

ANNEX 4

INPUTS FROM JICA

JICA-IPQTF Project : Improvement of Plant Quarantine Treatment Techniques against Fruit Flies of Fresh Fruits

Duration : March 2005 - March 2008 (3 years)

JP Fiscal Year	2005 (1 Apr 2005 - 31 Mar 2006) (JPY)		2006 (1 Apr 2006 - 31 Mar 2007) (JPY)		Description
	(JPY)	(USD)	(JPY)	(USD)	
Budget Items					
1. Local Cost :					
Operating cost	669,720	6,000	701,640	6,000	(Operational expenses, administrative expenses, consummables, miscellaneous...)
2. Training :					
1) Technical Training	1 CP x 4 months		2 CP x 4 months		Course in JP : Thermal treatment for the disinfestations of fruit flies
2) Study tour	3 CP x 0.5 month		3 CP x 0.5 month		(Tokyo, Yokohama, Okinawa)
3. Equipment :					
1) Procurement in JP	88,064,000	788,963			(VHT Machines, Biotrons, Transformers, Stabilizers etc)
2) Procurement in VN	6,537,025	58,565	5,206,812	44,526	(Generator, microscopes, incubators, computers, testers etc)
3) Carried by Experts	2,412,341	21,612	744,420	6,366	(Experimental tools and consumables, reagents etc)
Sub Total	97,013,366	869,140	5,951,232	50,891	
4. Experts :					
1) Long term	1 Expert x 12 months		1 Expert x 12 months		
2) Short term	3 Experts x 4 months		3 Experts x 4 months		

Notes : Exchange rate 1USD = 111.62 JPY (=15,830VND)/2005 = 116.94 JPY (=15,985VND)/2006

ANNEX 5 INPUTS FROM VIETNAMESE SIDE

JICA-IPQTF Project : Improvement of Plant Quarantine Treatment Techniques against Fruit Flies of fresh fruits

Duration : March 2005 - March 2008 (3 years)

No	Budget	Fiscal Year		2005		2006	
				VND	USD	VND	USD
	Allocated budget			740,000,000	46,747	500,000,000	31,279
	(Installation of low voltage electric supply and other fee inclu			366,139,216	23,129		
A	Actual received budget			652,638,107	41,228	286,043,299	17,894
B	Total actual expenditure			652,638,107	41,228	286,043,299	17,894
	Breakdown :						
1	Low voltage electric supply post			366,139,216	23,129		
2	Electric Technician			3,500,000	221	4,452,273	279
3	Fuel Cost			26,449,300	1,671	47,506,800	2,972
4	Stationery			21,864,000	1,381	17,343,400	1,085
5	Installation of equipments			52,445,000	3,313		
6	Refurbishment of Laboratories			65,605,000	4,144		
7	Fruits for Experiment, Creation of Colonies			87,648,875	5,537	134,890,000	8,439
8	Tax charge for the equipments received at the customs			26,086,716	1,648	0	
9	Purchase of fax machine			2,900,000	183	7,500,000	469
10	Electric fee				0	64,120,320	4,011
11	Meeting miscellaneous expense				0	3,313,723	207
12	Other				0	6,916,782	433

Notes: Exchange rate 1USD=15,830 VND / 2005 , 1USD=15,985 VND / 2006

ANNEX 6 MANAGEMENT OF JICA PROJECT EQUIPMENT

Ms. TRAN THI VIET HA

Moving on to the 2nd year of project implementation, we fully take cognizance of tool and equipment quality as a prerequisite to obtain highly accurate research data as well as convenience, effectiveness and labor saving. We have developed concern and experience in preparation for purchase an acquisition of new tools and equipment, in their operation, management and maintenance not only in the confines of the project but also for long usage in future.

1. Power supply system

Because of time constraints in administrative procedures, installation of a 200 KVA power transmission post was not possible in the 2005 fiscal year, the Vietnamese party, however, has strived to do it in 2005 at the following pace:



Figure 1. Installation of the main power source

April 2006

- Public bid tendering
- Hold the tendering
- Selection of tendered

May 2006

- Contract awarding
- Work execution by the contractor
- Completion of construction



Figure 2. Installation of the power line

June 2006

- Application for power supply
- The electric company starts power service

While providing additional power source from the national grid, we also maintain regular power generation by a technically reputable supplier that is Huu Toan limited Co. A mid-level electrical cadre has been assigned and posted to keep daily check and maintenance of the power system of the test area.

This is to ensure full control of power supply as well as good operation of machinery and equipment, also to prevent and deal with electrical problems and hazards.

2. Machinery and equipment

In the period 2005-2006, the following equipment was provided:

A . Special equipment imported from Japan

Heat treatment unit, BIOTRON, self- operating fly rearing chamber, fruit storage bin, fly rearing cages ...

B. Equipment purchased in Vietnam

Power generator, incubator, pH meters, saccharimeters, turgidity measurement devices, air conditioners/coolers...

C. Equipment for ready use by experts

Consumable items or items for instant use.



Figure 3. Completion of the low voltage post



F. 4 Equipment imported from Japan



F. 5 Loading down equipment



F. 6 Equipment dispatched along with experts



F.7 Installation of equipment 1



F.8 Installation of equipment 2



F.9 Installation of equipment 3



F.10 Installation and operation of electric generator



F.11 Operational guidance 1



F.12 Operational guidance 2

On usage account of the machinery, equipment provided for in the project, after a 4 month operation period, and before concluding the fruit phase of the project, Japanese experts and member of the project implementation team have sit together to discuss and draft a list of additional items, chemical, needed for the in-coming period

Equipment for the period 2006-2007

A. Items to be purchased in Vietnam:

Stereoscopic microscopes computer, digital converters...

