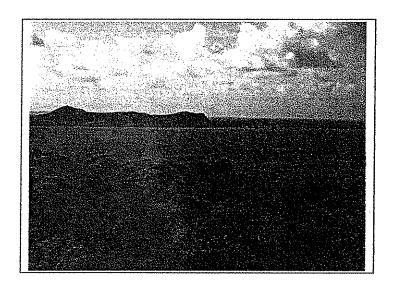


# Productivity Enhancement Project (BAPEP)



Ministry of Agriculture, Forestry and Fisheries Provincial Department of Agriculture, Battambang Japan International Cooperation Agency

## Final Report



March 2006

Provincial Department of Agriculture, Battambang &

Japan International Cooperation Agency

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#### 1. Outline of BAPEP

Project Title: Battambang Agricultural Productivity Enhancement Project

Project Period: 1st April 2003 ~ 31st March 2006

Implementing Agencies: Ministry of Agriculture, Forestry and Fisheries (MAFF) and Provincial Department of

Agriculture, Battambang (PDAB).

Project Site: Kamping Puoy Area (Banan, Thmor Kol and Battambang District), Battambang Province

#### 2. Project purpose and activities

#### Overall goal

Farmers' livelihood in Kamping Puoy area becomes stable. Agricultural productivity in Battambang province is enhanced

#### Project Purpose

Participating farmers' agricultural productivity in Kamping Puoy area is enhanced, and their livelihood becomes stable with their active participation.

# PO1 Improvement of rice production technology

- Select the rice varieties
- Produce quality seeds and supply them to farmers basis of farmers' needs.
- Improve rice production technologies
- Demonstrate the technologies and conduct training to farmers

# PO-2 Improvement of Farm Management (Including Agricultural Diversification)

- Formulate the menu for agricultural diversification
- -Formulate and practice farm management plan with model farmers and cooperators.
- Conduct training to farmers

#### PO3 Enhancement of Farmer Group Activities

- 1 Support Activation of farmer Water Users Community (FWUC)
- 2 Strengthen Women and Farmer's Group Activity
- Support activation of farmer water users community, and conduct training to strengthen them.
- Empower rural women and strengthen farmers' group activities.
- Conduct training for the government officers concerned about participatory development.

#### Output 0. Situation in the target area is grasped

- Conduct socio-economic survey
- Conduct survey on current situation of the irrigation system
- Conduct survey of agricultural products distribution and marketing
- Enhancement of collaborative linkage with concerned organizations.
- Monitoring of the project.

- 3. Achievements of project activities
- 3-1. Rice cultivation techniques improvement
- 3-1-1 Training on rice cultivation improvement and quality seed dissemination.
- Seed users group training (including seed producers)
  - Number of participants:
    - ♦ 19 in 2004 (3 groups)
    - ♦ 69 in 2005 (5 groups)
  - > Yield improvement of seed user group members.
    - ♦ Wet season in 2003 2.88 t/ha (A year before the training started.)
    - ♦ Wet season in 2004 4.28 t/ha (The year of the first training.)
    - ♦ Wet season in 2005 2.38t/ha (Serious draught year)
      - \*In 2005, little rain in July and August and no available irrigation water in the Kamping Puoy reservoir because of draught since October 2004 affected the production.
- > The price of paddy using grated seed was valued 5 % more expensive than normal paddy by a rice miller.
- > Training contents (2005)
  - ♦ May
    - Appropriate amount of seeding, Characteristics of rice varieties, Cropping calendar of rice varieties
  - ♦ June
    - Preparation of sawing: seed selection with salt solution, seed soaking and hastening of germination, Seedling observation: Timing for transplanting, Planting density, Paddy field preparation for transplanting, Basal fertilization, Transplanting healthy seedlings, Pest control in seedling bed and paddy field
  - ♦ July and August
    - Observation after transplanting on tiller number and leaf color, Additional fertilization to top dressing.
  - ♦ September
    - Observation of length of young panicle to detect timing of topdressing, Fertilization during panicle initiation
  - ♦ October
    - Observation of heading
    - November and December
    - Estimation of harvesting time, Quality of products, Techniques on harvest and post harvest, Yield estimation
- Quality seed dissemination system
  - > Quality seed dissemination system was established in 2004.
  - Forming 'quality seed users groups'
  - > One or two farmers were selected as grated seed producers in a group.
  - > KADC produces and provides register seed to the seed producers.
  - > The seed producers grow grated seed to sell it the farmers in the same group.
  - In 2004, the number of seed users was 19 with 3 groups and 4 seed producers.
  - > In 2005, the number of seed users increased 69 farmers with 5 groups and 5 seed producers.
- Grated seed production by quality seed producers
  - > Produced 1890 kg by 4 seed producers in 2004
  - > Sold 1422 kg to the seed users in 2004

#### 3-1-2 Experiment on rice cultivation improvement in KADC

- The data of following experiment data through three years were collected.
- > on appropriate amount of fertilizer use
- > on appropriate planting density.
- > on the effect of different seeding date.
- on working time with different transplanting methods

#### 3-2 Farm management improvement (Including agricultural diversification)

- 3-2-1 Farm management guideline
  - Contents of guideline

#### 3-2-2 Farmer group training

- Pig raiser groups:
  - 3groups, 21 farmers
  - > The trainings were conducted by the staff of Animal Health Office, Provincial Department of Agriculture, Battambang to the one pig raisers group in Ta Ngaen village.
  - > Two pig raisers groups were trained by the live stock agents who were trained in their refresh training below.
  - > Training Contents: Improvement of raising environment, disease prevention, better feeding and nutrition, visiting successful pig growers
  - After training, they exchange information about technical issues in the group. And they understood the necessity of the vaccine and the support by VLA.
- Chicken raiser groups:
  - > 2 groups, 15 farmers
  - > The trainings were conducted by the staff of Animal Health Office, PDA to the 2 chicken raisers groups in Krose village and Popel Khae village
  - > Contents: Improvement of raising environment, disease prevention, better feeding and nutrition, visiting successful pig and chicken growers
  - After training, they exchange information about technical issues in the group.
- Refresh training of Village Live Stock Agent
  - ➤ 10 VLAs
  - Village Live Stock Agent: There is trained farmers on the livestock raising in each village. Their main role is to provide the technical support such as vaccination to the other farmers. However the latest training by the Animal Health Office was done long time ago. In addition, their activities have not been so active for long time. In this situation, a refresh training was conducted by BAPEP.
  - ➤ BAPEP consulted an NGO, Agricultural Development Agency (ADA), about training implementation.
  - After the refresh training, two VLAs conducted trainings to their neighboring farmers in their villages.
- Training on peanut cultivation
  - 2 groups (16 farmers)
  - ➤ Since 2004, BAPEP has conducted peanut training
  - > Contents: Seed selection, straight seeding, planting space, weed control, mulching, organic fertilizer and chemical fertilizer use, soil improvement, pest control, crop rotation, post harvest techniques.
  - > In 2005, three farmers in the first group has conducted trial cultivation using new techniques selected by themselves from the last training.
  - The economic analysis was done and discussed with farmers

- Experiment on the peanut cultivation in Bek Chan agricultural station.
  - Experiments on the planting density and fertilization were conducted in the dry season of 2005.
  - > The linkage between research and extension activities become stronger than before. The project staff themselves improved their cultivation techniques and knowledge.
  - > The training participants were invited to visit the experiment field during the flowering and harvest season. They observed not only the difference between treatments but also the successful cultivation resulting higher yield than farmers field.

#### Vegetable cooperators

- > Study tour with the cooperators (5 vegetable farmers and 1 pig raisor) visiting model farmers in Battambang Province.
- Study tour to learn vegetable cultivation techniques and seed production in Kobal Koh vegetable research center in Kandal Province.
- > Visit to the farmers trained by Kobal Koh center and study on their successful farm management and cultivation techniques.
- > Training on vegetable farm management
- > Instructing to the 5 cooperators
- > Farm management and cultivation planning (5 farmers)
- Management analysis (2 farmers)
- > Farmer field school on green pepper cultivation to neighboring farmers by cooperator.
- Demonstration on cultivation techniques to the neighboring farmers by 3 cooperators.
- > Conducting two times of farmer field day in 2 cooperators field.

#### Mushroom cultivation trial and demonstration in Bek Chan

- > Cultivation technique was instructed by a JICA senior volunteer who worked on mushroom cultivation improvement in a vocational training center in Battambang.
- > Using those techniques, BAPEP staff has been conducting a cultivation trial before introducing the techniques to the farmers in Kamping Puoy since December 2005.
- > Two times of FFD were conducted.

#### 3-3 Farmer Water Users Community (FWUC) enhancement

#### 3-3-1 Understanding the FWUC situation

- Understanding the FWUC situation from baseline survey result and interview to the members of the FWUC and sub committees.
- Understanding issue and needs conducting meetings among FWUC committee members and sub committees members.

#### 3-3-2 Irrigation management in 2005

- Study tour to the Prey Nup in Sihonukbill city by the members of FWUC committee and sub-committee.
  - > Learn from experiences of FWUC activities in other area
  - Analyze the issues and needs of Kamping Puoy FWUC.
  - > Prepare the FWUC annual action plan for 2005

#### Water delivery planning

- > In June 2004, FWUC had a workshop in terms of water delivery and water management system. Efficient water delivery method and monitoring system were discussed and they decided a system of rotation delivery dividing into two areas of Kamping Puoy irrigation system.
- Water delivery and monitoring

- > From July 2004, FWUC started to delivery irrigation water. The members of FWUC committee managed the gate control and monitoring the water flow condition during all wet season. Even rainfall was little less than 1000mm, rice production in Kamping Puoy irrigation system was better than the last year.
- Irrigation service fee collection
- December 2004, the purpose and methods of irrigation service fee collection was decided based on the result of the water delivery in the wet season. The fee was 20000 Riel(US\$5) / ha and the period of the fee collection and committee members studied about accountant techniques.
- Water management model area:
- Selecting two model areas (M7-4:37.50ha, M17:43.34ha) in the Kamping Puoy irrigation system, farm ditch construction was implemented to obtain more efficient water delivery. In March 2004, BAPEP conducted the area survey to prepare a paddy map of the model areas. Then the rout and size of farm ditch was designed and discussed on its adequacy with farmer water users community members. In April, the farmers started the construction of farm ditch. By the end of August 2005, 78 % of the construction was completed successfully. In the wet season of 2004, many farmers in the model area were benefited by their farm ditch and most of them experienced easier water intake and recognized its effectiveness. In addition, 86% of the farmers in those model areas paid the irrigation service fee. It is much higher accomplishment than 49% completion of the payment in the whole FWUC. They understand the importance of irrigation facility maintenance and it is expected for the sustainable water management.
- Improvement of information sharing and delivery in the FWUC
- > It is one of the most important issue that the information such as events, FWUC regular, water delivery plan and the other decision matters of the FWUC meeting should be shared and delivered to the all members of FWUC. Information board setting in the all 12 subcommittees and information delivery car use were helped in disseminating the information.
- Annual plan preparation for 2005
- Based on the evaluation of wet season activities in 2004, the FWUC discussed on the next year's annual activities and budget plan. Those activities were prioritized by the members.
- Strengthen the linkage between FWUC and local authority for the sustainable FWUC management.

#### 3-3-3 Irrigation management in 2005

- The irrigation service fee (ISF) collection:
- > ISF collection started in January 2005. By the end of February, 47 % of farmers have paid completely. When the FWUC get ISF, they should have higher responsibility for transparent budget administration. The committee members have learned it and improved their management system. For example, they opened the bank account. They also study the accounting techniques.
- Study tour: In March 2005, the FWUC committee and sub-committee members participated a study tour to the other FWUC in Baray in Siem Riap.
- > Firstly, the Kamping Puoy FWUC members were impressed by Baray FWUC's accurate accounting report. On the other hand, it stimulated them that Baray FWUC has done paddy field survey in their irrigation beneficiary area. The value of ISF is decided based on the land size from the survey.
- Simple paddy field survey by the committee members.
- ➤ Learning from the Baray's experience and water management model area(M7-4 and M17) in Kamping Puoy, the other sub- committees has requested to conduct field survey. In March 2005, the survey was done at M19 by FWUC with technical support by the staff of Provincial Department of Water Resource and Meteorology and BAPEP.
- Improvement of accounting system
- > In April 2005, it was recognized that the sub-committee members did not have enough ability for the accounting work such as recording the account after the ISF collection and expenditure the cost for

the collection. BAPEP has conducted training on the accounting techniques.

- Water delivery in 2005 wet season:
- Because of the rain shortage since October 2004, the water in Kamping Puoy is dried up. Provincial Department of Water Resources and Meteorology decided not to deliver irrigation water in 2005 wet season. Thus, the ISF collection will not be done for this season.

#### 3-3-4 Irrigation management in 2006

Dry season irrigation water delivery: FWUC has decided the water delivery for the dry season cultivation in 2006. The water provision is planed for 1000 ha out of 2850 ha of beneficially area to keep enough water for wet season water delivery. From the middle of February, it started.

#### 3-3-5 Improvement of irrigation facility.

- Near the M9 gate of main canal, a check structure was constructed in March 2004.
- > The subcommittees of M7 and M9 requested the check structure construction in order to rise up the water level for easier water intake to their secondary canal. Those subcommittees and BAPEP decided to shared the cost of construction and it was successfully completed.
- Water intake to not only the secondary canal but also the tertiary canal became much easier than before. Especially the farmers in the water management model area M7-4 succeeded to intake irrigation water using farm ditch to the all paddy field more efficiently.
- Rehabilitation of 4 km of the agricultural road along the main canal in March 2004.
- Especially in the rainy season, the road condition was very difficult for the preventing the car from passing and Provincial Department of Water Resource requested the rehabilitation. In addition, this road is very important for the project activities.
- > The rehabilitation completed in March 2004 and FWUC is trying to maintain good condition as long as possible.
- The M17 check structure trial
- > Using soil bags, M17 sub committee decide to settle the tentative check structure to examine the effect for water intake.

#### 3-4 Women group activation

#### 3-4-1 Guide lines

- Process of group forming toward empowering rural women (CD)
- Recipes of food processing

#### 3-4-2 Women's group activities:

- In the Kamping Puoy area, BAPEP has formed totally 10 groups in 10 villages. Learning food processing was selected as an entry activity for the groups. The participants have been trained on not only the processing techniques but also group management and leadership. It is expected that the group members experience the organizational activities and develop it based on their needs and resources. In the future, these experienced personnel will be the basic and important resource for the rural development.
- The process of group forming:
  - ➤ In the beginning of 2004, BAPEP conducted food processing demonstration in 10 villages. Announcement about the event was previously disseminated and interested people gathered. After the first demonstration, groups were formed by the person who would like to continue to learn more about food processing techniques. In the beginning, BAPEP staff

instructed food processing techniques. At the same time, she has tried to facilitate the participants to discuss on their needs for further learning, action plan preparation, budget and material raise by themselves.

#### The continuous group activities and enhancement:

- > "All 10 groups regularly obtain the meeting and processing activities."
- > It is observed that some members started to have leadership during the activities and they have experienced many discussion and decision making for their issues and needs. The members can prepare action plan by themselves and come up with some solution when they have problems.
- > Necessary budget are prepared by members sharing the cost for the activities.
- > Training of trainer: The leaders from each group have joined the training for the leaders. New processing and packaging techniques were transferred to the leaders during the training and they bring those information to their group conducting study meetings.
- > Food processing contest: In April 2005, food processing contest took place inviting commune chiefs, village chiefs, staff of Department of Agriculture and department of women affair and NGO related with farmer organization. All women groups prepared their own food and make the presentation about their activities. Their food were evaluated in terms of appearance, taste and quality. It is an important achievement that the women groups activities have been recognized by the other villagers including local authorities.

#### Development of women groups:

- During the training of trainers, some leaders came up with a new activity 'saving group formation' other than food processing. Many leaders were interested in it and brought back this idea to the each group to discuss on members' needs and possibility. BAPEP staff supported to analyze their ability as well as their actual needs.
- Since the women group formation, the group has developed their basic organizational 3-6 Survey

#### 3-5 Counterpart Training

A number of trainings for counterparts and concerned officers are provided as shown in the ANNEX I.

#### 3-6 Survey

- 3-6-1 Socio-economic survey in target area (Baseline survey)
  - Short term expert: Ms. Hattori Tomoko (Rural Socio-Economy), 1, April, 2003 26, September, 2003
  - 3-6-2 Market survey
    - > Short term expert: Mr. Tanioka Kiyoshi Marketing, 15, Jun, 2003 13, July, 2003
  - 3-6-3 Survey on Kamping Puoy irrigation system
    - Short term expert: Mr. Kanaya Tomohiro (Irrigation), 16, August, 2003-6, September, 2003
  - 3-6-4. Survey on Kamping Puoy irrigation system and delivery canal design in the model areas
    - ➤ Short term expert: Mr. Kodama Masayuki (Irrigation), 14, February, 2004 8, April, 2004
  - 3-6-5. Survey on social impact assessment
    - Short term expert: Ms. Itagaki Keiko (Social Impact Assessment), 14, February, 2006-6, March, 2006

#### 3-7. Seminar

#### 3-7-1 Workshop on Producing Profitable Rice (19th March 2004)

The purpose: to exchange views on the situation of Cambodian rice industry from production to marketing and to discuss on demanded future activities of the industry with participation of all stakeholders, namely government organization, farmers, research institute, rice seed propagators, rice millers, NGOs, finance institutions, donors, etc.

#### 3-7-2 International Year of Rice 2004 in Battambang (November 18, 2004)

The purpose: to share the ideas and information on rice production improvement and other agricultural development between concerned organizations such as the Government, NGOs, private business and international aid organizations, and farmers in Battambang as members of Battambang Agriculture and Rural Network (BARN) in sharing the celebration event of the "IYR" in 2004.on rice production

Activities in the seminar: To show different types of rice varieties suitable in Battambang and evaluate their performance in the demonstration field of Bek Chan Experiment Station, to exchange views on future rice production, to discuss on demanded future activities of the rice industry with participation of all stakeholders based on the discussions on the seminar on "Producing Profitable Rice" in March 2004 and to have presentations by some government officials who attended agricultural training program in Japan.

#### 3-7-3 Social impact Assessment (from February 14 to March 06, 2006)

The purpose: to grasp both positive and negative changes brought about by BAPEP in the livelihood of the participating farmers and to draw out the lessons to be learned from the experiences of BAPEP.

Through their participation in BAPEP, livelihood conditions of the participating farmers have been improved.

#### 3-8. BARN meeting

The Battambang Agricultural and Rural Network (BARN) head by the Provincial Governor is formulated by concerned organizations working in Battambang. The function of BARN is to exchange and to share information for consistent and harmonized activities in agriculture and rural sector. The BARN activities consist of the general meeting, management committee and two technical working group on rice quality improvement and farmer organization.

#### 3-9. Support to University students

BAPEP has trained 3 students of Royal University of Agriculture, Cambodia and 6 students of Prek Reap National School of Agriculture to learn agricultural activities such as rice production for 8 students and food processing for 1 student.

#### 3-10. Collaborative activities with Universities

During the technical exchange (study tour) to Surin Province in Thailand in February 2005, Rjamangala University of Technology (RMUTI) Surin Campus supported all arrangement and coordination for the program. At the same time, RMUTI suggested a cooperation activities between Provincial Department of Agriculture, Battambang (PDAB) and RMUTI. BAPEP has supported the communication and coordination between those two parties. And finally, RMUTI and PDAB concluded a "Memorandum of Agreement between Rajamangala University of Technology Isan Surin, Thailand and Provincial Department of Agriculture Battambang, Cambodia. The memorandum includes a) promotion of cooperation program, b) The development of projects and programs in specific areas of mutual interest, for PDAB and RMUTI Surin staffs, and concerned people, c) The development of formal award short training courses of mutual interest, d) The development of formal award courses in bachelor degree level to master degree level for PDAB staffs, e)The development of formal award practical course for RMUTI Surin students in Battambang.

University of Tokyo and Provincial Department of Agriculture, Battambang agreed on joint research activities in Battambang Province. The first experiment was conducted in Bek Chan Agricultural Station in wet season 2005. The research result was presented in a meeting at PDA on 20 February 2006.

#### 4. Outcomes:

Outcomes from the activities: Technical guideline, training manual, experiment report, etc)

		activities: Technical guideline, training manual, experime		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
<u> </u>	Outcome		BAPEP	PDA	JICA
0	PO0:Baseline	- *Socio-economic survey report		E	E/P
	survey, cooperation with other	<ul> <li>Seminar report on Profitable Rice Production and International Year of Rice.</li> </ul>	E/P	E	Е
	organizations,	Report on marketing survey	E/P	E	E
	events	- BARN minutes	E	E	E
	Impact assessment	- Impact assessment report and presentation material	E/P	E/P	E
1	PO1 Rice cultivation	Technical guideline on rice cultivation included in Farm management guideline			
	techniques improvement	- Report on training for seed user groups	E/P	E	E
		- Result on experiment and yield survey.	E/P	E	E
2	PO2 Farm management improvement	- Farm management guideline	E/P	E/P	E/P
	(Agricultural diversification)	<ul> <li>Report on the various trainings (Pig, VLA, Peanut, Chicken, Vegetable) and trial cultivation (peanut)</li> </ul>	E/P	Е	Е
3	PO3-1 FWUC enhancement	<ul> <li>Prepared documentation (Regulation, official document format, ISF result)</li> </ul>	E	Е	E
1		- Model area's field survey and farm ditch design	Е	E	E
		- Report on FWUC study tour	E/P	E	Е
3	PO3-2 Women	Menu of food processing	E/P	E/P	E/P
2	group activation	- Video manual on group forming and development	CD	CD	CD
4	Counterpart staff training	Report on each counterpart training  Mr. Chhim Vachira (report and presentation)  Mr. In Sovanmony (presentation)  Mr. Khath Borin (presentation)  Mr. Nou Tithia(report and presentation)	E/P	E	*E
		- Study tour to Thailand (Report and presentation)	E/P	E	Е
		<ul> <li>Study tour to the Philippines (Report and presentation)</li> </ul>	E/P	E	E
5	Publicity	<ul> <li>Newsletter 'Battambang no Daichikara' (in Japanese)</li> </ul>	Е	Е	Е
		- Calendar	E/P	E/ P	Е
		- Project homepage	Е	E	Е
		- Video on BAPEP activity.	CD	CD	CD
		Management result of Bek Chan and KADC	E/P	E/ P	E
6	Monthly report and monitoring report	- Japanese experts' monthly reports	*E	Ν	Е
7	Mission reports	- Monitoring reports	*E 	N P	E N
1	Mussion tehons	<ul> <li>Advisory missions' reports and joint evaluation report</li> </ul>	<b></b>	£'	1.4

#### 5. Project Design Matrix (PDM)

The project PDM for BAPEP was drafted during the preparatory study team. The PDM was reviewed and signed at the implementation. The second revision was made when the first advisory mission in November 2003, and approved by the Joint Coordinating Committee. The third revision was made when the second advisory mission in August 2004 and approved by the JCC. The final PDM is attached in ANNEX II.

