

# **Chapter 5**

## **Master Plan**

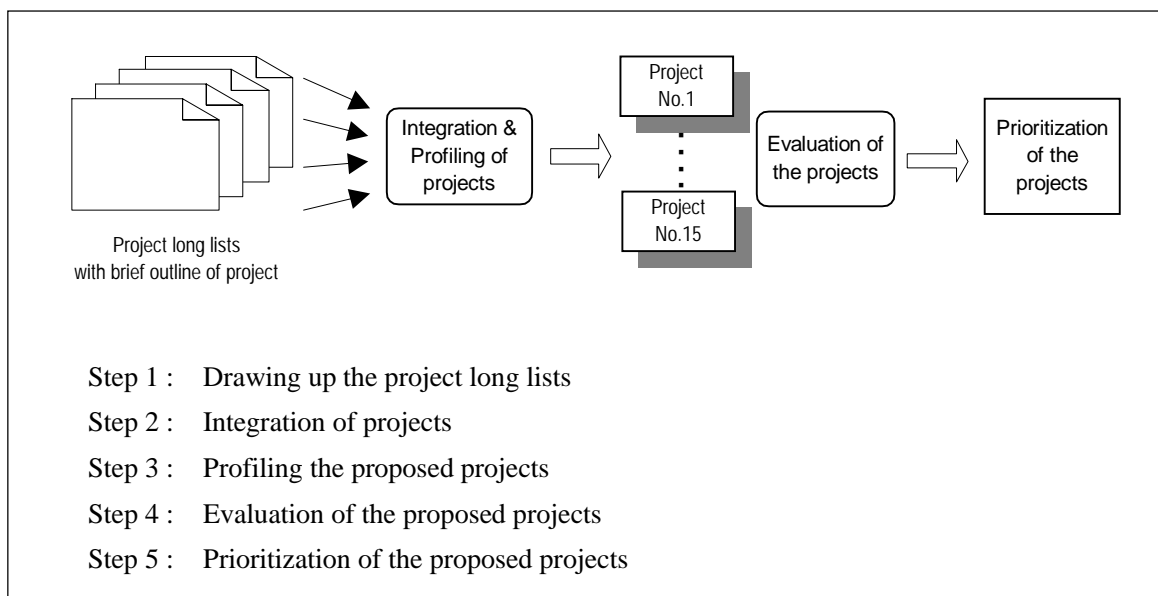
## Chapter 5 Master Plan

### 5.1 Identification of Proposed Projects

#### 5.1.1 Procedure for Project Identification

As described in the Chapter 4, four development targets are set in order to achieve the final goal of "Strengthening of Food Security and Development of Rice Industry". The expected outcomes in each of the development targets and the necessary activities for them are also shown.

In accordance with this conceptual structure for formulating the master plan, project ideas are elaborated and, through the steps being illustrated in the following chart, proposed projects for the master plan are identified.



#### 5.1.2 Project Long List

Background/rationale, contents of project, temporary title of project, beneficiary, implementation agency, operating agency and major pre/external conditions are enumerated at every activity and these are put into the project long lists.

As stated in the Chapter 4.3 Framework for the Master Plan, certain fields are treated as external conditions with viewpoints of the scope, scale and the C/P agencies of the Study. Then, the indispensable activities in such fields have been indicated with mark in Chapter 4. In the process of identifying the proposed project, an initial judgment upon "how-far from the framework of the Master Plan" were made for every project. The judgements are shown with the following marks in the table.

- : Conform to the framework
- : Some portions not conform to the framework
- × : Not conform to the framework

Typical examples not conforming to the framework are; project in the field of agricultural production such as development of irrigation facility; project for institution/policy improvement which cannot be handled by MAFF/MOC; project with very less feasible, etc.

Each of the development targets are not independent but complementary to each other. Therefore, there are some activities and projects overlapping with several development targets, which indicated in the table.

**(1) Project List - Stable and balanced regional supply-demand**

Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-condition & External condition	Notes
Stabilize production and increase production in deficit areas	1. Flood and draught cause periodical damage. 2. Flood protection measures in wet season is difficult. 3. Yield is decreasing due to soil degradation. 4. Quality seed in rural areas is lacked.	1. Develop irrigation facilities. 2. Introduce small-scale irrigation and farmers' organization. 3. Use proper fertilizer. 4. Develop quality seed adaptable for local condition. 5. Promote farmers' storing quality seed. 6. Extend using HYV seed. 7. Strengthen extension activity.	Small-scale irrigation project	Farmer	MWR /PG	Farmer Org.	1. Securing water resource	×
			Certified seed increase project	Farmer	CARDI	CARDI	2. Continuous activity of CARDI	△
			Quality seed increase and storage project	Farmer	DAFF	DAFF/ Farmer Org.	3. Positive participation for organizing farmers' group	△
			Extension activity strengthening project	MAFF/DAFF Staff & Farmer	DAFF	DAFF		×
Prolong harvesting period	1. None of seed development adaptable for local condition. 2. Delay in irrigation development. 3. Inadequate extension activity on appropriate farming technology.							
Reduce transportation costs	1. Traveling time even along national road is longer due to damage. 2. Development of railway and inland transportation is inadequate. 3. Illegal fee collection along transportation route is existing.	1. Develop and/or expand transport infrastructure. 2. Legalize paddy/rice trading and secure trading volume.	Development of transport infrastructure	Trader Transporter Nationals	PG	PG	1. Securing budget/fund 2. Transparency in public money flow system	×
			Paddy trading legalization project		MOC/MOJ	MOC/MOJ	○(target 4)	
Provide market price information	1. MAFF and MOC have no coordination on market information. 2. Transparency in business transaction in the market poor. 3. Availability of method and area on market information is limited.	4. Establish strategy for paddy/rice marketing. 5. Strengthen information distribution system.	Paddy market project	Farmer Trader Miller	MOC/MAFF	DOC/DAFF	1. Institutional set-up by public and private sector's cooperation	○(target 2)
			Borer trade facility development project		MOC/MAFF	DOC/DAFF		○(target 4)
			Project on enhancement of market information Service		MAFF	MAFF		○(target 2)
			Project on enhancement of collaboration for MIS institutions		MAFF/MOC/Municipality	MAFF/MOC/Municipality		○(target 2)

Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-condition & External condition	Notes
Intervene in market by usage of state finance	1. Price determining mechanism is depending on other countries. 2. Paddy price goes down in harvest season.	1. Establish trading place. 2. Establish comprehensive collection system of price information. 3. Utilize reserved food positively as buffer stock. 4. Manage reserved rice properly.	Price support program  Paddy market project  Effective utilization of existing warehouse	Farmer Trader Miller	MAFF  MAFF/D AFF	MAFF  MAFF/D AFF	1. Securing and utilizing warehouse with buffer function	△  ○(target 2)  ○
Increase national food reserve	1. Basic policy for food reserve is lacked. 2. Trading volume of paddy is small domestically and internationally 3. Proper storage facility for food reserve is not enough.	4. Utilize existing warehouse effectively. 5. Construct new warehouse. 6. Estimate proper amount of food reserve. 7. Secure financial source for food reserve.	Food reserve increase project  Effective utilization of existing warehouse	Nationals	MOC/ GTC	DOC/ GTC	1. Securing budget/fund	○  ○
Increase food reserve of farmers and millers	1. Incentive for positive movement for storing products is lacked 2. Learning proper storing method is necessary.	1. Provide incentive. 2. Guide and train of proper storage method. 3. Establish fair trading place.	Wide-ranged paddy storage and food reserve increase project	Nationals	MAFF/ MOC	Farmer/ Farmer Org./ Miller		○
Improve preciseness of balance sheet of food supply and demand	1. Statistical basis for food policy is unavailable. 2. Reliability on post-harvest loss and seed requirement is low.	1. Improve DAFF's data collection system and enforce supervision of MAFF. 2. Strength data collection on export/import. 3. Legalize borer trade and collect/well-manage the trading data. 4. Execute rice consumption survey 5. Execute periodical survey on loss, seed requirement, etc.	Development project for farm production statistics  Enhancement of collaboration for concern institutions  Border trading statistic system development project  Project on improvement of borer trade system  Establishment of department in charge of post-harvest technology	Nationals	DAFF  MAFF/M OC  MOC/ME F  MOC  MAFF/D AFF	MAFF  MAFF/M OC/NIS/ DEF  MOC/ME F  MOC  MAFF/D AFF	1. Implementation of continuous survey	○  ○  ○(Target 4)  ○(Target 4)  ○(Target 3)

Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-condition & External condition	Notes
Distribute food to disaster-stricken areas	<ol style="list-style-type: none"> <li>Guideline for food distribution is not clear.</li> <li>Logistic for food distribution does not exist.</li> </ol>	<ol style="list-style-type: none"> <li>Establish fair distribution system.</li> <li>Identify disaster prone areas.</li> <li>Establish guideline / criteria for food distribution.</li> <li>Collaborate with WFP.</li> </ol>	Food distribution project for disaster areas	Nationals	NCfDM	NCfDM	<ol style="list-style-type: none"> <li>Securing rice for reserve</li> <li>Cooperation among the concerned organization</li> </ol>	×
Enhance purchasing power in deficit area	<ol style="list-style-type: none"> <li>Size of farm management is small.</li> <li>Due to low profitability of farm products, it is hard to earn cash income.</li> </ol>	<ol style="list-style-type: none"> <li>Expanse and justify allocation of farm land through removal of land mine</li> <li>Promote farmland registration.</li> <li>Promote crop diversification.</li> </ol>	<p>Farm land conversion and distribution project</p> <p>Farmland registration promotion project</p> <p>Crop diversification project</p>	Farmer	CMAC/ MAFF/ MAFF/ MOJ	CMAC/ MAFF/ MAFF/ DAFF	<ol style="list-style-type: none"> <li>Proper technology and fund</li> <li>Know-how on legal system development</li> </ol>	<p>×</p> <p>×</p> <p>×</p>

**(2) Project List - Reasonable price mechanism under modern business system**

Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-condition & External conditions	Notes
Improve marketing infrastructure	1. Physical access of trading is depressed. 2. Production (remote) areas are isolated from markets. 3. Transportation cost is high.	1. Improve transport infrastructure. 2. Enforce road maintenance system 3. Develop telecommunication infrastructure	Rehabilitation of national road network  Rehabilitation of railway system  Development of waterway transportation system  Development of telecommunication infrastructure	Farmer Trader/Miller Consumer	MPWT/ PG	PG	1. Resource of fund	×  ×  ×  ×
	1. Market facilities for agri. products are not well developed. 2. Marketing data to the city is not collected. 3. Policy on Food supply and distribution system to the city is not formulated.	1. Formulate improvement plan for supply and distribution system of agricultural commodity to Phnom Penh. 2. Rehabilitate / expand market facilities for agricultural commodity.	Study for improvement of agricultural marketing system in Phnom Penh	Trader/Miller Consumer Farmer	MOC MAFF Municipality	MOC MAFF Municipality	1. Collaboration among concern government institutions	○
Eliminate informal costs	1. Illegal fee collection on the way of transportation is increasing marketing costs. 2. Illegal requests by civil servants are interfering/depressing the business of private sector.	1. Improve access of private sector to legislation and regulation. 2. Enforce supervision and penal regulation 3. Enforce the internal supervision system of the government.	Information proclamation system improvement program  Internal supervision system improvement program	Transporter Trader/Miller Consumer	MOJ MOI MOD	MOJ MOI MOD	1. Know-how on system development 2. Resistance by vested-profits group	×  ×
Establish public trading place for open price formation	1. Prices are formed in the closed business relation of individuals. 2. Open price of each production areas is expected to reduce the supply-demand gaps and price gaps among regions. 3. Basis and method of quality evaluation is not same. 4. Provide more opportunity to meet better buyers to farmers.	1. Establish market facility for public trading and operating agency. 2. Introduce pricing by varieties using quality standard. 3. Collect price information at market facility for public trading and distribute them by existing MIS of MAFF.	Open paddy market project	Farmer Trader/Miller Consumer	MOC MAFF	DOC/ DAFF GTC	1. Land in good location 2. Resource of fund	○(target 1, 3)
			(Project on establishment of quality standard)		MOC/Camcontrol	Camcontrol		○(target 3)
			(Project on enhancement of MIS)		MAFF	MAFF		○

Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-condition & External conditions	Notes
Promote activities of farmer's group	1. Farmer's bargaining power is weak. 2. Lot of sale is small. 3. Quality of products is not uniform. 4. Acquisition of quality and cheap agri. materials is uncertain. 5. Credit system with low interest is not available. 6. Irrigation system is undeveloped and/or is not well utilized. 7. Quality seed is not available. 8. Milling return is low. 9. Fare for agri. machinery is high.	1. Promote collective marketing group.	Collective marketing promotion program	Farmer	MAFF	DAFF	1. Positive attitude of farmers' organization	×
		2. Promote collective purchase group.	Collective purchasing promotion program	Farmer	MAFF/MO C	DAFF	2. Enough human resource in farmers' groups	×
		3. Promote rural credit group/union.	Credit group promotion program	Farmer, rural resident	MAFF	DAFF/RDB /NBC	3. Network among DAFF and related IO, NGO	△
		4. Promote water users group.	Water users group development program	Farmer	MAFF	DAFF	4. Financial resource for initial investment	×
		5. Promote seed production group.	Seed production group development program	Farmer	MAFF	DAFF	5. Disposition of personnel in charge of coops at DAFF	×
		6. Promote joint users group of custom milling machine.	Milling machine joint-operation promotion program	Farmer	MAFF	DAFF		×
		7. Promote joint users group of agri. machinery.	Agri. machinery joint-operation promotion program	Farmer	MAFF	DAFF		×
Establish agricultural cooperative	1. Strategy and basic plan for agri. cooperative development are absent. 2. Prior to planning, need to comprehend the actual situation and needs of agri. cooperative 3. Government agency specializing in support of farmer's organization is weak. 4. Farmer's understanding to advantages of agri. cooperative is improper. 5. Talented persons/leaders in farmer's organization are lacking. 6. Farmer's organization has no juridical personality and no legal right.	1. Formulate master plan for agri. cooperative development.	Master plan study on establishment of agri. cooperatives	Farmer	MAFF	MAFF(DAE)	1. Consensus for encouragement of farmers' coop	○
		2. Study actual situation of farmer's organization.	Project on enhancement of the agencies in charge of agri. cooperatives	MAFF(DAE)/DAFF, Farmer	MAFF	MAFF(DAE)	2. Financial background	○
		3. Enforce government institutions for supporting farmer's organization.	Training system development project	Farmer	MAFF	MAFF(DAE)	3. Precise master plan	×
		4. Improve capability of concern officials by providing training.	Agri. cooperative law legislation project	Coop. member	MAFF	MAFF(DAE)	4. Available training programs and trainers	△
		5. Improve farmer's knowledge about agri. cooperative and train candidates for future leader.						
		6. Legislate agricultural cooperative law.						



Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-condition & External conditions	Notes
Expand agricultural cooperative	1. Available fund for activities of farmer's organization is short. 2. Political/social power of farmer's organization is weak. Need to create cooperation among farmer's organizations to enforce the power.	1. Establish agri. cooperative banks. 2. Establish federation of agri. cooperatives.	Agri. cooperative bank foundation program	Coop. member	MAFF /NBC	MAFF/RDB	1. Financial background	×
			Federation of agri. cooperatives foundation program	Coop. member	MAFF	MAFF/DAFF	2. Proper legal system 3. Expand of basic farmers' organization	×
Strengthen market information service	1. Contents and areas of MAFF market information service are limited. 2. Farmers do not know market needs. 3. Weak collaboration among government organizations which are collecting market information.	1. Enhance function of collecting-distributing of existing MIS of MAFF. 2. Carry out market research. 3. Provide marketing extension services to farmers. 4. Establish scheme of collaboration among government organizations.	Project on enhancement of MIS	Farmer Trader/Miller	MAFF	MAFF	1. Resource of fund	○
			Project on improvement of marketing extension service	Consumer	MAFF	MAFF/DAFF		○
			Project on enhancement of collaboration for MIS institutions.		MAFF/MOC/Municipality	MAFF/MOC/Municipality		○
			(Development of telecommunication infrastructure)					×
Fully enforce weighting instruments verification system	1. Deceptions are performed at the time of dealing. 2. Periodical proofreading of weighing instruments is not performed.	1. Inspect / verify weighing instruments. 2. Enlighten proper use of weighing instruments.	Project on verification of measuring equipment.	Farmer Trader/Miller	MIME/DIME	MIME/DIME	1. Budget and staff 2. Improvement in morals	○
Legislate and introduce quality standard	1. Inefficient trading by sample or actual commodity is performed. 2. Standard of quality evaluation is not clear and fairness of price is not adequate.	1. Create and legislate rice quality standard 2. Provide training and extend methods of quality evaluation. 3. Apply quality standard in rice procurement by WFP and by government. 4. Strengthen agency for quality inspection.	Project on establishment of quality standard	Farmer Trader/Miller Consumer	MAFF	MAFF		○(target 3)
			(Project on improvement of state rice procurement system) Strengthening inspection system project		Camcontrol	Camcontrol		○ ○(target 3)

Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-condition & External conditions	Notes
Improve state rice procurement system	1. Dealings in state rice procurement by government are not transparent.	1. Apply specification dealing in rice procurement by government. 2. Improve procurement system.	Project on improvement of state rice procurement system	Nationals	MOC/MOI/COM	MOC/MOI/COM	1. Opposition from vested-interests group 2. Quality standard	○
Modernize trade form	1. Efficiency and fairness of trading are not adequate. 2. Quality and quantity can not be trustable without checking the actual commodity.	1. Promote dealings with specification/contract in private business. 2. Apply specification dealing in rice procurement by government.	(Project on establishment of quality standard)  (Project on improvement of state rice procurement system)	Trader/Miller Nationals	MOC/Camcontrol	Camcontrol	1. Opposition from vested-interests group 2. Quality standard	○(target 3)  ○

**(3) Project List - Improvement of post-harvest quality control of rice**

Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-conditions & External conditions	Notes
1. Promote rice production based on echo-system and market situation	<p>1. Data of harvested area (ha) by province and echo-system which MAFF collects monthly are not put to practical use.</p> <ul style="list-style-type: none"> <li>No practical use for food security activities.</li> <li>No practical use for leveling off rice production to solve regional/ seasonal differential of demand-supply.</li> </ul> <p>Planting and selling plan can not be well examined without research/ information of marketing and production data.</p>	<p>1. Make regular condition to collect data of harvested area by province/ echo-system will be made and put to practical use with training through analyzed data.</p> <p>2. Make a plan of rice production to solve the shortage of warehouse capacity.</p> <p>3. Promote the superior seed matching the area and strengthen disseminating system.</p> <p>4. Strengthen farming extension system with a consideration of echo-system.</p>	<p>Strengthening of the dissemination for planting and harvesting technology</p> <p>Restoration of existing warehouses</p> <p>Improvement for distribution system of the superior seed</p>	Farmer/ government organization for emergency stock	MAFF(D A) CARDI DAFF	MAFF DAFF CARDI Farmer's cooperative	<p>1. Cooperation of farmers</p> <p>2. Cooperation of private firms</p> <p>3. Ensure financial resource</p>	<p>×</p> <p>△</p> <p>×</p>
2. Promote seed multiplication and distribution system	<p>1. Seed quality is uneven.</p> <p>2. Seed quality promotions fitting into the area get behind.</p> <p>3. There is no disseminating system for post-harvest practice of seed production.</p> <p>4. No progressive farmer is encouraged.</p> <p>5. There is no distribution system.</p>	<p>1. Strengthen distribution system with use of the channel of the private firms, rice millers and traders.</p> <p>2. Promote the disseminating system for post-harvest practice of seed production.</p> <p>3. Improve the function of paddy (seed) cleaning.</p>	<p>Improvement for distribution system of the superior seed</p> <p>Improvement for post-harvest practices of seed cleaning.</p>	Farmer/ Rice miller trader	MAFF	MAFF/D AFF	<p>1. Ensure financial resource</p> <p>2. Human resource for program</p> <p>3. Good understanding of farmer's association</p>	<p>○</p> <p>○</p>
3. Improve and spread post-harvest practices	<p>1. The situation of post-harvest practices is not controlled and the government has no function to research/ disseminate.</p> <p>2. There is no leading part for Loss situation with its easy reduction.</p> <p>3. There is no disseminating system/ organization for proper post-harvest practices including with custom milling.</p> <p>4. There is no system to provide with renewed data for regional balance of supply-demand.</p>	<p>1. Establish a section for improvement of post-harvest practices.</p> <p>2. Provide function of R&amp;D and technical improvement.</p> <p>3. Improve disseminating system for post-harvest practices.</p> <p>4. Provide with necessary data for balance of supply-demand</p> <p>5. Improve equipment for disseminating.</p> <p>6. Improve payment system for custom milling.</p>	<p>Improvement for post-harvest practices</p> <p>Reduction of losses for post-harvest practices</p> <p>Improvement of custom milling system in the rural area</p>	Farmer/ Rice miller  Custom miller	MAFF section in charge/ DAFF With cooperation of Camcontrol & CARDI/ DA	MAFF section in charge/ DAFF	<p>1. Cooperation of farmers and DAFF</p> <p>2. Use of existing building</p> <p>3. Ensure financial resource</p> <p>4. Cooperation with MIME</p>	<p>△</p> <p>○</p> <p>○</p>
4. Improve custom milling system	<p>1. Payment system of custom milling (milling fee and price of product/ by-product) is not clear.</p> <p>2. Custom millers don't participate to commercial trading for efficient distribution.</p>	<p>7. Enforce registration to custom miller (to record annual milled quantity: :MIME)</p>						
5. Enhance activities of rice miller's association	<p>1. Marketing capability is weak.</p> <p>2. Business management is weak.</p> <p>3. Access to sources of technology is limited.</p> <p>4. Small-scale family business and access to financial resources is limited.</p>	<p>1. Improve access to sources of technology.</p> <p>2. Improve access to financial resources.</p> <p>3. Improve milling facility.</p> <p>4. Improve access to potential buyers and enforce capability of marketing and business management.</p>	Project on enhancement of RMA activities.	Miller	RMA/MO C	RMA (EDC)	1. Ensure financial resource of fund	○ (target 4)

Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-conditions & External conditions	Notes
6. Improve technology of storage and rice milling with model organization	<ol style="list-style-type: none"> <li>1. There is no normative organization for improving private sector management.</li> <li>2. No system of government may instruct dealing system with rice quality standard to private firms.</li> <li>3. Rice can't be stored with proper technology.</li> <li>4. Milled rice quality by grade is not even.</li> <li>5. Dealing/ trading with trustworthy don't come out.</li> <li>6. Supporting rice purchased locally can not be coped with smooth services.</li> <li>7. Management for rice as emergency stock is not deliberate and efficient.</li> </ol>	<ol style="list-style-type: none"> <li>1. Strengthen disseminating system and provide with facility for training.</li> <li>2. Strengthen feedback system of necessary information for rice quality control.</li> <li>3. Support seed distribution.</li> <li>4. Instruct management/ technology <ul style="list-style-type: none"> <li>• Management/ technology transfer (storing &amp; milling practices/ window organization for supporting rice/ handling rice as government purchase)</li> <li>• Provide necessary facility, pre-cleaner, polisher, graders, scale</li> <li>• Re-milling</li> <li>• Use rice quality standard to make uniformed quality</li> <li>• Storing methodology</li> </ul> </li> </ol>	<p>Improvement of rice marketing and processing technology</p> <p>Strengthen operation of milling industry</p> <p>Improvement for management of emergency stock rice</p>	Rice millers/ indirectly farmers	MOC/ GTC/ Camcontrol	GTC or another state enterprise	<ol style="list-style-type: none"> <li>1. Use existing building</li> <li>2. Ensure financial resource</li> </ol>	<p>○ (target 4)</p> <p>×</p> <p>△ (target 1)</p>
7. Introduce appropriate price reflected in quality	<ol style="list-style-type: none"> <li>1. MAFF/MOC's price informations are not accurate and no closer work each other.</li> <li>2. Information system is weak.</li> <li>3. Ordinary dealing is opaque.</li> <li>4. Improvement of quality is unfavorably / slowly processed because of low incentive.</li> <li>5. Inappropriate price must be rectified in the area or between the regions.</li> </ol>	<ol style="list-style-type: none"> <li>1. Enact/ introduce rice quality standard and standard inspection methodology.</li> <li>2. Improve information system price reflected in quality/ other evaluating terms (variety etc.)</li> <li>3. Provide rice miller's association with effective information (price &amp; technology).</li> <li>4. Supporting management and technology for standardization and information system.</li> <li>5. Improvement equipment/ facility for standardization and information system.</li> <li>6. Promote training system for private sector as dissemination of quality standard and standard inspection methodology. E.g.: make rice miller/ traders do self-inspection to keep uniform quality.</li> <li>7. Improvement markets for milled rice and paddy to well use standard.</li> <li>8. Improve government system to purchase/ distribute to use standard</li> <li>9. Promote government system to purchase supporting rice on behalf of donors as window organization.</li> </ol>	<p>Improvement on quality standard and standard inspection methodology of rice</p> <p>Supporting on enactment and dissemination for quality standard of rice</p> <p>Project on enhancement of MIS</p> <p>Improvement of standard inspection methodology</p> <p>Improvement on Open market for paddy and milled rice</p>	Farmer Rice miller/ Trader  Indirectly nations in whole county	MAFF/ Camcontrol/ MOC DOC/ DAFF	MAFF/ Camcontrol/ MOC DOC/ DAFF	<ol style="list-style-type: none"> <li>1. Cooperation of private sector, rice miller/ trader for monitoring research</li> <li>2. Cooperation of mass-media</li> <li>3. Ensure financial resource</li> <li>4. Government use standard as setting example</li> </ol>	<p>○ (target 2)</p> <p>○ (target 2)</p> <p>○ (target 1, 2)</p> <p>△</p> <p>○ (target 2)</p>
8. Legislate and introduce/ disseminate quality standard	<ol style="list-style-type: none"> <li>1. Dealing/ trading trustworthy is lack. <ul style="list-style-type: none"> <li>• Dealing system with actuals and/or actual sample only is irrational and inefficient without specification.</li> <li>• No quality standard indicating price lead/ impress trading as unfair dealing.</li> </ul> </li> <li>2. Practical target to improve quality may not be found.</li> <li>3. There is no system to lead farmer's bargaining power.</li> <li>4. There is no incentive to improve quality.</li> </ol>				MOC Camcontrol /MAFF DAFF CARDI MOC/ Camcontrol	MAFF/ Camcontrol		
9. Improve reliability of inspection and analysis work	<ol style="list-style-type: none"> <li>1. Any dealing impress transaction as unfair not to keep creditworthy.</li> <li>2. Government purchase is opaque system without specification for quality and standard inspection methodology.</li> </ol>							

**(4) Project List - Development of Rice Border Trade**

Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-condition & External condition	Notes
Promote Strategic rice production	<ol style="list-style-type: none"> <li>1. Farmers do not know market needs.</li> <li>2. Exist clear price differences among major varieties</li> <li>3. Purchasing powers and needs is different by the markets.</li> <li>4. Variety of rice grown for self-consumption often does not match to the market needs.</li> <li>5. Production plan based on the market condition is not applied.</li> <li>6. Seed for appropriate variety is hard to obtain.</li> </ol>	<ol style="list-style-type: none"> <li>1. Develop extension workers to provide marketing extension services to farmers.</li> <li>2. Improve capability of concern officials for marketing research.</li> <li>3. Disperse harvesting peak.</li> <li>4. Enhance stock management according the market situation.</li> <li>5. Develop seed production / distribution system for appropriate variety</li> <li>6. Develop/rehabilitate irrigation facilities</li> <li>7. Strengthen extension services of cultivation technology.</li> </ol>	Project on improvement of marketing extension service.	Farmer Consumer Government	MAFF	MAFF DAFF	<ol style="list-style-type: none"> <li>1. Cooperation of farmers</li> <li>2. Resource of fund</li> </ol>	○(target 2)
			Breeding and seed multiplication system development project		MAFF CARDI DAFF	CARDI/ Farmer's group		×
			Seed distribution system development project					△(target 3)
			Small-scale irrigation project.		MWR	MWR		×
			Research on cultivation technology strengthening project		MAFF	MAFF		×
Extension activity strengthening project	MAFF	MAFF	×					
Eliminate informal cost	<ol style="list-style-type: none"> <li>1. Illegal fee collection on the way of transportation in increasing marketing costs.</li> <li>2. Illegal requests by civil servants are interfering/depressing the border trade activities of private sector.</li> </ol>	<ol style="list-style-type: none"> <li>1. Legalize paddy trade and formulate simplified licensing procedures.</li> <li>2. Enforce internal supervision and penal regulations to civil servants.</li> <li>3. Improve access of private sector to legislation and regulation.</li> </ol>	(Paddy trading legalization project)	Transporter/ Trader/Miller Consumer	MOC	MOC	<ol style="list-style-type: none"> <li>1. Know-how on system development</li> <li>2. Resistance by vested-profits group</li> </ol>	○(target 1, 3)
			Information proclamation system improvement program		MOJ MOI MOD	MOJ MOI MOD		×
			Internal supervision system improvement program					×
Develop border trade infrastructure (Develop & Rehabilitate transportation infrastructure)	<ol style="list-style-type: none"> <li>1. Inland waterway transportation system is underdeveloped and hard to utilize during dry season.</li> <li>2. Even main national roads, condition is very poor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Improve transport infrastructure</li> <li>2. Enforce maintenance activity</li> </ol>	Rehabilitation of national road network	Farmer Trader/Miller Consumer	MPWT/ PG	PG	<ol style="list-style-type: none"> <li>1. Resource of fund</li> </ol>	×
			Development of waterway transportation system					×

Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-condition & External condition	Notes
Develop border trade infrastructure (Develop trading facilities)	<ol style="list-style-type: none"> <li>1. Pricing is not very transparent.</li> <li>2. Collection/distribution of trade price information is not efficient.</li> <li>3. Provide more opportunity to meet better buyers because sellers have less chance to select buyers.</li> <li>4. Open price at trading facility is expected to reduce the supply-demand gaps and price gaps among regions.</li> </ol>	<ol style="list-style-type: none"> <li>1. Establish market facility for public trading and operating agency.</li> <li>2. Collect price information at market facility for public trading and distribute them by existing MIS of MAFF.</li> <li>3. Create/legislate rice quality standard and introduce it in pricing at market facility for public trading.</li> <li>4. Enhance quality control of paddy to enforce bargaining power.</li> </ol>	Border trade facility development project	Farmer Trader/Miller Consumer	MOC/MAFF	DOC/DAFF, GTC/Cam control	<ol style="list-style-type: none"> <li>1. Land in good location</li> <li>2. Resource of fund</li> <li>3. Policy on paddy trade of neighboring countries</li> </ol>	○(target 1, 2)
			Project on enhancement of MIS		MAFF/DAFF	MAFF/DAFF		○(target 2)
			Project on establishment of quality standard		MAFF/MOC/Camcontrol			○(target 3)
Increase added value through improving milling technology (Convert paddy trade to milled rice trade)	<ol style="list-style-type: none"> <li>1. Paddy trading has less profit than in form of milled rice.</li> <li>2. Milling by-product (husk and bran) can not be utilized.</li> <li>3. Create job opportunity in rice milling industry</li> </ol>	<ol style="list-style-type: none"> <li>1. Strengthen marketing capability of rice millers by enhancing activities of RMA</li> <li>2. Promote improvement of milling facilities of private sector.</li> <li>3. Promote improvement of paddy quality</li> </ol>	Project on enhancement of RMA activities.	Trader/Miller Farmer	RMA/MOC	RMA/MOC	<ol style="list-style-type: none"> <li>1. Conclusion of rice trade agreement with neighboring countries</li> <li>2. Resource of fund</li> </ol>	○(target 3)
			Rice milling facility modernization project		MOC/RMA/GTC	MOC/RMA/GTC		○(target 3)
Strengthen market information service	<ol style="list-style-type: none"> <li>1. Information on rice/paddy prices and export situation in neighboring countries are not collected.</li> <li>2. Farmers do not know the market needs of neighboring countries.</li> <li>3. Weak collaboration among government organizations which are collecting market information.</li> </ol>	<ol style="list-style-type: none"> <li>1. Do collection of market information of neighboring countries.</li> <li>2. Improve capability of concern officials for market research.</li> <li>3. Establish scheme of collaboration among government organizations.</li> <li>4. Improve communication methods between provinces and central at existing MIS.</li> <li>5. Strengthen distribution of information of existing MIS.</li> <li>6. Create MIS platform</li> </ol>	(Project on enhancement of MIS)	Farmer Trader/Miller Consumer	MAFF	MAFF	1. Resource of fund	○(target 2)
			Project on enhancement of collaboration for MIS institutions		MAFF/MOC/Municipality	MAFF/MOC/municipality		○(target 2)
			Development of telecommunication infrastructure		MPT	MPT		×

Activity	Background & Rationale	Contents of Project	Temporary Project Title	Beneficiary	Implem't Agency	Operating Agency	Pre-condition & External condition	Notes
Legalize border trade, Simplify procedures at boarder gates and Grasp trade data	<ol style="list-style-type: none"> <li>1. Since export license can not be acquired, no way to do paddy trade in formal way.</li> <li>2. Since the illegal way of trade, trade data can not be obtained.</li> <li>3. Since the illegal way of trade, it gives chances to civil servant to collect illegal fee.</li> </ol>	<ol style="list-style-type: none"> <li>1. Conclude border trade agreement between neighboring countries.</li> <li>2. Legalize paddy trade and formulate simplified licensing procedures.</li> <li>3. Develop collecting/reporting system of border trade data among concern government agencies.</li> </ol>	Paddy trading legalization project	Farmer Trader	MOC	MOC	1. Understanding of neighboring countries	○(target 1, 3)
			Border trading statistic system development project		MOC/MEF	MOC/MEF	2. Resistance by vested-profit group 3. Know-how on system development	○(target 1, 3)

### 5.1.3 Integration of Projects

The projects, which have been initially judged as conforming to the framework, are integrated in case of the following condition.

- Contents of project are similar.
- Contents of project are complementary to each other; and either they cannot be implemented independently, or better effect can be expected if implementing them simultaneously.
- Implementation agencies are the same.

For instance, improvement of market information system is considered to be effective mean to achieve all of the four development targets. Then, similar contents of projects relating to the market information are overlapped over the development targets. It is judged that it is more functional to unify the project contents in order to improve the efficiency of search/collection/dissemination of information. Even if the assumed implementation agencies differ, full collaboration should be realized in the system.

In case the implementation agency is the same for several projects, the contents can be integrated comprehensively. For instance, the legislation of agricultural cooperative law and the strengthening of the agency in charge of agricultural cooperative can be bundled into one project. Similarly, projects relating to quality standard and inspection can be manageable in a same project since Camcontrol shall be a major implementing agency.

The projects targeting the improvement of post-harvest technology are correlated and/or subordinated, and many of them are integrated. Moreover, institutions and policy over the border trading are highly related, so that the projects concerning are considered to be integrated and/or be carried out simultaneously.

As a result of integration, under-listed 15 projects are finally identified for the master plan.

#### Quality Improvement

- No.1 Project on Promotion of Seed Distribution
- No.2 Project on Improvement of Post-harvest Processing

#### Marketing Improvement

- No.3 Open Paddy Market Project
- No.4 Project on Improvement of Agricultural Marketing System in Phnom Penh
- No.5 Project on Enhancement of Rice Millers Association Activities

#### Supporting System

- No.6 Master Plan Study on Establishment of Agricultural Cooperatives
- No.7 Project on Enhancement of the Agencies in Charge of Agricultural Cooperatives



- No.8 Project on Improvement of Marketing Extension Service
- No.9 Project on Enhancement of Market Information Service
- No.10 Project on Enhancement of Collaboration for MIS Institutions

Marketing Environment

- No.11 Project on Verification of Measuring Equipment
- No.12 Project on Improvement of State Rice Procurement System
- No.13 Project on Establishment of Rice Quality and Inspection Standard
- No.14 Project on Improvement of Rice and Paddy Trade System

Food Security

- No.15 Project on Increase of National Rice Reserve

## **5.2 Profile of the Proposed Projects**

The outline of each 15 projects are summarized in the following sheets; in which purpose, project area, background and rationale, beneficiaries, contents of activities, inputs and outputs, pre-conditions/external conditions, risk, etc. are shown.

Development Target: 3. Improvement of post-harvest quality control of rice

<b>Project No.</b>	<b>1</b>	<b>Project Name</b>	Project on Promotion of Seed Distribution System
<b>Purpose</b>		<b>Project Area</b>	
<p>By establishing the seed distribution system, realize:          Improvement of physical quality of seed, Improvement of grading (selecting) methodology for seed, Improvement of quality seed distribution system, Announcement of quality control, Establishment of dissemination system for seed quality improvement.</p>		<p>The north of Bat Dambang as terminal area of superior seed multiplication, and the whole area of Cambodia</p>	
<b>Background and Rationale</b>			
<p>Paddy seeds stored by farmers are mixed with other variety and to weaken, which has passed 50 to 80 years planting without proper treatment since the first introduction. Because of it, the situation not to improve seed quality may not make material paddy/ milled rice quality uniform specifically. Under the government control with the foreign donor, breed improvement and produce of foundation seed are being proceeded with, however there is no good distribution system to spread widely. On the other hand, farmers have not enough equipment and knowledge/ information to well treat paddy seed up to storing.</p> <p>Farmers have to be made done effective treatment (selecting/ drying) without large extra cost and stored seed paddy relevantly, furthermore, renewal multiplied seed has to be used periodically. Development of some superior local varieties should be stepped up with seed center (good treatment; cleaning, drying, selecting), and the improvement idea should be disseminated. In addition, the distribution system for superior seed must be formulated with proper condition, e.g. that rice millers support farmer cooperatively each other from the point of view of improvement for rice quality</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
<p>Direct beneficiary : Farmer, Rice miller, Wholesaler/Retailer          Indirect beneficiary : Consumer</p>		<p>Encourage seed distribution supporters (rice miller etc.)          Program human resource for disseminating.          Disseminate/ extend post-harvest practices for seed processing to farmers.</p>	
<b>Required Input</b>		<b>Expected Output</b>	
<p>- Manpower : 20 M/M (2 persons)          - Equipment : Seed grading machines          - Facility : Renovation of existing building          - Operating cost : US\$1,500,000</p>		<p>Distribution system for quality seed          Establishment of seed quality control (seed quality standard)          Improvement of post-harvest practices for seed processing</p>	
<b>Implementing Agency</b>		<b>Implementing Schedule</b>	
MAFF (Extension Dept.)		<p>Research/ Designing/ Training : 1 year          D/D : 6 months</p>	
<b>Pre-condition and External Condition</b>		<b>Risk</b>	
<p>Ensure financial resource          Proceed with smooth administrative work          Cooperation of rice miller</p>			
<b>Special Remarks:</b>			
<p>Outcomes of the on-going project (AQUIP); function of seed distribution by seed company; may need to be examined.</p>			