B. Ready-use equipment for experts:

specimen boxes and accessories fly feed, chemical...



F.13 Equipment and consumables accompanied to experts

Most of the specialty equipment provided for the first year had been imported directly from Japan, equipment and tools for the 2nd year were mainly supplied by business companies or agents operating in Vietnam. Beside goods delivery these suppliers also passed on operating skills and mechanical maintenance practices to the staff of the center.

3. Management of machinery, equipment

As in 2006, machinery and equipment handed to the Vietnamese party have been labeled with proper coding and recorded test operational performance.

Machinery and equipment received at the start of the project have been properly operated to suitable function. They have been cleaned after use, put away in the right place and maintained



F.14 Good keeping

according to recommendation, working together with



F.15 Machine utilization instruction

suppliers that hold maintenance plans, we wish to upkeep and prolong the life span of the machinery and equipment. In the second phase of the project we have requested experts from the supply company Shanshu to come over and do maintenance on heat treatment units, biotron fly rearing fruit storage bins.

All of the practices of management, maintenance, proper utilization of equipment aim at successful project implementation and sustained operation in future.

ANNEX 6-1

EQUIPMENT INPUT BY JICA

(JFY 2005)

JICA Project : Improvement of Plant Quarantine Treatment Techniques against Fruit Flies on Fresh Fruits
(3/ 2005 - 3/ 2008)

Remark: (1US\$ =111.62 JPY)

1) Rank A: over Y1,600,000 (US\$14,335) / Rank B : from Y100,000 to 1,600,000 (US\$896-US\$14,335) /

Rank C : Y20,000 to 100,000 (US\$180-US\$896) / Rank D: below Y20,000 (US\$180)

(1F) Room A: Fruit Storage / Room B: Generator / Room C: Heat Treatment & Working / Room D: Pre-Post Treatment /

2) (2F) Room E: Auto Rearing 1 / Room F: Auto Rearing 2 / Room G: Semi-Auto Rearing 1 / Room H: Semi-Auto Rearing 2 / Room I: Semi-Auto Rearing 3

No.	Rank	Date	Classification	Items Description	Maker, Model	Qty	Machine Condition	Installed room	Purchased in
1	A	25-Dec-05	JICA- PR 05-JP- A-001	Vapor heat treatment system Máy xử lý nhiệt bằng hơi nước VIII	SANSHU EHK-1000D	1	Good	C	JP
2	A	25-Dec-05	JICA- PR 05-JP- A-002	Vapor heat treatment system Máy xử lý nhiệt bằng hơi nước VIII	SANSHU EHK-1000D	1	Good	C	JP
3	A	25-Dec-05	JICA- PR 05-JP- A-003	Biotron (temp./humid.cont.chamber for insect rearing) Tủ điều hoà nuôi ruồi BIOTRON	SANSHU STH-19P	1	Good	E	JP
4	A	25-Dec-05	JICA- PR 05-JP- A-004	Biotron (temp./humid.cont.chamber for insect rearing) Tủ điều hoà nuôi ruồi BIOTRON	SANSHU STH-19P	1	Good	F	JP
5	A	25-Dec-05	JICA- PR 05-JP- A-005	Biotron (temp./humid.cont.chamber for infested fruit) Tủ điều hòa xử lý quả BIOTRON	SANSHU STH-19P	1	Good	D	JP
6	A	25-Dec-05	JICA- PR 05-JP- A-006	Temperature control chamber for fruit storage Tủ bảo quản quả	SANSHU STH-015	1	Good	A	JP
7	A	25-Dec-05	JICA- PR 05-JP- A-007	Voltage stabilizer Máy ổn áp 50 KVA	SANSHU STAC-50SCS	1	Good	GF Stair	JP
8	A	25-Dec-05	JICA- PR 05-JP- A-008	Voltage stabilizer Máy ổn áp 100 KVA	SANSHU STAC-100-SCN-S	1	Good	B	JP
9	A	25-Dec-05	JICA- PR 05-JP- A-009	Transformer Máy biến áp 150KVA	SANSHU DTR-150	1	Good	B	JP
10	A	25-Dec-05	JICA- PR 05-JP- A-010	Hybrid recorder (HIRC) Máy đo nhiệt độ HYBRID RECORDER	CHINO LE11719-RNO-S	1	Good	C	JP
11	B	25-Dec-05	JICA- PR 05-JP- B-012	Hot water bath Bồn nước ấm	THOMAS T-105B-LM (English manual)	1	Good	C	JP
12	B	25-Dec-05	JICA- PR 05-JP- B-013	Hot water bath Bồn nước ấm	THOMAS T-105B-LM (English manual)	1	Good	C	JP
13	C	25-Dec-05	JICA- PR 05-JP- C-014	Thermal sensor for hybrid recorder Sensor đo nhiệt độ	CHINO (or SANSHU) Thermal sensor KG-14 (Spare)	16	Good	C	JP
14	C	25-Dec-05	JICA- PR 05-JP- C-015	Thermal sensor for hybrid recorder Sensor đo nhiệt độ	CHINO (or SANSHU) Dry bulb sensor (Spare)	2	Good	C	JP
15	D	25-Dec-05	JICA- PR 05-JP- D-016	Cage for adult fly Lồng nuôi ruồi (nhỏ)	INFINIT 30x30xH45cm	50	Good	I	JP
16	D	25-Nov-05	JICA- PR 05-JP- D-017	Cage for pupation Lồng nuôi ruồi (lớn)	INFINIT 30x30xH45cm	20	Good	I	JP
17	A	27-Sep-05	JICA- PR 05-VN- A-018	Diesel Generator Máy phát điện chạy bằng dầu Diesel	HUU TOAN HT5 1-15 (150KVA)	1	Good	B	VN
18	B	27-Sep-05	JICA- PR 05-VN- B-019	Auto transfer switch (ATS) Bộ chuyển mạch tự động	HUU TOAN HT4C-275T	1	Good	B	VN
19	B	26-Oct-05	JICA- PR 05-VN- B-020	Incubator Tủ ấm	SANYO Japan MIR-253	1	Good	D	VN
20	B	26-Oct-05	JICA- PR 05-VN- B-021	Incubator Tủ ấm	SANYO Japan MIR-253	1	Good	D	VN
21	B	01-Nov-05	JICA- PR 05-VN- B-022	Air conditioner for room Máy điều hòa không khí	TOSHIBA Japan RAS-24UKPX4 /24UAX4	1	Good	C	VN
22	B	02-Nov-05	JICA- PR 05-VN- B-023	Air conditioner for room Máy điều hòa không khí	TOSHIBA Japan RAS-24UKPX4 /24UAX4	1	Good	C	VN
23	B	03-Nov-05	JICA- PR 05-VN- B-024	Air conditioner for room Máy điều hòa không khí	TOSHIBA Japan RAS-24UKPX4 /24UAX4	1	Good	D	VN
24	B	26-Oct-05	JICA- PR 05-VN- B-025	Stereoscopic microscope Kính hiển vi	OLYMPUS Japan SZ-61	1	Good	C	VN
25	B	26-Oct-05	JICA- PR 05-VN- B-026	Stereoscopic microscope Kính hiển vi	OLYMPUS Japan SZ-61	1	Good	C	VN