#### 6. Inputs

Inputs such as Japanese experts (long term and short term), equipment, project operation cost, building and facility construction and rehabilitation are listed in ANNEX III.

#### 7. Plan of operation and result

Project activities are implemented based on the plan of operation, and the result is attached in ANNEX IV.

8. BAPEP activities' achievement: Outputs and indicators

#### 0-1. Outcome of the surveys and assessment Outputs 1-1. A system of village level quality seed grower - user group is 0. Situation in the target area is grasped. established. 1-2. Technical guidelines for rice cropping technologies are used by 1. Rice production technology is all quality seed user group members. improved 2-1 Technical guidelines for simple farm management are used by 2. Farming practice of participating over 60% cooperators. farmers is improved (including 2-2 Menu of diversification of farming system is used by over 80 % crop diversification) 3. Activities by farmers' groups are of FFS participants. 3-1. Transparent accounting system is operated in more than 7 Sub promoted Committees out of 15. 3-2. More than 5 active women groups are developed in 10 villages.

#### 8-1 Achievement of outputs through each activity.

- Some parts of outputs were significantly recognized through examining the objectively verifiable indicators below during the BAPEP evaluation study in August 2005.
  - (0-1)Outcome of the surveys and assessment
  - (1-1) A system of village level quality seed grower user group is established.
  - (2-1) Technical guidelines for simple farm management are used by over 60% cooperators.
  - (3-1) Transparent accounting system is operated in more than 7 Sub Committees out of 15.
  - (3-2) More than 5 active women groups are developed in 10 villages.
- The following indicators could not be verified during the evaluation study for the reasons explained below.
- (1-2) Technical guidelines for rice cropping technologies are used by all quality seed user group members.
- 'The project has not yet prepared technical guidelines for rice cropping technologies. At the time of evaluation, the Project is analyzing the results collected from the member farmers through questionnaire survey regarding rice cropping technologies introduced to them in 2004. It is expected that the Project prepare technical guidelines by its termination based on the results of this analysis. "
- (2-2) Menu of diversification of farming system is used by over 80 % of FFS participants.
- "Menu of diversification of farming system has not been prepared by the Project. The main reason was that it was difficult to find advanced farmers who can be the cooperators to try their farming systems to be diversified..... The project has conducted the trainings to not only the cooperators but also other farmers in their respective villages, on diversification of farming systems. It is however not yet know how well it has been accepted by them. This should be grasped by the follow - up survey."

- At the end of project, those indicators can also be examined
- (1-2). Technical guidelines for rice cropping technologies are used by all quality seed user group members.
  - ♦ Cultivation techniques introduced during the farmer trainings were organized and shown as ''technical guidelines on rice cultivation'' learning from the result the results of farmers cultivation with those techniques and various experiments in Kamping Puoy Agricultural Development Center and Bek Chan Agricultural Station. The technical guidelines are introduced as a part of 'Farm Management Guideline' and ''Cropping Calendar provided to all quality seed user group members.
  - ♦ Cultivation techniques in the guideline introduced during the farmer training were used by almost all members of the seed user groups. The BAPEP obtained following figures from farmer interview.

•	Seed user using seed from Project	88.9%	
•	Cleaning seed by using salt and water	89.9%	
•	Soaking seed 8-24 hours	80%	
•	Making nursery by bed	76%	
•	Plowing in deep from 15-20 cm	11%	
•	Basal application of fertilizer	84%	
•	Fertilizer application 30days after transplant	75%	
•	Observation of panicle initiation	82%	
•	Applying fertilizer panicle heading 2cm	82%	
•	Observation on Flowering date	50%	
8	Observation on percentage of maturity stage her	fore barvesting 80	1_0

- Observation on percentage of maturity stage before harvesting 80-90% 88.9%
- Harvesting after 50% of flowering date (28-30days) 71%
  - Printing rice variety's name on rice bag 79%
- (2-2) Menu of diversification of farming system is used by over 80 % of FFS participants.
- ♦ Menu of diversification was prepared as a "Farm Management Guideline". It was prepared based on analysis of the farmers farm management information, market information in Battambang and technical information.
- ♦ The diversified agricultural activities were promoted through various trainings. The farmers answered during the impact assessment about utilization of the techniques learned in the trainings like following table. More than 80 % of training participants; Peanut, Pig are currently using the techniques learned from the trainings. The participants to vegetable FFS and Chicken raiser group training who currently using the techniques slightly fall below 80% due to recent completion of the training.

Group		% of respondents who answer YES							
		Vegeta-ble FFS	Peanut grower	Pig raiser	Chicken raiser				
Currently utilizing	the	66.7	88.9	94.1	75.0				
learning				ļ					

Resource: Presentation on SIA (Social Impact Assessment) by Ms. Itagaki Keiko

#### 8-2 Achievement of the project purpose

Project Purpose Participating farmers' agricultural productivity in Kamping Puoy area is enhanced, and their livelihood becomes	1 Yield of quality seed user group members reaches over 80 % of the yield in KADC and rice qualities of 80 % of quality seed user group members are evaluated as quality
stable with their active participation.	quality seed user group members are evaluated as quality rice.
D. in the DADED	2 More than 50 % of FFS participants are better off.

- During the BAPEP evaluation study, it was considered that the Project has achieved its target in terms of yield and quality in 2004. At the same time the study team suggested that the result of 2005 should also considered at the time of project termination.

#### (1) Yield and rice quality in 2005

In 2005, most farmers' yield fall below 80 % of KADC's one. The main reason was that serious draught in 2005 wet seasons attacked farmers' field however KADC could keep irrigating in its field pumping water through the season.

Year	varieties	Farmers	KADC	Farmers/ KADC%
2005	Pkarumdoul	2.46t / ha	4.03t / ha	58.56 %
2005	Riang Chey	2.14t / ha	4.65t / ha	46.02 %
2005	Sen Pidao	2.46t / ha	3.58t / ha	68.71 %
2004	Pkarumdoul	3.96t / ha	3.13t / ha	126.5%
2004	Rieang Chey	4.55t / ha	4.51t/ha	100.88%

According to the rice field assessment in 2005 wet season, more than 80 % of faremrs' rice products using quality seed were evaluated as high quality. The result of assessment is shown below.

Varieties	Cultivation	Number of famrer	Passed %
Pkarumdoul	Transplant	27	97.36%
Pkarumdoul	Direct-seedling	23	82.6%
Riang Chey	Transplant	3	100°
Riang Chey	Direct-seedling	2	50%
Sen Pidao	Transplant	3	100%

#### (2) Livelihood

#### 2. More than 50% of FFS participants are better off.

During the Project evaluation, the above indicators were discussed as ''the Project has been conducting trainings to the farmers (FFS participants), aiming to improve their farming practices, and eventually make their livelihoods better and stable. At the time of evaluation, however, there was no numerical data available to assess the livelihood aspects, since an impact assessment study is scheduled to be conducted by the Project at the very end of the Project period."

At the end of the project, the impact assessment concluded as followings

- (1) Positive impacts on the livelihood of participating farmers were generally confirmed in terms of enhancement, partially of financial and physical capitals, and largely of human and social capitals.
- (2) If their continuous endeavors could properly be supported by those who are relevant and concerned, more tangible impacts would be assumed in the future.
- (3) Degree or extent of impacts were observed to vary among different groups of participating farmers, attributes for which should be examined in terms of the characteristics of the members, the way in which the activities were carried out, and appropriateness of approaches for intervention.

#### 2. Changes in agricultural activities

#### 2-1 Paddy production

- Due to the scarcity of water in wet season 2005, more than 40% of the respondents had less yield.
- But more than 60% could still obtain increased income from paddy.
- As to the production techniques, seed availability, and appropriate fertilizer application, more than 60% find improvement.
- More members of FWUG and Seed user/producer group find improvement in paddy production. In FGD, they could differentiate the positive impacts of new techniques from the adverse effects of weather conditions.

#### 2-2. Upland crop production

· As only about 30% of the respondents cultivate upland crops, there are not significant

changes observed as a whole.

- Exceptionally, the peanut growers find notably positive changes in their production. They also refer to the merits of reduced production cost in FGD, due to the less amount of seeds used, and less labor requirements for weeding by introducing new techniques.
- Despite of the FFS training by BAPEP, vegetable grower group could not improve much in upland crop production. In FGD, it was shared that some member tried the techniques after the FFS but failed.

#### 2-3. Livestock production

- About 60% of the respondents find no or negative changes in terms of livestock production during BAPEP period.
- The pig raiser group members enjoy positive changes. It was shared in FGD that they could observe faster growth and more weight of the pigs they raise, and that their piggy can be sold at higher price as they are given vaccination.
- Although the chicken raiser group participated in training by BAPEP, only nominal impact is observed. Many of the participants of FGD confessed that they have not applied what they have learned.

#### 2-4. Irrigation management

- The 88% answer that more water is available.
- The 95% find that the information delivery by FWUC / FWUG has been improved.
- The 68% think that they have better operation and maintenance activities.
- Although more than 60% of FWUC/FWUG members see improvement in their annual planning and financial transparency, rest of the respondents do not clearly realize the change.
- In FGD with FWUC leaders, officials and group leaders expressed their appreciation on BAPAP facilitation in check dam, structure and canal repair. They recognized the increased participation of farmers in maintenance work as well as in terms of ISF collection. However, they shared the necessity of further involvement and more active participation of member farmers in irrigation management.
- 3. Changes in social and personal life

#### 3-1. Knowledge and skills

This aspect is considered as most important change occurred through their participation in BAPEP by many participants of FGD.

- Those who find improvement or increase in terms of:
- (1) knowledge and skills on farming: 74%
- (2) knowledge on organizational activities: 73%
- (3) knowledge on government agricultural policy: 66%
- · Those who find no or even negative change in terms of
- (1) business-related knowledge and skills: 62%
- (2) knowledge on marketing of their produce: 47%
- (3) financial management skills: 41%

#### 3-2. Communication and mobility

- · Majority of the respondents realize the increase in;
- (1) Contact with government officials: 77%
- (2) Communication with people in the same village: 72%
- (3) Access to agricultural information: 81%
- (4) Access to other information related to daily life: 69%
- In FGD, the participants shared that their neighbors ask what they have learned from BAPEP, and that some are also interested to join training if there would be another opportunity.
- In FGD, some participating farmers reported that their activities are recognized and encouraged by the commune or village authorities.

#### 3-3. Confidence and self-esteem

- · In FGD, some groups expressed changes in their social status:
  - (1) Seed users / producers regard themselves as leading

farmers in the locality.

- (2) Pig raisers felt that other people in the community regard them as advanced farmers to consult with.
- Members of the many groups also shared in FGD that they have gained confidence in what they have learned through participation in BAPEP activities, and they can surely teach other people if they are asked to.
- Majority of the members of vegetable FFS and chicken raiser are not as confident as the
  members of the other groups. They are not sure about what they have learned and may
  not be able to teach the others even if they are asked.

#### 9. Good practice and lessons learned in BAPEP

#### (1)Introduction of a partial self-accounting system for sustainability

Battambang Provincial Department of Agriculture has operated three agricultural experiment stations as production farms without having substantial verification experiment or adaptation tests due to limited allocation of operation funds from the ministry. On the other hand, the accounting system is not clear and no report on income and expenses has been made. BAPEP has supported Bek Chan Agricultural Station and newly opened Komping Puoy Agricultural Development Center. At the beginning, a partial self-accounting system was introduced for the expenses of its operation by utilizing income from seed production and paddy production. In addition, with a help of an accounting staff of the agronomy office, a transparent accounting was done. BAPEP provide some inputs to meet the cost of verification tests or demonstrations that are not profitable. There was a small cash flow problem, but its management has been improved and planning ability was highly improved.

#### (2) Guarantee of ownership of FWUC by sharing cost for facility improvements

BAPEP identified many problems on irrigation facilities through facility inventory survey, interviews and discussions with farmers, and farmers requested for improvements. BAPEP proposed cost sharing about 10% for facility improvements such as concrete pipe installation for turn-outs, check structure, and main canal rehabilitation. By asking some costs to farmers, they don't ask unnecessary or low priority activities, and their ownership was assured by having responsibility of operation and maintenance.

#### (3)Involvement of local authorities to newly established FWUC

When irrigation system is operated, FWUC is commonly established. However, the boundaries of irrigation zone of lateral canals are not consistent with village administrative boundaries without exceptions. There are very few villagers who understand the functions of FWUC when it is started. It is not so easy to build the capacity of FWUC by supporting its officials and members. It is essential to involve local authorities such as village chiefs or commune chiefs especially for conflict solving or conflict prevention. If village development committee is functional, it is easy to promote irrigated agriculture activities by sharing information on development plans and budget.

#### (4) Extension of market oriented cultivation technology

Extension of cultivation technology is usually emphasized on production. A very limited number of farmers satisfy with increased production only if the amount of production is far below than their self consumption. Marketing is critically important if there is an extra production or cash crop. Recommendation of crops should pay more attention to market evaluation. BAPEP, for example, facilitated farmers and rice millers when farmer select rice varieties by sharing market information.

#### (5) Grasping training needs and selection of participants

There is a variation of levels of production needs when introducing crop diversification to rice based farming system zones. Most farmers have high interests in paddy production, and fewer farmers have interests on other crops. On the other hand, technical information providers such as subject matter specialist or extension workers have less experience or accumulated data on other crops. Thus they may be forced to depend on some pilot farmers. It is necessary to conduct precise needs assessment, and there is a need to change training mode for interest-based farmers. It may be essential to conduct introductory training course of farmer field day to screen need-based farmers among unknown participants.

(6) Coordination among concerned agencies by networking

Farmers problems are complex and multi disciplinary issues, and it is difficult to handle those problems with single agency. Thus it should be tackled by coordinating multiple agencies. However, it might be not possible to have coordination by a leading agency as we usually observe sectionalism. BAPEP facilitated to organize and operate Battambang Agriculture and Rural Network (BARN) with a initiative of Provincial Department of Agriculture, and it coordinated their activities by sharing information.

#### (7)Strong pipe between MAFF and PDA

It is necessary to have strong support from MAFF in terms of clear direction, information flow and budget allocation is an agricultural project is conducted in rural areas. To draw attention of MAFF, it is necessary to provide project information to the central office from PDA. BAPEP tried to have presentations in Technical Working Group on Agriculture and Water, or Food Security Forum under CARD. In addition, visual presentation is very effective to produce video tapes or Power Point Presentation materials with pictures.

#### (8) Utilization of socio-economic survey

Baseline survey can be dune by hiring consultants, but the implementer of the project have better chances to understand the target area if they are involved in the survey like BAPEP did. BAPEP also conducted social impact assessment even the cooperation period was only three years. It allowed the project to come up with quantitative results of impact with detailed analysis. It might be more useful than ordinary monitoring forms if we conduct such survey, and it could give us more implications for future projects.

10. Minute of Joint Coordinating Committees10-1 JCC during the first advisory mission on 25, November, 2003(See the attached printed paper)

10-2 JCC during the second advisory mission on 9. August, 2004. (See the attached printed paper)

10-3JCC during the joint evaluation mission on 4, August, 2005. (See the attached printed paper)

Counterpart Training (ANNEX I)
Training in Japan and technical exchange

N	Nan	ne of Counterpart	Present Post	Training in J	apan	Technical Exchange			
0.				Name of Training Course	Duration	Name of Training Course	Duration		
1		Pen Vuth	Director DAALI, MAFF Project Director			Study tour to the Philippines on irrigated agriculture	17 May 2005- 26 May 2005		
2	Mr.	Luot Phoung	Director of Provincial Department of Agriculture, Battambang Project Co-Director						
3	Mr.	Sophorn	Director of Provincial Department of Agriculture, Battambang Project Co-Director						
4	Mr.		Deputy Director of Provincial Department of Agriculture, Battambang Project Manager			Study tour to the Philippines on irrigated agriculture	17 May 2005- 26 May 2005		
5	Mr.	Chhim Vachira	Chief of Agronomy Office (PDA) First Deputy Project Manger	Integrated agriculture and rural development through the participation of local farmers II	22 Jun 2004 - 1 Aug 2004	Study tour to Surin Province, Thailand on technology development and extension for irrigated agriculture and diversification of agricultural production	23 Feb 2005- 26 Feb 2005		
6	Mr.	Khath Borin	Chief of Komping Puoy Agricultural Development Center (PDA)  Second Deputy Project Manger, Cultivation/ Extention	Rice seed production technology	25 Aug 2004 – 13 Oct 2004	Study tour to Surin Province, Thailand on technology development and extension for irrigated agriculture and diversification of agricultural production  Study tour to the Philippines on irrigated agriculture	26 Feb 2005		
7	Mr.	•	Deputy Chief of Agronomy Office (PDA), Chief of Bek Chan Agricultural Station Farm Management	Joint training program in rural development	17 Oct 2004 – 20 Nov 2004	Study tour to Surin Province, Thailand on technology development and extension for irrigated agriculture and diversification of agricultural production	23 Feb 2005- 26 Feb 2005		
8	Mr.		Staff of Agronomy Office (PDA) Farm Management	Vegetable cultivation and experiment methodology	10 May 2005 – 23 Jul 2005	Study tour to Surin Province, Thailand on technology development and extension for irrigated agriculture and diversification of agricultural production			
9	Mr.	Tang Say Keath	Deputy Chief of Extension Office (PDA) Cultivation / Extention			Study tour to Surin Province, Thailand on technology development and extension for irrigated agriculture and diversification of agricultural production			

10	Mr.	Seang Heng	Staff of Bek Chang Agriculture Station (PDA) Cultivation / Extention	Study tour to Surin Province, Thailand on technology development and extension for irrigated agriculture and diversification of agricultural production	
11	Ms	Vy Saven	Staff of Extension Office (PDA) Farmers' Organization Participatory Development	Study tour to Surin Province, Thailand on technology development and extension for irrigated agriculture and diversification of agricultural production	1
12	Mr.	Touch Samnang	Staff of Irrigated Agriculture Office (PDWRAM) Farmers' Organization / Participatory Development	Study tour to the Philippines on irrigated agriculture	17 May 2005- 26 May 2005
13	Mr.	Thong Phala	Vice Chief of Administration Office (PDWRAM) Farmers' Organization Participatory Development		

Participants to Technical Exchange to the Philippines on irrigated agriculture (except BAPEP counterpart staff)

			23 Feb. 2005-
14	Mr. Rith Saran	Chief of Farmer Water User Community – Kamping Puoy.	26 Feb. 2005
			23 Feb. 2005-
15	Mr. Hong Kimsan	Deputy Director, Provincial Dept. of Water Resource and Meteorology- Battambang	26 Feb. 2005
			23 Feb. 2005-
16	Mr. Khay Soda	Chief of Irrigated Agriculture Office, PDWRAM- Battambang	26 Feb. 2005
			23 Feb. 2005-
17	Mr. Chhea Bunrith	Deputy Director, Dept. of Planning and International Cooperation, MOWRAM	26 Feb. 2005
			23 Feb. 2005-
18	Mr. Keo Sovathapheap	Deputy Chief, Office of Farmer Water Users Community Development, Dept. of Irrigated Agriculture, MOWRAM	26 Feb. 2005

## Project Design Matrix (PDM)

Project Title: Battambang Agricultural Productivity Enhancement Project (BAPEP)

Target Area: Kamping Puoy Area (10 villages)
Implementing organization: MAFF and PDAFF

Project Period: 3 years from April 1, 2003
Target Group: Farmers in Kamping Puoy Area (including landless farmers)
Approved by Joint Coordinating Committee Version 3, August 9, 2004

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATOR	MEANS OF VERIFICATION	IMPORTANT ASSUMPTION
Overall goal -Farmers' livelihood in Kamping Puoy area becomes stableAgricultural productivity in Battambang province is enhanced.	Increased rice production in the area		
Project Purpose  Participating farmers' agricultural productivity in Kamping Puoy area is enhanced, and their livelihood becomes stable with their active participation.	<ol> <li>Yield of quality seed user group members reaches over 80 % of the yield in KADC and rice qualities of 80 % of quality seed user group members are evaluated as quality rice.</li> <li>More than 50 % of FFS participants are better off.</li> </ol>	-Periodical monitoring survey -Evaluation survey	- The government is continuously stable The agricultural policies of the government do not conflict with the project - Serious flood or drought does not take place in Battambang province.
Outputs  0. Situation in the target area is grasped.  1. Rice production technology is improved  2. Farming practice of participating farmers is improved (including crop diversification)  3. Activities by farmers' groups are promoted	<ul> <li>0-1.Outcome of the surveys and assessment</li> <li>1-1. A system of village level quality seed grower – user group is established.</li> <li>1-2. Technical guidelines for rice cropping technologies are used by all quality seed user group members.</li> <li>2-1 Technical guidelines for simple farm management are used by over 60% cooperators.</li> <li>2-2 Menu of diversification of farming system is used by over 80 % of FFS participants.</li> <li>3-1. Transparent accounting system is operated in more than 7 Sub Committees out of 15.</li> <li>3-2. More than 5 active women groups are developed in 10 villages.</li> </ul>	-Surveys and assessment report -Periodical monitoring survey -Evaluation survey	- There are no significant changes in supply-demand balance and prices of agricultural products There is no significant hike in purchase prices of agricultural inputs There is no significant Irrigation water shortage.

#### Activities

- 0-1 Conduct socio-economic survey
- 0-2 Conduct survey on current situation of the irrigation system
- 0-3 Conduct survey of agricultural products distribution and marketing
- 0-4 Enhancement of collaborative linkage with concerned organizations.
- 0-5 Monitoring of the Project.
- 1-1 Select the varieties of rice on the basis of farmers' needs.
- 1-2 Produce quality seeds of selected rice and supply them to farmers.
- 1-3 Improve rice production technologies (including double cropping, water management, post-harvest techniques)
- 1-4 Demonstrate the improved rice production technologies in the paddy fields and conduct the training to disseminate them to participating farmers
- 2-1 Formulate the menu for agricultural diversification (introduction of non-rice crops, small scale aquaculture, animal husbandry)
- 2-2 Formulate and practice farm management plan with model farmers and cooperators.
- 2-3 Conduct the training to disseminate farming models
- 3-1 Support activation of farmer water users community, and conduct the training to strengthen them
- 3-2 Empower rural women and strengthen farmers' group activities.
- 3-3 Conduct the training for the government officers concerned about participatory development.