Development Target: 3. Improvement of post-harvest quality control of rice

<b>Project No.</b>	<b>2</b>	<b>Project Name</b>	Project on Improvement of Post-harvest Processing
<b>Purpose</b>		<b>Project Area</b>	
<p>By improvement of system and technology for post-harvest practices, realize:</p> <p>Improvement of paddy quality/ milled rice quality/ paddy seed, Reduction of losses, improvement of post-harvest practices for paddy and seed, Promotion of quality control, improvement of custom milling and pricing system for milling fee</p>		Phnom Penh as a main station and whole area in Cambodia for dissemination	
<b>Background and Rationale</b>			
<p>The situation of post-harvest loss and the defect of present rice quality to agricultural economy are not grasped appropriately. There is no organization and system in charge of post-harvest processing. Accordingly, it very difficult to disseminate technology and system for post-harvest practices. Post-harvest practices is the integrated field of agronomy, eco-system, rice quality control, rice marketing in the market and buyers requirement and itself. It is so influential in rice business that the post-harvest practices should be understood comprehensively for any betterment.</p> <p>Activity and dissemination of technology and system for post-harvest practices are quite important in order to improve rice quality and reduce losses. Disseminating or introducing make the situation better without large expense. At the first action, the relevant section must be provided as organization disseminating.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
<p>Direct beneficiary : Farmer Indirect beneficiary : Trader, Commercial rice miller</p>		<p>Research the actual situation Provide the new section of the government in charge of post-harvest practices Program human resource growth Improvement for necessary equipment</p>	
<b>Required Input</b>		<b>Expected Output</b>	
<ul style="list-style-type: none"> <li>- Manpower for design and training : 30 M/M ( 3 persons )</li> <li>- Equipment : Rice inspection instruments</li> <li>- Facility : Renovation of existing building</li> <li>- Operating cost : US\$1,500,000</li> </ul>		<p>The new section of the government in charge of post-harvest practices Improvement of human resource Reduction of losses Improvement of rice (paddy seed) quality Improvement of custom milling system Better accuracy of data for balance calculation supply-demand</p>	
<b>Implementing Agency</b>		<b>Implementing Schedule</b>	
MAFF (new section/office in DPSC)		<p>Detailed design stage / Study : 5 months Detailed design stage / Implementation : 2 months Extension and guidance : 1.5 years</p>	
<b>Pre-condition and External Condition</b>		<b>Risk</b>	
<p>Enact necessary regulation smoothly Cooperation of MIME, Rice millers, Trader, the mass media Ensure financial resource</p>		Reaction of some farmers and custom mills	
<b>Special Remarks:</b>			

- Development Target:
1. Stable and balanced regional supply-demand
  2. Reasonable price mechanism under modern business system
  3. Improvement of post-harvest quality control of rice
  4. Development of rice border trade

<b>Project No.</b>	<b>3</b>	<b>Project Name</b>	Open Paddy Market Project
<b>Purpose</b>		<b>Project Area</b>	
<p>Through establishment of paddy markets at major rice production areas, achieve;</p> <p>Formation of Open Index Price, Strengthen of Market Information Service, Widen the Outlets of Farmer and Paddy Trader, Improvement of Quality Control of Paddy and Introduction of Rice Standard in paddy trading.</p>		Rice surplus provinces in the M/P study area and Banteay Mean Chey province	
<b>Background and Rationale</b>			
<p>Price formation is performed in the closed business connections between the individual and individual. Enhance the efficiency and fairness in the pricing, by establishing the public open markets at the production areas and/or at the key points of rice marketing where prices will be made by many buyers and sellers. The open prices formed in such markets will work for reducing the price imbalance between the regions. Paddy market can provide farmers and paddy traders an opportunity to meet better buyers.</p> <p>By giving the function of providing the quality inspection service and by introducing the rice standard to the paddy market, enhance the proper pricing in the paddy trade.</p> <p>By giving the function of providing the quality control service to paddy buyer, the efficient quality control of large amount of paddy will be attained.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
<p>Direct beneficiary : Farmer, Trader, Rice millers in an area covered by a paddy market</p> <p>Indirect beneficiary : Consumer</p>		<p><u>Phase 1: Feasibility Study</u></p> <p>Confirm the policy on the contents of the project, and prepare the TOR Implementation of the Feasibility study</p> <ul style="list-style-type: none"> <li>- Examination of the validity of a paddy market with a test case</li> <li>- Determination of operating agency, and planning of personnel training program</li> <li>- Planning of overall program of the open paddy market establishment</li> <li>- Planning of pilot project</li> </ul> <p><u>Phase 2: Pilot project</u></p> <p>Establishment of operating agency Training of the operating agency Design and Procurement of facility/equipment for pilot paddy market Operation of pilot paddy market Evaluation of the pilot project, and feedback in the overall program of the open paddy market establishment</p> <p><u>Phase 3: Extension of the open paddy market system</u></p> <p>Establishment of markets facility/equipment in alignment with the overall program of the open paddy market establishment Personnel training of the operating agency Establishment of operating agency Monitoring of implementation of overall program Monitoring and evaluation of the overall program</p>	

<b>Required Input</b>	<b>Expected Output</b>
<p><u>Phase 1: Feasibility Study</u></p> <p>Study cost</p> <ul style="list-style-type: none"> <li>- Study Team : 60 M/M (8 experts)</li> <li>- Estimated required cost : US\$1,870,000</li> <li>- C / P cost</li> </ul> <p><u>Phase 2: Pilot Project</u></p> <p>Basic Design Study</p> <ul style="list-style-type: none"> <li>- Study Team : 25 M/M (5 experts)</li> <li>- Estimated required cost: US\$600,000</li> <li>- C / P cost</li> </ul> <p>Project Cost : determined in the F/S (include costs for technical cooperation on establishment / personnel training of the operating agency, operation of pilot market and evaluation missions of the pilot project)</p> <p><u>Phase 3: Extension of the open paddy market system</u></p> <p>Establishment of markets facility / equipment Establishment of operating agency and personnel training of the operating agency (input costs will be determined in the F/S and evaluation result of the pilot project)</p>	<p><u>Phase 1: Feasibility Study</u></p> <p>Plan for overall program of the open paddy market establishment Plan for pilot project</p> <p><u>Phase 2: Pilot Project</u></p> <p>Basic/detail design for paddy market pilot project Organization of operating agency Trained persons in operating agency Operation manuals for paddy market Evaluation result of the pilot project Amended plan for overall program of the open paddy market establishment</p> <p><u>Phase 3: Extension of the open paddy market system</u></p> <p>Through establishment of paddy markets at major rice production areas, achieve; Formation of Open Index Price, Strengthen of Market Information Service, Widen the Outlets of Farmer and Paddy Trader, Improvement of Quality Control of Paddy and Introduction of Rice Standard in paddy trading.</p>
<b>Implementing Agency</b>	<b>Implementing Schedule</b>
MOC and MAFF	<p>Phase 1 : 2 years (including preparation)</p> <p>Phase 2 : 4 years</p> <p>Phase 3 : 4 years</p>
<b>Pre-condition and External Condition</b>	<b>Risk</b>
<p>Land at appropriate location is secured. Responsible ministry is clarified definitely. Incentive of government staff in implementation agency is maintained. Quality standard is available to use. Administration procedure, such as law establishment, is performed without delay. Sufficient talented persons are recruited for market operating agency. Sufficient budget is allocated to the project activities.</p>	<p>Opposition from the existing marketing agencies such as paddy trader/collector. Market operating agency must newly be formed. Possibility of unlawful behavior on money management</p>
<b>Special Remarks</b>	
<p>Open paddy market project unifies an idea of “paddy market project” for the domestic circulation and an idea of “border trade market project” for the paddy marketing to neighboring countries. Feasibility study in the phase 1 shall be conducted to fulfill both ideas.</p>	