No.	Rank	Date	Classification	Items Description	Maker, Model	Qty	Machine Condition	Installed room	Purchased in	
26	B	26-Oct-05	JICA- PR 05-VN- B-027	Stereoscopic microscope Kính hiển vi	OLYMPUS Japan	SZ-61	1	Good	C	VN
27	B	26-Oct-05	JICA- PR 05-VN- B-028	Stereoscopic microscope Kính hiển vi	OLYMPUS Japan	SZ-61	1	Good	C	VN
28	C	26-Oct-05	JICA- PR 05-VN- C-029	Lamp device for stereoscopic microscope Đèn cho kính hiển vi	OLYMPUS Japan	SZ2-LGDI	1	Good	C	VN
29	C	26-Oct-05	JICA- PR 05-VN- C-030	Lamp device for stereoscopic microscope Đèn cho kính hiển vi	OLYMPUS Japan	SZ2-LGDI	1	Good	C	VN
30	C	26-Oct-05	JICA- PR 05-VN- C-031	Lamp device for stereoscopic microscope Đèn cho kính hiển vi	OLYMPUS Japan	SZ2-LGDI	1	Good	C	VN
31	C	26-Oct-05	JICA- PR 05-VN- C-032	Lamp device for stereoscopic microscope Đèn cho kính hiển vi	OLYMPUS Japan	SZ2-LGDI	1	Good	C	VN
32	C	26-Oct-05	JICA- PR 05-VN- C-033	Personal computer Máy vi tính	ASEAN Malaysia	Pentium 4 RS232C	1	Good	C	VN
33	D	26-Oct-05	JICA- PR 05-VN- D-034	Multi printer Máy in	HP USA	HP-5740	1	Good	C	VN
34	C	01-Nov-05	JICA- PR 05-VN- C-035	Digital camera Máy ảnh kỹ thuật số	CANON Japan	A95	1	Good	C	VN
35	C	26-Oct-05	JICA- PR 05-VN- C-036	Digital pH meter Máy đo pH (digital)	KENIS Japan	Cyber Scan ph11	1	Good	C	VN
36	B	01-Nov-05	JICA- PR 05-VN- B-037	Electric balance Cân điện	SHIMAZU Japan	UX-6200H	1	Good	C	VN
37	B	01-Nov-05	JICA- PR 05-VN- B-038	Electric balance Cân điện	SHIMAZU Japan	UX-6200H	1	Good	C	VN
38	B	01-Nov-05	JICA- PR 05-VN- B-039	Electric balance Cân điện	SHIMAZU Japan	UX-6200H	1	Good	C	VN
39	C	01-Nov-05	JICA- PR 05-VN- C-040	Automatic thermal/hydro graph Máy đo nhiệt độ/ẩm độ tự động	KENIS	NS-IIQ	1	Good	A	VN
40	C	01-Nov-05	JICA- PR 05-VN- C-041	Automatic thermal/hydro graph Máy đo nhiệt độ/ẩm độ tự động	KENIS	NS-IIQ	1	Good	D	VN
41	C	01-Nov-05	JICA- PR 05-VN- C-042	Automatic thermal/hydro graph Máy đo nhiệt độ/ẩm độ tự động	KENIS	NS-IIQ	1	Good	E	VN
42	C	01-Nov-05	JICA- PR 05-VN- C-043	Automatic thermal/hydro graph Máy đo nhiệt độ/ẩm độ tự động	KENIS	NS-IIQ	1	Good	F	VN
43	C	25-Oct-05	JICA- PR 05-VN- C-044	Digital refractometer Máy đo độ đường	ATAGO	IPR-101a	1	Good	C	VN
44	C	26-Oct-09	JICA- PR 05-VN- C-045	Firmness Tester for hard fruit Máy đo độ cứng hoa quả	NOW Japan	FHR-5	1	Good	C	VN
45	C	25-Oct-05	JICA- PR 05-VN- C-046	Firmness Tester for soft fruit Máy đo độ mềm hoa quả	NOW Japan	FHR-1	1	Good	C	VN
46	B	25-Oct-05	JICA- PR 05-VN- B-047	Digital color meter Máy đo độ màu sắc	KONICA MINOLTA Japan	Color Reader CR-11	1	Good	C	VN
47	B	01-Nov-05	JICA- PR 05-VN- B-048	Multimedia projector for PC Máy chiếu projector	SANYO Japan	BLC-UX61	1	Good	C	VN
48	D	01-Nov-05	JICA- PR 05-VN- D-049	Portable screen for projector Màn chiếu	APOLO USA	ELPSC07	1	Good	C	VN
49	C	01-Nov-05	JICA- PR 05-VN- C-050	Standard thermometer Nhiệt độ kế chuẩn	KENIS Japan	No.1 Code: 3-310-531	1	Good	C	VN
50	C	01-Nov-05	JICA- PR 05-VN- C-057	Standard thermometer Nhiệt độ kế chuẩn	KENIS Japan	No.1 Code: 3-310-531	1	Good	C	VN
51	D	26-Oct-05	JICA- PR 05-VN- D-052	Magnetic stirrer Máy khuấy từ	VELP Italy	ESP	1	Good	C	VN
52	B	01-Nov-05	JICA- PR 05-VN- B-053	Dry box (Desicator) Kệ sấy	TOYO Japan	ED-268	1	Good	C	VN
53	B	01-Nov-05	JICA- PR 05-VN- B-054	Drying Shelf	KENIS Japan	DS-L Code: 3-339-242	1	Good	C	VN
54	C	01-Nov-05	JICA- PR 05-VN- C-055	Folding cart Xe đẩy 2 tầng	KENIS Japan	IK CARRY IK-304	1	Good	C	VN

