

ANNEX 2 List of Long-Term Experts

No.	Name	Title	Term
1	Mr. Seiro Saito	Chief Advisor	6 Sep. 2002– 5 Sep. 2004
2	Dr. Isamu Takahara	Microbiology	6 Sep. 2002– 5 Sep. 2004
3	Dr. Kenta Asanuma	Food Analysis	6 Sep. 2002– 5 Sep. 2004
4	Mr. Toshiaki Nagano	Coordinator	6 Sep. 2002– 5 Sep. 2004
5	Dr. Masakatsu Yanagimoto	Chief Advisor	23 Aug. 2004–23 Aug. 2005
6	Dr. Akiko Murayama	Microbiology	20 Aug. 2004–20 Aug. 2005
7	Mr. Atsushi Horie	Food Analysis/ Food Processing	20 Aug. 2004–20 Aug. 2005
8	Mr. Kimihiro Konno	Coordinator	20 Aug. 2004– 5 Sep. 2007

List of Short-Term Experts

No.	Name	Title	Term
1	Dr. Yusaku Fujio	Fermentation of Organic Acid	15 Oct. 2003-17 Jan. 2004
2	Dr. Shinji Miyado	Technology on Isolation and Identification	27 Oct. 2003-16 Jan. 2004
3	Dr. Hisao Nakanishi	Pathogenic Microbiology in Foodstuff	18 Nov. 2003-17 Jan. 2004
4	Dr. Yusaku Fujio	Sugar Production	6 July 2004-30 Oct. 2004
5	Mr. Shintaro Nozawa	Food Analysis (Organic Compounds)	18 Oct. 2004-13 Nov. 2004
6	Dr. Yoshinori Itoh	Analysis for Natural Toxins	1 Nov. 2004-28 Dec. 2004
7	Dr. Hitoshi Utsunomiya	Improvement of strain's property	7 Jan. 2005-24 Mar. 2005
8	Mr. Koji Suginami	Fermentation of agri-products	25 Feb. 2005-27 May 2005
9	Mr. Kazutoshi Mizuno	Analysis of heavy metal (mercury)	25 July 2005- 30 Sep. 2005
10	Dr. Seiko Shigeta	Sugar Chemistry (separation and assay of oligosaccharide)	5 Sep. 2005- 2 Dec. 2005
11	Dr. Ichiro Shibuya	Sensory Evaluation	11 Nov. 2005- 24 Dec. 2005
12	Dr. Kunio Ohmiya	Enzyme Purification	14 Nov. 2005- 20 Jan. 2006
13	Mr. Akikazu Aoyagi	Chief Advisor	3 Dec. 2005-29 Nov. 2006, 28 Jan. 2007-5 Sep. 2007
14	Mr. Shintaro Nozawa	Analysis of antibiotics (Chloramphenicol)	19 Dec. 2005- 20 Jan. 2006
15	Dr. Takumi Takayama	Application of rice spirit technology	2 July 2006- 19 Aug. 2006
16	Mr. Hiroshi Takase	Promotion of food processing/ analyzing technology to food processing SMEs	3 July 2006- 1 Dec. 2006
17	Dr. Kihachiro Ogawa	Fungi in food processing	10 Aug. 2006- 23 Sep. 2006
18	Mr. Nobuo Shinohara	Application of lactic acid bacteria to agricultural products	21 Aug. 2006- 14 Nov. 2006
19	Mr. Hiroyuki Kodama	Analysis of natural and synthetic flavor	25 Sep. 2006- 24 Nov. 2006
20	Dr. Yoshihiro Komiyama	Application of fruits wine	28 Sep. 2006- 4 Nov. 2006
21	Dr. Takumi Takayama	Commercialization of rice spirit	12 Mar. 2007-11 May 2007

ANNEX 3 (1) List of Training of Counterparts in Japan

No.	Name and position	Title	Category	Term	Institute and main subject of training
1	Dr. Ngo Tien Hien, Director	Administration of project	Individual	Jun 24, 2002 ~ Jul 10, 2002	Ministry of Agriculture, Food Institute, Agriculture Consumer Center, Food processors
2	Ms. Tran Thi Chau Head of International	Administration of project	Individual	Jun 24, 2002 ~ Jul 10, 2002	Ministry of Agriculture, Food Institute, Agriculture Consumer Center, Food processors
3	Dr. Vu Thi Dao Director	Food administration	Individual	Feb 16, 2003 ~ Mar 1, 2003	Ministry of Agriculture, Food Institute, Agriculture Consumer Center, Food processors
4	Dr. Pham Van Thanh Head of analysis	Assessment of analysis	Individual	Mar 13, 2003 ~ Jun 14, 2003	Agriculture Consumer Center. Food Analysis
5	Ms. Nguyen Thuy Huong Vice head of microbiology	Alcohol fermentation	Individual	Feb 25, 2003 ~ May 25, 2003	Shurui Sogo Kenkyuusho Alcohol fermentation (red rice wine)
6	Ms. Pham Thi Thu Researcher of beverage	Food processing / Preservation	Group	Jan 14, 2003 ~ Mar 22, 2003	Hiroshima Food Industry Technology Center Isolation and culture of yeast
7	Ms. Tran Thi Minh Ha Researcher of nutrition	Food processing / Preservation	Group	Jan 14, 2003 ~ Mar 22, 2003	Hiroshima Food Industry Technology Center Isolation and culture of yeast
8	Dr. Nguyen Thi Du Head of fermentation	Food administration survey	Individual	Aug 24, 2003 ~ Sep 5, 2003	Ministry of Agriculture, Food Institute, Food Industry Center, Tokyo University of Agro-Industry, processors
9	Mr. Vu Duc Chien Researcher of oil	Analysis of natural toxin	Individual	Sep 1, 2003 ~ Nov 28, 2003	IAI Fertilizer and Feed Inspection Center Analysis of mycotoxins
10	Ms. Ngo Thi Van Researcher of starch	Production using enzymes. Analysis of vitamin D	Individual	Sep 30, 2003 ~ Dec 20, 2003	Osaka Laboratory of Industry Process of CD and oligo-saccharides, analysis of vitamin D
11	Ms. Do Thi Lan Huong Vice head of analysis	Food quality analysis	Individual	Oct 6, 2003 ~ Dec 27, 2003	Food Frozen Inspection Corporation Analysis of food additives
12	Mr. Nguyen Trung Hieu Researcher of flavor	Analysis of mycotoxins	Group	Feb 2, 2004 ~ May 16, 2004	Kobe Laboratory of Environment and Examination of mycotoxin
13	Ms. Tran Hoang Quyen Researcher of analysis	Food quality analysis	Individual	May 10, 2004 ~ Aug 7, 2004	Agriculture Consumer Center Analysis of amino acid, organic acid, fatty acid
14	Ms. Tran T. Thu Huong Researcher of analysis	Food quality analysis	Individual	May 10, 2004 ~ Jul 31, 2004	Ochanomizu University Analysis of vitamin B group
15	Dr. Vu Nguyen Thanh Vice head of microbiology	Property's improvement of microorganisms	Individual	Sep 9, 2004 ~ Dec 8, 2004	Hokkaido University, agriculture laboratory
16	Ms. Dinh Thi My Hang Researcher of microbiology	Taxonomy of fungi	Individual	Sep 30, 2004 ~ Dec 23, 2004	Ryukyu University, Faculty of Agriculture
17	Ms. Truong Huong Lan Head of nutrition	Food processing	Individual	Jan 5, 2005 ~ Mar 31 2005	Aichi Prefectural Industrial Center

18	Ms. Dang Thu Huong Researcher of microbiology	Examination of food hygiene microorganisms	Group	Jan 10, 2005 ~ May 22, 2005	Kobe Pharmaceutical University, Kobe Quarantine Station, Kobe Tokiwa Junior College, Kobe Institute of Health
19	Mr. Le Binh Hoang Researcher of oil	Analysis of mycotoxin	Group	Jan 31, 2005 ~ May 15, 2005	Kobe Pharmaceutical University, Kobe Quarantine Station, Kobe Tokiwa Junior College, Kobe Institute of Health
20	Mr. Do Trong Hung Researcher of fermentation	Food processing / preservation	Group	Jan 11, 2005 ~ Mar 20, 2005	Hiroshima Food Industry Technology Center
21	Ms. Nguyen Minh Chau Researcher of beverage	Technology for strengthen small and medium firms	Group	Apr 18, 2005 ~ July 23, 2005	JICA Osaka
22	Mr. Le Van Bac Researcher of fermentation	Separation of lactic acid	Individual	July 2, 2005 ~ Sep 30, 2005	Oita University, College of Technology
23	Ms. Do Tuyet Mai Vice head of starch	Precision management in food analysis	Individual	Sep 4, 2005 ~ Dec. 3, 2005	Japan Food Research Laboratories, National Food Research Institute
24	Ms. Nguyen La Anh Vice head of microbiology	Breeding method of bacteria (lactic bacteria)	Individual	Sep 4, 2005 ~ Dec. 3, 2005	National Food Research Institute
25	Ms. Dang Hong Anh Head of beverage	Functionality of food components	Individual	Sep 4, 2005 ~ Dec 3, 2005	National Agriculture Research Center for Tokohu Region
26	Mr. Le Van Trong Researcher of analysis	Analysis of food additives	Individual	Sep 4, 2005 ~ Nov 3, 2005	IAA Center for Food Quality Labeling and Customer Services
27	Ms. Do Thi Thanh Huyen Researcher of enzyme	Improvement of Enzyme properties	Individual	Sep 11, 2005 ~ Dec 9, 2005	National Food Research Institute
28	Ms. Tran Thi My Linh Researcher of microbiology	Food Processing and Preservation Technology II	Group	Jan. 10, 2006 ~ Mar. 19, 2006	Hiroshima Prefecture Food Technology Research Center
29	Ms. Bui Thi Bich Ngoc Researcher of flavor	Food Processing and Preservation Technology II	Group	Jan. 10, 2006 ~ Mar. 19, 2006	Hiroshima Prefecture Food Technology Research Center
30	Ms. Nguyen Thi Huong Giang Researcher of microbiology	Test method for food pathogenic microorganisms II	Group	Jan. 9, 2006 ~ May 20, 2006	Kobe Pharmaceutical University, Kobe Quarantine Station, Kobe Tokiwa Junior College, Kobe Institute of Health
31	Ms. Do Thi Lan Huong Vice head of analysis	Internal and External management for establishing analyzing center	Individual	Jul 6, 2006 ~ Aug. 3, 2006	CFQLCS, JFRL
32	Ms. Dam Lam Thanh Head of international, researcher of starch	Cyclodextrin application to Foods/ Project management	Individual	Jun 4, 2006 ~ Aug 30, 2006	Bioinformatics Laboratory, Applied Chemistry Department, Utsunomiya University
33	Dr. Le Duc Manh Director	Project management	Individual	Sep 10, 2006 ~ Sep 21, 2006	JICA Tsukuba
34	Ms. Vu Thi Thuan Vice head of fermentation	Improvement the property of Lactic acid bacteria (LAB) and its application to vegetable and meat	Individual	Jan.08, 2007 ~ Feb. 28, 2007	Hokkaido University