Development Target: 2. Reasonable price mechanism under modern business system

<b>Project No.</b>	<b>4</b>	<b>Project Name</b>	Project on Improvement of Agricultural Marketing System in Phnom Penh
<b>Purpose</b>		<b>Project Area</b>	
Formulate improvement plan for supply-and-distribution system of agricultural products to Phnom Penh City.		Phnom Penh	
<b>Background and Rationale</b>			
<p>Rice is just one of commodities handled in the markets. Future increment of rice deficit is calculated as 250 ton/day in year 2010, and 250 ton/day of rice supply into the city from outside (i.e. 13 heavy trucks/day) will have no influence in city traffic. Also it is not critical increment for the present rice distribution system in the city, composed by wholesale/retail shops in the streets and small-scale rice sellers in the markets.</p> <p>Further more, already many rice sellers purchase rice directly from rice millers in the provinces and no rice sellers in the City complain about procurement of rice. Wholesale market will be located outside or outskirts of the City and it must be difficult to shift whole sellers to such place due to worse accessible for the fixed customers and possibility to lose the fixed customers.</p> <p>As stated above, wholesale market only for rice has less realistic need for it. On the other hands, the increment of supply amount of all-agricultural commodities into the city will be very large in year 2010 although the increment in rice is limited. It is more rational to plan the improvement of existing market facilities and/or wholesale market for agricultural commodities, in line with the improvement of the agricultural products supply and distribution system in Phnom Penh.</p> <p>Although city authority is planning rehabilitation of the existing markets, there is no consciousness to improve the agricultural-products circulation system based on the logistics of the whole city and the factors on production side. With respect to the factors of production side, collaboration with MAFF is indispensable but there is no effective scheme of collaboration among the municipality, MAFF and MOC at present.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
Farmer, Trader, Consumer		<p>Form a committee and a study group for planning the future supply-and-distribution system of agricultural products by MAFF-MOC-Municipality.</p> <p>Seminar on present situation and future prediction based on analysis of available data.</p> <p>Confirm the consensus among the concern parties and prepare the study TOR.</p> <p>Implement joint master plan study</p> <p>Formulate improvement plan</p>	
<b>Required Input</b>		<b>Expected Output</b>	
<ul style="list-style-type: none"> <li>- Master plan study : 60 M/M</li> <li>- Other activities : 28 M/M</li> <li>- Operating costs, equipment and C/P cost</li> <li>- Estimated required cost : US\$2,640,000</li> </ul>		<p>Master Plan for improvement of supply-and-distribution system of agricultural products in Phnom Penh.</p> <p>Enhanced collaboration system among concern government organizations.</p>	

<b>Implementing Agency</b>	<b>Implementing Schedule</b>
MAFF, MOC and Phnom Penh Municipality	Preparation : 0.5 year Master plan study : 1.5 year
<b>Pre-condition and External Condition</b>	<b>Risk</b>
Collaboration is possible to make.	
<p><b>Special Remarks</b></p> <ol style="list-style-type: none"> <li>1) Because there is no effective scheme of collaboration among the implementation agencies at present time, it is considered as realistic way to form collaboration in market information system at the beginning.</li> <li>2) It is desired to carry out the master plan study after 4 to 5 years.</li> <li>3) Study area for the master plan study includes major agricultural production areas.</li> </ol>	



Development Target: 3. Improvement of rice border trade

4. Development of rice border trade

<b>Project No.</b>	<b>5</b>	<b>Project Name</b>	Project on Enhancement of Rice Miller's Association Activities
<b>Purpose</b>		<b>Project Area</b>	
Strengthen the support services of RMA to the members such as improving the business management/quality control/milling facility.		Provinces where RMA is formed	
<b>Background and Rationale</b>			
<p>Rice millers are playing very important roles in rice industry of Cambodia. However, many of millers have short history of business because they started business after the liberalization of rice marketing in 1993, or after the political stability/domestic peace being brought by election in 1997. Almost all of the millers are small-scale family operated business and the capability of business management and marketing is not high. Moreover, rice millers are facing with poor business environment in the provinces such as poor road, poor tele-communication, lack of bank service and lack of appropriate financial services.</p> <p>In the development of rice industry, improvement of business management and improvement of quality of rice millers are the subjects of pressing need. Furthermore, conversion paddy to milled rice in border trading is another subject from viewpoint of value addition of trade commodity, creation of job opportunity and utilization of by-products.</p> <p>With the assistance of EDC/MPDF, commercial rice mills have organized RMAs and federation, but the practical activities as a service agency for the member's business development are still weak.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
<p>Direct beneficiary : RMA / Commercial rice millers</p> <p>Indirect beneficiary : Farmer, Trader</p>		<p>Formulate the training programs for the members</p> <ul style="list-style-type: none"> <li>- Quality control of Products</li> <li>- Internet &amp; Information Technology (IT)</li> <li>- Market surveys and marketing strategy</li> <li>- Financial planning and capital raising</li> <li>- Accounting</li> </ul> <p>Establish the information system to collect/exchange business information</p> <ul style="list-style-type: none"> <li>- Network system with internet</li> </ul> <p>Establish the RMA Business Support Services</p> <ul style="list-style-type: none"> <li>- Support on better access to financial sources <ul style="list-style-type: none"> <li>*Identifying potential lenders</li> <li>*Improving credibility of the member (Quality assurance system, etc.)</li> <li>*Preparing business plans and financing applications</li> <li>*Matchmaking between financial resources such as banks, IOs and NGOs.</li> </ul> </li> <li>- Marketing support/consulting</li> <li>- Management consulting</li> <li>- Technical advisory services (e.g. factory layout, choice of technology and equipment, etc.)</li> </ul> <p>Develop the human resources of RMA</p> <ul style="list-style-type: none"> <li>- On-the-job business training of RMA staff in neighboring countries.</li> </ul> <p>Formulate the government support scheme for modernization of milling facility.</p>	

<p><b>Required Input</b></p> <ul style="list-style-type: none"> <li>- Technical assistance to RMA/MOC for formulation of training programs and technical advisory : 54 M/M</li> <li>- Equipment cost : US\$ 25,000</li> <li>- Operating cost include OJT training cost : US\$ 45,000</li> <li>- C/P cost</li> </ul>	<p><b>Expected Output</b></p> <ul style="list-style-type: none"> <li>Training programs for the members</li> <li>Information system (network)</li> <li>Business Support Services</li> <li>Talented staff</li> <li>government support scheme for modernization of milling facility</li> </ul>
<p><b>Implementing Agency</b></p> <p>RMA/EDC MOC</p>	<p><b>Implementing Schedule</b></p> <p>5 years</p>
<p><b>Pre-condition and External Condition</b></p> <p>Securing budget/fund Bank services are improved in provincial towns.</p>	<p><b>Risk</b></p>
<p><b>Special Remarks</b></p>	

