing MAIC produced straw-type frozen semen and it has been distributed. The ratio of MAIC semen is increasing and it will be 80% in the plan of NDDP Phase II (2006-2010). Distribution of free straw-type frozen semen under NDDP as follows.  Source: Data from NDDP office	Secretary, National Dairy Development Project (Interview) National Dairy Development Project data
5.3 Technical sustainability	**5.3.1 Prospect in the re-trained Artificial Inseminator's technique** + According to the questionnaire survey, 100% of the AI technicians mentioned their AI techniques were improved. Those techniques were practical technique, pregrancy diagnosis, method of thawing semen, sanitary condition in AI and AI redording /reporting. − According to the result of research and technical examination by the Project on the fourty-two (42) AI technicians in seven (7) focused provinces in July and Sep. 2004, in the technical examination some techniques were not satisfactory level such as early pregnancy diagnosis (5/42), knowing suitable tempeture of keeping pure HF (1/42) and treatment of retention of placenta (11/42). More over there were many questions and discussions about veterinary and feeding management for dairy cattle. − In the questionnaire survey, some experts mentioned that stability in semen + and liquid Nitrogen supply is necessary and organizing AI technicians association to exchange the information and techniques each other is needed. − Some C/Ps mentioned that to strengthen AI recording system AI technicians should record all the information and improve accuracy of the information. + In the interview servey, C/Ps and experts mentioned that the most of the AI technicians are also doing veterinary works as an animal health worker thus they are eager to learn both techniques for providing information to the farmers who are faced with the serious problems of diseases and feeding management.	AI technicians (Questionnaire) The Project Servey Report (Sep. 2004) Expert (Questionnaire) C/P (Questionnaire) C/P and Expert (Inteview)

	5.3.2 Prospect in the C/P's ability to achieve Overall Goal	
	_ In the questionnaire survey, an expert mentioned that as far as director and deputy + class has enough ability but technical advices are still needed.	C/P and Expert (Questionnaire)
	_ Many C/Ps and experts assessed that viable financial support from Vienamese government and MARD are vital to continue the activities for improving AI techniques and diffusion the improved techniques.	
	5.3.3 Prospect in the Local officers management ability of AI program	
	+ In the interview to the C/Ps, the local officers have enough ability to manage AI information.	C/P (Interview)
	+ In the interview to the experts, there are different situation of the local offices if the province has the project such as dairy development promotion in each province.	Expert (Interview)

VI. CONCLUSION

In conclusion, based on the series of discussion with the concerned officials and C/Ps, it can be said that Project not only has achieved its outputs and purpose listed in the PDM, but also played an important role in improving and promoting cattle artificial insemination techniques. The remaining activities are expected to be carried out by the Project.

Therefore, the Evaluation Committee concluded that this Project to be completed by 1st October, 2005 as planned.

VII. RECOMMENDATIONS

The following issues and necessary measure are recommended by the Evaluation Committee to further develop and sustain the Project.

1. MARD should expand the AI techniques which improved through the Project to all over Vietnam as well as focused area. And it is necessary to make effort to achieve the Overall Goal, the productivity of milk and beef will be increased by improving cattle artificial insemination techniques, by considering the reproductive diseases treatment and the feeding and management of dairy cow of dairy farmer.

2. To utilize the outcome of the Project effectively and sustainability, MARD should expand the outcome of the Project in the promotion of National Dairy Development Project.

3. MARD should sustain financially and organizational support to NIAH after the Project completion.

4. MARD should take effort to maintain the existing distribution network which straw type semen produced by MAIC that would be distributed to each AI technician all over Vietnam properly.

5. NIAH in collaboration with JICA experts formulate a new project in order to promote the result of the Project.

6. The Project should focus on the activities to utilize the AI recording system developed by the Project effectively.

7. The Project should maintain the equipment and make the equipment maintenance system to utilize them systematically after the end of the Project completion.

8. The Project should hold the international seminars to introduce the outcome of the Project to other countries by the Project completion.

Ⅷ. LESSONS LEARNED FROM THE PROJECT

1. It is very important to show the way to achieve the purposes of producing benefit for final beneficiaries; such as nation nutrition improvement and income increasing, when JICA project start in the field of animal husbandry.

2. During the Project implementation, JICA should research on the current situation of rural area and market activates continuously as well as animal husbandry industry. And JICA should monitor the Project activities regularly in order to cope with the role in the national plan of the recipient country.

3. JICA should dispatch the long-term experts timely in the relation with the progress of Project activity to ensure maximum impact.