35	Dr. Nguyen Thi Viet Anh Head of fermentation	Food processing and preservation technology III	Group	Jan. 09, 2007 ~ Mar. 18, 2007	Hiroshima Prefecture Food Technology Research Center
36	Ms. Trinh Thanh Ha Vice head of environment	Waste Water treatment by microbiology	Individual	Feb. 18, 2007 ~ Mar. 10, 2007	Chubu University

ANNEX 3 (2) Assignment of Counterparts

No.	Name	Department and position	Former position/ Promotion period (after Sep. 2002)	Group of Rainbow Operation	GPT in Japan	CP of experts
1	Dr. Vu Thi Dao	(Retired)	Director (till Nov. 2005)		Feb. 2003	(Project Director)
2	Dr. Le Duc Manh	Director	Deputy Director (till Jun. 2005)	(manager)	Sep. 2006	(Project Director)
3	Dr. Bui Quang Thuat	Deputy Director	Head of flavor (from Jun. 2005)	(general head)	(Jun. 2007)	(Project Manager)
4	Dr. Nguyen Thi Hoai Tram	Deputy Director	Head of Enz. (till Jan. 2006) & Deputy Director	(general sub-head)		(Project manager)
5	Ms. Tran Thi Chau	(Retired)	Head of Intl (till Apr. 2006)		Jun. 2002	(Project Sub Manager)
6	Ms. Dam Lam Thanh	Head of International	Deputy Head of Intl (till Mar. 2006)	CD	Jun. 2006	(Project Sub Manager), Shigeta
7	Ms. Nguyen Thuy Huong	Head of Microbiology	Deputy head of Intl. (till Feb. 2004)	Strain, Sensory evaluation	Feb. 2003, Jun. 2006	Murayama, Shibuya, Ogawa
8	Dr. Nguyen Thi Du	(Retired)	Head of Fer. (till June 2006)		Aug. 2003	Fujio, Horie
9	Dr. Nguyen Viet Anh	Head of Fermentation	Deputy head of Fer. (till Mar. 2006)	LAB	Jan. 2007	Shinohara
10	Dr. Le Viet Nga	(Moved to MOI)	Head of Bev. (till Jan. 2005)			Asanuma
11	Ms. Dang Hong Anh	Head of Beverage	Deputy head of Bev. (till Dec. 2005)	Rice spirit	Sep. 2005	Suginami, Takayama
12	Dr. Truong Huong Lan	Head of Nutrition	Deputy head of Nut. (till Dec. 2002)	Fruit wine	Jan. 2006	Takagahara, Komiya
13	Dr. Nguyen Thi Minh Hanh	Head of Starch		CD		Fujio, Shigeta
14	Dr. Trinh Kim Van	Head of Enzyme	Deputy head of Enz. (till Dec. 2005)	Strain		Omiya, Murayama
15	Dr. Pham Van Thanh	Head of Analysis		Simple analysis	Mar. 2003	Asanuma, Nozawa
16	Ms. Tran Hoang Quyen	Deputy Head of International	Researcher of Intl (till Mar. 2006)	Sensory evaluation	May. 2005	Shibuya
17	Dr. Nguyen La Anh	Deputy Head of Microbiology	Researcher of Mic. (till Feb. 2004)	LAB	Sep. 2005	Murayama, Shibuya, Miyado
18	Dr. Vu Nguyen Thanh	Deputy Head of Microbiology		Strain	Sep. 2004	Murayama, Nakanishi, Takagahara
19	Ms. Vu Thi Thuan	Deputy Head of Fermentation		LAB	Jan. 2007	Shinohara
20	Ms. Nguyen Thu Ha	(Moved to MOI)	Deputy Head of Nut. (till Mar. 2005)			Takagahara

No.	Name	Department and position	Former position/ Promotion period (after Sep. 2002)	Group of Rainbow Operation	CPT in Japan	CP of experts
21	Dr. Do Tuyet Mai	(Moved to MARD)	Deputy Head of Sta. (till Jan. 2007)		Sep. 2005	Fujio, Shigeta
22	Ms. Trinh Thanh Ha	Deputy head of Environment			Feb. 2007	
23	Ms. Do Thi Lan Huong	Deputy Head of Analysis	Researcher of Ana. (till Aug. 2003)	Simple analysis	Oct.2003, Jun. 2006	Nozawa, Mizuno, Kodama
24	Mr. Nguyen Van Chung	(moved to FIRI branch in HCMC)	Deputy Head of Oil (till Feb. 2005)			Asanuma
25	Mr. Vu Duc Chien	Deputy Head of Oil	Researcher of Oil (till Dec. 2006)	Simple analysis	Sep. 2003	Itoh, Mizuno
26	Ms. Tran Thi My Linh	Researcher, International			Jan. 2006	Miyadoh
27	Ms. Nguyen Thi Huong Giang	Researcher, Microbiology		Strain	Jan. 2006	Nakanishi, Takagahara, Murayama
28	Ms. Dang Thu Huong	Researcher, Microbiology		LAB	Jan. 2005	Shinohara
29	Ms. Dinh My Hang	Researcher, Microbiology		Strain	Sep. 2004	Takagahara, Nakanishi
30	Mr. Do Trong Hung	Researcher, Fermentation		LAB, simple analysis	Jan. 2005	Takase, Shinohara
31	Mr. Le Van Bac	Researcher, Fermentation		LAB, Sensory evaluation	Jul. 2005	Horie, Shinohara
32	Ms. Khuat Thi Thuy	Researcher, Fermentation		Strain		Ogawa
33	Ms. Nguyen Thu Van	Researcher, Beverage		Rice spirit		Suginami, Takayama
34	Ms. Pham Thi Thu	Researcher, Beverage		Rice spirit, sensory evaluation	Jan. 2003	Suginami, Shibuya
35	Ms. Nguyen Minh Chau	Researcher, Beverage		Rice spirit, sensory evaluation	Apr. 2005	Suginami, Takayama, Shibuya
36	Ms. Tran Thi Minh Ha	Researcher, Nutrition		Fruit wine	Jan. 2003	Komiyama
37	Mr. Le Dinh Hung	(Moved to private company)	Researcher of Nut. (till Dec. 2006)	Fruit wine		Komiyama
38	Ms. Nguyen Thi Thi	(Retired)	Researcher of Nut. (till April 2005)			Joint exchange program (Thailand)
39	Ms. Ngo Thi Van	Researcher, Starch		CD	Sep. 2003	Fujio, Shigeta
40	Ms. Do Thi Thanh Huyen	Researcher, Enzyme		Strain	Sep. 2005	Murayama, Ohmiya
41	Mr. Pham Duc Toan	Researcher, Enzyme		Strain		Ohmiya

No.	Name	Department and position	Former position/ Promotion period (after Sep. 2002)	Group of Rainbow Operation	CPT in Japan	CP of experts
42	Ms. Tran Thu Huong	(Moved to University)	Researcher of Ana. (till Jan. 2006)		May. 2005	Itoh, Nozawa
43	Ms. Nguyen Thi Lan	(Retired)	Researcher of Ana. (till Nov. 2005)			Asanuma, Mizuno
44	Mr. Nguyen Trung Hieu	Researcher, Flavor		Simple analysis	Feb. 2004	Itoh
45	Mr. Le Van Trong	Researcher, Analysis		Simple analysis, Sensory evaluation	Sep. 2005	Itoh, Nozawa, Mizuno, Kodama
46	Ms. Pham Thi Hiep	Researcher, Analysis		Simple analysis		Itoh, Mizuno, Nozawa
47	Mr. Le Binh Hoang	Researcher, Oil		Simple analysis	Jan. 2005	Itoh
48	Ms. Bui Thi Bich Ngoc	Researcher, Flavor		Simple analysis, Sensory evaluation	Jan. 2006	Mizuno, Kodama
49	Ms. Luu Thi Le Thuy	Head of Biotechnology of FIRI branch in HCMC	Deputy Head of Biotech. (till Feb. 2006)	(Act. 1)		Joint exchange program (Thailand)