#### Inputs

#### 1. Japanese side

- Long-term experts (4 persons)
  - Chief Advisor/ Farm management
  - Coordinator/Training
  - Cultivation/ Extension
  - Farmers organization/Participatory development
  - (Some of the specialized fields will be shared among the four experts.)
- Short-term experts
- Equipment
- C/P training
- A part of local cost

#### 2. Cambodian side

- C/P (at least 6 persons), extension workers, administrative staff Agricultural station and its farm
- Office space, training facilities
- Running expenses

- C/P and extension workers who the Project has trained are continuously stationed for the Project.
- Serious flood or drought does not take place in the Target Area.
- Enough water resources are reserved for the irrigation beneficiary area..
- CARDI produces breeder and foundation seeds continuously.
- Rural credit programs are available in the Target Area.

#### Preconditions

-Coordination between the Japanese government and the related donors such as FAO, is made to mutually understand the project purpose and activities

# 5. Plan of operation and result (Excel file) Progress report PO-0

	Plan of Operation .					Progress of Activities		Suggestions for future	Achiev ement
0. Situation in the target		Implementation, FY			Officer in charge	Detailed Implementated Activities	Output	activities	(%)
Major category	Activities	2003	2004	2005					
0-1 Conduct socio- economic survey	0-1-1 Preliminary interview to key informants				All staff	Interview was conducted to village chiefs and other key informants.	The results were utilized for questionnaire.		100
	0-1-2 Preparation of questionnaire format and prefest				All staff	Questionnaire was parepared and pretested.	Questionnaire was reviewed according to the pretest results.		100
	0-1-3 Interviwing village households				All staff	319 households were interviewed.	Interview results of 284 households were collected.		100
	0-1-4 Date encoding, analysis and report writing	MAN .			All staff	All data were encoded and analized.	A baseline report was published.		100
0-2 Conduct survey on current situation of the irrigation system	0-2-1 Survey of irrigation facilities				Phala Somnang	facility improvement was recommended.	A check structure was constructed by cost sharing. A trial land size survey was done by FWUC.	FWUC include facility improvement in their annual plan, and implementation	100
	0-2-2 Survey on water management system				Somnang	Water distribution was planned. Two water management model sites were selected	Water was delivered according to the plan and monitored. Water flow was improved by having farm ditches	Water distribution may be revised for improvement, especially for dry season	100
0-3 Conduct survey of agricultural products distribution and	0-3-1 Survey of rice marketing	10mm			Vachira, Borin, Sovanmony, Thitia	Market study was conducted for market potential.	Rice standard was identified for better marketting.	Market matching may be improved in PO-1.	100
marketing	0-3-2 Survey on agri-business potential				Vachira, Sovanmony, Thitia	Market study was conducted for market potential. Market price was re-surveyed.	recommended for production.	Access of farmers to the markets should be improved by providing more information.	100
0-4 Enhancement of collaborative linkage with concerned	0-4-1 Supporting Battambang Agriculture and Rural Network				Chhoeruth, Vachira	conducted 3 times. Two technical	NGO s actively participated in BARN and the importance of BARN is recognized.	Coordination should be enhanced with more participating organizations.	70
organizations.	0-4-2 Strengthen research, development and extension linkage				Chhoeruth, Vachira		importance of research and extention linkages. A seminar on direct seedeing research with University of Tokyo was held by inviting extension staffs	Research and extension linkage should be controlled by PDA.	60
0-5 Monitoring of the Project.	0-5-1 Monitoring of impact at farmers' level				All staff	Reactions of farmers were monitored by sections. Impact Assessment was conducted., and reported in Battambang.	Monitoring results were fedback to activities. Impact assessment results were reported in Battambang.	Impanct assessment should be conducted in the 3rd year.	100
	0-5-2 Monitoring of the Project management by Steering Committee and Joint Coordinating Committee			es no se se se se	Chhoeruth, Vachira		Meeting results were fedback to activities.	Committees are continued.	100
Sustainability	(0-1) The initial survey was c (0-2) The initial survey was c (0-3) The initial survey was c (0-4) BARN activites should (0-5) N/A	omplete	ed. ed.	he initia	tive of the province	. PDA should act on the strengthening as	an organization.		

# Progress report PO-1

Plan of Operation						Progress of Activities		achievement
I.Rice production t mnroved Major category			2004 2	tion 2005	Officer in charge	Activities	Output	(%)
1-1Select the varieties of rice on	1-1-1 Collect available varieties				Mr.Kath Borin		CARDI breeded varieties were collected	
needs	1-1-2 Demonstration of good varieties	-			Kath Borin/Sing Heng	Varieties were demonstrated in wet season in 2003, dry season and wet season in 2004 and dry season in 2005.		100%
	1-1-3 Survey on cultivated varieties in target area				Kath Borin/Sing Heng	Cultivated varieties in the target area were investigated in the base line survey in August 2003.	figured out.	
	1-1-4Field meeting to select good varieties				Kath Borin/Than Senkieth	Demonstration fields of 1-1-2 were opened to farmers. Fair was carried out and a debriefing session on the investigation results were carried out to inform farmers about varieties.	Chey, Senpidao were selected by good seed user farmers.	100%
·	1-1-5cultivation of selected good varieties by participate farmer				Kath Borin/Than Senkieth		conducted by 18 out of 19 participants in 2004 and 46 out of 69 farmer in 2005.	
1-2Produce quality seed of selected rice and	1-2-11mprove production of quality seed in KADC				Kath Borin/Sing Heng		wet and dry seasons in 2004 and wet season in2005	100%
supply them to farmer	1-2-2Survey on seed supply situation in the target area				Kath Borin/Than Senkieth	-	together for the reference to select a target area forming a good seed user group, and its seed circulation system.	100%
	1-2-3Improve of good seed production by farmer level				Kath Borin/Than Senkieth	OJT on seed production for the farmers selected from the good seed user farmers was carried out from June 2004 (4person) and 2005 (6person(4 person continue from 2004 and 2person newly selected in 2005)).	in 2004. All seed grower passed the inspection except 2 person fail to	100%
1-3Improve rice production skills (including double	1-3-1Survey on rice cultivation system in the target area				Kath Borin/Than Senkieth/Sing Heng	was also conducted.	cultivation technology were obtained.	
cropping, water management, post- harvest techniques)	1-3-2Experiments on rice cultivation			100 100 100	Kath Borin/Sing Heng	Fertilizer application and cultivation density experiment were conducted in wet season 2003, dry season 2004, wet season 2004, dry season 2005 and wet season 2005	experiment were obtained. Collecting	100%

cropping, water management, post-	1-3-3-Establish standard of double cropping system in target area (Make cultivation Calendar)	SASSES NAMES OF		Kath Borin/Than Senkieth	Based on CARDI recommended technology, results from the variety demonstration fields and test fields, a tentative cultivation guide line was compiled. Implementation situation of the participant farmers were monitored.	the farmers were obtained. Compiling a simple cultivation guide		
1-4Demonstration on improved cultivation techniques	1-4-1Demonstration on improved cultivation techniques			Kath Borin/Sing Heng/Tang Senkhiet	In wet season 2003, dry and wet seasons of 2004 and 2005. cultivation based on cultivation standards was conducted in KADC. In 1-3-4 FFS, model cultivation was carried out by the model farmers selected fro participant farmers.	were observed at FFS by paticipant farmer.	100%	
	1-4-2Survey extension system in target area			Kath Borin/Than Senkieth	Documents on extension activities were collected.	Several training materials on extension activities were collected and utilized in 1-3-4 activities.	100%	ı
	1-4-3Select target farmer group			Kath Borin/Than Senkieth	Starting from May 2004, participant farmers for the good seed users group were recruited.	19 participants in 2004, and 51 new participants in 2005 were obtained.	100%	ı
	1-3-4 Training in Farmer's field school			Kath Borin/Than Senkieth	Rice cultivation techniques was instructed to the participant farmers in the good seed users group at FFS in 2004 and 2005.	Certificates were given to the 19 out of 19 participants in 2004 and 31 out of 50 participants.	100%	
	1-4-5Farmers practice in their fields			Kath Borin/Than Senkieth	Participant farmers in the good seed used group cultivated good seeds in 2004 and 2005. Field assessment on purity was practiced	cultivation using good seed was 18		
Sustainability	varieties may change d	ue to th	e change in e	xternal factor co	I own decision and it is highly likely that inditions. In such a case, in order to reflect red seed production organization such a	ect farmers' needs to the seed pr		
	1-2 Technically, seed p to pay allowance for th market of the good qua	e KAD	C staff. In o	der to continue	e conducted by C/P with their initiatives sustainable seed production for the good re necesarry.	. However, it is necessary to see seed user group members, enha	cure the budget of the agricultural dencement of the group and developme	partment nt of the
					rariety demanstration and investigation of Same things are necessary regarding the		. It is necessary to secure the budget	to pay
					allocates agricultural department staff as in the farmers group, it is necessarry to			budget

lan of Operation						Progress of Activities		Achie ment
. Farming practice of mproved. (including	f participating farmers is crop diversification)	Imp	plementatio	on	Officer in charge	Detailed Implementated Activities	Output	(%)
Major category	Activities	2003	2004 20	305	-			
diversification	2-1-1 Examine crop diversification potential	<b>2: Track (2)</b>			ş • • • • • • • • • • • • • • • • • • •	In 2003 July, Market study was conducted for market potential. Interview was done in the villages. Germination test was	were identified. Some seeds with	ŧ
introduction of non- rice crops, small scale aquaculture, animal husbandary	2-1-2 Study on profitability of diversified farm production	S2100		99000	Vachira, Sovanmony, Thitia	In 2004 March, profitability was examined for rice, peanut and mung bean. Seminar was conducted for producing profitable	High risk of mung bean	1
	2-1-3 Formulate alternative farm production activities				Vachira, Sovanmony, Thitia	In 2004 January, cropping pattern was identified for several items.	Cropping calendar was made for selected crops. Farm management mideline was made	
2-2 Formulate and practice farm management plan	2-2-1 Selection of model farmers and cooperators				1	In 2004 February, 5 cooperators were selected in the first year and 1 more cooperator was added in the 2nd year.	1 cooperator has condunted FFS	
with model farmes and cooperators.	2-2-2 Conduct visioning workshops with model farmers				Vachira, Sovanmony, Thitia	In 2004 March, 1 Visioning workshop was conducted after field visit.	Every cooperator came up with annual plan.	80
·	2-2-3 Improvement of home gardens of model farmers				Vachira, Sovanmony, Thitia	In 2005 February, no good home garden model was not identified.	Home garden requires water resources for dry season.	10
	2-2-4 Impovement of secondary erop production				Vachira, Sovanmony, Thitia	Dry season peanut was tried in Bek Chan Station.	Peanut production is demonstrated.	90
	2-2-5 Improvement of animal and poultry production		***************************************	or and or deligated		In 2004 July, Conducted 1 pig group training and 2 chicken group trainings with OAHP, 2 pig training was conducted by	techniques after field visits.	
·	2-2-6 Trainers' training of cooperators		**********	No. of		In 2004 September, conducted trainings for Village Livestock Agents with a NGO.		70
2-3 Conduct the trainings to disseminate farming	2-3-1 Selection of participating farmers					Participating farmers for trainings were selected.	Standard selection method was formed. Some participants were selected for FFD.	3
models	2-3-2 Excahange visit of farmers				Vachira, Sovanmony, Thitia	In 2004 December, Exchange visits to model farmers were conducted.	effective. Four times FFD were	
	2-3-3 Conduct field days and Farmers Field School (FFS)	#15	and the second s		Vachira, Sovanmony, Thitia	In 2004 October,1 FFS was conducted on sweet pepper production.	Participating farmers obtained practical skill of compost making and nutural pesticide. FFD were	
	2-3-4 Monitoring and improvement of farm management of participating		2			In 2004 November, monitoring of group activity is conducted for pig raisers.	Follow up activities were conducted.	<u> </u>
Sustainability	there may be difficulties to pay (2-2)There is a significant short	for labo age of i	or cost due rrigation w	to ext ater a	ra care for experime nd it is difficult to re	riments will be continued. There is no technicats.  ecommend seconday crops on large area for  y to be hundled by farmers' groups themselve	dry seasons. Other activities as smal	

Plan of Operation						Progress of Activities	Achieve
-	mer's group are promoted		scal Y		Officials in charge	Detailed Implemented Activities Output	ment
3-1 Support activation of farmer	Activities 3-1-1 Water distribution planning and monitoring water flows		2004	2003	PDWRAM, Mr.Somnang	Water deliver plan in wet season 2004 implemented. Monitoring water Water received easier based on the plan. Conflict among management in 16FWUG conducted. Water distribution plan of dry farmers reduced. 701 ha planned (in 16FWUG) as area of 2006 season 2006 prepared. Workshops on cultivation & water distribution dry season cultivation and the water delivered according to the schedule. Monitoring water flow & land preparation plan.	
	3-1-2 Rehabilitation and maintenance of irrigation facilities (1st year by cost sharing, 2nd & 3rd year autonomously by FWUC budget)	1			PDWRAM, Mr.Sommang, Mr.Phala	M7/9 check structure (farmers contribution 10%,870\$), Setting 103 Convenience of intake water improved, maintenance of canals concrete pipes(9FWUG), Construction of M17 soil check, repair became easier. Those results led activation of FWUC. FWUC/G embankment of main canal(M3-M11). Bush clearing along main canal, with members implemented bush clearing 87% before starting secondary canals, tertiary (WFP) canals and farm ditches. Proposals of repair/maintenance work by FWUG prepared and finalized as annual plan.	
	3-1-3 Development of model area M17, M7-4			National Control of the Control of t	PDWRAM, Mr.Somnang	Map&Inventory prepared (M7-4: 37.5ha, M17:52.07ha), construction of The importance of farm ditch and the management by group farm ditches(6FD+4FD, total length 4.5km completed), guiding was understood and implemented. ISF collection successfully maintenance and water management by group. FD group leaders and the implemented. Many of them can get enough water smoothly. members repaired farm ditches and tertiary (FWP) canals and the members cultivate dry season rice 2006.	
	3-1-4 Strengthen transparency of FWUC accounting system			The state of the s	Mr.Somnang, Mr.Phala	Annual action plan Y.2005(2973\$), OJT of implementation of the plan Transparancy of FWUC plan& accounting improved. ISF and finance. ISF collection of wet season 2004 implemented. Area record in 14FWUG and accounting report of FWUC measurement for better ISF collection was conducted by prepared(4,600\$,46%). Inventory of M19-1 was prepared. The FWUC/FWUG/PDWRAM in M19-1. FWUC made accounting reports accounting reports was submitted to org. concerned (trimester, annual). Workshop on annual plan Y.2006. FWUC made the (PDWRAM, Commune, FWUG, FAO/GVC). Annual budget plans prepared by all FWUG (action plan). 2004 ISF payment of officials completed 92% of 25 unpaid. Agreement by cultivators on full amount of ISF payment for dry season	
	3-1-5 Strengthen good linkage in information distribution system				Mr.Phala, Mr.Somnang,	Setting 12 information boards by cost sharing, Strengthening Collaboration for information delivery/organizational collaboration with local authority, study tour(Prey Nup, Baray). management is gradually constructed. Good cooperation/PDWRAM conduct monthly meeting with FWUC. Participation by support by PDWRAM. FWUC activities could be known by PDWRAM/ Commune to meetings held by FWUC in KPP area. stakeholders. N2-9 has 4 officials (1 in PSV and 3 in KPC) and Decision / information were spread by information board. 1st deputy of it makes their coordination with FWUC/ members easier. N2-9 in Poy Svay village was elected.	
t Andrews Park	3-1-6 Dissemination internal regulation of FWUC				Mr.Phala, Mr.Somnang	Examining critical issues of regulation, poster dissemination, OJT for Patrol committee formulated by cooperation with local problem shooting. Files on rules & formats of administration work authority to prevent from illegal action. FWUC / FWUG can prepared and disseminated to FWUC/FWUG.  utilize the formats for more autonomous & transparent administration work.	ı
3-2 Empower Rural women and strengthen farmer's group activities	3-2-1 Support women/ youth to get knowledge and technique on agricultural food processing			***************************************	Mrs.Saven, Mr.Sovanomon y	monthly training 99 times(10villages x 8 people=80 target people), Participants could (1)apply the technique and knowledge for Training for trainers (TOT) 7 times(2 leaders/village), Food processing their family consumption or (2)selling, (3)share the technique contest conducted. Interviewed about existing Saving groups and conducted a coordination meeting with CCSF saving activities.  Arranged food processing	

	3-2-1 Formulate women group and develop leadership to strengthen social safety net in rural area				Mrs.Saven,	1	group activity expected by the members Leaders in each village were identified clearly and the relationship among leaders strengthened. Participants of study tour could teach other members in each village about banana chips. Some of
3-3 training for officers concerned about participatory development	3-3-1 OJT for CP, 3-3-2 Making teaching material (video) on facilitation skill				Mrs.Saven, Mr.Somnang, Mr.Phala	OJT through activities in PO3-1 and PO3-2. Recording the process by video taking. Made video (DVD) on introducing 'Facilitation Process of Group Forming' as a training material for participatory development and introduced it at the seminar (of Impact Assessment).	facilitation and the activities implemented by BAPEP could be
Sustainability	because of less experiences throusustainable management of FWU  (3-2) Small scale food process Promotion of the activity to loca	igh Ol IC. sing ac	T so f	ar (bec es can Iso wa	cause of draughts be sustained by i s done through c	members in each village because all of the activities have been done based ontest etc. to be recognized/supported by local community. But regular vis g of processed food by group' because the ability, needs and purpose are si	r cooperation with PDWRAM & SPFS/FAO is highly needed for on participant's capacity of skill, finance and management. Besides, sit and facilitation is still needed to realize their further needs such as
	(3-3) Mainly implemented for C management of participatory wor	P in c	harge . Flex	of fan ibility	mer organization in the way of so	through On the Job Training(OJT). The both CPs learnt by doing about the lving problem, adequate time management and much more facilitation skil ve for CP to spread their method to other officials.	e appropriate attitude against farmers, semi-structured interview and

Inputs list: Japanese experts (long term and short term), counterpart training, equipment, project operation cost, building and facility construction and rehabilitation.

### **Dispatch of Japanese Experts**

Long-term Japanese Experts

No	Name of Expert	Field	Period of Assign	ment		
			From	То	Remarks	2003 2004 2005 2006
1	Mr Tokida Kunihiro	Chief Advisor/Farm Management	1, April, 2003	31, March, 2006		
2	Mr Kojima Nobuki	Cultivation/Extention	1, April, 2003	31, March, 2006		
3	Ms Oguni Kazuko	Farmers' Organization/Participatory Developme	9. September, 2003	31, March, 2006		
4	Mr Hamano Mitsuru	Coordinator/Training	1, April, 2003	31, March, 2006		

**Short-term Japanese Experts** 

No.	Naı	me	Field	Period of Assign	ment	***************************************				
				From	То	Remarks	2003	2004	2005	2006
1	Ms	Hattori Tomoko	Rural Socio-Economy	1, April, 2003	26, September,2003					
2	Mr	Tanioka Kiyoshi	Marketing	15, Jun, 2003	13, July, 2003		<b>—</b>			
3	Mr	Kanaya Tomohiro	Irrigation	16, August, 2003	6, September, 2003					
4	Mr	Kodama Masayuki	Irrigation	14, February, 2004	8, April, 2004					
5	Mr	Yoshii Kenichiro	Farm Management	20,September, 2004	31, March, 2006					<b>—</b>
6	Mr	Itagaki Keiko	Social Impact Assessment	14, February, 2006	6, March, 2006					-

# Assignment of Counterpart and Training in Japan

Note: In case a counterpart's employment is temporary, enter "a" in Remarks

								art's employm ignment					Train	ng in Japan	
lo.	Nar	ne of Counterpart	Field	Post at assignment time		From		То	2003	2004	2005	2006	Year	Name of Training Course	Duration
			·	Post at assignment unic		2003,	Spril	2006, March	T			-			
7	Мг.	Pen Vuth		Director DAALI, MAFF		2003.	TOTH	2000, 1111141	1						
				Project Director				2006 Varil	<del>  -</del>	+==	-				1
	) Ac	Luot Phoung		Director of Provincial Department of Agriculture, Battambang		2003.	Aprii	2005, April	╂──	<del> </del>	<del>                                     </del>	<del> </del>			ļ
	124	2401 2 222 - 10		Project Co-Director	<u> </u>				+	<del> </del>		<u> </u>	1		
	<del>                                     </del>	Cheam Chan Sophor	<u> </u>	Director of Provincial Department of Agriculture, Battambang		2005.	April	2006, March	-	┼	<del> </del>		1		1
	Mr.	Cheam Chan Soption	1	Project Co-Director					-	╂	┼		├		<del>                                     </del>
	—		<del> </del>			2003.	<b>Lasit</b>	2006, March	-			Τ			1
ı	Mr	Seang Chhourth		Deputy Director of Provincial Department of Agriculture, Battambang		2003.	Арш	2000, March	1-	<b>—</b>	1				<u> </u>
	1	<b>-</b>		Project Manager	<del> </del>	-	<u> </u>		+==	+	+	+		Integrated agriculture and	
	1-			000000.41		2003,	April	2006, March				<u> </u>	_	rural development through	
5	Mr.	Chhim Vachira		Chief of Agronomy Office (PDA)									2004	the participation of local farmers II	1.5 month
				First Deputy Project Manger		<u> </u>	<u></u>	<del> </del>			-	_	2004		
	1.	You at Davis	-	Chief of Komping Puoy Agricultural Development Center (PDA)		2003.	April	2006, March			+	+	7001	Rice seed production technology	1.4 mont
6	Mr.	Khath Borin		Second Deputy Project Manger, Cultivation/ Extention			<u></u>	<u> </u>				╁	2004	recurroros	1
			-	Deput: Chief of Agronomy Office (PDA)		2003	April	2006, March	-					Joint training program in	
7	Mr.	In Sovanmony		Chief of Bek Chan Agricultural Station			T						2004	rural development	i.2 mont
				Farm Management		2003	August	2006, March						Vegetable cultivation and	
8	Уlг	Nou Tithia		Staff of Agronomy Office (PDA)								<u> </u>	2005	experiment methodology	2.5 mont
				Farm Management		2003	April	2006, March			<del></del>	士_			
9	Mr	. TangSay Keath		Deputy Chief of Extension Office (PDA) Cultivation / Extention											
L						2003	. April	2006, March	-				_		
10	Mı	Seang Heng	l	Staff of Bek Chang Agriculture Station (PDA)	İ		T								
				Cultivation / Extention	1	200	. April	2006, March		-	$\pm$	<u> </u>			
11	M	. Vy Saven		Staff of Extension Office (PDA)		-	1								
				Farmers' Organization / Participatory Development	_	200.	March	2006, Marci	1		_	+			
12	М	r. Touch Samnang		Staff of Irrigated Agriculture Office (PDWRAM)		200	,, 1,1,1,1,1,1		$\neg$			T			
				Farmers' Organization / Participatory Development		200	3. Augus	2006, Marci		1-	=				
13	, м	r. Thong Phala	1.	Vice Chief of Administration Office (PDWRAM)		200	, Tugus		_	$\neg \vdash$					
1.	<u> </u>	- • •	-	Farmers' Organization / Participatory Development											