No.	Rank	Date	Classification	Items Description	Maker, Model	Qty	Machine Condition	Installed room	Purchased in	
55	C	01-Nov-05	JICA· PR 05·VN· C-056	Folding cart Xe đẩy 1 tầng	KENIS Japan	IK CARRY IK-301	1	Good	C	VN
56	D	01-Nov-05	JICA· PR 05·VN· D-057	Drill bit Khoan nhỏ	RYOBI Japan	HOBY REUTER	1	Good	C	VN
57	C	01-Nov-05	JICA· PR 05·VN· C-058	Refrigerator Tủ lạnh	SANYO Japan	SR-23KN	1	Good	C	VN
58	D	01-Nov-05	JICA· PR 05·VN· D-059	Down transformer Máy biến áp nhỏ	NHAT LINH Vietnam	NL- 1000NM	1	Good	C	VN
59	D	01-Nov-05	JICA· PR 05·VN· D-060	Down transformer Máy biến áp nhỏ	NHAT LINH Vietnam	NL- 1000NM	1	Good	C	VN
60	D	01-Nov-05	JICA· PR 05·VN· D-061	Down transformer Máy biến áp nhỏ	NHAT LINH Vietnam	NL- 1000NM	1	Good	C	VN
61	D	01-Nov-05	JICA· PR 05·VN· D-062	Electric drill Khoan điện	MAKITA Japan	Model: 6501	1	Good	C	VN
62	D	01-Nov-05	JICA· PR 05·VN· D-063	Vacuum-cleaner Máy hút bụi	PANASONIC Japan	MC-3910	1	Good	C	VN
63	D	01-Nov-05	JICA· PR 05·VN· D-064	Vacuum-cleaner Máy hút bụi	PANASONIC Japan	MC-3910	1	Good	C	VN
64	D	26-Oct-05	JICA· PR 05·VN· D-065	Electric thermos Phích điện	SHARP Japan	V32P	1	Good	C	VN
65	D	26-Oct-05	JICA· PR 05·VN· D-066	Electric thermos Phích điện	SHARP Japan	V32P	1	Good	C	VN
66	D	01-Nov-05	JICA· PR 05·VN· D-067	Juicer/blender	PHILIPS Holland	HR-1721	1	Good	C	VN
68	C	25-Dec-05	Consummables	Ink ribbon cartridge for VHT recorder Mực ghi chép máy ghi tự động VHT (màu)	CANON	BCL-24CLR2P (5pcs/box, Spare)	1	Good	C	JP
69	C	25-Dec-05	Consummables	Recording paper for VHT (15 pcs/ box) Giấy dùng cho máy ghi tự động VHT	CANON	(15 pcs/ box spare)	1	Good	C	JP
70	C	25-Dec-05	Consummables	Ink ribbon cartridge for VHT recorder Mực dùng cho máy ghi tự động VHT (đen)	CHINO (or SANSHU)	BCL-24BK2P Included in VHT	10	Good	C	JP
71	C	25-Dec-05	Accessories	IC card reader Đầu đọc card IC	CHINO (or SANSHU)	CB500 Included in HRC	3	Good	C	JP
72	C	25-Dec-05	Accessories	IC memory card Thẻ nhớ IC (64KB)	CHINO (or SANSHU)	Included in VHT	3	Good	C	JP
73	C	25-Dec-05	Accessories	Software for compilation of VHT data Phần mềm để chuyển dữ liệu cho máy VHT	CHINO (or SANSHU)	TRUWIN Included in VHT	1	Good	C	JP