### ANNEX 4 Equipment List by Japan (from Japan, 2002)

Note: Frequency of Use: A: frequently used, B: used one to three times per week, C: used frequently at the specific season(s), D: not used much (three to eleven times per year), E: not used by reason(s) or disposal  
 Condition: A: always in good condition by well maintenance, B: no problem in operation by enough maintenance, C: can be used after maintenance, D: can not be operated

\*The above standard is quoted from "Coordinators' manual by JICA" and the standard was used at the mid-term evaluation on June 2005

No.	Arrival Year (JFY)	Name of equipment (Item, manufacturer, model number)	Qty.	Total Amount (USD)	Total Amount (Japanese Yen) (1\$=120 Yen)	Place of Storage	Frequency of use	Condition	Reason
E 0201	2002	MOTOR VEHICLE TOYOTA HI-ACE	1	25,800.00	3,096,000	FIRI garage	A	A	
E 0202	2002	Atomic Absortion Spectrophotometers Model AA-6800	1	89,865.00	10,783,800	5F Common Lab	A	A	
E 0203	2002	HPLC(High pressure gradient system) LC-10Advp	1	67,704.00	8,124,480	5F Common Lab	A	A	
E 0204	2002	HPLC columns	1	9,055.00	1,086,600	5F Common Lab	A	A	
			4	192,424.00	23,090,880				

Responsible staff: Dr. Thanh (5F Common Lab)

Equipment List by Japan (From Japan, 2003)

Note: Frequency of Use: A: frequently used, B: used one to three times per week, C: used frequently at the specific season(s), D: not used much (three to eleven times per year), E: not used by reason(s) or disposal  
 Condition: A: always in good condition by well maintenance, B: no problem in operation by enough maintenance, C: can be used after maintenance, D: can not be operated

\*The above standard is quoted from "Coordinators' manual by JICA" and the standard was used at the mid-evaluation on June 2005

No.	Arrival Year (JFY)	Name of equipment (item, manufacturer, model number)	Qty.	Total Amount (USD)	Total Amount (Japanese Yen) (1\$=120 Yen)	Place of Storage	Frequency of use	Condition	Reason
E 0301	2003	HPLC(Solvent delivery system) LC-10ADvp (Shimadzu-Japan)	1	78,717.00	9,446,040	5F Common Lab	A	B	
E 0302	2003	Gas Chromatograph GC-2010 (Shimadzu-Japan)	1	67,119.00	8,054,280	5F Common Lab	A	A	
E 0303	2003	Pure Water Production / Model EASYPURE RO (Barnstead)	1	3,983.00	477,960	5F Common Lab	C	B	no spare part
E 0304	2003	High Purity Water Production / Model EASYPURE LF (Barnstead)	1	3,232.00	387,840	5F Common Lab	A	A	
E 0305	2003	Rotary Evaporator / Model RV05-ST1B (IKA)	1	4,490.00	538,800	5F Common Lab	A	A	
E 0306	2003	Rotary Evaporator / Model RV05-ST1B (IKA)	1	4,490.00	538,800	5F Common Lab	A	A	
E 0307	2003	Freezer / Model MDF-236	1	1,700.00	204,000	5F Common Lab	A	A	
E 0308	2003	Low Temperature incubator / Model MIR-253 (SANYO)	1	3,200.00	384,000	5F Common Lab	A	A	
E 0309	2003	Electronic balance / Model BW-320S	1	600.00	72,000	5F Common Lab	A	A	
E 0310	2003	Electronic balance / Model BW-320S	1	600.00	72,000	5F Common Lab	A	A	
E 0311	2003	Electronic balance / Model AW-320	1	1,700.00	204,000	5F Common Lab	A	A	
E 0312	2003	Refrigerated benchtop centrifuge / Model Rotina35R (Hettich)	1	12,209.00	1,465,080	5F Common Lab	A	A	
E 0313	2003	Drying oven / Model DG82 (Yamato-Japan)	1	2,746.78	329,614	5F Common Lab	A	A	
E 0314	2003	Muffle furnace / Model FO410 (Yamato-Japan)	1	2,537.50	304,500	5F Common Lab	A	A	
E 0315	2003	Muffle furnace / Model FO710 (Yamato-Japan)	1	3,730.05	447,606	5F Common Lab	A	A	
E 0316	2003	Dryer / Model DNE610 (Yamato-Japan)	1	2,637.30	316,476	5F Common Lab	A	A	
E 0317	2003	Dryer / Model DNE610 (Yamato-Japan)	1	2,637.30	316,476	5F Common Lab	A	A	
E 0318	2003	Vacuum dryer / Model DP43(Yamato-Japan)	1	6,369.30	764,316	5F Common Lab	C	B	request limited
E 0319	2003	Refrigerator / Model CBF500C (CLIMAS)	1	1,657.00	198,840	5F Common Lab	B	A	
E 0320	2003	Refrigerator / Model CBF500G (CLIMAS)	1	1,657.00	198,840	5F Common Lab	A	A	
E 0321	2003	Orbital Shaker / Model KS 260 (IKA)	1	1,424.00	170,880	5F Common Lab	C	A	request limited
E 0322	2003	Orbital Shaker / Model KS 260 (IKA)	1	1,424.00	170,880	3F Common Lab	A	A	
E 0323	2003	Blender / 454-062 (Jencons)	1	979.00	117,480	5F Common Lab	A	A	
E 0324	2003	Chromatograph system AKTaprime	1	42,632.00	5,115,840	3F Common Lab	C	A	request limited
E 0325	2003	Fermentation system Model/Bioflo110 (New Brunswick Scientific)	1	40,921.00	4,910,520	3F Common Lab	C	A	request limited
E 0326	2003	Rotary Evaporator / Model RV05-ST1B (IKA)	1	4,490.00	538,800	3F Common Lab	A	A	
E 0327	2003	Deep Freezer / Model MDF-192 (SANYO)	1	4,900.00	588,000	3F Common Lab	A	A	
E 0328	2003	Freezer / Model MDF-236	1	1,700.00	204,000	3F Common Lab	A	A	
E 0329	2003	Low Temperature incubator / Model MIR-253 (SANYO)	1	3,200.00	384,000	3F Common Lab	A	A	
E 0330	2003	Low Temperature incubator / Model MIR-253 (SANYO)	1	3,200.00	384,000	3F Common Lab	A	A	

Equipment List by Japan (From Japan, 2003)

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No.	Arrival Year (JFY)	Name of equipment (item, manufacturer, model number)	Qty.	Total Amount (USD)	Total Amount (Japanese Yen) (1\$=120 Yen)	Place of Storage	Frequency of use	Condition	Reason
E 0331	2003	Low Temperature incubator / Model MIR-253 (SANYO)	1	3,200.00	384,000	3F Common Lab	A	A	
E 0332	2003	Electronic balance / Model BW-320S	1	600.00	72,000	3F Common Lab	A	A	
E 0333	2003	Electronic balance / Model AW-320	1	1,700.00	204,000	3F Common Lab	A	A	
E 0334	2003	Sterilizer / Model MOV-212S	1	2,100.00	252,000	3F Common Lab	A	A	
E 0335	2003	Sterilizer / Model MOV-112S	1	1,750.00	210,000	3F Common Lab	A	A	
E 0336	2003	High Capacity tabletop centrifuge / Model Rotanta460 (Hettich)	1	14,522.00	1,742,640	3F Common Lab	A	A	
E 0337	2003	Autoclave / Model SS325 (Tomy-Japan)	1	3,480.00	417,600	3F Common Lab	A	B	
E 0338	2003	Drying oven / Model DG82 (Yamato-Japan)	1	2,746.78	329,614	3F Common Lab	A	A	
E 0339	2003	Incubator / Model IS600 (Yamato-Japan)	1	2,312.68	277,522	3F Common Lab	A	A	
E 0340	2003	Shaking incubator / Model BW400 (Yamato-Japan)	1	2,371.33	284,560	3F Common Lab	A	A	
E 0341	2003	Dryer / Model DNE610 (Yamato-Japan)	1	2,637.30	316,476	3F Common Lab	A	A	
E 0342	2003	Liquid Nitrogen Jar / Model LS3000 (Taylor Wharton)	1	5,910.00	709,200	3F Common Lab	A	A	
E 0343	2003	Refrigerator / Model CBF500C (CLIMAS)	1	1,657.00	198,840	3F Common Lab	A	A	
E 0344	2003	Orbital Shaker / Model KS 260 (IKA)	1	1,424.00	170,880	3F Common Lab	A	A	
E 0345	2003	Blender / 454-062 (Jencons)	1	979.00	117,480	3F Common Lab	A	A	
E 0346	2003	HIC-SP Super suppressor ion chromatograph/anion type, LC-10ADSP	1	38,957	4,674,794	5F Common Lab	A	A	
			46	397,229	47,667,473				

Responsible staff: Dr. Thanh (5F Common Lab), Dr. Nguyen Thanh (3F Common Lab)

Equipment list by Japan (from Japan, 2004)