## Provision of Equipment by Japanese Side

lote:

R/P:Route of Procurement : E: Techinical equipment from Japan. J:Equipment for Expert. L:Equipment of local activities

D: Equipment under the facility construction

Frequency of Use: A: Always - B: Often - C: Sometimes

Condition: A:Good, B: Fair, C: Bad

Equipments budget type in reference No: Expert Equipment(A), Grant Equipment(B), Local Equipment(C), Facility construction(D)

Place of storage: Beck Chang(B) / Farm management(F), P/C (P), Agronomy(A), Farmers Organization(O), Meeting Room(M),

Dormitory (D), Garagel-4(G1, G2, G3, G4), Storagel-2 (S1, S2), Ground Floor (GF), Training Room (T)

: Komping Puoy(K) /Officel-2 (01, 02), Storagel-3(S1, S2, S3), Kitchen(K), Training Room (T),

ReferenceNo	Date of Arrival					Amo	·	Place stora	~^	Freque ncy of Use	Cond itio n	Remarks
			Description Maker/ Model	Model Number	R/P		USD JPY	Office				
Year Type NO	Year Yearh Day	Item	Thailand		L	1	\$19.00			A	A	
03 C 001	3 4 18	White Board 1.2*2.4	Thailand		L	1	\$15,00		M	A	A	
03 C 002	3 4 18	White Board 1, 2*1, 8	Thailand		L	1	\$15.00		M	A	A	
03 C 003		White Board 1,2*1.8	Taiwan	LIKOG	L	1	\$35,00	В	A	A	A	
03 C 004	3 4 12	Regulator	Lecco	Lecco	L	1	\$130.00	В	P	A	A	
03 C 005		Book Shelve(1 Set)	HATARI	HT9661	L	. 1	\$30,00	12	F	<u>   A</u>	A	
03 C 006	3 4 30		HATARI	HT9661	L	, 1	\$30,00		0_	<u> </u>	A	
03 C 007		Fan	Lecco	Lecco	L		\$72.00	122	P	A	A	
03 C 008		15 Drams Cabinet	Lecco	Lecco	1		\$78.00	В	P	IA.	A	
03 C 009		Cabinet Locker (L)	Sharp	F0-1530	1		\$260,00	В	P_	<u>A</u>	A	
03 C 010		FAX/TEL	O.M. P		I	,	\$12.00	В	M_	<u> </u>	A_	
03 C 011		Chair			I	-	1 \$12.00	В	F	<u>A</u>	<u> A</u> _	
03 C 012		Chair			1		1 \$12.00	В	F	A	<u> </u>	
03 C 013		2 Chair					1 \$12.00	B	F	A	IA_	
03 C 014		2 Chair				L	1 \$12.00	В	A	<u>  A</u>	A	
03 C 015		2 Chair				L	1 \$12.00	В	A_	<u>   A</u>	<u>A</u>	
03 C 016		2 Chair				L	1 \$12.00	В	F	A	<u> </u>	
03 C 017		2 Chair	<del> </del>	<u> </u>			1 \$12.00	В	P	A	A	
03 C 018		2 Chair				ī	1 \$12.00	В	F	A	A	<u> </u>
03 C 019		2 Chair	1		<del> </del>	īl	1 \$12.00	В	P	A	<u> </u>	<u> </u>
03 C 020	3 5 1	2 Chair		<u></u>	<del>                                     </del>	ī	1 \$150.00	В	C	A	A	
03 C 02	3 5 1	2 Office Desk 1.6*0.7		<u></u>	<del> </del>	īl	1 \$100,00	В	0	A	A	
03 C 025	2 3 5 1	2 Office Desk 1.2*0.6		<u></u>	+	<del>íl</del> –	1 \$100.00	В	0	A	A	
03 C 02	3 3 5 1	2 Office Desk 1.2*0.6		****, ********************************	+	īl-	1 \$100.00	В	A	A	A	<u> </u>
03 C 02	4 3 5 1	12 Office Desk 1,2*0.6				Ť	1 \$100.00	В	P	A	A	
03 C 02	5 3 5 1	12 Office Desk 1.2*0.6	<u> </u>	LIKO	g -	<del>Í</del>	1 \$33.00	В	_	A	С	Broken/Disposed
03 C 02	6 3 5	12 Regulator 2000W	Taiwan	LIKO		ī	1 \$27.00	В	<u> </u>	A	C	Broken/Disposed .
03 C 02		12 Regulator 1500W	Taiwan	LINO	<u> </u>	<u>~1</u>	<u>*1 *</u>	***************************************				

ReferenceNo	Date of Arrival		Description			Amo unt	Price		Place	ge	Freque ncy of Use	Cond itio n	demarks
	<del></del>	Item	Maker/ Model	Model Number	R/P		USD J		_	Room			
00.1.77	Year Wests Day		Taiwan	LIKOG KA 1AS5	L	1	7		В	0	A	A	
03 C   028	3 5 12	Regulator 1500W	LIKOG/JAPAN	SC 1500W	L	1	\$27.00		В	M	A	A	
03 C 029	3 5 1	Regulator 1500W	Likoo Jaran Lecco	Lecco	L	1	\$130,00		В	P	A	A	
03 C 030	3 5 1	Book Shelve (1 Set)	Lecco	Lecco	I	1	\$120.00		В	A	A	A	
03 C 031	3 5 1	Book Shelve Glass/wood	Lecco	Lecco	L	. 1	\$120.00		В	0	A	A	
03 C 032		Book Shelve Glass/wood	Lecco	Lecco	1	1	\$45,00		В	P	A	A	
03 C 033		6 Return desk	Lecco	Lecco	I	. 1	\$45.00		В	A	A	A	
03 C 034		6 Return desk		Lecco	1	,	\$45.00		В	F	A_	A	
03 C 035	3 5 1	6 Return desk	Lecco					¥262, 000	p	lo	A	Α	
		IBM note book computer	IBM	Think Pad R32 2658			<b>!</b>	£202, 000	15	1	<u> ''                                   </u>		
03 A 036	3 5 1	IIninkpadkoz	nin i	PSC2150		rl -	ĭ	¥44, 200	В	<u> -</u>	A	C	Repairment
03 A 037	3 5 1	5 Printer PSC2150	HP	Office XP		_		¥71,000	B	0	A	A	
-		5 Office Professional	Microsoft	Professional		4	1			<u> </u>			
03 A 038	1 1		Chuuri	CTR-0150W		ī	1	¥19,000	B	0.	<u> C</u>	A	
03 A 039	3 5 1	5 Transformer CTR-0150W	Cliuuti			1		¥265,000	\R	F	A	Α	
		IBM note book computer	IBM	Think Pad R32 2658		기	1						
03 A 040		ThinkpadR32		BJ-M40		ī	1	¥47, 800	) B	A	A	A	
03 A 041	3 5	15 Portable Printer	Canon	Office XP		1		¥71,000	1R	F	Α	A	
		15 Office Professional	Microsoft	Professional		ᅦ	1				1		
03 A 042			Chuuri	CTR-0150W		J	1	¥24, 000	<u> </u>	A_	C	A.	
03 A 043	3 5	15 Transformer CTR-0150W	A&D Co. Ltd	EK-600H		Ī	1	¥93, 40		<u> A</u>	C	<u>  A</u>	
03 A 044	1 3 5	15 Electronic Balance	Kett Japan	AC08299		īl	1	¥205, 80	<u>0 B</u>	A	C	A	
03 A 045	3 5	15 Moisture tester	FUJIHIRA	Color chart (Rice)	1	7	1	¥25, 00	0 B	A	A	A	
03 A 046	3 3 6	15 Color Chart		Kinbunkei	1	Ī	1	¥189,00		A	C	A	<u> </u>
03 A 04		15 Grain Sample Divider	Fuji Kinzoku OWaka 若	Rinoanto	1	Ť	1	¥42, 58	0 B	A	C	A_	
03 A 048	3 5	15 Hydrometer	○Waka 若		1	4		¥259,80	ΛB	Α	Α	A	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		IBM note book computer	IBM	Think Pad R32 2658	3	J	1	¥209, 60	UB		1,,		
03 A 04	"	ThinkpadR32	110	PSC2150	1	T	1	¥43,00	0 B	P	A	A	
03 A 05	0 3 5	15 Printer PSC2150	HP	Office X		_		¥68,00	n B	Α	Α	A	
		15 Office Professional	Microsoft	Profes <u>siona</u>		J	1	1		_			
03 A 05			Chuuri	CTR-0150		J	1	¥23,00		A	<u>C</u>	A	
03 A 05	2 3 6	15 Transformer CTR-0150W	AIWA	TP-S7		Ī	1	¥5,50		A	В	A	
03 A 05	3 3 5	15 Cassette Tape Recorder		TP-S7		Ţ	1	¥5, 50	00 B	A	В	<u> </u>	
03 A 05		15 Cassette Tape Recorder	AIWA	Net Vista A30p 8311		<u>-</u> j-		¥140,00	JU B	Р	A	Α	
		IBM desk top computer	IBM	Net vista Asup 6311	τ	J	1			1	111		
03 A 05	1 1	ThinkPad Net Vista				7	1	¥45, 00	00 B		A	C	Broken/Disposed
03 A 05	6 3 5	15 Printer PSC2150	HP	Office X		٦ -		¥69, 60		Р	A	A	
		15 Office Professional	Microsoft	Professions		J	1	1	L				
03 A 08		f [	TBW	110163510116	0	7	1	¥44,0	00 B	P	A	A	_1
03 A 08	58 3 5	15 DVD-RAM/RW Drive	158	1 221 031									

eferenceNo	Date of Arrival		Description			Amo	Pric	e	Place	1gə	Freque ncy of Use	Cond itio n	Remarks
ar Type No	Year Youth Day	Item	Maker/ Model	Model Number	R/P		USD	JPY	<u> </u>	Room		A	
		Transformer CTR-0150W	Chuuri	CTR-0150W	J	1		¥22,000		P P	C B	A	
3 A 059 3 A 060	3 5 15	Cassette Tape Recorder	AIWA	TP-S70	J	1		¥7,000 ¥7,000		P	B	A	
3 A 060 3 A 061	3 6 15	Cassette Tape Recorder	AIWA	TP-571		1		¥7,000 ¥56,000		F	A	A	
3 A 062		Digital Camera	Matsushita	DMC-FI				¥56,000		F	A	TA	
3 A 063		Digital Camera	Matsushita	DMC-FI	<u>J</u>			¥108,000		P	A	TA	
3 A 064	3 5 15	Digital Video Camera	Victor	GR-DVX6K	J			¥73, 500		P	A	TA A	
3 A 065		IBM 15inch LCD monitor	IBM	T560 6656-HG2	ال ا		1 \$83, 00		HB-	<del> </del>	IA -	A	
3 C 066			POWERSUN	PS 1200	<u>L</u>		1 383.00	/	<del>                                     </del>	╅	1		
	<del></del>	/= /	RFC Dis.	100-4001	L		1 \$25.00	)	В	P	c	A	
3 C 067	3 5 20	Telephone)	Pte, Ltd					¥154, 000	TR.	P	TA		Expendable
3 A 068	3 5 1	Pot, 30pcs (10Boxs)			<u> </u>	1	1 \$83. 0		B	<del> </del> p	A	T <sub>A</sub>	
3 C 069		UPS	POWERSUN	PS 1200	<u> </u>	<u> </u>	1 \$154.0		B	P	A	IA	
3 C 070		ADSL Lauter	China	HPD748	<u> </u>	<u> </u>	1 \$252.0		B	F	A A	IA	
3 C 071		9 Air picture	USA	6381-A1-302	<u> </u>	┞	1 \$252. 0 1 \$45. 0		B	P	A	A	
3 C 072	·	6 Office Desk	Lecco	Lecco	<u> </u>	<del> </del>			K	131	B	<del>∏</del>	
3 C 073		I Generator small			<u> </u>	4_	1 \$280, 0 1 \$100. 0	0	$\frac{1}{B}$	F	A	A	
		8 Office desk			1	4_			В	F	IA A	A A	
03 C 074 03 C 078	<del>"                                    </del>	8 Office desk			1	4_	1 \$100,0		В	0	A	A	
		8 Office desk			1	4	1 \$100.0		B	0	A	A	
)3 C   076 )3 C   077		8 Office desk				4-	1 \$100.0		В	A	A	IA	
		8 Office desk				4	1 \$100.0		$-\frac{D}{B}$	A	A		
		8 Office desk				4-	1 \$100.0		В	A	A	A	
		8 Office desk			]	-	1 \$100.0		В	F	A	A	
03 C 08 03 C 08		8 Office desk				4	1 \$70.0		В	1.	A A	A	
		8 Office desk				4_	1 \$70.0		В	F	$\frac{\Lambda}{\Lambda}$	$-\frac{\alpha}{A}$	
		8 Office chair (wood)				L	1 \$15.0		B B	- M	A	A	
		18 Office chair (wood)			<u> </u>	L _	1 \$15.0		В	0	Δ.	A	
03   C   08 03   C   08	*	18 Office chair (wood)				4	1 \$15,0		B	М	A	A	
		18 Office chair (wood)				L	1 \$15.0		В	P	A	A	
		18 Office chair (wood)				<u>L</u>	1 \$15.		В	F	A	A	
		18 Office chair (wood)				L	1 \$15.		<u>В</u>	-F	$-\frac{\Lambda}{\Lambda}$	A A	
		18 Office chair (wood)				L	1 \$15.		В	- O A	$-\frac{A}{A}$	A	
		18 Office chair (wood)				4	1 \$15.			$-\frac{A}{0}$		A	
		18 Office chair (wood)				4	1 \$15.		В	P		A	
03 C 09		18 Office chair (wood)				니	1 \$15.	<u> </u>	В			- A	
03 C 09	<del></del>	13 Pick up track Silver	FORI	1 0	b d	L	1 \$19,500.	00	В	G	3 A	A	
03 B 0	<del></del>	13 Pick up track Red	FOR	UROZEA 4x4 Doub		L	1 \$19,500.	00	В	G	1 A	A	

ReferenceNo	Date of Arrival		Description			Amo unt	Price	s	lace toras	ge	freque ncy of Use	Cond itio n	Remarks
			Maker/ Model	Model Number	R/P		USD J	IPY 01	fice	Room			
fear Type No	Year Would Day	Item	Makel Model	UM88EAB 4x2 Double				l p	,	G2	A	A	
	0 0 10	Pick up track White	FORD	UM88EAB 4x2 Double Cab	L	1	\$12,500.00	Į.				<u> </u>	
03 B 095	1 1 1			3TT-132335	L	1	\$3,000.00	I	}		C	<u>A</u>	
03 B 096	3 9 9	Motorbike DT 125A	YAMAHA	311 132350 3TT-132351	ī		\$3,000.00	I	3	S1	С	Α	
03 B 097	3 9 9	Motorbike DT 125B	YAMAHA	311 132301 31T-132321	I		\$3,000.00		3	Sl	C	A	
03 B 098	3 9 9	Motorbike DT 125C	YAMAHA	FD-110XCSD	1	1	\$940.00		В	S1	C	A	
03 B 099	3 9 1	Motorbike Suzuki D	SUZUKI	FD-110XCSD	Ì	1	\$940.00	1	В	Sl	C	Α	
03 B 100	3 9 1	Motorbike Suzuki E	SUZUKI	VIVACE-340	Ì				В	P	Α	A	
03 B 101	3 8	8 Copy Machine	FUJI XEROX		1		\$1,001.50		В	0	A	A	
~		8 Desk top PC(DVD RW)	IBM	68241SA KHPF69A	1				В	0	Α	Α	
		8 Desk top PC(DVD ROM)	IBM	68241SA KHPF75X	·	4	1				1.		
		Microsoft Office	Microsoft Corp.	X08-8483€	1		\$390.00		В	P	A	A	
03 B 104	3 8	Professional Microsoft Office		X08-84836	<del>                                     </del>		\$390,00		В	Р	A	A	
03 B 105	3 8	8 Professional	Microsoft Corp.	***	<u> </u>		4105 00		В	F	A	A	
			Hewlett-packard	IEEE-1284-I		Ц	\$135.00		В	P	TA A	A	
03 B 106		8 Printer	Hewlett-packard	IEEE-1284-		<u>L</u>	\$135.00		K	S2		A	
03 B 107		8 Printer	KUBOTA	KJ-T180V	ζ	L	\$7, 112, 50			<u>                                     </u>	1 <u>^</u>	$-\frac{\Omega}{\Lambda}$	
03 B 108	3 9 2	22 Generator: 18KW	KUBOTA	KJ-T230F	X	L	\$9,937.50	<u> </u>	B		- <del> </del> ^	$-\frac{\Lambda}{A}$	
03 B 109		23 Generator: 23KW	KAWASAKI		ol	L	1 \$211.50		K	S1	<u> </u>		
03 B 110		28 Pomp	Manonix	LS-3		L	1 \$327.00		K_	S1	IA_	<u> A</u>	
03 B 111	1 3 8 2	22 Sprayer	Sharr	OT VOI		L	1 \$305,00	)	<u>B</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
03 B 112		28 Refrigerator	Sharr	07 1/01		ī	1 \$305.00	)	B	P	<u>A</u>	<u> </u>	
03 B 115		28 Refrigerator				ī	1 \$297.00	)	B	M	C_	A_	
03 B 114		23 OHP	Da-Lite US/	1101 00		īl	1 \$1,660.98	3	В	Р	В	A	
03 B 11	5 3 9	23 LCD Projector	Son	<u> </u>		1	1 \$180.00	0	В	M	В	A	
03 B 11		28 Screen for Projector	Consul-US	0.0.01		1	1 \$220.00		В	М	В	A	
03 B 11		28 TV	Shar	710 11		<del>-</del>	1 \$98.00		В	M	В	A	
03 B 11		28 Video	Shar				1 \$159.0		В	P	В	A	
03 B 11		23 Speaker	Alesi	s Monitor One M	70	-	1 \$159.0		В	P	В	A	
		23 Speaker	Alesi		14	<del>-</del>	1 \$55.0		В	Р	В	A	
		11 Microphone	AARO	1001		ᆛ	\$55.0		В	P	В	A	
		11 Microphone	AARO	N AR21			1 \$318.0		В	P	В	Α	
03 B 12		23 Amplifier	Alesi			나	1 \$1,650.0	<u> </u>	B	0	A	A	
03 B 12		12 Rap top PC	Hewlett-packar	d Compaq nx90	10		1 \$1,000.0					1.	
03 A 12		Microsoft Office	Microsoft Corp		36	J	1 \$390.0		В	P		A	
03 A 12	الا اد ا د	IFTOLESSIONAL	Adol			J	1 \$345. C	00	В	P		A	
03 A 12	26 3 9		Ador	76	_	L	1 –		В	D		A	
	27 3 9	10 Bed:2Floor			$\neg \vdash$	L	1 -		В	D		A	
	28 3 9	10 Bed: 2Floor			$\dashv$	1	1 -		В	D	A	A	
		10 Bed: 2Floor											

eferenceNo	Date of Arrival		Description		4	Amo unt	Pric	e	Place	ge	Freque ncy of Use	Cond itio n	Remarks
	<u> </u>	Item	Maker/ Model	Model Number	R/P		USD		Office			-	
ear Type NO	Year Youth Day		Transcent to the second		L	1	-				A	A	
03 D 130		Sed:2Floor			L	1	_				A	A	
O3 D 131		Bed: IFloor			L	1				D	A	A	
03 D 132		Bed: IFloor			L	1				D	Α	A	, <u></u>
03 D 133		sed.Ir1oor			L	1	_			D	A	A	
03 D 134		Bed: IFloor			L	1			В	D	A	A	
03 D 135		Bed: IFloor	+		L	1				D D	A	A	
03 D 136		Bed: IFloor			L	1	_		В	D	A	A	
03 D 137		Bed: IFloor			L	1	•		В	D	<u> </u> A	<u>A</u>	3
03 D 138		Bed: 1Floor			L	1			В	D	A	ļA_	
03 D 139		Office Desk			L	1	-		В	D	A	A	
03 D 140		Office Desk			L	1			В	D	<u> </u>	Α	
03 D 141		Office Desk			L	1	<b>-</b>		B	D	A	A	
03 D 142		Office Desk			L	]			В	<u> A</u>	<u> </u> A	A_	
03 D 143		Office Desk			L	]	-		В	D	A	A	
03 D 144		Office Desk			L				В	P	A	A	
03 D 145		Office Desk			Ľ		_		В	0	A	A	
03 D 146	3 9 10	Office Desk	HiepThanh	1000	1				В	D	A	A	
03 D 147	7 3 9 10	Plastic Chair	Plastic	N300	L		<u> </u>		<del> </del>	<del></del>			
03 D 141			HiepThanh	N300	1		1	1	В	D	Α	Α	
03 D 148	8 3 9 10	Plastic Chair	Plastic	16000		<u> </u>	<u> </u>		-	+		1.	
<b> </b>		. 01 :	HiepThanh	N300	L		1 -		В	D	Α	Α	
03 D 149	9   3   9   10	Plastic Chair	Plastic			<del> </del>			В	D	Α	A	
		Plastic Chair	HiepThanh	N300	l L	4	1 -		D	ען	Λ	^	
03 D 15	0 3 9 10	FIRSTIC CHAIL	Plastic HiepThanh		<b>†</b>	1			В	D	Α	A	
03 D 15	1 3 9 10	Plastic Chair	Plastic		) L	4	1 -			<u> </u>			
03 D 13		1145010	HiepThanh		, ,	T	1		В	D	A	Α-	
03 D 15	52 3 9 10	Plastic Chair	Plastic		1	1	1		┥—				
03 12 120			HiepThanh		վ յ		1		В	D	A	Α	
03 D 15	3 3 9 10	Plastic Chair	Plastic	1,00	-	1-					<del>- </del>	-1.	
<b> </b>	<del></del>		HiepThanh		0 1	L	1 -		В	D	A	Α	
03 D 15	54 3 9 1	Plastic Chair	Plastic			-			- In	-	À	٨	
		OPlastic Chair	HiepThanh		0 1	L	1 -		В	D	A	A	
03 D 15	55 3 9 1	Uriastic Chair	Plastic		_				В	D	Α	A	
00 0 10	56 3 9 1	OPlastic Chair	HiepThank Plastic		0	L	1 -			10	^^		
03 D 18	00 3 3 1	VII 163610 OHATI	HiepThanl		1	L	1		В	D	Α	A	
03 D 1	57 3 9 1	OPlastic Chair	Plasti		٧	مة	1 -		<del>-</del>				
00   11			HiepThan		in	L	1 -		В	D	Α	Α	
03 D 1	58 3 9 1	OPlastic Chair	Plasti		'Y	~	1		L				