Total : 847,523 USD
(= 94,600,525 yen)

ANNEX 6-2

EQUIPMENT INPUT BY JICA

(JFY 2006)

JICA Project : Improvement of Plant Quarantine Treatment Techniques against Fruit Flies on Fresh Fruits
(3/ 2005 - 3/ 2008)

Remark: (1US\$ = 116.94 JPY)

1) Rank A: over Y1,600,000 (US\$13,682) / Rank B : from Y100,000 to 1,600,000 (US\$855-US\$13,682) /

Rank C : Y20,000 to 100,000 (US\$171-US\$855) / Rank D: below Y20,000 (US\$171)

(1F) Room A: Fruit Storage / Room B: Generator / Room C: Heat Treatment & Working / Room D: Pre-Post Treatment /

2) (2F) Room E: Auto Rearing 1 / Room F: Auto Rearing 2 / Room G: Semi-Auto Rearing 1 / Room H: Semi-Auto Rearing 2 / Room I: Semi-Auto Re

No.	Rank	Date	Classification	Items Description	Maker, Model	Qty	Machine Condition	Installed room	Purchased in
1	B	12-Jan-07	JICA- PR 06-VN- B-070	フルーツ酸度計 Digital acid meter Máy đo a-xit	G-WON Korea GMK-835	1	Good	C	VN
2	B	12-Jan-07	JICA- PR 06-VN- B-071	立体顕微鏡 Stereoscopic microscope Kính hiển vi soi nổi	OLYMPUS Japan SZX-16	1	Good	C	VN
3	C	10-Jan-07	JICA- PR 06-VN- C-072	デジタルカメラ Digital camera Máy ảnh kỹ thuật số	OLYMPUS Japan C-7070	1	Good	C	VN
4	C	12-Jan-07	JICA- PR 06-VN- C-073	接続用アダプタ Direct mount Adaptor Bộ phận liên kết	OLYMPUS Japan C TYPE	1	Good	C	VN
5	B	12-Jan-07	JICA- PR 06-VN- B-074	オートドライボックス Auto Dry box Tủ hút ẩm	TOYO LIVING Japan ED-268	1	Good	C	VN
6	C	10-Jan-07	JICA- PR 06-VN- C-075	光度計 Illuminometer Máy đo ánh sáng	SHIBATA Japan ANA-F9	1	Good	C	VN
7	B	10-Jan-07	JICA- PR 06-VN- B-076	バイオロン用除湿機 Humidity controller machine (For Biotron) Máy điều chỉnh ẩm độ	SANSHU Japan For VHT EHK-1000D	2	Good	E F	VN
8	C	12-Jan-07	JICA- PR 06-VN- C-077	パーソナルコンピューター(デスクトップ式) Personal computer Máy vi tính	ROBO Pentium 4	1	Good	C	VN
9	D	12-Jan-07	JICA- PR 06-VN- D-078	カラープリンター Color Printer Máy in	HP USA HP-D 4160	1	Good	C	VN
10	D	12-Jan-07	JICA- PR 06-VN- D-079	パソコン机 Table for computer Bàn máy tính	Vietnam 60 x120	1	Good	C	VN
11	C	10-Jan-07	JICA- PR 05-VN- C-080	デジタルカメラ Digital camera Máy ảnh kỹ thuật số	CANON Japan A-530	2	Good	C	VN
12	C	12-Jan-07	JICA- PR 05-VN- C-081	果実硬度計 (軟果用) Firmness tester for soft fruit Máy đo độ mềm hoa quả	NOW Japan FHR-1	2	Good	C	VN
13	C	10-Jan-07	JICA- PR 05-VN- C-082	自記温度湿度計 Automatic thermal/hydro graph Máy đo nhiệt độ/ẩm độ tự động	SATO Japan NSII-Q	3	Good	C	VN
14	B	10-Jan-07	JICA- PR 05-VN- B-083	オートクレーブ Autoclave Máy hấp ướt	ALP Japan CL-32L	1	Good	C	VN
15	C	12-Jan-07	JICA- PR 05-VN- C-084	除湿器 Dehumidifier Máy hút ẩm	EDISON USA ED-12B	2	Good	C	VN
16	B	12-Jan-07	JICA- PR 05-VN- B-085	冷凍庫 Deep Freezer Tủ âm sâu	SANYO Japan MDF-U32V	1	Good	D	VN
17	C	10-Jan-07	Consummable goods	標準温度計(棒状) Standard thermometer Nhiệt kế chuẩn	SATO Japan With certificate	1	Good	C	VN
18	D	12-Jan-07	Consummable goods	ミバエ成虫飼料 Yeast Hydrolysate Men khô	USB USA Code: 23550	6	Good	C	VN
19	D	12-Jan-07	Consummable goods	フラットシャーレ (滅菌) Sterilized petri dish Dia petri	Germany 90mm	100	Good	C	VN
20	D	10-Jan-07	Consummable goods	ポリプロピレン容器(特大) Polypropylene container for fruit storage Hộp nhựa lớn	SANKO PLASTIC Japan P-12	100	Good	A	VN
21	D	10-Jan-07	Consummable goods	ポリプロピレン容器(大) Polypropylene container for fruit storage Hộp nhựa nhỏ	SANKO PLASTIC Japan P-11	100	Good	A	VN
22	D	10-Jan-07	Consummable goods	インクカートリッジ(黒)(VHT用、Lシリーズ用) Ink ribbon cartridge (Black) for VHT recorder Mực ghi dữ liệu	SANSHU Japan For VHT EHK-1000D	5	Good	C	VN