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No.	Arrival Year (JFY)	Name of equipment (Item, manufacturer, model number)	Qty.	Total Amount (USD)	Total Amount (Japanese Yen) (1\$=120 Yen)	Place of Storage	Frequency of use	Condition	Reason
E 0401	2004	Ultrasonic pipette cleaner, Model-PU100, SHIBATA	2	4,890.00	586,800	3F/5F Common Lab	A	A	
E 0402	2004	Fat Extraction system Soxhlet, Model-148/6, VELP-Italia	1	9,500.00	1,140,000	5F Common Lab	B	B	
E 0403	2004	Micro Amino-Nitrogen Analyzer, Van-Slyke method, 5465-01, SHIBATA	1	2,340.00	280,800	5F Common Lab	A	A	
E 0404	2004	Microscope, Model-SZX 9, OLYMPUS	1	5,100.00	612,000	3F Common Lab	A	A	
E 0405	2004	Glass wares / Microunit Standard Type(60mm,10pcs), 6031-02A, SHIBATA	5	1,335.00	160,200	5F Common Lab	A	A	
E 0406	2004	Glass wares / Microburret horizontal Type(0.15ml), 2281-1, SHIBATA	2	580.00	69,600	5F Common Lab	A	A	
E 0407	2004	Glass wares / Chromatography column (PTFE stopper & glass filter), 10x350mm, SHIBATA	30	3,390.00	406,800	5F Common Lab	A	A	
E 0408	2004	Glass wares / Chromatography column (SPC joint & PTFE stopper), 10x350mm, SHIBATA	30	2,160.00	259,200	5F Common Lab	A	A	
E 0409	2004	Glass wares / Centrifuge tube (round bottom & screw cap), 1028-504A, 50ml, SHIBATA	6	714.00	85,680	5F Common Lab	A	A	
E 0410	2004	Glass wares / Centrifuge tube (round bottom & glass stopper), 1028-29502, 50ml, SHIBATA	30	1,140.00	136,800	5F Common Lab	A	A	
E 0411	2004	Glass wares / Volumetric flask (custom A & glass stopper), 2610-10A, 10ml, SHIBATA	20	860.00	103,200	3F/5F Common Lab	A	A	
E 0412	2004	Glass wares / Volumetric flask (custom A & glass stopper), 2610-25, 25ml, SHIBATA	20	920.00	110,400	3F/5F Common Lab	A	A	
E 0413	2004	Glass wares / Volumetric flask (custom A & glass stopper), 2610-50A, 50ml, SHIBATA	20	980.00	115,200	3F/5F Common Lab	A	A	
E 0414	2004	Glass wares / Volumetric flask (custom A & glass stopper), 2610-100A, 100ml, SHIBATA	20	1,100.00	132,000	3F/5F Common Lab	A	A	
E 0415	2004	Glass wares / Volumetric flask (custom A & glass stopper), 2610-200A, 200ml, SHIBATA	20	1,400.00	168,000	3F/5F Common Lab	A	A	
E 0416	2004	Glass wares / Volumetric flask (custom A & glass stopper), 2610-500A, 500ml, SHIBATA	5	470.00	56,400	3F/5F Common Lab	A	A	
E 0417	2004	Glass wares / Automatic burette(amber), super grade, 1000ml, 2253-10, SHIBATA	3	999.00	119,880	5F Common Lab	A	A	
E 0418	2004	Glass wares / Automatic burette(amber), super grade, 2000ml, 2253-25, SHIBATA	3	1,053.00	126,360	5F Common Lab	A	A	
E 0419	2004	Glass wares / Dispensers, Finger dispenser, 10ml, 2504-10, SHIBATA	3	855.00	102,600	5F Common Lab	A	A	
E 0420	2004	Glass wares / Tip for Finger dispenser, 2504-510A, 5-10ml, SHIBATA	10	270.00	32,400	5F Common Lab	A	A	
E 0421	2004	Glass wares / Tip for Finger dispenser, 2504-12A, 1-2ml, SHIBATA	10	270.00	32,400	5F Common Lab	A	A	
E 0422	2004	Glass wares / Kjeldahl round bottom flask, Short neck, F6-1-9, KIRIYAMA	30	900.00	108,000	5F Common Lab	A	A	
E 0423	2004	Glass wares / Kjeldahl round bottom flask, Short neck, F6-1-12, KIRIYAMA	30	1,320.00	158,400	5F Common Lab	A	A	
E 0424	2004	Glass wares / Kjeldahl round bottom flask, Short neck, F6-1-13, KIRIYAMA	30	1,380.00	165,600	5F Common Lab	A	A	
E 0425	2004	Glass wares / Kjeldahl round bottom flask, Short neck, F6-1-14, KIRIYAMA	20	960.00	115,200	5F Common Lab	A	A	
E 0426	2004	Glass wares / Kjeldahl round bottom flask, Short neck, F6-1-15, KIRIYAMA	10	590.00	70,800	5F Common Lab	A	A	
E 0427	2004	Glass wares / Kjeldahl round bottom flask, Short neck, F6-2-10, KIRIYAMA	10	390.00	46,800	5F Common Lab	A	A	
E 0428	2004	Glass wares / Kjeldahl round bottom flask, Short neck, F6-2-11, KIRIYAMA	10	410.00	49,200	5F Common Lab	A	A	
E 0429	2004	Glass wares / Kjeldahl round bottom flask, Short neck, F6-2-12, KIRIYAMA	10	460.00	55,200	5F Common Lab	A	A	
E 0430	2004	Glass wares / Kjeldahl round bottom flask, Short neck, F6-2-13, KIRIYAMA	5	250.00	30,000	5F Common Lab	A	A	
E 0431	2004	Glass wares / Adapter for rotary evaporator, A26-1-6, KIRIYAMA	6	384.12	46,094	5F Common Lab	A	A	
E 0432	2004	Glass wares / Trap for rotary evaporator, AB26-A1-8, KIRIYAMA	5	685.88	82,306	5F Common Lab	A	A	

Equipment list by Japan (from Japan, 2004)

Note: Frequency of Use: A: frequently used, B: used one to three times per week, C: used frequently at the specific season(s), D: not used much (three to eleven times per year), E: not used by reason(s) or disposal

Condition: A: always in good condition by well maintenance, B: no problem in operation by enough maintenance, C: can be used after maintenance, D: can not be operated

\*The above standard is quoted from "Coordinators' manual by JICA" and the standard was used at the mid-evaluation on June 2005

No.	Arrival Year (JFY)	Name of equipment (Item, manufacturer, model number)	Qty.	Total Amount (USD)	Total Amount (Japanese Yen) (1\$=120 Yen)	Place of Storage	Frequency of use	Condition	Reason
E 0433	2004	Glass wares /Condenser, C38-1-9, KIRIYAMA	2	460.00	55,200	5F Common Lab	A	A	
E 0434	2004	Glass wares /Test tube with joint stopper & graduation, T47-2-1, KIRIYAMA	50	2,250.00	270,000	5F Common Lab	A	A	
E 0435	2004	Glass wares /Test tube with joint stopper & graduation, T47-2-2, KIRIYAMA	30	1,440.00	172,800	5F Common Lab	A	A	
E 0436	2004	Glass wares /Separator funnel, squeebe with teflon cock, TFU80-2-1, KIRIYAMA	30	3,600.00	432,000	5F Common Lab	A	A	
E 0437	2004	Glass wares /Separator funnel, squeebe with teflon cock, TFU80-2-2, KIRIYAMA	30	3,750.00	450,000	5F Common Lab	A	A	
E 0438	2004	Glass wares /Separator funnel, squeebe with teflon cock, TFU80-2-5, KIRIYAMA	30	4,230.00	507,600	5F Common Lab	A	A	
E 0439	2004	Glass wares /Separator funnel, squeebe with teflon cock, TFU80-2-6, KIRIYAMA	30	4,500.00	540,000	5F Common Lab	A	A	
E 0440	2004	Glass wares /Separator funnel, squeebe with teflon cock, TFU80-2-7, KIRIYAMA	10	1,600.00	192,000	5F Common Lab	A	A	
E 0441	2004	Lab stand, L-900-1800W, KIRIYAMA	2	4,000.00	480,000	5F Common Lab	A	A	
E 0442	2004	Ammonium distillation apparatus with electric heater, JSN-4, KIRIYAMA	1	1,800.00	216,000	5F Common Lab	A	B	
E 0443	2004	Mercury distillation apparatus with electric heater, JSG-4, KIRIYAMA	2	3,500.00	420,000	5F Common Lab	A	B	
E 0444	2004	Glass wares /BOD incubation bottle, BOD-100, KIRIYAMA	30	1,800.00	216,000	5F Common Lab	A	A	
E 0445	2004	High Speed Refrigerated Centrifuge, Mikro 22R, Hettich	1	5,785.00	694,200	3F Common Lab	A	A	
E 0446	2004	Refrigerated Shaking Incubator, S16R-2, Shellab	1	8,363.91	1,003,669	3F Common Lab	A	A	
E 0447	2004	Fermentation system, Bioneer-5L, Marubishi (Japan)	1	25,000.00	3,000,000	3F Common Lab	A	B	
E 0448	2004	Shaking Incubator, FMS-100 & MMS-210, Eyala (Japan)	1	5,700.00	684,000	3F Common Lab	A	A	
E 0449	2004	UV Crosslinkers, CL1000, Jenoccons	1	2,051.00	246,120	3F Common Lab	A	B	
E 0450	2004	Hybridization Oven, 1004-2 Shellab	1	1,985.00	238,200	3F Common Lab	A	B	
E 0451	2004	Electrio Focusing, IEF mini Biorad	1	3,920.00	470,400	3F Common Lab	A	B	
E 0452	2004	Fluidized dryer, TG100 Retsch	1	7,697.00	923,640	3F Common Lab	A	A	
E 0453	2004	Ice Maker, BF 80A, Focchetti	1	4,250.00	510,000	3F Common Lab	A	B	
E 0454	2004	Centrifugal Concentration System, RVC2-25 CHRIS	1	14,215.80	1,705,896	3F Common Lab	A	A	
E 0455	2004	Membrane Filtration System, Vivaflow 200 Satorius	1	3,995.85	479,502	3F Common Lab	A	A	
E 0456	2004	Autoclave, CL32LDP ALP(Japan)	1	7,197.11	863,653	3F Common Lab	A	A	
E 0457	2004	Spectrophotometer, Spectro SC Labomed	1	1,800.00	216,000	3F Common Lab	A	A	
			668	172,926.67	20,751,200				