erenceNo		Date of		Description			Amo unt	Pri	ce	Place	or l	Freque ncy of Use	Cond itio n	Remarks
	Arrivai				USD	JPY	Office	Room						
Type No	Year	Youth Day	. Item	Maker/ Model	Model Number	R/P				В	D	Α	A	
			Plastic Chair	HiepThanh	И300	l.	1	<u></u>		D	ط	<u></u>	ļ.,	<u> </u>
D 159	3	9 10	Plastic Chair	Plastic HiepThanh		7	1 ,			В	D	A	A	·
D 100	3	0 10	Plastic Chair	Plastic	N300	1	1					-	<del> </del>	
D 160	٥	9 1	JI I I I I I I I I I I I I I I I I I I	HiepThanh	N300	L	1	_		В	D	Α	A	
D 161	3	9 1	O Plastic Chair	Plastic	14000		1				<del>                                     </del>	1.	1	
D 101	<u> </u>			HiepThanh	N300	1		i <b> </b>		В	D	A	A	
D 162	3	9 1	0 Plastic Chair	Plastic			<del> </del>	\$38.0	<u></u>	B	0	Α	A	
	+-	10 9	0 UPS (600VA)	POWERSUN	03090820143	I		\$38.0		В	0	В	A	
C 163		10 2	0 UPS (600VA)	Prolink	QC PASSED 06	<u>I</u>	4	\$15. C	<u> </u>	В	P	В	A	
C 164		10 2	5 Helmet	Thailand	Space Crown		4	1 \$15. C	<u> </u>	В	P	В	A	
C 165	نسيبينا للم			Thailand	Space Crown	1		\$15.0	10	B	p	В	A	
C 166	1		5 Helmet	Thailand	Space Crown	]	L	1 \$15.0	<u> </u>	В	P	В	IÀ	
C 167			5 Helmet	Thailand	Space Crown	]	Ц	1 \$15,0			P	В	TÂ	
C 168			5 Helmet	Thailand	Space Crown		<u>L</u>	1 \$15.0		B	p	A	A	
C 169		3 10 1	15 Helmet				1.	1 \$170.0	00	В	11	A	A	
C 170		3 10 1	15 Meeting Table	SHANHO	SH-125A		L	1 \$91.		В	GF		A	
3 C 171			15 Pump (Office)	Dimino	<u></u>		L	1 \$10.		В	0	<u> A</u>		
3 C 172			15 Chair (Wood)				Ĺ	1 \$10.	00	В	M	A	A	
3 C 17	3	3 10	15 Chair (Wood)				L	1 \$10.		В	0	A	A.	
3 C 174	4	3 10	15 Chair (Wood)				L	1 \$10.		В	M	A	A	
3 C 17	5	3 10	15 Chair (Wood)		<u> </u>	<del> </del>	ī	1 \$10.	00	В	A	A	A	
3 C 17		3 10	15 Chair (Wood)			<del>                                     </del>	ī	1 \$10.		В	M	A	A	
3 C 17			15 Chair (Wood)			1	<del>-</del>	1 \$10.	00	В	A	A	A	
3 C 17			27 Chair (Wood)			┼──	ᆌ	1 \$10.		В	M	A	A	
$\frac{3}{3}$ C $\frac{11}{17}$			27 Chair (Wood)			┼──	╗	1 \$10,		В	M	A	A	
			27 Chair (Wood)			┼─	╬	1 \$10.		В	M	A	Α	
			27 Chair (Wood)				뷥	1 \$10.		В	P	A	Α	
		3 10	27 Chair (Wood)			┼—	-뉘-	1 \$10.		В	M	A	A	
3 C 18		3 10	27 Chair (Wood)				ᆛ	$\frac{1}{1}$ \$40.	00	K	T	В	A	
3 C 18		3 10	27 Meeting Table							K	Tr	В	A	
)3 C 18		3 10	27 Meeting Table							K	Ť	В	A	
)3 C 18		3 10	27 Meeting Table				ᆚ	1 \$40. 1 \$40.			T		A	
03 C 18		3 10	27 Meeting 1201e				ᆛ			$-\frac{1}{B}$	Ā			
	37	3 10	27 Meeting Table				<u>L</u>	1 \$40		K K	$-\frac{1}{\tau}$	$-\frac{B}{B}$	— A	
	38	3 10	27 Meeting Table				<u>L</u>	1 \$40		B B			— <del> </del>	
	89	3 10	27 Meeting Table	Lecco	Leco		<u> </u>	1 \$145			M		$-\frac{\Lambda}{A}$	
	90	3 10	1 2 1 1 1 0 0 1 0 1 0 1 1 1 1 1 1 1 1 1	Rattan shor	2	f	L	1 \$15	. 00	В				
03 C 1	91	3 10	27 Book Shelve (Wood)	HiepThank			L	1 \$2	. 15	K	T	В	A	<b>.</b>
	92	3 11	12 Plastic Chair	Plastic		M	니	†  Ψ"	·					

[erence]	40		ite of		Description			Amo	1	е	Place stora	ge		Cond itio n	Remarks
				Item	Maker/ Model	Model Number	R/P		USD	JPY	Office	Room		-	
r Type	Vo '	Year 100			HiepThanh	N300	I.	1	\$2, 15		K	T	В	A	
3   C	193	3 1	1 12	Plastic Chair	Plastic	1000					**	<u></u>	В	Α	
┿			1	Plastic Chair	HiepThanh	N300	L.		\$2.15		K	T	D	n	
3 C	194	3	11 12	Flastic Chair	Plastic HiepThanh	N300	3		\$2.15		ĸ	T	В	A	
3 C	195	3	11 12	Plastic Chair	Plastic	N300		<u> </u>			<del> </del>	<u>                                     </u>		1.	
		┝╼┼╸			HiepThanh	N300	1		1 \$2.18		K	T	В	A	
3 C	196	. 3	11 12	Plastic Chair	Plastic			$\vdash$	1 \$2.15		K	T	В	A	
3 C	197	2	11 1	Plastic Chair	HiepThanh Plastic	N300	I	1	1 \$2.13	2	ļ" <u> </u>	╀—	-	-	
3 C	191	<del> </del>			HiepThanh	N300			1 \$2.1	5	K	T	В	A	
3 C	198	3	11 1	2 Plastic Chair	Plastic	1,000	<u> </u>	-		<del></del>	1,,	T	В	A	
	<u> </u>	+-+		o Di Lata Chair	HiepThanh	И300	1	니	1 \$2.1	5	K	1	В	\ <u>\</u>	
3 C	199	3	11 1	2 Plastic Chair	Plastic HiepThanh	110.00			1 \$2.1	5	K	T	В	A	
)3 C	200	3	11 1	2 Plastic Chair	Plastic	N300			Ψ2, 1	J			<del> </del>		
/3	200				HiepThanh	N300		L	1 \$2.1	5	K	T	В	A	
)3 C	201	3	11 1	2 Plastic Chair	Plastic		<b></b>	╫			K	T	В	A	
	000		,,,,,	2 Plastic Chair	HiepThanh	И30	)	L	1 \$2.1	b	L.		ь	<u> </u>	<u></u>
03 C	202				Plastic HiepThanh	N30	,	1	1 \$2, 1	5	К	T	В	Α	
03 C	203	3	11	2 Plastic Chair	Plastic	Nou	1	1		<u> </u>	+			1.	
	<del> </del>				HiepThanh	N30	o	L	1 \$2.1	5	K	T	В	A	
03 C	204	3	11	12 Plastic Chair	Plastic		-	_	1 \$2.1	el .	К	т	В	Α	
03 C	205		11	12 Plastic Chair	HiepThanh Plastic	N30	0	L	1 \$2.	.0	- 11	1,			
03	1200		<del>                                     </del>		HiepThanh	N30	n	L	1 \$2.	15	K	T	В	A	
03 C	206	3	11	12 Plastic Chair	Plastic		<del>-</del>	1				T	В	A	
	<del> </del>	_	1	o Di Lie Chain	HiepThanh	1100	o	L	1 \$2.	15	K	1	B	А	
03 C	207		111	12 Plastic Chair	Plastic HiepThanh	<b>1</b>		7	1 \$2.	15	K	T	В	A	
03 C	208	3 9	3 11	12 Plastic Chair	Plastic		Ψ	L	1 \$2,					-	
03	1.00		1		HiepThanh	N3(	100	L	1 \$2.	15	K	T	В	A	
03 C	209	9   :	3 11	12 Plastic Chair	Plastic	<u> </u>					K	T	В	A	
	1	$\overline{}$	1,1	12 Plastic Chair	HiepThan	110	00	L	1 \$2.	19		1			
03 C	21		<u> </u>		Plastic HiepThanl			L	1 \$2.	15	K	T	В	A	
03 C	21	1	3 11	12 Plastic Chair	Plasti		<u> </u>		1 92.					<del></del>	
<b> </b>					HiepThan		00	L	1 \$2.	15	K	T	В	A	
03 C	21	2	3 11	12 Plastic Chair	Plasti	1	_			15	K	т	В	A	
	21	2	3 11	12 Plastic Chair	HiepThan Plasti		00	L	1 \$2.	10		-		<del> ``</del>	
03 C	41	٦			HiepThan		ഹ	ı	1 \$2.	15	K	T	В	A	
03 C	21	4	3 11	12 Plastic Chair	Plasti	110	<u>~</u>					i_			

ferenceNo	Date of Arrival		Description			Amo unt	Price	st	lace toras	ge		cond itio Remarks n
r Type No	Year Youth Day	Item	Maker/ Model	Model Number	R/P						_	
C 215		Plastic Chair	HiepThanh Plastic	N300	L	1	\$2, 15	K			В	A
C 216	3 11 12	Plastic Chair	HiepThanh Plastic	И300	L	1	\$2.15	K		T	В	A
3 C 217	3 11 12	Plastic Chair	HiepThanh Plastic HiepThanh	N300	L	1				T	В	A
3 C 218	3 11 12	Plastic Chair	Plastic HiepThanh	N300	L	1	60.15			T	В	A
3 C 219	3 11 12	Plastic Chair	Plastic HiepThanh	N300	L L	1	40.15	-		T	B	A
3 C 220	4	Plastic Chair	Plastic HiepThanh	N300 N300	L	1	\$2.15		K	T	В	A
3 C 221	<del></del>	Plastic Chair	Plastic HiepThanh	N300	L				K	T	В	A
3 C 222		Plastic Chair	Plastic HiepThanh	N300		-	\$2. 15		K	T	В	A
3 C 223		2 Plastic Chair 2 Plastic Chair	Plastic HiepThanh	N300	1		\$2. 18		K	T	В	A
3 C 224 3 C 225		2 Plastic Chair	Plastic HiepThanh Plastic	N300	1		\$2, 18	]	K	Т	В	A
)3 C 226	+	2 Plastic Chair	HiepThanh Plastic	N300	· I		1 \$2.19	1	K	T	В	A
03 C 227	+	2 Plastic Chair	HiepThanh Plastic	N300	1	_	1 \$2.1		K	T	В	A
03 C 228	3 3 11 1	2 Plastic Chair	HiepThanh Plastic	N30	<del> </del>	L	1 \$2.1		K	T	B B	A
03 C 229	3 11	2 Plastic Chair	HiepThanh Plastic	N30	-	-	1 \$2.1		K K	T	В	A
03 C 230	0 3 11	12 Plastic Chair	HiepThanh Plastic HiepThanh	Nov	-	-	1 \$2. 1 1 \$2. 1		K	T	В	A
03 C 23		12 Plastic Chair	Plastic HiepThanh	1100	<del></del>	L	1 \$2.1		K	Tr	В	A
03 C 23		12 Plastic Chair	Plastic HiepThanh	1	+	<u>-</u>	1 \$2.1		K	T	В	A
03 C 23	<del></del>	12 Plastic Chair	Plastic HiepThanh		-		1 \$2.1		K	T	В	A
03 C 23		12 Plastic Chair	Plastic HiepThanh	ИЗС		L	1 \$2.1		K	T	В	A
03 C 23 03 C 23		12 Plastic Chair 12 Plastic Chair	Plastic HiepThanh Plastic	N30		나	1 \$2.	15	K	T	В	Α

<u> </u>	Date of					Amo			Place stera	~~	Freque ncy of Use	Cond itio n	Remarks
ferenceNo	Arrival		Description			unt	Pric		Office	Poop		+	
		- Item	Maker/ Model	Model Number	R/P		USD	JPY	-	<del> </del>	l	+	
ar Type NO	Year Routh Day		HiepThanh	N300	L	1	\$2.15		K	T	В	A	
3 C 237	3 11 12	Plastic Chair	Plastic			<del> </del>	40.15		K	T	В	Α	
	<del></del>	Di Chain	HiepThanh	N300	L	.] 1	\$2, 15		<u> </u>	<u> </u>	Ľ	╀-	
)3 C 238	3 11 12	Plastic Chair	Plastic HiepThanh		t	Ι,	\$2.15		K	T	В	Α	
)3 C 239	2 11 19	Plastic Chair	Plastic	N300	1	1	4		┼	-	<del>                                     </del>	1.	
)3 C 239			HiepThanh	N300	I	, :	\$2.15		K	T	В	A	
)3 C 240	3 11 12	Plastic Chair	Plastic	1,000		-			1,	m	В	A	
73   0   2 2 0			HiepThanh	И300	]		1 \$2.18		K	<u> </u>			
)3 C 241	1 3 11 1	Plastic Chair	Plastic	DS-2002	<del> </del>	1	\$32.00	)	В	Р	В	<u> A</u>	
03 C 242	2 3 11 1	2 Audio Mixer	AVIS, Japan			1	3		В	Р	В	Α	
		5 Aneroid Barometer	ISUZU SEI, Co	30490057		J	1			P	B	HA.	
03 A 243			Taiwan	2080231		L	1 \$40.0		B B	P	A	A	
03 C 24	* 1 V1	3 Electric Tester	Lecco	Lecc		L	1 \$85.0		K	T	A	$\frac{\Lambda}{A}$	
03 C 24		9 Cabinet Locker (L)	Lecco	Lecc		<u>L</u>	1 \$65.0	0	K	1 T	A	A	
03 C 24		5 Meeting Table	Lecco	Lecc	)	<u>L</u>	1 \$65.0	<u>0</u>	K	T	A	TA	
03 C 24		5 Meeting Table	Lecco	Lecc	0	L	1 \$65.0	<u> </u>	- K	T	A	A	
03 C 24		5 Meeting Table	Lecco	Lecc		L	1 \$65.0	0	В	A	A	A	Expired/disposed
03 C 24		5 Meeting Table	Symantec Corp.	62338		L_	1 \$55.0		В	0	A	A	Expired/disposed
03 C 25		27 Norton Antivirus 27 Norton Antivirus	Symantec Corp.	62338		L	1 \$55. C	<u> </u>	B	F	A	A	Expired/disposed
03 C 25		27 Norton Antivirus	Symantec Corp.	62338		<u>L</u>	1 \$95.0		В	TP	A	Α	
03 C 25		27 Airconditioner (outside)	Sharp	MUH-K20		<u> </u>	1 \$65.		- K	一	A	A	
03 C 25		27 Meeting Table	Lecco	Leco		ᆛ	1 \$65.		K	市	A	A	
	~	27 Meeting Table	Lecco	Lec		井	1 \$65.		K	市	A	A	
		27 Meeting Table	Lecco	Lec		ᆜ	1 \$65.		K	Tr	A	A	
		27 Meeting Table	Lecco	Lec			1 \$65.		K	T	A	A	
	· · · · · · · · · · · · · · · · · · ·	27 Meeting Table	Lecco	Lec	<del>}</del>		1 \$65.		B	TP	A	A	
	100	27 Meeting Table	Lecco	Lec		瞐	1 \$52.	00	В		A	A	
	100	29 Electric Dril	Makita, Japan	HP 15		ᅷ	1 \$53.	00	В		A	A	
74		29 Brower	Makita, Japan	UB 11			1 \$72.	00	B		A	A	
1 × × 1			Makita, Japan	0.04		뷥	1 \$105.		B	P		P	
	262 4 2 263 4 2		Makita, Japan			ᆉ	1 \$89.		B	F		1	
	$     \begin{array}{c cccccccccccccccccccccccccccccccc$		Makita, Japan				\$45.		K	1	A	1	
	$     \begin{array}{c cccccccccccccccccccccccccccccccc$		KSH, Cambodia			납	1 \$55.		K	<u> </u>	` A	/	·····
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(14 3 13 )	SONY		SOM	뷥	\$95.		K		î A	1	
	$\frac{260}{267}$ 4 2	1	Cambodia	1		╫	1 \$140.		E		3 A		<u> </u>
1	$\frac{267}{268}$ 4 2		Taiwar	07 00700		ᇻ	1 \$350	. 00	1		ΓA		<u> </u>
	269 4 2	(14 - 50)	AKIRA, Japan		630			. 00		3	P A		A L
	$\frac{209}{270}$ 4 2	8 Speaker for computer	NANSIN, China	<u>al</u>	030	니		E					

renceNo	Date of Arrival					Amo	Price	,	Place stora	ge	Freque ncy of Use	Cond itio n	Remarks
	7111.42		Description Maker/ Model	Model Number	R/P		USD	JPY	Office	Room		-	
Type NO	Year Mosth Day	Item	Maker/ Moder	Moderation	Ī.		\$115.00		K	T	Α	A_	
C 271	4 2 9	TV cabinet (KADC)			L L	-	\$125.00		В	M	Α	A_	
C 272	4 2 10	Video deck (BC)			L		\$180.00		K	K	A	A	
C 273	4 3 11	Pump for well (KADC)	Italy	Lecco		<b> </b>	\$120.00		В	F	Α	A	
	4 3 12	Book shelve (Glass)	Lecco	JME-3330	I.	1	\$30.00		В	P	A	A_	
C 274 C 275		Ten key pad	MC China	Compag nx9010	l l	-	\$1,359.00		В	P	A	A	
C 276	4 3 14	Rap top PC 2	Hewlett-packard	SGH 40902YD	<del></del>	-	\$820.00		В	0	Α	A	
C 277	4 3 15	Desk top PC 3	Hewlett-packard	Lecco		1	\$65.00		В	T	A	A_	
		Meeting table	Lecco		<del>ì</del>	1-	\$65.00		В	T	Α	A	
C 278 C 279		Meeting table	Lecco	Lecco Lecco	1		\$65.00		В	M	Α	A	
		Meeting table	Lecco	Lecco	<u>1</u>	1-	\$65.00		В	М	Α	A	
		Meeting table	Lecco			-	1 \$65.00		В	P	A	A	
		) Meeting table	Lecco	Lecco			1 \$65.00		В	P	A	Α	
		1 Meeting table	Lecco	Lecco			1 \$65.00		В	T	A	A	
C 283		2 Meeting table	Lecco	Lecco		-	1 \$65.00		В	T	A	Α	
C 284		3 Meeting table	Lecco	Lecco			1 \$65.00		В	T	Α	Α	
C 288		4 Meeting table	Lecco	Lecco	ļ	ᆜ	4 2 7 0		В	T	A	Α	
C 286		5 Meeting table	Lecco	Lecco	ļ	<u>L</u>		3	B	P	A	A	
C 287		6 Microsoft front page	Microsoft Corp.	X09-55178	ļ	ᆜ	1 \$262.00 1 \$120.0		В	M	A	A	
C 288		7 Book Shelve(Grass)	Lecco	Lecco		<u> </u>	1 \$120.0		K	S	A	A	
3 C 289					<u> </u>	<u> </u>			K	ls	A	A	
3 C 29	<u> </u>	8 shelves)			<u> </u>	Ц_	1 \$100.0		B	- P	-li	A	
3 C 29	<del></del>	29 shelves)	Microsoft Corp.	X08-48124	-	L	1 \$420.0		B	- <del> </del> -	A	A	
3 C 29		Microsoft Office XP	Microsoft Corp.	340180-00		L	1 \$420.0	<u> </u>	B	$-\frac{1}{G4}$	TA	A	
3 C 29		Microsoft Office XP	Toyaota	JTCFF71924101392	)	<u>L</u>	1 \$24,980.0	<u> </u>	B	- <del>  0</del> -	A	A	
3 B 29		31 One box car (White)	IPSWITCH		7	<u>L</u>	1 \$150.0	101	B	<del>-  </del>	$-\frac{\Lambda}{\Lambda}$	A	
3 C 29		31 WS-FTP Pro	Lecco	1	اد	L	1 \$65.0	0		<del>-   '-</del>	$-\frac{\Lambda}{\Lambda}$	A	
3 C 29	, <u> </u>	31 Meeting table	Lecco	Y		L	1 \$65.0		$\frac{B}{B}$		$-\frac{\Lambda}{\Lambda}$		
3 C 29		31 Meeting table	Lecco		<u> </u>	<u>L</u>	1 \$65.0		В	1	$-\frac{\Lambda}{\Lambda}$	-   f	<del>,</del>
3 C 29		31 Meeting table	Lecco		0	<u>L</u>	1 \$65.0		B	┵	-   A		
3 C 29		31 Meeting table	Lecc	1	0	L	1 \$65.0		$\frac{B}{n}$	$-\frac{1}{1}$	$\frac{A}{A}$	1	
3 C 30		31 Meeting table	Lecc	- <del>                                     </del>	0	L	1 \$65.		B				<u> </u>
3 C 30		31 Meeting table	Lecc	7	0		1 \$65.		B		- A		······································
3 C 3		31 Meeting table	1 Lecc		0	L	1 \$65.		$\frac{B}{2}$				À
)3 C 3	03 4 3	31 Meeting table	Lecc		0	L	1 \$65.		B				A A
	04 4 3	31 Meeting table	Lecc	1	:0	L	1 \$65.		B				
	05 4 3	31 Meeting table	Lecc	0		L	1 \$120.		B				<u>A</u>
	06 4 3	31 Cabinet (Grass)		1		L	1 \$120.		<u> K</u>		2 A		A
03 C 3	07 4 3	31 Cabinet (Grass)	Leco	1		L	1 \$80.		K		)2 A		<u>A</u>
	08 4 3	31 Cabinet	Leco	T.		L	1 \$77.	00	E	} [f	A A		<u> </u>
	09 4 3	31 Cabinet small, Book shelve	Leco	0	~~_								