No.	Rank	Date	Classification	Items Description	Maker, Model	Qty	Machine Condition	Installed room	Purchased in	
23	D	10-Jan-07	Consummable goods	チャート紙 (VHT用 LE01001A) Recording paper for VHT recorder Giấy ghi dữ liệu	SANSHU Japan	For VHT EHK-1000D	5	Good	C	VN
24	C	10-Jan-07	Consummable goods	イオン交換樹脂 (VHT、バイオロン) Ion-exchange resin for VHT, Bitron Dầu lọc	SANSHU Japan	For VHT EHK-1000D	2	Good	C	VN
25	D	10-Jan-07	Consummable goods	バイオロン用蛍光管 (10W) Fluorescent lamp for Biotron (10W, FL10) Đèn tuýp 10W	SANSHU Japan	For BIOTRON STH-19P	300	Good	C	VN
26	D	10-Jan-07	Consummable goods	バイオロン用蛍光管 (20W) Fluorescent lamp for Biotron (20W, FL20SS.W18) Đèn tuýp 20W	SANSHU Japan	For BIOTRON STH-19P	20	Good	A	VN
27	D	10-Jan-07	Consummable goods	バイオロン用グロー球 (10型 FG-7E) Glow lamp Đèn mù	SANSHU Japan	For BIOTRON STH-19P	300	Good	A	VN
28	D	10-Jan-07	Consummable goods	バイオロン用蛍光管台座 (10W) Fluorescent Fixture (FW11013Z Glow 10W 1xFL10) Đế đèn 10W	SANSHU Japan	For BIOTRON STH-19P	20	Good	A	VN
29	D	10-Jan-07	Consummable goods	バイオロン用蛍光管台座 (FW2200Aグロー式 36W 2xFL20) Fluorescent Fixture (20W) Đế đèn 20W	SANSHU Japan	For BIOTRON STH-19P	10	Good	A	VN
30	D	10-Jan-07	Consummable goods	デジタルカメラメモリーカード Memory card for digital camera Thẻ nhớ cho máy ảnh kỹ thuật số	SONY	512 MB	6	Good	A C	VN
31	D	10-Jan-07	Consummable goods	ボンド (透明 コニシGクリアー相当品) Bond (For rearing box) Keo dán nhựa	KONISHI Japan	GC-170	20	Good	A C	VN
32	D	12-Jan-07	Consummable goods	メスシリンダー Graduated cylinder Cốc ghi độ	GLASFIRN Germany		5	Good	A C	VN
33	D	12-Jan-07	Consummable goods	スライドグラス Slide glass Lam kính	Germany		5	Good	A C	VN
34	D	12-Jan-07	Consummable goods	カバーグラス Cover slops Nắp lam kính			10	Good	A C	VN
35	D	12-Jan-07	Consummable goods	インクジェットカラープリンター用インクカートリッジ(黒) Ink cartridge for Inkjet color printer (black)	IIP USA	Use for HP-D 4160	20	Good	A C	VN
36	D	12-Jan-07	Consummable goods	インクジェットカラープリンター用インクカートリッジ(カラー) Ink cartridge for Inkjet color printer (color)	IIP USA	Use for HP-D 4160	20	Good	A C	VN
37	D	12-Jan-07	Consummable goods	カラープリンター用トナ Toner for laser printer (Black) Mực in đen	IIP USA	Use for HP- 5740	5	Good	A C	VN
38	D	10-Jan-07	Consummable goods	カートリッジペン(自記温湿度計用 NS-IIQ用) Pen for automatic thermal/hydro graph Bút ghi dữ liệu	SATO Japan	Code 7210-90	3	Good	A C	VN
39	D	10-Jan-07	Consummable goods	記録用紙(自記温湿度計用 NS-IIQ用 C1681540) Recording paper for automatic thermal/hydro graph Giấy ghi dữ liệu	SATO Japan	Code 7210-62	7	Good	A C	VN

Total : 44,525.5 USD
(= 5,206,812 yen)

ANNEX 7 -1

Progress of Activities for Each Output

(Output No.1 Rearing method for fruit flies in laboratory is established)

Progress of activities				Problem s in this term	Targets and activities in the next term
	Planned	12 01 02 03	Actual		
1.1 To identify species of fruit flies reared in laboratory	P	_____	_____		
	A	██████████	██████████		
1.2 To established rearing environment at constant temperature, humidity and daily light-dark period in laboratory	P	_____	_____		
	A	██████████	██████████		
1.3 To establish rearing method for all growing stages of fruit flies	P	_____	_____		
	A	██████████	██████████		
Progress of technology transfer to C/P					
Rearing conditions and rearing methods for three species of fruit fly, <i>B. dorsalis</i> , <i>B. cucurbitae</i> and <i>B. correcta</i> by using new rearing instruments and artificial diet in the Biotron chambers and in the Semi-auto rearing rooms were accomplished and their rearing technologies were transferred to the Vietnamese counterparts.					