Responsible staff: Dr. Thanh (5F Common Lab), Dr. Nguyen Thanh (3F Common Lab)

Equipment list by Japan (from Japan, 2005)

Note: Frequency of Use: A: frequently used, B: used one to three times per week, C: used frequently at the specific season(s), D: not used much (three to eleven times per year), E: not used by reason(s) or disposal  
 Condition: A: always in good condition by well maintenance, B: no problem in operation by enough maintenance, C: can be used after maintenance, D: can not be operated

\*The above standard is quoted from "Coordinators' manual by JICA" and the standard was used at the mid-evaluation on June 2005

No.	Arrival Year (JFY)	Name of equipment (Item, manufacturer, model number)	Qty.	Total Amount (USD)	Total Amount (Japanese Yen) (1\$=120 Yen)	Place of Storage	Frequency of use	Condition	Reason
E 0501	2005	Extruder, Shengyuh, SY-BG-120	1	19,485.00	2,338,200	3F Common Lab	C	A	request limited
E 0502	2005	Sonicator, Misonix, XL2000	1	2,897.00	347,640	3F Common Lab	A	A	
E 0503	2005	Turbidity Meter, WTW, Turb 555	1	2,570.00	308,400	5F Common Lab	A	A	
E 0504	2005	Digital Viscometer, Brookfield, LVDV-I+	1	3,025.00	363,000	5F Common Lab	A	A	
E 0505	2005	Cross Flow Filtration System, Quixtand with peptide concentration (1), Protein Enzyme concentration 10kDa(2), 3kDa(1), 5kDa(1), 30 kDa(1), 50kDa(1)	1	14,084.00	1,690,080	3F Common Lab	C	A	request limited
E 0506	2005	Microfine Grinder, IKA, MF10basic	1	1,712.40	205,488	5F Common Lab	A	A	
E 0507	2005	Homogenizer, IKA, T25 Basic Ultra-turrax	1	1,255.05	150,606	5F Common Lab	A	A	
E 0508	2005	Beads beater, BIOSPEC, Mini-Beadbeater-8	1	2,900.00	348,000	3F Common Lab	A	A	
E 0509	2005	Differential Interference Contrast (Spareparts for Microscope E600), Nikon, DIC	1	13,478.19	1,617,383	3F Common Lab	A	A	
E 0510	2005	Membrane filter (Spareparts for Vivaflow200), Satorius, MW5000, 10000, 30000, 50000 and 100000	15	8,360.25	1,003,230	3F Common Lab	A	A	
			24	69,766.89	837,2027				

Responsible staff: Dr. Thanh (5F Common Lab), Dr. Nguyen Thanh (3F Common Lab)

Equipment list by Japan (from Japan, 2006)

Note: Frequency of Use: A: frequently used, B: used one to three times per week, C: used frequently at the specific season(s), D: not used much (three to eleven times per year), E: not used by reason(s) or disposal

Condition: A: always in good condition by well maintenance, B: no problem in operation by enough maintenance, C: can be used after maintenance, D: can not be operated

\*The above standard is quoted from " Coordinators' manual by JICA" and the standard was used at the mid-evaluation on June 2005

No.	Arrival Year (JFY)	Name of equipment (Item, manufacturer, model number)	Qty.	Total Amount (USD)	Total Amount (Japanese Yen) (1\$=120 Yen)	Place of Storage	Frequency of use	Condition	Reason
E 0601	2006	Spout Vacuum Filling Machine	1	8,330.00	999,600	3F Common Lab	A	A	
			1	8,330.00	837,2027				

Responsible staff: Dr. Lan

ANNEX 5 Budget Inputs by Japanese Side (local fund)

Unit: USD

No.	Category	Budgetary Year (JFY)					Total Amount	
		2002	2003	2004	2005	2006		2007
1	Administration (General Affair)	2,359	28,281	27,764	23,848	32,604	5,700	120,556
2	Human Resource Development	7,473	2,877	3,311	5,599	11,193	4,600	35,053
3	Technical Extension (seminars/workshops, observation, and Japanese technicians in Vietnam)	480	0	1,636	5,846	8,360	1,000	17,322
4	Improvement of Infrastructure	0	0	0	0	0	0	0
5	Technical Exchange Program	0	0	0	5,019	0	0	5,019
	Total Amount	10,312	31,158	32,711	40,312	52,157	11,300	177,950

2006 No.1 includes equipment transferred from the category of "equipment with A4".

2006 No.2 includes the employment of local consultants



ANNEX 6 Budget Inputs by Vietnamese Side

Unit: USD

Item of National budget	Category	2002	2003	2004	2005	2006	2007	Total
I.	Personal Payment	0	0	0	0	0	0	0
II.	Materials Service	2,556	35,428	69,417	28,164	34,027	28,807	198,399
109	Public Service (petrol, electricity, water etc.)	0	216	4,125	3,188	3,983	4,375	15,887
110	Stationary	2,556	750	4,280	1,063	1,250	2,500	12,399
111	Communication, internet, tel	0	562	438	625	406	2,500	4,531
112	Seminar, Workshop	0	1,812	500	1,438	5,529	2,938	12,217
113	Survey	0	0	0	0	754	625	1,379
114	Labours	0	2,938	2,188	2,500	2,209	2,500	12,335
117	Repair & Maintenance	0	0	0	0	957	531	1,488
119	Materials	0	14,575	28,943	9,675	9,469	12,838	75,500
	Chemicals	0	11,325	27,056	8,050	1,438	0	47,869
	Other materials	0	3,250	1,887	1,625	8,032	0	14,794
III.(145)	Equipments	4,944	27,200	9,084	24,069	6,250	0	71,547
IV.(134)	Other expenditure	0	0	444	444	444	444	1,776
	Total Amount	7,500	62,628	78,945	52,677	40,721	29,251	271,722

## ANNEX 7

### Project Achievement Grid (Terminal Evaluation, May 2007)

Narrative Summary of PDM	Objective Verifiable Indicators and Results	Sources
Project Purpose:	Achievements of the Project Purpose are as followings: (1) 6 utility solutions were applied (indicator in the PDM is 6) (2) 40 proceedings were presented (indicator in the PDM is 40) (3) 26 technical guidances to SMEs were undertaken (indicator in the PDM is 35)	FIRI report Project report
Output 1: The characteristics of quality of major processed foods in Vietnam are clarified	1-1 The characteristics of 5 processed foods (dairy products, confectionary, edible oil, instant noodles, and fruit juice) were clarified by analysis of the samples (indicator in the PDM is 5). 1-2 53 samples were analyzed (indicator in the PDM is 53) 1-3 479 items were analyzed (indicator in the PDM is 391) 1-4 43 researches were done based on improved methods (indicator in the PDM is 50) 1-5 The characteristics of 7 target foods are clarified (number of target foods was not defined in the PDM)	FIRI report Project report
Output 2: FIRI researchers improve their ability of application for the utilization of microorganisms and enzymes	2-1 156 strains were isolated (indicator in the PDM is 150) 2-2 93 strains were identified (indicator in the PDM is 90) 2-3 67 strains were characterized (indicator in the PDM is 66) 2-4 10 useful strains were specified (indicator in the PDM is 10) 2-5 1 enzyme was specified (indicator in the PDM is 1) 2-6 6 methods of screenings developed/ evaluated by FIRI researchers (indicator in the PDM is 6) 2-7 8 FIRI researchers obtained the method of screenings and they can do it by themselves (indicator in the PDM is 8)	FIRI report Project report
Output 3: FIRI researchers improve their ability to examine and analyze the components and the qualities of the processed foods required for the domestic certification	3-1 42 analytical methods were transferred to the FIRI researchers (indicator in the PDM is 41) 3-2 105 analytical items were implemented at the technology transfer (indicator in the PDM is 100) 3-3 5 quality evaluation of processed foods were improved (indicator in the PDM is 4) 3-4 10 manuals were developed (indicator in the PDM is 10) 3-5 The frequency of using developed manuals increased to 100% (indicator in the PDM is 60%)	FIRI report Project report

Narrative Summary of PDM	Objective Verifiable Indicators and Results	Sources
Output 4 FIRI researchers improve their capability for the technical guidance in the food processing used microorganisms and enzymes and in foods analysis to small-and-medium-scale food processing firms	4-1 25 manuals were developed for technical guidance of microorganisms and enzymes for food processing SMEs (indicator in the PDM is 25) 4-2 17 manuals were developed for technical guidance of the food analysis for food processing SMEs (indicator in the PDM is 10) 4-3 17 seminars and workshops were organized for food processing SMEs (indicator in the PDM is 16) 4-4 9 on-the-job trainings (consultings) were organized for food processing SMEs (indicator in the PDM is 20)	FIRI report Project report
Inputs	<b>Input by Vietnamese side</b> 1. Office and facilities : Project office and facilities for technical transfer 2. Distribution of counterpart : 49CPs 3. Counterpart budget : <b>USD200,175</b> (2002 - 2007) 4. Equipment: <b>USD 71,547</b> (2002-2007) GC-MS, Centrifuge high speed, others	FIRI report Project report
	<b>Input by Japanese side</b> 1. Dispatch of experts: <b>Long-term experts: 8 experts</b> 1) Chief Advisor (2) 2) Coordinator (2) 3) Utilization of microbiology to food (2) 4) Analysis technology (1) 5) Analysis technology /food processing (1)	FIRI report Project report