eferenceNo	Date of Arrival		Description			Amo		Price	Place	ge	Freque ncy of Use	Cond itio n	Remarks
	<u> </u>	Item	Maker/ Model	Model Number	R/P		USD			Room P		Α	
ear Type No )3 C 310	Year Years Day	Money box	China	Super Stone SS-S2	<u>L</u>		\$60	. 00	<u>B</u>	P	A A		Expired/disposed
)3 C 310 )3 C 311		Norton Antivirus	Symantec Corp.	0001153403	L		\$54	. 00	B	╀	<del> </del>		Expired/disposed
	+		Symantec Corp.	0001153364	L		\$54	. 00	В	P	A		
	1	Norton Antivirus	Symantec Corp.	0001153355	L		\$5	Ł. 00	В	Р	A	<u> </u> A	Expired/disposed
03 C 313	+	Norton Antivirus	Symantec Corp.	0001153409	L		1 \$5	1.00	В	P	A	A	Expired/disposed
03 C 314	4 3 31	Norton Antivirus		0001153370	1		1 \$5	4. 00	В	Р	Α	A	Expired/disposed
03 C 315	4 3 3	Norton Antivirus	Symantec Corp.	WB 30XT	1	}	1	9.00	В	S2	A	Α	
03 C 316	4 3 3	Engine pump (BC)	Honda, Thailand	ID JOA1	i	1		0.00	В	S2	A	A	
03 C 317		Equipment shelve (BC)	HiepThanh	N300	]		1 \$	2. 45	В	T	В	A	
03 C 318	4 3 3	Plastic chairs	Plastic HiepThanh	N300	1		1 \$	2. 45	В	T	В	A	
03 C 319	4 3 3	l Plastic chairs	Plastic		<del> </del>	1			В	$\frac{1}{T}$	В	A	
03 C 320		Plastic chairs	HiepThanh Plastic		)	L	1	2, 45	<u>. D</u>	- -		-	
<del></del>			HiepThanh	N300		L	1 8	2, 45	В	T	В	A	
03 C 321	1 4 3 3	Plastic chairs	Plastic HiepThanh		$\downarrow -$	1	1	2, 45	В	T	В	Α	
03 C 322	2 4 3 3	Plastic chairs	Plastic		4	4				-  <sub>T</sub>	В	A	
┟┉╌╂╌╌╂╼┈			HiepThank Plastic		0	L	1	2, 45	В	_   1			
		Plastic chairs	HiepThan	N30	ol	L	1	\$2.45	В	T	В	A	
03 C 32	4 4 3	Plastic chairs	Plastic HiepThan	N30		<del> </del>		\$2, 45	В	T	В	A	
03 C 32	5 4 3	31 Plastic chairs	Plasti		ॏ─	4			B	-	В		
03 C 32		31 Plastic chairs	HiepThan Plasti		10	L	1	\$2.45					
<b> </b>			HiepThan	,	00	L	1	\$2.45	В	T	В	A	
03 C 32	27 4 3	31 Plastic chairs	Plasti HiepThan		20		1	\$2.45	В	T	В	A	
03 C 32	28 4 3	31 Plastic chairs	Plasti	c l		-			B	T	В	A	
03 C 32		31 Plastic chairs	HiepThar Plasti		00	丩	1	\$2, 45	<u> </u>				
<b>I</b>			HiepThar	,	00	L	1	\$2.45	E	T	В	A	
03 C 3		31 Plastic chairs	Plasti HiepThar		00		I	\$2.45	E	1	В	A	
03 C 3	31 4 3	31 Plastic chairs	Plast: HiepTha	i c		_	1	\$2.45		3 1	` B	A	
03 C 3		31 Plastic chairs	Plast		00	니		φΔ. 4:	<u> </u>				

ferenceNo			e of					Amo	1	e	Place			Cond itio n	Remarks
		MII	7 447		Description	Model Number	R/P		USD	JPY	Office	Room			
ar Type No	Year	Koat	Day	Item	Maker/ Model				eo 45		В	T	В	A	
	T		3 1		HiepThanh Plastic	И300	L		\$2.45		12			-	
3 C 333		4	3,	Plastic chairs	HiepThanh	N300	L		\$2.45		В	T	В	Α	
3 C 334		4	3 31	Plastic chairs	Plastic	0007	<u></u>		¥	<u> </u>		<del> </del>		1.	
	┼		<del>-1</del>		HiepThanh	М300	L		\$2.45		В	T	В	A	
3 C 335		4	3 3	Plastic chairs	Plastic			-	40.15		В	T_	В	A	
<del></del>	+				HiepThanh	N300	L		1 \$2.45		D	<u> </u>	L	Λ	
3 C 336		4	3 3	Plastic chairs	Plastic HiepThanh		,		1 \$2.48		В	r	В	Α	
3 C 337	T	7			Plastic	N300	1	<u> </u>	J J2. 40	<u> </u>	ļ	ļ <u>-</u>	<del>                                     </del>		
03 C 337	1	*	1	Plastic chairs	HiepThanh	N300	1		1 \$2.48	5	В	T	В	Α	
03 C 338		4	3 3	Plastic chairs	Plastic	NOON	<u> </u>	<u> </u>		+	+-	+	<del>                                     </del>	1.	
	_			T"	HiepThanh	N300	1		1 \$2.4	5	В	T	В	A	
03 C 339	)	4	3 3	Plastic chairs	Plastic		ļ	-		-	٦_	- C	I	A	
	+-		_		HiepThanh	N300	]	_	1 \$2.4	5	В	T	В	I <sup>A</sup>	
03 C 340	)	4	3 3	Plastic chairs	Plastic		<del> </del>	┼┈	<b></b>		В	T	В	Α	
	-		1		HiepThanh	N300	1	4	1 \$2.4	D	I <sup>D</sup>		<u> </u> "		
03 C  341		4	3 3	Plastic chairs	Plastic HiepThanh			1	1 \$2.4	5	В	T	В	A	
03 C 342	7	4	3 ,	11	Plastic	И300	)	니	1 92.7		Т-	<del>-</del>			
03 C 342		1	1	Plastic chairs	HiepThanh	N30	1		1 \$2.4	5	В	T	В	Α	-
03 C 343	3	4	3	Plastic chairs	Plastic	1400	<u> </u>	1				-	1	十.一	
00   0 10	-				HiepThanh	N30	ol	L	1 \$2.4	5	В	T	В	Α	
03 C 344	4	4	3	Plastic chairs	Plastic		-	+			1,	T	В	A	
<b>├</b>	┿	┰┼	[	1	HiepThanh	И30	0	L	1 \$2.4	:5	В	1	Ь		
03 C 34	5	4	3	Plastic chairs	Plastic		-	_	. 60	E	В	T	В	Α	
	7				HiepThanh	N30	0	L	1 \$2.4	:0			Т—		
03 C 34	ь	4	3	Plastic chairs	Plastic HiepThanh	110.0		,	1 \$2.4	15	В	T	В	Α	1
03 C 34	7	4	- 1	i i	Plastic	N30	U		1 ψω.						
03   54			4	31 Plastic chairs	HiepThanh	N30	٥		1 \$2.	15	В	T	В	Α	
03 C 34	8	4	3	31 Plastic chairs	Plastic	1100	4—	4				1			
	-+				HiepThanh	N30	0	L	1 \$2.	<b>4</b> 5	В	T	В	A	
03 C 34	19	4	3	31 Plastic chairs	Plastic		-	-	4.0		В	T	В	Α	
			· i	į.	HiepThanh	N3(	)0	L	1 \$2.	45	Б	1			
03 C 35	50	4	3	31 Plastic chairs	Plastic HiepThanh			,	1 \$2.	45	В	T	В	Α	
03 C 35		4			Plastic	N3	)()	L	μ <u>φ</u> Δ,	<b>*</b> '		_			
03 C 35	יי	4		31 Plastic chairs	HiepThanh	N3	20	L	1 \$2.	45	В	T	В	Α	
03 C 38	52	4	3	31 Plastic chairs	Plastic	NO.	-	4						<del>-  </del> -	
03 0 00					HiepThanh	ИЗ	00	L	1 \$2.	45	В	T	В	Α	
03 C 3	53	4	3	31 Plastic chairs	Plastic		_					-	В	A	
			1		HiepThanh	N3	00	L	1 \$2.	45	В	$-\Gamma$	B	A	
03 C 3	54	4	3	31 Plastic chairs	Plastic		L_	1.							

fere	nceN	10		)ate						Ame	4	Price	st	ace orag	ո հ		Cond itio n	Remarks
		1	-	1111	1		Description Maker/ Model	Model Number	R/P		_	SD	PY of	fice ]	Room			
ır Ty	rpe ]	lo [	Year	(oștă	Day	Item	HiepThanh				,	\$2, 45	В	,	T	3	Α	
3 C	,	355	4	3	31	nz de de de	Plastic	N300	Ĺ		1	φ2, <del>4</del> 0				·····		
1		100			-	Plastic chairs	HiepThanh	N300	L		1	\$2, 45	В		T	В	A	
3 C		356	4	3	31	Plastic chairs	Plastic			-	+	4	E		T	 В	Α	
-+-	$\dashv$						HiepThanh	N300	L	1	1	\$2, 45	E		<u> </u>		<u> </u>	
3 C	}	357	4	3	31	Plastic chairs	Plastic HiepThanh	MOOC	,		7	\$2.45	E	}	T	В	A	
3 (	$\overline{}$	358	4	3	31	Plastic chairs	Plastic	N300	1	1	4	ΨΔ. 10					+	
1	_				1	T I	HiepThanh	N300	] ]		1	\$2, 45	Į.	3	T	В	A	
3 (	2	359	4	3	31	Plastic chairs	Plastic		<del></del>		-+			3	r	В	A	
-			-		1	!	HiepThanh	N300	]		1	\$2.45	1			D	1-	
3 (	0	360	4	3	31	Plastic chairs	Plastic HiepThanh		<u> </u>		1	\$2.45		В	T I	В	A	
3	^	361	4	T	1	1	Plastic	И300		L	4	ψΔΣΟ						
۱۳	<u> </u>	301	<u> </u>	_	1	Plastic chairs	HiepThanh	N30		L	1	\$2, 45		В	T	В	A	
3	C	362	4	1 3	3 31	Plastic chairs	Plastic	1100	1						<u></u>	В	1	
			┼─	1			HiepThanh	И30	)	L	1	\$2, 45		В	T	В	A	
3	С	363	4	1 :	3 3	Plastic chairs	Plastic		1	+	_	<b>ድ</b> ብ 45		В	Т	В	A	
	~	004					HiepThanh Plastic	ИЗО	0	니	1	\$2, 45			<del>  _</del>	-		<u> </u>
3	С	364		*	3 3	Plastic chairs	HiepThanh	N30	7	1	1	\$2, 45		В	T	В	Α	
)3	r	365	1 4	4	3 3	l Plastic chairs	Plastic	Nov	<u></u>	4		<b>*-</b> : -			<del> </del>	_	+-	
,5	<u> </u>	1		-	_	<u> </u>	HiepThanh	N3C	0	L	1	\$2, 48	5	В	T	В	A	
)3	C	366		4	3 3	Plastic chairs	Plastic		_			00.45	_	В	T	В	A	
	-	-	_				HiepThanh	N30	0	L	1	\$2. 4		l	ı			
)3	C	367		4	3 3	Plastic chairs	Plastic Lecco	Leco	:0	L	1	\$75.0		В	P	A	A	
)4	C	369		4		20 Cabinet	Lecco	Lece	:0	L	1	\$75.00		K	02	A	A	
)4	C	370		4		20 Cabinet	China	- 00 /	32	L	1	\$60.0	<u> </u>	В	P	A	A	
04	C	371	Ц_	4		27 Mony Box	Adobe Sys.	900459	1	l.	1	\$80.0	ol	В	P	Α	A	
04	c	372	2	4	6	12 Computer soft(Adobe Photoshop)	Incor	900403				\$228.0		K	SI	A	A	
		1		4		30 Engine (Hand tractor)				ᆜ	1	\$228. U	¥680, 000	K	SI	A	A	
04	10	373		4	6	28 Quadrat Sampling Thresher		190-C/0	AM	Ε		<u> </u>		1		+	-	
03	В	374	_	4			Sunaka, Co		FS	E	1	L]	¥520,000	) B	GF	В	A	
03	В	37	5	4	6	28 Hot Air Circulating Oven	Lto	AG-0027-0	40	E		1	¥13,000	B	A	B	P	<u> </u>
03	В	37	6	4	6	28 Desiccator	<u> </u>	AG-0027-0		E		1	¥13, 00		A	В	I	
	В	37		4		28 Desiccator		AG-0027-C		E		ī	¥13, 00		A	В	1	<u> </u>
	B	37		4		28 Desiccator	CITCHOUT CL		i	<del>-</del> †		1 200	\ <u>\</u>	В	GF	В		\
<b>T</b>						20 Engine and Alternator	SHENGHAI, Chi	S110	ON]	L		1 \$485. (				<u> </u>		
104	ı C	37	9	4	- 1		(N) 11	a Leo	col	L		1 \$120.0	00	В	A	A		1
04	4 C	38	30	4		15 Book shelve	Thailan POWERSU	U()		L		1 \$60.		В	A	A		<u> </u>
lo.		38		4	9	16 UPS	POWERSO	M OLOGAOSTOOK	<u> </u>	_=								

	ī.		Date					*****	Amo		Price	s	lace tores	1	Freque ncy of Use	Cond itio n	Remarks
ferencel	VO.		Arri	val		Description		W- 1973	un	7 1070			ffice	Room			
ar Type	T	Year	v)	Day	Item	Maker/ Model	Model Number	R/P	ļ	USD					В	Α	
		1 I			UPS	POWERSUN	UPS04021300662	Ţ	4	<u> </u>	\$60.00 \$80.00		- 1	S1	A	A	
	382 383				Cleaner			<u>_</u>	4		\$190.00				A	A	
	<u>აია</u> 384	5			Blower	Makita	2000	<u>I</u> I			\$47.00		B	F	A	A	
	385	5	1	27	Regulater 2000W	HANSHIN	2005	<u></u> T			\$47.00			P	A	A	
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# Local Cost Implementation by Japanese Side

oc	al Cost Implementation by Japanese Sid		Budgetary Year		Amount	Amount
			FY.2004	FY.2005	USD	JPY
Ĭο.	Category	FY.2003	<b> </b>	US\$ (Planed)		
10.	_	US\$	US\$	\$72,358.00	\$228,103.30	¥24,888,351
1	General Budget	\$81,840.32	\$73,904.98			
1	Reserch and C/P Training				\$5,578.86	¥608,70
2	1)Baseline survey	\$5,578.86				-
	1) Baseline Survey		3CP/4months	1CP/2.5month \$17.800.	00 \$17,800.00	¥1,942,15
	2)Counterpart Training in Japan			(10day×9)		
	3)Techinical Exchange			(10day×9)		
					\$116,667.48	¥12,729,58
3	Equipments  1) Procurement in Cambodia (Grant aid equipment)	\$116,667.48			\$10,553.00	¥1,151,43
	1) Procurement in Cambodia (Grant and equipment)	\$10,553.00			\$30,508.98	¥3,328,83
	Procurement in Japan (Grant aid equipment)	\$30,508.98			\$30,000.90	10,020,0
	3) Carried by Experts				_	
4	Construction and Renovation				015 022 60	¥1,727,61
	Project office rehabilitation and construction	\$15,833.68			\$15,833.68	¥4,208,9
	Bekchan station rehabilitation I	\$38,575.00			\$38,575.00	¥2,173,58
	KADC rehabilitation	\$19,921.00			\$19,921.00	
	Bekchan station rehabilitation II	\$4,900.71			\$4,900.71	¥534,7
	KADC seed storage and compost house construction				\$1,300.00	¥141,8
	KADC well construction	\$1,300.00			\$7,834.50	
	2) Check structure construction	\$7,834.50			\$3,393.00	
	3) Field survey	\$3,393.00	eo 002 0	2	\$9,983.00	¥1,089,2
	4) Agricultural road rehabilitation		\$9,983.0	V		
 5			5.00 tr - 45.	4experts/48men*moi	iths -	
	1)Long term	4experts/43men*months		2 experts/7men*mor		
-	2)Short term	4experts/9.5men*months				¥55,750,02
_	Total	\$336,906.53	\$83,887.9	\$90,15   US1\$ = ¥109.11(2005年6月分統制レ	il	200,100,02

# Allocation of Budget by Cambodian Side

(The data should be *June*, 2005

					snould be.	une, 2005
Expe	nditure by Cambodian Government	T	FY.2003	FY.2004	FY.2005	Total
No.	Description		F1.2000 1		0	0
1	Technical Equipment for Staff		U		0	0
2	Custom Fee for Imported Equipment		0	υļ		
	Counterpart allocation: management class		3CP/36months	3CP/36months	4CP/48months	
3	Counterpart allocation, management of the company	Ì	9CP/89months	8CP/96months	7CP/84months	
	Counterpart allocation: technical staff (permanent)			1CP/4.8months	1CP/4.8months	
	Counterpart allocation: technical staff (part time)	Riel	No Data	7,654,060	2,106,000	
4	Rice and rice seed production expenditure		140 1941	\$1,865.93	\$513.41	\$2,379.34
	Kamping Puoy Agricultural Development Center	USD				
	Bek Chan Agricultural Station	Riel	No Data	No Data		
		USD				.0.771.463
	The Control on Station	Riel	14,586,464	23,228,737	10,939,260	48,754,461
5	Electoricity (Bekchan Station)			\$5,662.78	\$2,666.81	\$11,885.5
	Agronomy office and extension office	Riel		1	646,800	2,651,600
6	Water			\$488.74	\$157.68	\$646.4
	Agronomy office and extension office	USD	<del></del>	4	<u> </u>	\$14,911.2
	Total Expenditur	e USD	\$3,555.94	<u>. 1</u>		L

US\$1=4,102 Cambodian Riel

# MINUTES OF MEETING BETWEEN THE PROJECT CONSULTATION TEAM AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE KINGDOM OF CAMBODIA ON JAPANESE TECHNICAL COOPERATION FOR THE BATTAMBANG AGRICULTURAL PRODUCTIVITY ENHANCEMENT PROJECT

Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Project Consultation Team (hereinafter referred to as "the Team"), headed by Mr.TOSHIFUMI EGUSA, to the Kingdom of Cambodia from November 18 to 25, 2003 for the purpose of the formulation of Project Design Matrix and Plan of Operation of "the Battambang Agricultural Productivity Enhancement Project" (hereinafter referred to as "the Project") as well as discussing the major issues related to the implementation of the Project.

During its stay in the Kingdom of Cambodia, the Team carried out field observation and had a series of discussions on the Project with the authorities concerned of the Kingdom of Cambodia in respect of the various issues related to the smooth implementation of the Project.

As a result, the Team and Cambodian authorities concerned agreed to report to their respective governments the matters referred to in the document attached hereto.

Phnom Penh, November 25, 2003

N. SCOOL

TOSHIFUMI-EGUSA

Leader.

Project Consultation Team,

Japan International Cooperation Agency,

Japan

H P THYG LAO

Under Secretary of State,

Ministry of Agriculture, Forestry and

Fisheries.

Kingdom of Cambodia

#### THE ATTACHED DOCUMENT

#### 1 Project Design Matrix (PDM) and Plan of Operation (PO)

PDM and PO are regarded as essential tools for monitoring and evaluating the Project through the Project term.

Based on the result of activities in the first stage (conducting the socio-economic survey), PDM is modified and PO are worked out in discussion between Cambodian side and Japanese side.

#### 1-1 PDM

The modification of PDM aims to clarify each activity of the Project, retaining the direction of the Project and the contents of the Project activities.

The major points of modifications are stated below. The modified PDM is attached as Annex 1.

#### (1) Target area

In the present PDM, target area is described as 23villages. This is because 23villages cover the existing rehabilitated area (2850ha:700ha rehabilitated by APS, 1200ha rehabilitated by APS, 950ha rehabilitated by Japanese Grant Aid) and proposed area (2200ha rehabilitated by APS).

It is described in Minutes of Meeting signed on December 20, 2002, that "if there is no funding support to rehabilitate the north canal area (2200ha) of the Komping Puoy irrigation system by Italian government, the Project activities will be limited and concentrated in the existing irrigated area."

At this moment, rehabilitation for 2200ha is still not started. Therefore both sides agreed that target area was modified from 23villages to 10 villages which cover the existing rehabilitated area (2850ha).

#### (2) Indicators of PDM and number of participating farmers

Both sides agreed that objectively verifiable indicators would be clearly set with numeric data and the expected number of participating farmers would be described by May 2004 on the basis of project activities including experiment, survey and monitoring.

#### 1-2 Plan of Operation (PO)

PO is worked out as the detailed schedule of activities described in PDM. It is attached as Annex 2-1 to Annex 2-4

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#### 2 Cambodian initiative

As mentioned in the Minutes of Meeting signed on December 20, 2002, Ministry of Agriculture, Forestry and Fisheries (MAFF) and Provincial Department of Agriculture, Forestry and Fisheries (PDAFF) in Battambang should take the initiative in carrying out the Project.

After the first stage of the Project in which the survey activities had been conducting for 6 months, the Project team will start the full-dress activities in the second stage of the Project. From now on, more positive and continuous initiative by the Cambodian side is strongly required for the smooth and successful implementation of the Project.