ANNEX 7 -2

(Output No.2 Method for vapor heat treatment disinfestation and its condition are determined)

Progress of activities		Problems in this term			Targets and activities in the next term
		12	01	02	
2.1 To determine vapor heat treatment condition (mortality test)	Planned	12	01	02	03
	Actual	12	01	02	03
2.11 To establish storage condition at constant temperature to prevent reinfestation of fries on infested test fruit and treated fruit in laboratory	P A	_____	_____	_____	_____
2.12 To determine appropriate times for treatment in each developmental stage of flies	P A	_____	_____	_____	_____
2.13 To determine the most heat tolerant species by the hot water immersion (susceptibility test)	P A	_____	_____	_____	_____
2.14 To establish method for making infested fruit for mortality test	P A	_____	_____	_____	_____

<p>2.15 To determine the most heat tolerant stage of the most tolerant species by VHT (susceptibility test)</p>	<p>P A</p>	<p>— —</p>		<p>This activity is to be implemented in the 3rd year season.</p>
<p>2.16 To determine disinfestation treatment condition for complete death of the most tolerant species by VHT (small scale mortality test)</p>	<p>P A</p>	<p>— —</p>		<p>This activity is to be implemented in the 3rd year season.</p>
<p>2.17 To confirm condition of VHT disinfestation treatment for complete death of the most tolerant species (large scale mortality test)</p>	<p>(none)</p>			<p>This activity is to be implemented in the 3rd year season.</p>
<p>2.2 To determine vapor heat treatment condition (fruit injury test)</p>				
<p>2.21 To establish method for acquisition of test fruit</p>	<p>P A</p>	<p>— —</p>		
<p>2.22 To establish storage environment at constant temperature for test fruit in laboratory</p>	<p>P A</p>	<p>— —</p>		

2.23 To determine storage condition for test fruit	P	_____		
	A	_____		
2.24 To determine method for insertion of a thermal sensor into fruit	P	_____		
	A	_____		
2.25 To determine the arrangement of sensor fruit in VHT chamber	P	_____		
	A	_____		
2.26 To confirm symptoms of heat damage and its cause	P	_____		This activity is to be implemented in the 3 rd year season.
	A	_____		
2.27 To establish method for avoidance of heat damage under disinfection treatment condition of VHT (Small scale injury test)	P	_____		This activity is to be implemented in the 3 rd year season.
	A	_____		
2.28 To confirm that there is no heat damage under VHT disinfection treatment condition (large scale injury test)	(none)			This activity is to be implemented in the 3 rd year season.
Progress of technology transfer to C/P				
Experimental technologies in the related test from 2.11 to 2.16 and 2.21 to 2.27 were transferred to the Vietnamese counterparts.				

ANNEX 7 -3

(Output No.3 The system which stores examination data and analysis results is built and utilized by Vietnamese counterparts)

Progress of activities		Problems in this term				Targets and activities in the next term
		12	01	02	03	
3.1 To continuously record examination data	Planned	12	01	02	03	(Target) (Activities) These activities are to be implemented in the 3 rd season.
	Actual	12	01	02	03	
3.2 To analyze examination data	P	_____				
	A	_____				
3.2 To analyze examination data	P	_____				
	A	_____				
3.2 To analyze examination data	P	_____				
	A	_____				
Progress of technology transfer to C/P						
Collecting data from related tests were analyzed and the analytical method was transferred to the Vietnamese counterparts.						

ANNEX 7 -4 Project activities from April 2007 to February 2008 in the 3rd year season prepared by the JICA-IPQTF

Activities	2007												2008				
	4	5	6	7	8	9	10	11	12	1	2	3					
Rearing of fruit fly																	
1. Maintenance of original strains of <i>B. dorsalis</i> , <i>B.cucurbitae</i> and <i>B.correcta</i> in Semi-Auto rearing rooms																	
2. Mass rearing of test fruit flies of <i>B.dorsalis</i> and <i>B.correcta</i> in Biotron chambers																	
Fruit injury test in rainy season																	
Mortality test																	
Small scale test and large scale test																	
Fruit injury test																	
Small scale test and large scale test																	
Maintenance of machinery																	

ANNEX 8

Achievement of Outputs (from December 2006 to March 2007)

Outputs	Indicators	Targets in this term	Achievements of in this term	Reasons if planned targets were not satisfied
1. Rearing method for fruit flies in laboratory is established	1.1 6000 adult flies in each species are reared in laboratory	1.1 To identify species of fruit flies reared in laboratory	1.1 Identification of 3 species of fruit flies (<i>B.dorsalis</i> , <i>B.cucurbitae</i> and <i>B.correcta</i>) with morphological features was accomplished.	Necessary countermeasures
	1.2 Fruit fly's eggs collected with the egging device are provided stably for the mortality test	1.2 To establish rearing environment at constant temperature, humidity and daily light-dark period in laboratory	1.2 Rearing conditions for 3 species of fruit flies in Biotron chambers and in Auto rearing rooms were established.	
2. Method for vapor heat treatment disinfection and its condition are determined	2.1 In large-scale mortality and injury tests, the vapor heat treatment condition on which more than 30,000 flies;	1.3 To establish rearing method for all growing stages of fruit flies	1.3 Rearing methods for 3 species of fruit flies such as number of eggs, ratios of pupation and adult emergence were accomplished in the Biotron chambers and in the Semi-auto rearing rooms.	
		2.1 To determine vapor heat treatment condition (mortality test) 2.11 To establish storage condition at constant temperature to prevent reinfestation of flies on infested test fruit and treated fruit in laboratory	2.11 Storage conditions in the Pre-Post fruit storage chamber with constant temperature was accomplished and prevention of reinfestation from fruit flies on test fruit was also established between experimental rooms of VHT and Test preparing room.	
		2.12 To determine appropriate times for treatment in each developmental stage of the flies	2.12 Duration of egg stage was confirmed at rearing temperature of 28°C.	