Narrative Summary of PDM	Objective Verifiable Indicators and Results	Sources
Inputs	<p><b>Short-term experts: 21 experts</b></p> <p><b>2003(JFY): 3experts</b></p> <ol style="list-style-type: none"> <li>1) Fermentation of organic acid</li> <li>2) Technology on isolation and identification</li> <li>3) Pathogenic microbiology in foodstuff</li> </ol> <p><b>2004(JFY): 5experts</b></p> <ol style="list-style-type: none"> <li>1) Sugar production</li> <li>2) Food analysis (organic compound)</li> <li>3) Analysis for natural toxins</li> <li>4) Improvement of strain's property</li> <li>5) Fermentation of agri-products</li> </ol> <p><b>2005(JFY): 6 experts</b></p> <ol style="list-style-type: none"> <li>1) Analysis of heavy metal (mercury)</li> <li>2) Sugar chemistry (separation and assay of oligosaccharide)</li> <li>3) Sensory evaluation</li> <li>4) Enzyme purification</li> <li>5) Chief Advisor (till 2007)</li> <li>6) Analysis of antibiotics (Chloramphenicol)</li> </ol> <p><b>2006(JFY): 7experts</b></p> <ol style="list-style-type: none"> <li>1) Application of rice spirit technology</li> <li>2) Promotion of food processing/ analyzing technology to food processing SMEs</li> <li>3) Fungi in food processing</li> <li>4) Application of lactic acid bacteria to agricultural products</li> <li>5) Analysis of natural and synthetic flavor</li> <li>6) Application of fruits wine</li> <li>7) Commercialization of rice spirit</li> </ol>	

Narrative Summary of PDM	Objective Verifiable Indicators and Results	Sources
Inputs	<p><b>2. Counterpart training in Japan : 36 CPs</b></p> <p><b>2002(JFY) : 7CPs</b></p> <p>1) Administration of project (2)</p> <p>2) Food administration (1)</p> <p>3) Assessment of analysis (1)</p> <p>4) Alcohol fermentation (1)</p> <p>5) Food processing/ preservation II (2)</p> <p><b>2003(JFY) : 5CPs</b></p> <p>1) Food administration survey (1)</p> <p>2) Analysis of natural toxin (1)</p> <p>3) Production using enzymes, analysis of vitamin D (1)</p> <p>4) Food quality analysis (1)</p> <p>5) Analysis of micotoxins (1)</p> <p><b>2004(JFY) : 8 CPs</b></p> <p>1) Food quality analysis (2)</p> <p>2) Property's improvement of microorganisms (1)</p> <p>3) Taxonomy of fungi (1)</p> <p>4) Food Processing / preservation II (2)</p> <p>5) Examination of food hygiene microorganism (1)</p> <p>6) Analysis of mycotoxin (1)</p> <p><b>2005(JFY): 10CPs</b></p> <p>1) Technology for strengthening SME (bio) (1)</p> <p>2) Separation of lactic acid (1)</p> <p>3) Precision management in food analysis (1)</p> <p>4) Breeding method of bacteria (lactic bacteria) (1)</p> <p>5) Functionality of food components (1)</p> <p>6) Analysis of food additives (1)</p> <p>7) Improvement of enzyme properties (1)</p> <p>8) Food Processing / preservation II (2)</p> <p>9) Test method for food pathogenic microorganisms (1)</p> <p><b>2006(JFY): 6CPS</b></p> <p>1) Internal and external management (1)</p> <p>2) Cyclodextrin application to foods (1)</p> <p>3) Project management (1)</p> <p>4) Improvement the property of LAB and its application (1)</p> <p>5) Food Processing / preservation □ (1)</p> <p>6) Waste water treatment (1)</p>	

Narrative Summary of PDM	Objective Verifiable Indicators and Results	Sources
Inputs	<p><b>3. Provision of Equipment : USD 840,677 (2002 - 2006)</b>  2002 : USD 192,424  2003 : USD 397,229  2004 : USD 172,927  2005 : USD 69,767  2006 : USD 8,330  (refer to the ANNEX)</p> <p><b>4. Local cost : USD177,950 (2002 - 2007)</b>  2002 : USD 10,312  2003 : USD 31,158  2004 : USD 32,711  2005 : USD 40,312  2006 : USD 52,157  2007 : USD 11,300</p>	

## ANNEX 8

### Project Implementation Process Grid (Terminal Evaluation, May 2007)

Evaluation questions	Evaluation results	Sources
0.1 Activities implementation	<p><b>0.1 Activities of the Project had been carried out as scheduled.</b></p> <p>+ After the Mid-term Evaluation, efforts were paid to accelerate activities of Output 4, and an action plan (called “Rainbow Operation”) had been started in January 2006 by 7 working groups. Since then, a number of food processing SMEs were surveyed, consulted, and obtained technical transfers from the Project.</p> <p>+ After the Mid-term Evaluation the direction of the Project implementation was adjusted, and only one long-term expert (in charge of project coordination) was dispatched. A number of short-term experts, including Chief Adviser were dispatched to managing the Project and to transferring technologies to C/Ps.</p> <p>+ Research activities were concentrated on 5 categories of food (dairy products, confectionary, edible oil, instant noodles, and fruit juice).</p> <p>+ A number of seminars, workshops and on-the-job trainings were organized to instruct SMEs on the production of processed food and simple analytical methods to identify components in foodstuffs, as well as on the sensory evaluation of food quality.</p> <p>+ Staff of Japanese companies running business in Vietnam or in Japan were also invited to carry out instructions to C/Ps especially on the skill to approach SMEs and reply to SMEs’ requirements.</p> <p>- Equipments and reagent chemicals provided by JICA in the first 6 months did not arrive on time, and therefore some related activities were delayed behind schedule.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Evaluation workshop</li> <li>- Expert report</li> <li>- Questionnaire survey</li> <li>- Hearing to C/Ps</li> </ul>
0.2 Monitoring activities and monitoring results	<p><b>0.2 Monitoring activities and utilization of the monitoring results for modification of planned PO, PDM.</b></p> <p>+ Project Team’s reports were submitted to JICA every 6 months.</p> <p>+ All C/Ps had submitted its reports to Experts every 2 months.</p> <p>+ PDM, PO, and Annual Plan of Operation (as well as the objective verifiable indicators described in the PDM) were revised and its new versions were approved by the JCC on July 21, 2006.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Evaluation workshop</li> <li>- Expert report</li> </ul>
0.3 Adequacy of communication between C/Ps and Experts	<p><b>0.3 Difficulties in having good communication.</b></p> <p>+ C/Ps’ English ability is quite high, as they usually answered questions in English in the PCM Workshop.</p> <p>+ Some Experts preferred to discuss and work with C/Ps at C/Ps’ rooms or at the laboratories, and this helped strengthening relationship between experts and C/Ps.</p>	<ul style="list-style-type: none"> <li>- Questionnaire survey</li> <li>- Hearing to C/Ps</li> </ul>
0.4 Project management system	<p><b>0.4.1 Appropriateness of the Project decision making process.</b></p> <p>+ The Project Directors Meetings (consisted of Experts and FIRI’s Directors/ Heads of Departments, held every month) work well as the decision maker.</p> <p>+ The Progress Meetings (participated by all C/Ps) are held every 2 months.</p>	<ul style="list-style-type: none"> <li>- Project report</li> <li>- Questionnaire survey</li> </ul>

Evaluation questions	Evaluation results	Sources
	<p><b>0.4.2 Appropriateness of MOI's supports</b>  + MOI's supports to FIRI are considered appropriate.</p>	<ul style="list-style-type: none"> <li>- Hearing to C/Ps</li> <li>- Questionnaire survey</li> </ul>
	<p><b>0.4.3 Appropriateness of supports of JICA HQ and JICA Vietnam Office to the Project</b>  + JICA HQ and JICA Vietnam Office had provided supports to the Project as far as they could.  + After the Mid-term Evaluation, JICA Vietnam Office has worked more closely to Experts and C/Ps.</p>	<ul style="list-style-type: none"> <li>- Project report</li> <li>- Expert report</li> <li>- Questionnaire survey</li> </ul>
	<p><b>0.4.4 Appropriateness of supports of Technical Supporting Committee (TSC) in Japan</b>  + TSC had provided precious technical supports to the Project.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> </ul>
<p>05. Factors contributing to the Project</p>	<ul style="list-style-type: none"> <li>- The issue of food safety: Nowadays, the issues on hygiene and safe foodstuffs become more concerned issues in Vietnamese society. It is addressed frequently on mass media such as television, news papers, etc. Every year, eight million people in Vietnam suffer from poisoning and diarrhea due to unhygienic or substandard food, according to a report of the World Health Organization. With aim to settle this problem, the Government of Vietnam had issued the "<i>National Program on the Control of Microbiologicals and Chemical Residues in Food to 2010</i>" (January 2003). The food processing SMEs are forced more to produce safety foods by applying appropriate food processing technologies.</li> <li>- The effects of AFTA and WTO joining: Vietnam committed to reduce tariffs for products imported from ASEAN countries and others, in order to realize the ASEAN Free Trade Area (AFTA) and in accordance to WTO commitments. Consequently, a large quantity of cheap processed foods is imported to Vietnam from neighboring countries. The food processing SMEs in Vietnam are requested to be more competitive, pursuing how they can produce higher quality products with cheaper price. In the near future, it is anticipated that many food processing SMEs recognize the need to improve their technologies, and the role of FIRI becomes more important for the food processing SMEs.</li> </ul>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Evaluation workshop</li> <li>- Expert report</li> <li>- Questionnaire survey</li> <li>- Hearing to C/Ps</li> </ul>