In this regard, both sides agreed the points below.

# 2-1 Assignment of Project Director and Members of Joint Coordinating Committee (JCC)

Though 7 months has passed since the Project started, it is to be deplored that Project Director and partial members of JCC are not still assigned by Cambodian side. The assignment of Project Director and JCC members should be completed within one month after formulation of new Royal Government and will be reported to the JICA Cambodia office.

#### 2-2 Coordination between PDAFF and Provincial Department of Water Resources and Meteorology (PDWRAM)

It is PDAFF which functions as the Project implementation organization in the provincial level.

However, it might be difficult for the Project to achieve the purpose without the positive involvement of PDWRAM in consideration of activities on strengthening Farmers Water Users Communities and on improving water management system.

From this view point, PDAFF recognized the positive cooperation and sharing related information to the Project activities between PDAFF and PDWRAM were indispensable for the successful Project, and PDAFF would more positively coordinate with PDWRAM during the Project term and both actively work on farmers' issues in the target area.

#### 2-3 Battambang Agriculture and Rural Network (BARN)

• According to the Minutes of Meeting signed of December 20, 2002, BARN was formed, and its first meeting was held on November 21, among institutions concerned under the initiative of PDAFF. It is highly appreciated that the Institutions involved in

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the agricultural development in the Battambang province shared the views and experiences in BARN. In order to conduct effective and efficient activities of the Project, it is crucial to share information among those institutions.

In this regard, BARN meeting will be held at least twice a year under the responsibility of PDAFF, and will be continued during and after the Project term.

#### 3 Operation cost

MAFF stated officially to include the Project operation cost in the budget of 2003 as described in the Minutes of Meeting signed December 20, 2002. However the budget for this Project is not allocated by Cambodian government in 2003.

In this connection, MAFF gave the Japanese side a definite promise to obtain even the part of the budget necessary for smooth Project operation from Ministry of Economy and Finance, being aware of the ownership of the Project.

Annex1; Project Design Matrix (PDM) Annex2-1 to 2-4; Plan of Operation (PO)

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Project Period: 3 years from April 1, 2003

# Project Design Matrix (PDM)

Project Title: Battambang Agricultural Productivity Enhancement Project (BAPEP)

related donors such as FAO, is made to mutually -Coordination between the Japanese government and the - Serious flood or drought does not take place in the Target - The agricultural policies of the government do not conflict C/P and extension workers who the Project has trained Target Group: Farmers in Komping Puoy Area (including landless farmers) Version 2 authorized by the Joint Coordinating Committee November 25, 2003 " Excush water resources are reserved for the irrigation -Rival credit programs are available in the Target Area take place - There are no significant changes in supply-demand " There is no significant hike in purchase prices of - CARDI produces breeder and foundation seeds There is no significant Inigation water shortage. understand the project purpose and activities are continuously stationed for the Project. balance and prices of agricultural products. "Serious flood or drought does not - The government is continuously stabile Weans of Verification | Important Assumptions Battanthang province. agricultural inputs. Preconditions beneficiary area. continuously. with the project manitaring montorng Surveys and assessment Evaluation survey Evaluation survey Periodical Periodical survey report servey 3-1. The trained farmer leaders (farmer trainers including worsen) becomes B. 1-1. Volume of quality rice seeds supplied to the Area is increased to A tons. 3 Number of participating farmers with diversified of agricultural products. 3–2. The runber of functioning farmer water users groups becomes C. (Some of the specialized fields will be shared among the four experts.) - C/P (at least 6 persons), extension workers, achinistrative staff I Rice yield of Participating farmers increases from X Uha to Y Uha 1-2. Technical guidelines for nice cropping technologies are used 2-2. Technical guidelines for simple farm management are used 2-1. A maru of diversification of farming systems is used Farmers organization/Participatory development 0-1. Outcome of the surveys and assessment 2 Rice qualities of Participating farmers Chief Advisor/ Farm management ncreased rice production in the area Long-term experts (4 persons) - Office space, training facilities Agricultural station and its farm 2. Cambodian side Cultivation/ Extension Coordinator/Training 1. Japanese side - Short-term experts - A part of local cost - Running expenses -- C/P training - Equipment hócators 1-4 Demonstrate the inharoved nice production technologies in the paddy fields enhanced and their fivelhood becomes stable with their active participation Participating farmers' agricultural productivity in Komping Puby area is 2-2 Formulate and practice farm management plan with model famers and 3-1 Support activation of fainer water users community, and conduct the 1-3 Improve rice production technologies (including double cropping water and conduct the training to disseminate them to participating farmers 1-2 Produce quality seeds of selected rice and supply them to farmers. 0-4 Enhancement of collaborative Inhage with concerned organizations. 2-1 Formulate the menu for agricultural diversification (introduction of 0-3 Conduct survey of agricultural products distribution and marketing 3-2 Empower rural women and strengthen fanners' group activities 2 Farning practice of participating farmers is improved (including crop 0-2 Conduct survey on current situation of the irrigation system normice crops, small scale aquaculture, avimal husbandry) 1-1 Select the vaneties of rice on the basis of farmers likeds. Farmers' Evelhood in Komping Plucy area becomes stable... Agricultural productivity in Battaribang province is enhanced Implementing organization: MAFF and PDAFF Farget Area: Komping Puoy Area (10 villages) 2-3 Conduct the training to disseminate fanning models 3. Activities by farmers' groups are promoted nanagement, post-harvest techniques) 1. Rice production technology is improved 0. Situation in the target area is grasped 0-1 Conduct socio-economic survey training to strengthen them 0-5 Manitaring of the Project. Narrative Summary Project Purpose eversification) Overall goal Activities Outputs

3-3 Condact the training for the government officers concerned about

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		7000	F002 .	2003	2005
0. Sicuaric	0. Situation in the target area is grasped.	4 5 6 7 8 9 10 11 112	8 9110111	12 1 2 3 4 5 6 7 8 9 10 111	12
1-0	Conduct socio-economic survey				
1-1-0	Preliminary interview to key informants				
0-1-2	Preparation of questionnaire format and pretest				
51-0	Interviewing village households				
71-0	Date encoding, analysis and report writing				
0-2	Conduct survey on current situation of the trrigation system				
0.2-1	Survey of irrigation facilities				
0-2-3	Survey on water management system				
0-3	Conduct survey on agricultural products distribution and marketing				
0.3-1	Survey of rice marketing				
0.3.2	Survey on agri-business potential			The state of the s	
	Enhancement of collaborative linkage with concerned organizations				
- - - - -	Supporting Battambang Agriculture and Rural Network				
04-2	Strengthen research, development and extension linkage				<b>)</b>
6-5	Monitoring of the Project				
0-5-1	Monitoring of impact at farmers' level				
	Monitoring of the Project management by Steering				
7-(-0)	Committee and Joint Coordinating Committee				

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[. Wee production skill are improved	Annex 2-2
***	6 7 8 9 10 11 17 1 7 3 1 3 6 7 8 0 10 11 11 2 1 3 6 7 8 0 10 10 11 1 2 1 3 6 7 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10
(-1) Select the varieties of rice on the basis of farmer needs	
x-14-1 Collect avilable varieties	
1-1-2 Demonstration of good varieties	
1-13 Survey on cultivated varieties in larget area	
1-1-1 Field meeting to select good varieties	
cultivation of selected good varieties by participate farmer	
1-2 Produce quality seed of selected rice and aupply them to lanner	
1-2-4 Improve production of quality seed in KADC	
1-2-2 Survey on seed suply situation in the terget area	
1-2-3 traing on seed production in fermer field level	
1-2-4 Improve production of quality seed in famor level	
[-3 Improve rice preduction skills (including double	
croping, water mangement, past-harvest techniques)	
1-2-1 Survey on rice cultivation system in the target area	
1-3-2 Experiments on rice cultivation	
Establish standerd of double croping system in target area (Make cultivation Calender)	
Demonstrate the improved rice production skills in the	
pandy netts and conduct traing to disseminate them to participating farmer	
1-+1 Demonstration on improved cultivation technics	
1-42 Survey extention system in terger area	
1-43 Select target fenner group	
1-4-4 Training in Farmer's field school	
1-1-5 Farmers practice in their fields	

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2005 Annex 2-3 7:5 352 <u>ر</u> تة 0/0 2005 G 7 11 11 6 00 200 -47 1 8 9 11 11 11 11 2003 9 'n 4 Conduct field days and Farmers Field School (PTS) Monitoring and improvement of larm management Study on profitability of diversified farm production Formulate and practice farm management plan Conduct visioning workshops with model larmers 2. Farming practice of participating farmers is improved diversification (introduction of non-rice crops, Improvement of home gardens of model farmers Conduct the training to disseminate farming Formulate alternative farm production activities Improvement of animal and poultry production small scale aquaculture, animal husbandry) Selection of model farmers and cooperators Impovenent of secondary crop production with model farmers and cooperators Formulate the menu for agricultural Examine crop diversification potential Selection of participating farmers fraincrs' training of cooperators Excahange visit of farmers of participating farmers (including crop diversification) and cooperators models

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2-3-3

2-3-1

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2-3-4

# MINUTES OF MEETING BETWEEN THE PROJECT CONSULTATION TEAM AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE KINGDOM OF CAMBODIA ON JAPANESE TECHNICAL COOPERATION FOR THE BATTAMBANG AGRICULTURAL PRODUCTIVITY ENHANCEMENT PROJECT

Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Project Consultation Team (hereinafter referred to as "the Team"), headed by Mr.RYUZO NISHIMAKI, to the Kingdom of Cambodia from August 1 to 10, 2004 for the purpose of evaluation of the progress and modification of Project Design Matrix of "the Battambang Agricultural Productivity Enhancement Project" (hereinafter referred to as "the Project") as well as discussing the major issues related to the implementation of the Project.

During its stay in the Kingdom of Cambodia, the Team carried out field observation and had a series of discussions on the Project with the authorities concerned of the Kingdom of Cambodia in respect of the various issues related to the smooth implementation of the Project.

As a result, the Team and Cambodian authorities concerned agreed to report to their respective governments the matters referred to in the document attached hereto.

Phnom Penh, August 9, 2004

MERVIZO NISHIMAKI

Leader,

Project Consultation Team,

Japan International Cooperation Agency.

Japan

H.E. TENG LAO

Secretary of State,

Ministry of Agriculture, Forestry and

Loufen

Fisheries.

Kingdom of Cambodia

#### The Attached Document

#### 1 The evaluation of the Project at mid-term stage

The Team conducted the field surveys and interviews with Japanese experts and Counterparts, and also had a series of discussions with the concerned authorities in order to evaluate the progress of the Project at mid-term stage. As the result of the study, the Team confirmed that, (1) considering the regional development, the Project aims to establish the model for stable livelihood with the use of rice production technology and crop diversification. (2) relevance of the Project purpose, efficiency and effectiveness regarding current input and expected output are adequate. In this connection the active involvement of Counterparts are highly appreciated and their continuing efforts are expected.

To achieve a significant output, the Project activities during the latter half of the cooperation period should be focused on some specific points for the sustainability and impact of the Project.

#### 2 Focused activities for sustainability and impact of the Project

#### (1) Rice production technology

The quality seed grower – user groups are established and Farmers Field Schools (here in after referred to as "FFS") are held. The sustainability is expected by acquisition of tangible profit from the use of the high quality seed so that paddy rice is marketable. By the "Farmer to Farmer Extension System", it is expected that the number of the followers within the group is increased as well as new groups are increased.

#### (2) Farming practice (crop diversification)

The FFS trainers are selected among cooperators and they instruct other farmers at FFS. It is expected that the outcomes of the practice by successful FFS participants will be disseminated by "Farmer to Farmer Extension System".

#### (3) Farmer Water Users Community (FWUC)

The outcome of the activities in the two Model Areas is expected to be the showcase to disseminate water management system model in the target area.

#### (4) Empowerment of rural women

Activities of each women group encourage other women in the village, and more groups are expected to be created

#### 3 Future activity and target

#### (1) Rice production technique

Target; Village level quality seed grower - user group (approximately 6 groups and total of 40 members)

#### Activities;

(a) Selection of high quality seed varieties by farmers with marketing information from rice

· in more than the think

millers

- (b) Promotion of the use of high quality seed by forming user groups
- (c) Selection of high quality seed growers among the group members and giving guidance of the seed production technique
- (d) Instruction of the rice production technique to the high quality seed users through FFS

#### (2) Farming practice

Target; Around 12 FFS trainers, FFS participants (approximately 12groups and total of 120 farmers)

#### Activity:

- (a) Continuous support to make the technical guideline of erop diversification
- (b) Selection and training of trainers using technical guideline
- (c) Mutual visits of FFS participants and interested farmers
- (d) Promotion of farmers group (pig farming, chicken farming, etc.)
- (e) Training of farmers at FFS how to use the Menus of diversification of farming practice

#### (3) Farmers organization

<Farmers Water Users Community>

Target; Officials of FWUC and 15 Sub Committees

#### **Activity**:

- (a) Development of water management models in the two Model Areas with technical guidance
- (b) Training of transparent accounting system for 15 Sub Committees

<Empowerment of rural women>

Target; 10 villages

#### Activity;

- (a) Participatory planning of the activities
- (b) Strengthening leadership in each women group (Support for self-reliance of women group)
- (c) Demonstration of food processing technique
- (d) Collection of the village level information

#### 4 Modification of PDM

The indicators of Project purpose and Output are modified as follows (Modified PDM is attached as ANNEX).

- (1) Indicators of PROJECT PURPOSE
- (a) Yield of quality seed user group members reaches over 80 % of the yield in KADC and. Rice qualities of 80 % of quality seed user group members are evaluated as quality rice.
- (b) Mere than 50 % of FFS participants are better off
- (2) Indicator of OUTPUT
- (a) Outcome of the surveys and assessment
- (b) A system of village level quality seed grower user group is established.

- (c) Technical guidelines for rice cropping technologies are used by all quality seed user group members.
- (d) Technical guidelines for simple farm management are used by over 60% cooperators.
- (e) Menu of diversification of farming system is used by over 80 % of FFS participants.
- (f) Transparent accounting system is operated in more than 7 Sub Committees out of 15.7
- (g) More than 5 active women groups are developed in 10 villages.

#### 5 Recommendations

## (1) Coordination and collaboration at the Komping Puoy Irrigation System

The continuous collaboration with Provincial Department of Water Resources and Meteorology (PDWRAM) is crucial for the effective and efficient implementation of the Project. There are many donors such as ADB, FAO, WFP operating at Komping Puoy Irrigation System. The activities of the Project should be coordinated by sharing information and having common understanding among concerned government agencies and donors for the development of the area. To do so, stronger collaboration and support from both Ministry of Agriculture, Forestry and Fisheries (MAFF) and Ministry of Water Resources and Meteorology (MOWRAM) is needed.

### (2) Dissemination of information on the Project activities

In order to enhance agricultural productivity in Battambag Province, good practice of the Project activities should be disseminated through Battambang Agriculture and Rural Network (BARN).

### (3) Development of rice seed certification system

In order to sell high quality seed with added value, the certification of the quality by official institution is needed. The establishment of laws regarding rice seed should be promoted, and implementation of inspection and certification of rice seed by official institution is expected.

### (4) Recurrent budget of Provincial Department for Agriculture, Forestry and Fisherics (PDAFF)

In order to disseminate the outcome of the Project activities to other communities in Battambang Province with sustainability, it is necessary for the PDAFF in Battambang to have appropriate amount of operating cost.

The Ministry of Agriculture, Forestry and Fisheries would secure PDAFF to acquire enough recurrent budget for this purpose.

<ul> <li>Project Design Matrix (PDM)</li> </ul>	APEP)
ANNEX Pa	g Agricultural Productivity Enhancement Project (BA
C 254	Project Title: Battambar

Target Area: Komping Puoy Area (10 villages)

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September 1

Target Group: Farmers in Komping Puoy Area (including landless farmers)

Project Period: 3 years from April 1, 2003

government and the related donors such as FAO, is made to mutually understand the Japanese Rural credit programs are available in the has trained are continuously stationed for the - The agricultural policies of the government do There is no significant Irrigation water Enough water resources are reserved for the There is no significant hike in purchase prices Serious flood or drought does not take place Joint Coordinating Committee Version 3, August 9, 2004 - Serious flood or drought does not take place - C/P and extension workers who the Project - CARDI produces breeder and foundation - The government is continuously stable. supply-demand balance and prices of There are no significant changes in project purpose and activities not conflict with the project Important Assumptions -Coordination between irrigation beneficiary area in Battambang province agricultural products. of agricultural inputs. seeds continuously. in the Target Area. Preconditions Target Area. shortage. " **Project**. monitoring monitoring assessment report Evaluation survey Evaluation survey Verification Surveys and Means of Periodical Periodical survey i-2. Technical guidelines for rice cropping technologies are used by all quality seed user Yield of quality seed user group members reaches over 80 % of the yield in KADC and rice 3-1. Transparent accounting system is operated in more than 7 Sub Committees out of 15. 2-i Technical guidelines for simple farm management are used by over 60% cooperators. Approved by 2-2 Menu of diversification of farming system is used by over 80 % of FFS participants. qualities of 80 % of quality seed user group members are evaluated as quality rice. 1-1. A system of village level quality seed grower - user group is established. (Some of the specialized fields will be shared among the four experts.) - C/P (at least 6 persons), extension workers, administrative staff 3-2. More than 5 active women groups are devoloped in 10 villages. Farmers organization/Participatory development 2 More than 50 % of FFS participants are better off. 0-1.Outcome of the surveys and assessment Chief Advisor/ Farm management Increased rice production in the area Long—term experts (4 persons) - Office space, training facilities Agricultural station and its farm Cultivation/ Extension 2. Cambodian side Coordinator/Training - Short-term experts A part of local cost 1. Japanese side - Running expenses group members. - Equipment Indicators I have been the transien for the necessitation allows conserring 0-2 Conduct survey on current situation of the irrigation system Puoy area is enhanced, and their livelihood becomes stable 1-1 Salect the varieties of rice on the basis of farmers' needs. Participating farmers' agricultural productivity in Komping 1-2 Produce quality seeds of selected rice and supply them to 1-4 Demonstrate the improved rice production technologies in 2-2 Formulate and practice farm management plan with model 3-1 Support activation of farmer water users community, and 0-3 Conduct survey of agricultural products distribution and the paddy fields and conduct the training to disseminate Farmers' livelihood in Komping Puoy area becomes stable. (introduction of non-rice crops, small scale aquaculture, Implementing organization: MAFF and PDAFF Agricultural productivity in Battambang province is enhanced cropping, water management, post-harvest techniques) 1-3 Improve rice production technologies (including double 3-2 Empower rural women and strengthen farmers group 0-4 Enhancement of collaborative linkage with concerned 2 -3 Conduct the training to disseminate farming models 2-1 Formulate the menu for agricultural diversification 2. Farming practice of participating farmers is improved 3. Activities by farmers groups are promoted -- conduct the training to strengthen them 1. Rice production technology is improved 0. Situation in the target area is grasped. 0-1 Conduct socio-economic survey (including crop diversification) them to participating farmers with their active participation. 0-5 Monitoring of the Project. farmers and cooperators. animal husbandry) Narrative Summary Project Purpose organizations Overall goal Activities

#### JOINT EVALUATION REPORT

ON

#### THE BATTAMBANG AGRICULTURAL

#### PRODUCTIVITY ENHANCEMENT PROJECT IN CAMBODIA

Phnom Penh, August 4, 2005

MI NISHIMAKI Ryuzo

Leader

Japanese Evaluation Team

Japan International Cooperation Agency

Japan

Mr. CHEA Sareth

Leader

Cambodian Evaluation Team

Ministry of Agriculture, Forestry, Fisheries

The Kingdom of Cambodia

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LIST OF ANNEXES

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#### 1. Evaluation of the Project

#### 1.1 Objectives of Evaluation

The Evaluation Team for "Battambang Agricultural Productivity Enhancement Project" has been dispatched for the following purposes:

- (1) To conduct a joint study and meeting with the concerned authorities of Cambodian government in order;
  - to gather necessary information to verify the outcomes of the project inputs for the project period (include the expectancy after the project evaluation),
     and
  - b) to assess the level of achievement, overall effects and strategies by Five Evaluation Criteria; Relevance, Effectiveness, Efficiency, Impact and Sustainability.
  - (2) To discuss the necessity of follow-up cooperation after the termination of the project.
  - (3) To draw lessons leaned from the project in order to improve the quality of new projects and other ongoing projects.
  - (4) To compile the joint evaluation report.
  - (5) To prepare the Minutes of Meeting on the basis of the evaluation report and sign it.

#### 1.2 Methodology

#### (1) Joint Evaluation

The Project is evaluated by the Cambodian and Japanese team (hereafter referred to as "the Joint Evaluation Team") in accordance with the R/D, the PDM and the PO. The activities included report analysis, field survey, and interview with staff of the Ministry of Agriculture, Forestry and Fisheries (MAFF), Japanese experts and other concerned personnel in the Project based on the five Evaluation Criteria. The Joint Evaluation Team was composed of 5 members from the Cambodian side and 5 members from the Japanese side who were not involved in the Project activities.

#### (2) Five Evaluation Criteria

#### 1) Relevance

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

#### 2) Effectiveness

Effectiveness refers to the extent to which the expected benefits of the Project

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have been achieved as planned. It also examines whether these benefits have been brought about as a result of the Project.

#### 3) Efficiency

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

#### 4) Impact

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

#### 5) Sustainability

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

#### 1.3 Members of the Joint Evaluation Team

See ANNEX I

#### 1.4 Schedule of Evaluation

See ANNEX II

#### 2. Outline of the Project

#### 2.1 Background of the Project

Rural area shares about 84% of total population and 90% of poor people, and their livelihood depends on agriculture, which contributes to approximately 40% of the country's GDP. Thus, agricultural development is the key of poverty alleviation and food security, and it is one of the most important areas in its national economy. Rice is the staple food and produced about 43% of total added value among agricultural commodity. The rice planted area in the total planted land shares around 90%, however, cropping is in general done only in wet season, relying heavily on rainwater due to lack of irrigation system. As rice crops depend mostly on the weather, the unit yield per hectare is about 1.9 tons in nationwide average, which is relatively lower than the neighboring countries.

Royal Government of Cambodia (RGC) made a request to the Government of Japan for technical assistance to increase the productivity of rice by improving quality seed selection,

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breeding, research, fertilization, soil and fertilizer control, pest management, machinery use and water usage and to extend the developed technologies to the farmers.