		<p>2.13 To determine the most heat tolerant species by the hot water immersion (Susceptibility test)</p> <p>2.14 To establish method for making infested fruit for mortality test</p> <p>2.15 To determine the most heat tolerant stage of the most tolerant species by VHT (Susceptibility test)</p> <p>2.16 To determine disinfestation treatment condition for complete death of the most tolerant species by VHT (small scale mortality test)</p>	<p>- Larvae development tests for fruit flies were accomplished under new artificial diet condition.</p> <p>- Eggs and larvae development tests for fruit flies were accomplished under host plant of dragon fruit.</p> <p>2.13 The most heat tolerant stage and species of 3 species of fruit flies were determined by the hot water immersion tests with test insects in glass tubes.</p> <p>2.14 Egg oviposition and larva inhabitant places in dragon fruit were accomplished by two methods of artificial inoculation method and natural infesting method.</p> <p>- Making infested fruit by artificial inoculation method was accomplished.</p> <p>- Making infested fruit by natural infesting method was accomplished.</p> <p>2.15 Hot water immersion tests were accomplished with 2 species of fruit flies (<i>B. dorsalis</i> and <i>B. correcta</i>).</p> <p>2.16 The test was conducted with 1st instar larvae of 2 species of fruit flies (<i>B. dorsalis</i> and <i>B. correcta</i>).</p> <p>This activity is to be implemented in the 3rd</p>	<p>Impact (expected/unexpected)</p> <p>The delegation of the Southern Fruit Research Institute (SOFRI), Institute of Agriculture Science for Southern Vietnam (IAS), Japan International Research Center for Agriculture Science (JIRCAS), and Japanese company to be involved in tropical fruit trading observed the project site.</p>
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	<p>2.2 Individuals of the most heat tolerant stage of the most tolerant species are killed</p> <p>2.21 Disinfestation standard (treatment duration, temperature...) not harmful to the fruit are established</p>	<p>2.17 To confirm condition of VHT disinfestation treatment for complete death of the most tolerant species (large scale mortality test)</p> <p>2.2 To determine vapor heat treatment condition (fruit injury test)</p> <p>2.21 To establish method for acquisition of test fruit</p> <p>2.22 To establish storage environment at constant temperature for test fruit in laboratory.</p> <p>2.23 To determine storage condition for test fruit</p> <p>2.24 To determine method for insertion of a thermal sensor into fruit</p> <p>2.25 To determine the arrangement of sensor fruit in VHT chamber</p>	<p>year season.</p> <p>2.17 This activity is to be implemented in the 3rd year season.</p> <p>2.21 Method of acquisition of test fruit was established. Test fruit were provided from a few designated orchards</p> <p>2.22 Suitable storage conditions of test fruit were established with trial tests in the cold storage chamber and in the Pre-Post storage chamber in which stored infested fruit for the mortality test in the 1st and 2nd year seasons.</p> <p>2.23 Suitable storage conditions of test fruit were also established with trial tests of the cold storage chamber in which stored test fruit for the mortality test and the fruit injury test in the 1st and 2nd year seasons.</p> <p>2.24 Tests for insertion of thermal sensors into fruit, temperature calibration for VHY System and hybrid recorder, confirmation of converted relative humidity in VHT System and measurement of fruit temperature were accomplished in a series of VHT performance test in the 1st and 2nd year seasons.</p> <p>2.25 Confirmation of temperature distribution in VHT System was implemented and determined the placement of sensor fruit in VHT System in the 1st year season.</p>	
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<p>3. The system which stores examination data and analysis results is built and utilized by Vietnamese counterparts</p>	<p>3.1 Test data are collected once every half a year</p> <p>3.2 Report on plant quarantine to be submitted to fruit import countries are compiled</p>	<p>2.26 To confirm symptoms of heat damage and its cause</p> <p>2.27 To establish method for avoidance of heat damage under disinfestation treatment condition of VHT (small scale injury test)</p> <p>2.28 To confirm that there is no heat damage under VHT disinfestation treatment condition (large scale injury test)</p> <p>3.1 To continuously record examination data</p> <p>3.2 To analyze examination data</p> <p>3.3 To theoretically arrange analytical data</p>	<p>2.26 Basic test for fruit injury was accomplished and confirmed injury symptoms under high temperature and long exposure time.</p> <p>2.27 The test was conducted to confirm heat damage under conditions for complete death of the most tolerant stage of <i>B. dorsalis</i>. This activity is to be implement in the 3rd year season.</p> <p>2.28 This activity is to be implemented in the 3rd year season.</p> <p>3.1 Related data have been collected in each test.</p> <p>3.2 Related data have been analyzed in each test.</p> <p>3.3 This activity is to be implemented in the 3rd year season.</p>	
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ANNEX 9

MONITORING AND EVALUATION PLAN

1. Project Management Unit (PMU)

Project Management Unit (PMU) is held by Vietnamese side. This committee is consisted by the Project Director, the Project coordinator, administrative and technical managers, counterparts and other Vietnamese authorities concerned.

2. Monitoring Report

The Project is to summarize the project activities every year. Data and information are to be prepared by the person in charge for each activity. Results should be described in Project Achievement Chart and Monitoring Report to obtain comprehensive monitoring, then, evaluation of activities for the past one year. These are to be submitted to JICA and copy of each report is also to be submitted to the Vietnamese authorities concerned.

3. Dispatch of the Evaluation Team

In accordance with the evaluation schedule, the Japanese Evaluation Team is to be dispatched to Vietnam in the third year of the Project, to carry Final Evaluation, respectively. The Japanese and Vietnamese authorities concerned will formulate an Evaluation Team. The Joint Evaluation Team will evaluate the Project and prepare an evaluation report, which will be signed by both sides.