Evaluation questions	Evaluation results	Sources
	<ul style="list-style-type: none"> <li>- Since January 2006, in order to accelerate activities of Output 4, an action plan (called Rainbow Operation) had been drawn and implemented. Based on this plan, 7 working groups were organized to take charge in 7 key fields (Strain, Cyclo-dextrin, Rice Spirit, Fruit Juice, Lactic Acid Bacteria, Sensory Evaluation, and Simple Analysis), and 6-10 FIRI's staff were assigned in each group. Short-term experts who are specialized in these above-mentioned fields were also dispatched to work closely with C/Ps in each working group to push forward activities of the group. Staff of Japanese companies running business in Vietnam and in Japan were also invited to carry out instructions to the C/Ps especially on the skill to approach SMEs and reply to SMEs' requirements. These activities were not planned in the PDM and PO, but had contributed a lot to the achievement of the Project Purpose.</li> </ul>	

## ANNEX 9

### Five Criteria Evaluation Grid (Terminal Evaluation, May 2007)

#### 1 Relevance

Evaluation questions	Evaluation results	Sources
1. Relevance of Overall Goal and Project Purpose	1) Consistency with the needs of target group (FIRI researchers) + According to a hearing to counterpart personnel (C/Ps) of the Project, a major portion of them addressed that the Project does fully match their needs to improving their skills which are necessary for them to fulfill their duties.	- FIRI report - Project report - Evaluation workshop
	2) Consistency with the needs of SME food processing firms and Vietnamese society + FIRI was evaluated favorable to SME food processing firm because that FIRI : (1) is a national institute, (2) has many researchers, and (3) is carrying out various researches on various food categories. + It is reported that there are many SME food processing firms being in urgent need to improving product quality in order to meet consumers' requirements	- Expert report - Questionnaire survey - Hearing to C/Ps
	3) Consistency with Vietnam national policies + The Government of Vietnam considered poverty alleviation policy as a top priority. + Vietnam development policy described in the Five-Year Socio-Economic Development Plan in 2006-2010 is: <i>"Support and encourage the development of SMEs in order to mobilize all possible resources and make use of the comparative advantages of each region and each locality, together with the development of rural industries, trade villages and farms, focusing more on SME development in remote, mountainous or difficult areas"</i> . Food processing SMEs, as well as other SMEs in other economic sectors are considered important targets of this Five-Year Plan. + MOI has policy to promote transition from agricultural production mechanism to industrial production mechanism in rural and mountainous areas	
	+ MOI had established the Department for Local Industry Development which belongs to MOI and is in charge of supporting industrialization in rural and mountainous areas. SME food processing firms are considered important targets of this agency.	- FIRI report - Hearing to C/Ps

Evaluation questions	Evaluation results	Sources
	<p>4) Consistency with Japan's Official Development Assistance Policy for Vietnam</p> <p>+ Japan had specified 5 important fields for providing cooperation to Vietnam. Among them, this Project contributes to the followings. (1) <u>Agriculture and rural development</u>: improvement of living conditions in local areas, such as: improving agricultural infrastructure to increase productivity; improving post-harvest (storage, circulation, and processing); developing and diffusing agricultural technologies to diversify agricultural products; (2) <u>Education, national health and medical services</u>: provision of facilities and equipment for educational institutions, national health and medical services, measures against infected diseases, AIDS, and child health.</p>	<p>- Japan Foreign Affairs Ministry's Website</p>
<p>2. Relevance of project design</p>	<p>1) Appropriateness of the process to make the logical framework</p> <p>+ The Project formulation was prepared carefully since 1998. The original PDM and PO was formulated at the beginning of the Project, and based on results of the PCM Workshop held in 2002 during the Second Preparatory Study. These PDM and PO were then revised based on results of the Workshop held in 2005, during the Mid-term Evaluation Mission. So it can be said that the Project was designed in a participatory manner and it had successfully raised sense of ownership of agencies and persons involved in the Project. Revision of PDM and PO made during the Mid-term Evaluation was reasonable to accommodate many changes happened during the Project implementation, and was considered as an important turning point for the Project. However, the adjustment of the Project implementing direction, and the definition of objectively verifiable indicators had not been done properly until the Mid-term Evaluation, and these had caused the delay of some activities of the Project.</p> <p>- Some indicators for Project Purpose stated in the current logical framework (PDM) are not targeted by the Project, and therefore they should be seen as "impacts of the Project" rather than "indicators".</p>	<p>- FIRI report - Project report - Project documents</p>
	<p>2) Appropriateness of the technical cooperation framework (justification of the period, area, purpose level, contents of activities and inputs)</p> <p>+ The Project were planned in a logical manner: Firstly, to carry out surveys to clarify the quality characteristics of main processed foods circulating in Vietnam, to grasp requirements of food processing SMEs, and identify which processed foods should be selected as targets of the Project. Secondly, to transfer technologies on microorganism and enzyme, and analysis technologies which are required to improve quality of and certificate these targeted processed foods. Finitely, to improve FIRI's ability in carrying out technical instructions to small and medium food processing enterprises.</p>	<p>- PDM - Project documents</p>

## 2 Effectiveness

Evaluation questions	Evaluation results	Sources
1. Achievement of Project Purpose	1) Achievement of Project Purpose + As at the Terminal Evaluation, Output 1, 2 and 3 of the Project have been achieved, or are likely to be achieved up to the termination of the Project. - However, some activities relating to Output 4 are still under carrying out.	- FIRI report - Project report - Evaluation workshop
2. Achievement of each Output	1) Achievement of each Output <i>(See Achievement Grid)</i>	
3. Contribution of each Output to the Project Purpose achievement	1) Contribution of Output 1 (The characteristics of quality of major processed foods in Vietnam are clarified) + The characteristics of quality of 5 major processed foods (dairy products, confectionary, edible oil, instant noodles, and fruit juices) in Vietnam were clarified, and its results were fed back to activities of Output 2, 3, and 4. + Experts and FIRI C/Ps had carried out a number of visits, surveys, and consultations to a number of food processing SMEs. These contributed a lot to the improvement of FIRI personnel's skills and know-how to approach SMEs.	- FIRI report - Project report - Evaluation workshop - Questionnaire survey - Hearing to C/Ps
	2) Contribution of Output 2 (FIRI researchers improve their ability of application for the utilization of microorganisms and enzymes) + A number of long-term and short-term experts had worked closely together with FIRI's researchers and had transferred many technologies on the utilization of microorganisms and enzymes to food processing. + Technical abilities as well as knowledge of FIRI's researchers were improved significantly through the activities of the Project, which includes the trainings in Japan.	- FIRI report - Project report - Evaluation workshop - Questionnaire survey - Hearing to C/Ps
	3) Contribution of Output 3 (FIRI researchers improve their ability to examine and analyze the components and the qualities of the processed foods required for the domestic certification) + Analytical ability of FIRI researchers was quite improved, together with the improvement of skills to handle the analytical machinery provided by the Project. + FIRI researchers can analyze almost all basic items of food component and food quality, and can handle properly almost all analytical machinery provided by the Project. + The number of analytical food samples entrusted by outside firms has been increased gradually year by year : 265 samples in 2001, 388 samples in 2002, 400 samples in 2003, 434 samples in 2004.	- FIRI report - Project report - Evaluation workshop - Expert report - Questionnaire survey - Hearing to C/Ps

Evaluation questions	Evaluation results	Sources
	<p>4) Contribution of Output 4 (FIRI researchers improve their capability for the technical guidance in the food processing used microorganisms and enzymes and in foods analysis to small-and-medium-scale food processing firms)</p> <p>+ An action plan (called "Rainbow Operation") was implemented to concentrate efforts of C/Ps and experts in 7 key tasks (Strain, Cyclo-dextrin, Rice Spirit, Fruit Juice, Lactic Acid Bacteria, Sensory Evaluation, and Simple Analysis).</p> <p>+ Although the number of on-the-job trainings and consultations organized for food processing SMEs has not reached the intended target, it is anticipated that this Output can be achieved up to the termination of the Project.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Evaluation workshop</li> <li>- Expert report</li> <li>- Questionnaire survey</li> <li>- Hearing to C/Ps</li> </ul>

### 3 Efficiency

Evaluation questions	Evaluation results	Sources
<p>I. Appropriate ness of inputs</p>	<p>1) Appropriateness of inputs of Japanese Experts (in term of number, technical field, duration and timing of dispatch)</p> <p>+ Since the Mid-term Evaluation, the direction of the Project implementation was adjusted. Lessons learned from the previous stage had led to the introduction of a combination of only one long-term expert (in charge of Project Coordination) with a number of short-term experts (Chief Adviser and technical experts). Technical short-term experts were assigned to undertake various tasks covering a wide range of technical fields which were required to achieve Outputs of the Project, especially to achieve Output 1 and Output 4. According to the hearing to C/Ps and persons concerned, it may say that the adjustments since the Mid-term Evaluation had made an important turning point for the Project, and it had contributed a lot to the achievement of Output 1 and 4.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Evaluation workshop</li> <li>- Expert report</li> <li>- Questionnaire survey</li> <li>- Hearing to C/Ps</li> </ul>
	<p>2) Appropriateness of inputs of equipment (in term of type, quantity, quality, and timing of installation)</p> <p>+ Analysis equipment and materials had been provided appropriately.</p> <p>+ Two Common Laboratories (in 3F and 5F) were established to make full use of equipment provided by JICA, and equipment owned by FIRI. In addition, FIRI had acquired several equipment by its own budget. These equipments were used efficiently. Records on the use of these equipments were made since February 2005, and contributed to the proper management of these equipments.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Evaluation workshop</li> <li>- Hearing to C/Ps</li> </ul>