In response to the request, JICA dispatched a short-term expert to Cambodia for one month from January 2001, and in April the same year, conducted project formulation study. The result of the study recommended the project possibility of having the stronghold at Bek Chan Station and of establishing the quality seed supply system and extending the technologies to farmers at the demonstration farm. Based on the recommendation, JICA dispatched the first preparatory study team to Cambodia for 23 days from January 6, 2002 and the second preparatory study team from May 2 to July 16, 2002.

#### 2.2 Objectives of the Project

The Project Purpose is "participating farmers' agricultural productivity in Kamping Puoy area is enhanced, and their livelihood becomes stable with their active participation". The framework of the Project is shown in the PDM modified in August 2004 (See ANNEX III). The organizational structure for the Project is shown in ANNEX IV.

#### 2.3 Inputs

The inputs to the Project included the followings and their details are shown in ANNEX V to IX.

- Dispatch of Japanese Experts
- Counterpart Assignment and Training in Japan
- Provision of Equipment by Japanese Side
- Local Cost Implementation by Japanese Side
- Allocation of Budget by Cambodian Side

#### 3. Achievements of the Project

#### 3.1 Activities

See ANNEX X

#### 3.2 Outputs

The objectively verifiable indicators and achievements as of July 2005 related to each output are as follows:



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#### Output 0: Situation in the target area is grasped.

Objectively Verifiable Indicators

#### 0-1. Outcome of the surveys and assessment

#### Achievements (as of July 2005)

The situations of the Project area have been grasped well through:

- Baseline survey for 284 farmer households
- Daily communication with quality seed user groups, farm management cooperators, women groups, committee members of water users groups
- FFS and other trainings conducted to farmers

The Project was then able to understand the situations including non-irrigated areas, problems of landless farmers, development potentials of animal husbandry, etc., and to identify the farmers that the Project should target and the approaches the Project should take. As a result, the Project has become farmer-oriented and environment-friendly. Therefore, it is considered highly significant to have this output produced.

#### Output 1: Rice production technology is improved.

#### Objectively Verifiable Indicators

- 1-1. A system of village level quality seed grower user group is established.
- 1-2. Technical guidelines for rice cropping technologies are used by all quality seed user group members.

#### Achievements (as of July 2005)

- 1-1. Since 'a system' is not objectively verifiable, this indicator is interpreted that quality seeds are produced and used by farmers groups at the village level. The Project established quality seeds production groups in 2004 with 19 farmers (4 farmers were seed producers), and the number of participating farmers increased to 69 (6 are seed producers) in 2005. By the groups, quality seeds have been produced and used by its member farmers, and also used by the neighboring farmers. It can therefore be said that the system has successfully been established.
- 1-2. The Project has not yet prepared technical guidelines for rice cropping technologies. At the time of evaluation, the Project is analyzing the results collected from the member farmers



through questionnaire survey regarding rice cropping technologies introduced to them in 2004. It is expected that the Project prepare technical guidelines by its termination based on the results of this analysis.

# Output 2: Farming practice of participating farmers is improved (including crop diversification). Objectively Verifiable Indicators

- 2-1. Technical guidelines for simple farm management are used by over 60% cooperators.
- 2-2. Menu of diversification of farming system is used by over 80% of FFS participants.

#### Achievements (as of July 2005)

- 2-1. The indicator is interpreted that annual farming plans are prepared by the Project for each farm management cooperator. The plans have been prepared for all of 5 cooperators, and they have been used by 3 of them, since the remaining 1 became sick and another one moved to the other areas.
- 2-2. Menu of diversification of farming system has not been prepared by the Project. The main reason was that it was difficult to find advanced farmers who can be the cooperators to try their farming systems to be diversified. In addition, 2 cooperators had to suspend their roles because of sudden sickness or pregnancy. As a result, there are only 5 cooperators for vegetable and 1 for peanuts productions at the time of evaluation. Besides crop production, there are also 1 group for pig raising and 2 groups for chicken raising trained by the Project.

The Project has conducted the trainings to not only the cooperators but also other farmers and 10 Village Livestock Agents (VLAs), 2 of them trained the farmers in their respective villages, on diversification of farming systems. It is however not yet known how well it has been accepted by them. This should be grasped by the follow-up survey.

#### Output 3: Activities by farmers' groups are promoted.

#### Objectively Verifiable Indicators

- 3-1. Transparent accounting system is operated in more than 7 Sub Committees out of 15.
- 3-2. More than 5 active women groups are developed in 10 villages.



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#### Achievements (as of July 2005)

- 3-1. The indicator is interpreted that irrigation service fees are collected from water user group farmers and managed well in more than 7 out of 15 groups. The Project has supported and trained Farmer Water User Community (FWUC) for organizational development including water management and financial management. The FWUC was able to deliver irrigation water according to the distribution plan in 2004 wet season. As a result, 46% of the total chargeable irrigation service fees (ISF) were collected, and within the irrigation model areas of the Project, this rate reached as high as 88%. 14 groups are able to keep their ISF accounts with MOWRAM's format. It can therefore be said the Project has achieved its target although ISF collection rate should be improved.
- 3-2. The Project has facilitated meetings with the villagers to establish and strengthen women groups in all of the 10 villages, and there is now one women group in each village. All of them are regularly holding meetings and conducting activities, with more or less fixed membership. It is therefore considered that the Project has successfully achieved this target concerning the women's groups.

#### 3.3 Project Purpose

The Project Purpose has been set as "participating farmers' agricultural productivity in Kamping Puoy area is enhanced, and their livelihood becomes stable with their active participation." Its objectively verifiable indicators and the achievements as of July 2005 are as follows:

#### Objectively Verifiable Indicators

1. Yield of quality seed user group members reaches over 80% of the yield in KADC and rice qualities of 80% of quality seed user group members are evaluated as quality rice.

#### Achievements (as of July 2005)

#### 1-1 Rice Yield

According to the project staff, the following results were obtained:

	Year	Yield (ton/ha)	Remarks		
	2003 -	2.38	Before the Project		
Ì	2004	4.28 After the Project. This yield was higher than that of KADC.			

(source: average of interview results to 15 quality seed user group members)



Rice Varieties	Ave. Yield (ton/ha)	Max. (ton/ha)	Min. (ton/ha)
Phkarumduol	4.27	5.41	3.10
Raing Chey	4.70	6.27	2.77

(source: average of the results from unit area sampling method on 17 quality seed user group members, conducted in 2004 wet season)

#### 1-2. Rice Quality

The Project has been facilitating to make a contract between the group member farmers and a rice miller to agree that the rice miller buy rice at 5% higher than market price at the time when the farmers can produce 'quality rice'. The detailed standards were set and agreed by them. The result in 2004 was as follows:

- Three farmers sold their rice to the rice miller, but only one farmer was able to sell at 5% higher than market price as agreed. Other two farmers sold it at market price though the rice miller said he bought rice at 5% higher.
- Many other farmers sold rice to neighboring farmers at prices higher than 5%. The neighboring farmers were interested to try the varieties that the group member farmers used.

#### Assessment

#### 1-1. Rice Yield

It is considered the Project achieved its target in 2004 wet season. However, rice yields of non-group member farmers were also able to reach to 3.8 ton/ha. It is therefore suggested to see the result of 2005 wet season so that the performances of the project may be better assessed.

#### 1-2. Rice Quality

It is considered that the Project has achieved its target to some extent because many farmers were able to produce 'quality rice' and to sell it at higher prices than market. However, it should be considered how and by whom the measurement of the indicator should be done.

#### Objectively Verifiable Indicators

2. More than 50% of FFS participants are better off.



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#### Achievements (as of July 2005)

The Project has been conducting trainings to the farmers (FFS participants), aiming to improve their farming practices, and eventually make their livelihoods better and stable. At the time of evaluation, however, there was no numerical data available to assess the livelihood aspects, since an impact assessment study is scheduled to be conducted by the Project at the very end of the Project period. Nevertheless, it was found out during the evaluation study that many farmers participated in various training conducted by the Project have applied those technologies and enjoyed the newly developed information network, and that some of them have introduced new on- and off-farm activities or improved the existing ones, gaining additional incomes.

#### Assessment

It is too early to assess until the farmers can obtain the results. While waiting for the impact assessment study, the Team at this stage assumes that, by the end of the Project, not a small number of participating farmers could attain more stable livelihood, not merely in terms of income figures but in terms of wider scope of livelihood strategies to choose from alternative sources of livelihoods, and information and human networks that would contribute to their resistance to external shocks.

#### 3.4 Prospect to achieve the Overall Goals

The Overall Goals of the Project are "agricultural productivity in Battambang province is enhanced" and "farmers' livelihood in Kamping Puoy area becomes stable."

#### Objectively Verifiable Indicators

Increased rice production in the area

#### Assessment

At the time of evaluation, it was noted that agricultural productivity (yield) has been enhanced among the 19 quality seed user group members and that the number of the interested farmers have been increased up to 69. The Team recognized it as the spreading effects of the Project's intervention. It is therefore anticipated that the overall goals would be achieved once the appropriate supports by the relevant institutions and policy measures are obtained, though in the longer time frame.



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#### 4. Results of the Evaluation

#### 4.1 Relevance

Relevance of the project is assessed based on the following:

- (1) Whether the project has been designed and implemented according to development policies and strategies of Cambodia
- (2) Whether the project meets the needs of its target groups, and whether the selection of the target groups has been appropriate
- (3) Whether the project has been designed and implemented according to Japan's Assistance Policies for Cambodia

#### (1) Development Policies and Strategies of Cambodia

The Cambodia government has emphasized poverty reduction, enhancement of agricultural sector and improvement of rural livelihoods in its development policies and strategies. The Project aims to enhance agricultural productivity towards improvement of rural livelihoods, and therefore considered as appropriately designed.

#### (2) Needs of the Target Groups

Based on the baseline survey conducted at the commencement of the Project, the Project grasped the situations as well as the needs of the farmers in the Project area, and made its strategies accordingly. The Project has also been intending to frequently and closely communicate with the farmers during both the planning and implementation stages. The target farmers have been involved intensively through those processes, and therefore it can be said that the Project understands the needs of the farmers well and has made a great effort to meet them. The Project selected its target farmers, intending to distribute the project benefits widely, and has eventually included not only irrigation farmers but also landless farmers and women. The selection of the target groups has therefore been appropriate.

#### (3) Japan's Assistance Policy

Japan's policy is to provide assistance that contributes to Cambodia's sustained economic growth and poverty reduction, keeping it fully in line with the Socio-Economic Development Plan (SEDPII) and Cambodia's Poverty Reduction Strategy Paper (PRSP). One of four priority-areas of Japan's assistance to Cambodia for the next five years is "realization of sustainable economic growth and a stable society", which is directly related to "agriculture and rural development and the improvement of agricultural productivity." One of the priority areas in the cooperation principles of JICA Cambodia is also agriculture/rural development. The



project has therefore been designed according to Japan's as well as IICA's assistance policies.

#### 4.2 Effectiveness

Effectiveness of the project is assessed based on the following:

- (1) Whether the project purpose can be achieved by March 2006
- (2) Whether the outputs are enough and effective to achieve the project purpose
- (3) Whether the external conditions described in PDM have actually influenced to the project, and whether they have been appropriate to achieve the project purpose

#### (1) Achievement of the Project Purpose

As mentioned in 3.3, participating farmers' agricultural productivity in the Project area has been enhanced. It is also expected that their livelihood become better and more stable by March 2006. It is however recommended that the Project conduct a field survey on agricultural productivity in 2005 wet season and also an impact survey on the farmers' livelihoods, before its termination, to confirm more precisely how effective the Project is.

#### (2) Effectiveness of the Outputs

The Project has been planned and implemented, linking the Outputs and the Project Purpose as follows:

Project Purpose: Participating farmers' agricultural productivity in Kamping Puoy area is enhanced, and their livelihood becomes stable with their active participation.



Output 1: Rice production technology is improved.

Output 2: Farming practice of participating farmers is improved (including crop diversification).

Output 3: Activities by farmers' groups are promoted.



Output 0: Situation in the target area is grasped.

As shown above, the Project has firstly understood the situations of the target area. The Output 1 and 2 are directly contributing to achieve the Project Purpose; however, the Output 3 is not only to serve to achieve the Project Purpose, but to produce other 2 Outputs as well. Those four Outputs are considered logical to achieve the Project Purpose.



#### (3) External Conditions

As mentioned in the PDM, one of the external conditions is "there is no significant irrigation water shortage". The Project has actually suffered from lack of irrigation water. Irrigation was conducted only once in 3 years of the project implementation. Since many activities are related to irrigation, the results could have been much better if irrigation water shortage had not happened.

#### 4.3 Efficiency

Efficiency of the project is assessed based on the following:

- (1) Whether the outputs have been produced as expected
- (2) Whether the activities have been appropriate to produce the outputs
- (3) Whether the external conditions described in PDM have been appropriate to produce the outputs
- (4) Whether the project inputs have properly supplied to the project (time, quality and quantity)

#### (1) Outputs

As mentioned in 3.2, the Outputs related to rice production technology and farmers' groups were mostly produced as expected though some Outputs are under process at the time of evaluation. The Output related to farming practice is expected to be produced by the end of the Project period. The results can be obtained through the surveys to be conducted before the Project terminates.

#### (2) Activities

The Evaluation Team found that there is no missing activity considered essential to produce the expected Outputs. It can be said that the Activities have been logically planned and implemented, and therefore appropriate to produce the Outputs.

#### (3) External Conditions

The farm management cooperators were selected by the Project since they are important to produce Output 2 (improvement of farming practice). While it was not easy to find cooperators in the Project area, two of them had to suspend their activities suddenly because of sickness or pregnancy. This cannot be controlled by the Project, but it is necessary to consider as one of the risks.



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#### (4) Inputs

Most of the Project inputs were properly supplied, despite of the following incidents that slightly hampered the process of Project implementation:

- The Project director was absent for long time at the beginning of the Project implementation.
- The farmers organization expert arrived at site 5 months later than originally planned.
- The counterparts for farmers organization were not assigned when the Project was started.

  After assignment, they were suddenly suspended by the order of the PDWRAM for a while.

#### 4.4 Impacts

Impacts of the project are assessed based on the following:

- (1) Whether the overall goals of the project can be achieved in near future, and whether they are logically related to the project purpose
- (2) Whether the external conditions described in PDM will be appropriate to achieve the overall goals
- (3) Positive and negative impacts which the project has brought

#### (1) Overall Goals

The Overall Goals are logically related to the Project Purpose. At the time of evaluation, it was noted that agricultural productivity (yield) has been enhanced among 19 quality seed user group members and that the number of the interested farmers have been increased up to 69, which the Team recognized as the spreading effects of the Project's intervention. It is therefore anticipated that the overall goals would be achieved once the appropriate supports by the relevant institutions and policy measures would obtained, though in the longer time frame.

#### (2) External Conditions

All external conditions are considered appropriate to achieve the Overall Goals. In addition, it is essential that KADC continues its activities as the core organization after the Project is terminated.

#### (3) Positive and negative impacts

The Project has brought the following positive impacts:

- The amount of quality rice seeds produced by the Project reached 1.99 tons, and 1.42 tons were sold among the members.
- The data on rice seed production has been accumulated in the Project. Those data was so far able to be obtained only by CARDI.



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- The number of the farmers interested to participate in rice seed production was increased from 19 in 2004 to 69 in 2005.
- The way of technology transfer, which the Project has adopted as FFS training, has been testified and confirmed its effectiveness. This can be applicable to other areas of Cambodia.
- KADC has introduced partial self accounting system through growing and selling quality rice seeds to farmers. It could be a good model for other experimental stations nearby.
- No serious negative impact was recognized.

#### 4.5 Sustainability

Sustainability of the project is assessed based on the following:

- (1) Whether policy support can be expected for continuation of the project activities
- (2) Whether institutional capacities, including finance and manpower, can be expected for continuation of the project activities
- (3) Whether the technologies introduced by the project can be extended further to in and outside of the project area
- (4) Whether the project can be locally accepted socially, traditionally and environmentally

#### (1) Policy Support

Since the Cambodia government intents to promote agricultural and rural development as one of its development priorities, the Project is recognized highly important. It is therefore expected that the Project receive some support, particularly from MAFF.

#### (2) Institutional Capacities

Although KADC is now generating its own income out of seed and paddy production, it is not enough to cover all of its own activity cost, let alone continuously financing project activities. It is therefore required for external financial sources that include MAFF and donors to provide necessary support for continuing and further expanding the activities. Both Cambodia and Japanese governments are requested to take it into consideration.

#### (3) Technologies

The technologies that the Project has introduced are simple and farmer-oriented since the Project plans were basically prepared based on the needs of the farmers. The technologies are intended to be transferred from farmer to farmer by establishing a farmer group since the number of government extension workers is generally far to be enough. The technologies and the way to extend them can therefore be sustained by the limited number of the government extension staff and the farmers, and can be extended to other areas.



#### (4) Social and Other Issues

The Project has conducted baseline survey, communicated the farmers intensively, contacted village chiefs on the selection of trainees, etc. The Project has also intended to include landless farmers and women in the Project not to expand the gaps between those with irrigation and without irrigation. Those considerations are closely related to make the Project socially and traditionally acceptable.

#### 5. Conclusion

Taking all the evaluation results into consideration, it is judged that the Project Purpose can be achieved by the time of its termination. Appropriate measures, however, should be taken to assure the project sustainability by both Cambodian and Japanese governments.

The Project is considered as one of the models for agricultural and rural development in Cambodia and therefore its outcomes should be extended to other areas.

Based on the achievements mentioned above, it is concluded the Project shall be completed on March 31, 2006 as originally planned.

#### 6. Recommendations

The Evaluation Team recommends the Project and related authorities the followings:

- (1) The Project should conduct an impact survey by the time of its termination to understand clearly to what extent the Project has improved the farmers' livelihoods. The data obtained through the baseline survey should be used for comparison. In addition, a follow-up survey should also be conducted to grasp to what extent the farmers participated to the trainings on agricultural and farming technologies have adopted them.
- (2) The Project aims to strengthen FWUC since it is highly important to manage the irrigation system properly. It should therefore be measured whether FWUC have become strong enough to meet their mandates, not only in terms of ISF collection, but also water management based on the plan prepared by PDWRAM. It is therefore recommended that the Project address to this aspect as well in conducting the remaining activities related to the FWUC.



- (3) Taking its significance for Cambodia into consideration, the Project should make further effort to raise its reputation at the central level. Opportunities to make presentation of the Project performances in Phnom Penh for the central government and other donors should therefore be created.
- (4) The outcomes of the Project should be extended to other areas after the Project is terminated. In particular, the ways of transferring technologies that the Project has adopted, i.e., FFS and other training methods, could be applicable for similar projects in Cambodia. The authorities concerned, MAFF and PDA, should therefore consider how and to what extent this could be realized. As the first step, the study to grasp the needs of farmers in suitable development areas, situations of government extension staff, potentials of area development, etc. should be conducted.
- (5) Since it is necessary to meet high demands of quality seeds in the Project area and there are other experimental stations in Battambang Province, seeds multiplication by those stations should be facilitated by PDA. It has been found that KADC, if managed well, may be financially self-sustained with the profits obtained from growing and selling qualified seeds to farmers. A study should therefore be done whether other stations could as well be sustainable by doing the same.
- (6) To make irrigated agriculture successful, the linkages between PDA and PDWRAM, and between MAFF and MOWRAM, should be more strengthened. PDWRAM and MOWRAM should be responsible for making an irrigation water delivery plan, and MAFF and PDA be responsible for its implementation. The organizational linkages and cooperation are highly expected.
- (7) The Project has built the capacity of the counterpart personnel in terms of outreach activities as well as experiment in the station. For further development of PDA staff, it is recommended to provide them an opportunity of post graduate education on agriculture.

#### 7. Lessons Learned

The Evaluation Team has found the following lessons learned from the Project:

(1) It has been found that the Project approach to strengthen the linkage between the farmers and markets, particularly rice millers, is effective for enhancing the farmers' livelihoods. One



of the main contributing factors is BARN (Battambang Agricultural and Rural Network) established by the Project. PDA should therefore consider making use of private sector as much as possible in agricultural development.

- (2) One of the indicators to measure the achievements of the Project Purpose is whether rice qualities are evaluated as "quality rice". Although this indicator is not objectively verifiable, it could be left to markets for judging it. It means that farmers can get high profits by producing and selling high quality rice to markets if accepted by markets, and it is clearly and directly linked with the Project Purpose. The results can be evaluated based on the opinions of the target farmers.
- (3) The Project has many activities closely linked with irrigation water, and it is clearly mentioned in the PDM that "there is no significant irrigation water shortage" to achieve the Project Purpose. It is unfortunate, during three years of the project implementation, irrigation water was available to the fields only at one season due to lack of water in the reservoir. This obviously has limited to make the trainings effective on the betterment of the farmers' life. This gives us one lesson that even if it is an irrigation-based project, it is necessary to include a way in its plan to keep project performance high without irrigation water. For example, the Project could have been better if some activities, such as trainings related to rain-fed rice cultivation, establishment and strengthening of market-oriented groups, etc., had been included.



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# BETWEEN THE PROJECT CONSULTATION TEAM AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE KINGDOM OF CAMBODIA ON JAPANESE TECHNICAL COOPERATION FOR THE BATTAMBANG AGRICULTURAL PRODUCTIVITY ENHANCEMENT PROJECT

Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Project Consultation Team (hereinafter referred to as "the Team"), headed by Mr.TOSHIFUMI EGUSA, to the Kingdom of Cambodia from November 18 to 25, 2003 for the purpose of the formulation of Project Design Matrix and Plan of Operation of "the Battambang Agricultural Productivity Enhancement Project" (hereinafter referred to as "the Project") as well as discussing the major issues related to the implementation of the Project.

During its stay in the Kingdom of Cambodia, the Team carried out field observation and had a series of discussions on the Project with the authorities concerned of the Kingdom of Cambodia in respect of the various issues related to the smooth implementation of the Project.

As a result, the Team and Cambodian authorities concerned agreed to report to their respective governments the matters referred to in the document attached hereto.

Phnom Penh, November 25, 2003

AL CCOR

TOSHIPUMI-EGUSA

Leader.

Project Consultation Team,

Japan International Cooperation Agency,

Japan

IT BETTEN CIAO

Under Secretary of State,

Ministry of Agriculture, Forestry and

Fisheries,

Kingdom of Cambodia