Evaluation questions	Evaluation results	Sources
	<p>3) Appropriateness of C/P trainings in Japan (in term of number, subject, program, duration, and timing of training)  + As at the Terminal Evaluation, 36 C/Ps had obtained trainings in Japan.  + A lot of C/Ps involved in Output 3 had been trained in Japan and they contributed appropriately to the achievement of this Output.  + According to experts, almost all C/Ps who returned to FIRI after obtained trainings in Japan had shown significant changes in their way of thinking and working attitude, since they became more self-confident and more active in carrying out their official works.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Evaluation workshop</li> <li>- Questionnaire survey</li> <li>- Hearing to C/Ps</li> </ul>
	<p>4) Appropriateness of the assignment of C/Ps (in term of number, ability, position)  + More than 50 FIRI researchers (staff) were assigned as C/Ps of the Project. The number of C/Ps was adequate, and the capacity and knowledge of the C/Ps were assessed good, though their involvements in the Project were unequal, and there were differences in working performances among the C/Ps and the contents of works assigned to them.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Evaluation workshop</li> <li>- Questionnaire survey</li> <li>- Hearing to C/Ps</li> </ul>
	<p>5) Appropriateness of local costs paid by Japanese side  + The local costs paid by Japanese side were as planned.  + The local cost by Japanese side was used appropriately to carry out necessary activities.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Evaluation workshop</li> </ul>
	<p>6) Costs paid by Vietnamese side  * Counter-budget by Vietnamese side was adequate which included costs for buying equipment, consumption articles, maintenance of car for the Project.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Questionnaire survey</li> </ul>

#### 4 Impact

Evaluation questions	Evaluation results	Sources
<p>1. Expected possibility to achieve Overall Goal</p>	<p>1) Expected possibility to achieve Overall Goal  + At the evaluation workshop held in May 2007, 100% of participants of the workshop had voted to the estimation that FIRI will be able to transfer technologies to 20 food processing SMEs within two or three years after the termination of the Project.</p>	<ul style="list-style-type: none"> <li>- Evaluation workshop</li> <li>- Questionnaire survey</li> </ul>

Evaluation questions	Evaluation results	Sources
2. Other impacts	<p>1) Positive impacts to FIRI  + In 2003-2004, 9 FIRI researchers were awarded by MOI.  + In March 2007, the Food Analysis and Assessment Department of FIRI has been assessed and found to conform with the requirements of ISO/IEC 17025:2005, VILAS 259.  + The Government of Vietnam had decided to assign FIRI to carry out two big projects : (1) to build up a biotechnology pilot plant (2007-2008) in FIRI; and (2) to establish a microbiology laboratory (2008 – 2010).</p> <p>2) Positive impacts to farmers and Vietnam poverty alleviation  + The achievements of the Project will not only benefit food processing SMEs in Vietnam, but also benefit Vietnamese farmers who supply agricultural materials to the food processing SMEs.  + The development of food processing industry may be an incentive to the farmers to produce more crops of higher quality. Thereby, the farmers may intensively cultivate crops that may help to raise farmers' income through increase in amount of sales or in unit price of foodstuffs.  + The rise in income will encourage farmers to participate in the community works, and this may lead to the development of the rural areas. This may also reduce the income gaps between rural and urban areas, promoting poverty alleviation.  + Since September 2006, the Project has cooperated with UNIDO Country Office in Vietnam in carrying out several trainings and workshops on food processing to women entrepreneurs involved in the "Entrepreneurship Development Programme for Women in Food Processing in Central Vietnam – Phase II". The Project had co-worked with UNIDO personnel to organize a workshop (in Quang Binh Province in November 2006) to instruct women entrepreneurs on the method to process fermented shrimp. Following this workshop, in March 2007, the Project started a cooperation with UNIDO and Women Unions in Ha Tinh, Quang Tri, and Quang Binh provinces, through which FIRI C/Ps took charge in instructing women entrepreneurs in rural areas of these provinces on the methods to produce rice spirit, pickled vegetable, fermented shrimp, bread, and confectionary.</p> <p>3) Positive impacts to Vietnamese people's health  + Although the caloric intake of Vietnamese people is efficient, with dietary energy supply of about 2,500 Kcal/day (average per capita), the malnutrition circumstance especially for children is not at desirable extent. The unbalanced diet may be one cause of the micronutrient deficiencies in Vietnam, especially in rural areas. If good processed foods with various micronutrients are produced and circulated in the market at a suitable price, then it would contribute greatly to maintain and improve people's health</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Evaluation workshop</li> <li>- Expert report</li> <li>- Questionnaire survey</li> <li>- Hearing to C/Ps</li> </ul>

Evaluation questions	Evaluation results	Sources
	<p>4) Technical impacts            + The utilization of microorganisms and enzymes peculiar to Vietnam has yet to study. Through the Project, by clarifying and using the characteristics of these microorganisms and enzymes to develop new materials, it is expected to develop diversified food products. The effect would be great, if imported materials and products were to be replaced by these products.</p>	
	<p>5) Negative impacts            + No any negative impact had been reported. However, it needs to continue to pay attention to avoid any adverse impact that may cause by the Project activities.</p>	<p>- FIRI report            - Project report</p>

### 5 Sustainability

Evaluation questions	Evaluation results	Sources
<p>1. Organizational sustainability</p>	<p>1) Policy and institutional sustainability            + The policies of the Government of Vietnam to giving priorities to food processing SMEs promotion and food safety are anticipated unchanged. The Agency for SME Development (ASMED, which belongs to Ministry of Planning and Investment, MPI) is striving to push forward many plans to promote development of SMEs. The Department of Local Industry Development (which belongs to the Ministry of Industry, MOI) is carrying out similar tasks which aim to develop industrial SMEs in rural areas. The Department of Cooperatives and Rural Development (which belongs to the Ministry of Agriculture and Rural Development, MARD) is also carrying out a plan aiming to strengthen the cooperatives in rural areas of which a large number of food processors are targeted. Therefore, it is anticipated that the food processing SMEs will have more opportunities to develop though these favourable policies.            + According to MOI, Vietnam has joined WTO, and FIRI's role as a national research institute specialized in food processing became more important. MOI had provided full support to FIRI in the past, and MOI will maintain this support continuously in the future.            + FIRI has appropriate organizational system and research environment. The Director of FIRI, as well as other key persons of FIRI recognize fully of their duties.            + According to MOI, VN has joined WTO, and FIRI's role as a national research institute specialized in food processing will become more important. MOI is pursuing a policy on the promotion of food processing SMEs in local provinces. MOI had provided full support to FIRI in the past, and MOI will maintain this support continuously in the future.</p>	<p>- FIRI report            - Project report            - Evaluation workshop            - Expert report            - Questionnaire survey            - Hearing to C/Ps            - Project documents</p>



Evaluation questions	Evaluation results	Sources
	<p>(3) Organizational sustainability</p> <p>+ A large number of FIRI researchers have high academic careers, some educated in the East European countries, and many young researchers had been obtained trainings in Japan. In addition, a major part of FIRI researchers have substantial basic knowledge on their specific field.</p> <p>+ FIRI has a system to frequently carry out internal trainings to enhance its researchers' technical skills.</p> <p>+ Meetings are held frequently in every department.</p> <p>+ There had not been any reported problem in transferring technologies from the well-experienced staff to the newly-employed young staff. Therefore, it is expected that the technologies transferred from Japan through this Project would be spread and rooted in FIRI in an organized manner.</p> <p>+ The wage structure adopted by FIRI is such that its researchers may obtain a salary appropriate to results of his/her researches and activities. These make the researchers able to concentrate on efforts to perform researches and other activities. Therefore, it is anticipated that FIRI researchers may remarkably improve their ability in applying technologies those had been transferred from Japanese experts.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Expert report</li> <li>- Questionnaire survey</li> </ul>
2. Financial viability	<p>+ FIRI is striving to increase its self-incomes, such as consultancy fees through providing technical instructions to enterprises. Presently, the self-income make about 40% of FIRI's annual financial source, and this portion is anticipated to rise in the future. Although FIRI still needs financial supports from the government in the future, no other research institutes having such large portion of self-income.</p> <p>+ Recently, the number of analysis that outside had entrusted FIRI to carry out was increasing significantly. Similarly, number of individual consultations (FIRI's major business) was also increasing. In 2003-2004, FIRI had obtained 28 contracts (1,341 million VND in total amount) with outside. Therefore, it is prospected that FIRI may increase its income, and can maintain the activities toward achieving Overall Goal.</p> <p>+ The restructure of FIRI to become a financial independent research institute: FIRI has to be restructured to become a financial indepent research institute, in accordance to Decision 115/2005/ND-CP (issued on September 5, 2005). From 2009, a part of subsidies from the Government to FIRI will be cut. But on the other hand, FIRI will be allowed to expand its scope of activities to carry out many other businesses as an enterprise, and its will have more autonomous right to make decisions relating to its internal issues. In addition, FIRI has to pay more efforts to increase its income sources, and it forces FIRI to strive to approach more closely to SMEs and obtain more contracts to providing services to SMEs.</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Hearing to C/Ps</li> </ul>




Evaluation questions	Evaluation results	Sources
3. Technical sustainability	<p>1) Prospect of C/Ps' ability to achieve Overall Goal</p> <p>+ Almost all of C/Ps expressed that he/she may improve his/her technical ability to appropriate extent necessary to continue to carry out planned activities by themselves.</p> <p>+ Many C/Ps also pointed out that "C/P should continue to bear efforts to improve his/her knowledge, practical and theoretical skill, language ability, technology transfer ability, etc.", and "the researchers' technical progress should be checked by both technicians of laboratory and firm, by examining their works in reality".</p>	<ul style="list-style-type: none"> <li>- FIRI report</li> <li>- Project report</li> <li>- Evaluation workshop</li> <li>- Questionnaire survey</li> <li>- Hearing to C/Ps</li> </ul>