Development Target: 2. Reasonable price mechanism under modern business system

<b>Project No.</b>	<b>6</b>	<b>Project Name</b>	Master Plan Study on Establishment of Agricultural Cooperative
<b>Purpose</b>		<b>Project Area</b>	
1) Study on present condition of farmers' cooperatives 2) Making Master Plan for extension of farmers' organization		Whole country	
<b>Background and Rationale</b>			
<p>In order to strengthen farmers' capability in marketing, it is usually advisable for them to organize a co-operative or an organization for group sales/purchase. But in Cambodia, farmers' ties are generally weak and such organizations are not popular due mainly to the past unsuccessful attempts by the governments to organize farmers into communal farms or cooperatives. Promoting a marketing coop may be too hasty a measure under the present circumstances.</p> <p>On the other hands, various farmer organizations such as Water Users Associations, Village banks, Paddy/Rice banks, farmer groups for group purchase of inputs etc. are being established by mainly NGOs. However, these organizations are still weak and don't have much influence yet to, as they lack in experiences and skilled manpower, and have little impact on marketing yet, besides the assistance or support activities by GOs and NGOs are limited.</p> <p>Rural area is poor and the gap between the urban and rural area is widening. This master plan study seeks to formulate the short and medium term plans to organize various kinds of agricultural coops according to the conditions and needs of the communities and provide support services to them.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
Direct beneficiary : Farmer Indirect beneficiary : Consumer		Study on farmer's groups PR and Education Making Master Plan	
<b>Required Input</b>		<b>Expected Output</b>	
<ul style="list-style-type: none"> <li>- Master plan study (advisers) : 50 M/M</li> <li>- Operating costs</li> <li>- C/P cost ( including the training in foreign countries : 5 persons x 2 M/M )</li> <li>- Estimated total cost : US\$ 1,200,000</li> </ul>		Report of study ( e.g. Basic necessary information about agri-business, training ) Master Plan of encouragement of farmers' cooperative	
<b>Implementing Agency</b>		<b>Implementing Schedule</b>	
MAFF (DAE)		Period of preparing : 6 months Period of study : 1.5 year	
<b>Pre-condition and External Condition</b>		<b>Risk</b>	
The department specializing in an agricultural cooperative association will be established in MAFF.		Political uneasiness	
<b>Special Remarks</b>			
<p>Legislation of the present agricultural cooperative association law and the organization reform in MAFF corresponding to it are planned by MAFF single-handed efforts. Considering the present condition that training of agricultural cooperatives is key point of solution of the farmers' problem and task including enhancement of group sales, micro credit with secure low interest rate, etc., it is expected that the project is implemented as soon as possible, even the project plan is not perfect.</p> <p>Priority should be given to the practical plan in the side of the system of legislation or an audit system, training of government and people, and system of financing, especially.</p>			

Development Target: 2. Reasonable price mechanism under modern business system

<b>Project No.</b>	7	<b>Project Name</b>	Project on Enhancement of the Agencies in Charge of Agricultural Cooperatives
<b>Purpose</b>		<b>Project Area</b>	
1) Establish a department of agricultural coop. in MAFF and enhance its activity 2) Establish a department of agricultural coop. in DAFF and enhance its activity		Phase 1 : Central government and 5 provinces as model cases. Phase 2 : Whole country	
<b>Background and Rationale</b>			
<p>While the draft Royal Decree for agricultural coops is being prepared by MAFF, there is no independent department/office to be in charge of coops in MAFF. The study proposes to help establish an office for coop affairs in DAE, MAFF as well as in DAFF in each province and to equip all those offices with necessary means and provide appropriate technical training for all the staffs in the offices. 80% of country are farm villages and the needs of agricultural coops are expected as the tool of good quality of life, so that it is necessary to have an agency which is in charge of supporting agricultural coops. DAFF in each province should be established at the same time. It is also necessary to dispose local staffs in each district for grasping the coops and consulting their activities.</p> <p>Moreover, it is necessary to prepare equipment, vehicles, etc. for training required for financial backing and financial spread activities, in carrying out actual agricultural cooperative association support activities. As a premise of supporting agricultural cooperatives, it is important to provide the opportunities of training to the staffs for improving their skill. Without equipment and facility for training, it is hard to accomplish the task of training.</p> <p>Enhancement of staffs in charge of agricultural coops is essential in order to extend the skill and technology to the farmers.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
Direct beneficiary : Officers Indirect beneficiary : Farmer, Consumer		Reorganization of a government organization Spread and osmosis of an agricultural cooperative's law Provision of equipment and facilities Training of officers	
<b>Required Input</b>		<b>Expected Output</b>	
- Cost of facility and equipment - Cost of training		Established new agency Trained and skilled staffs Report written by trainees	
<b>Implementing Agency</b>		<b>Implementing Schedule</b>	
MAFF, DAFF		Phase 1 : 5 years Phase 2 : 5 years	
<b>Pre-condition and External Condition</b>		<b>Risk</b>	
<b>Special Remarks</b>			
<p>The cooperation with Master Plan Study on Establishment of Agricultural Cooperative (project No.6) shall be important, and the adviser of master plan shall perform the monitoring of this project.</p> <p>3<sup>rd</sup> country's training of the personnel should also be considered for practical use of skill and knowledge.</p>			

- Development Target:
2. Reasonable price mechanism under modern business system
  3. Improvement of post-harvest quality control of rice
  4. Development of rice border trade

<b>Project No.</b>	<b>8</b>	<b>Project Name</b>	Project on Improvement of Marketing Extension Service
<b>Purpose</b>		<b>Project Area</b>	
Promote market-oriented production by developing extension workers to provide marketing extension services to farmers.		12 provinces in the country except mountainous region. Pilot case : 4 provinces (Kandal, Takeav, Kampot, Kompong Cham)	
<b>Background and Rationale</b>			
<p>Not only rice farmers, farmers are lacking in understanding of market needs and in the capability of market research. Present agricultural extension service is only for the subjects about the production aspects, and it can not provide any marketing advisory services.</p> <p>By creating the function to conduct market researches and to provide marketing advisory services to farmers about market needs, market trend, etc. in DAFFs, promote the market-oriented production of farmers.</p>			
<b>Beneficiary</b>	<b>Main Activity</b>		
Farmers	<p><u>Phase 1 : Pilot case</u>          Provide training to DAFF staff in methods of market research and data analysis (*1)          Conduct test provision of market research and marketing advisory service to farmers on perishable vegetables in 4 provinces (*1)</p> <p><u>Phase 2 : Extension of the pilot case</u>          Expand the activities of pilot case on perishable vegetables to other 8 provinces.          Increase the object commodities in 12 provinces.          - Selection of the object commodity and the area at each province          - Trainers (MAFF/AMO officials) training by foreign expert          - Increase Marketing Extension officer up to 3 persons at each province (*2)</p>		
<b>Required Input</b>		<b>Expected Output</b>	
<p><u>Phase 1 : Pilot case</u>          - Equipment : US\$ 65,000          - Operating cost : US\$ 9,000          - Manpower (MAFF/DAFF) : 37 M/M</p> <p><u>Phase 2 : Extension of the pilot case</u>          - Equipment : US\$ 104,000          - Operating cost : US\$ 183,000          - Manpower (MAFF/DAFF) : 530 M/M          - Trainer (foreign expert) : 6 M/M</p>		<p><u>Phase 1 : Pilot case</u>          Marketing Extension Officers          Result of market researches in 4 provinces          Market-oriented production at project sites of the pilot case</p> <p><u>Phase 2 : Extension of the pilot case</u>          Marketing Extension Officers          Enforced capability of MAFF/AMO staff          Result of market researches in 12 provinces          Market-oriented production in 12 provinces</p>	
<b>Implementing Agency</b>		<b>Implementing Schedule</b>	
MAFF, DAFF		Phase 1 : 2 years Phase 2 : 6 years	

<b>Pre-condition and External Condition</b>	<b>Risk</b>
<p>Development and extension of production technology is conducted at the same time.  Agricultural materials for production are available.  Budget/fund is available.</p>	
<p><b>Special Remarks</b></p> <p>*1 : Budget for the activities which attached (*1) in the above are under preparation by MAFF to start them in 2001.</p> <p>*2 : Each Marketing Extension officers shall have a field of in charging crop-wise (Horticulture crop, Food &amp; upland crop, Animal &amp; fishery).</p>	

- Development Target:
1. Stable and balanced regional supply-demand
  2. Reasonable price mechanism under modern business system
  4. Development of rice border trade

<b>Project No.</b>	<b>9</b>	<b>Project Name</b>	Project on Enhancement of Market Information Service
<b>Purpose</b>		<b>Project Area</b>	
Strengthen the MIS of AMO/MAFF in functions of collecting and disseminating the market information to provide better information to farmers and traders.		Whole country	
<b>Background and Rationale</b>			
<p>At present time, only AMO/MAFF is carrying out a routine activity of agricultural market information services to assist the private sectors. Due to time limits of the MIS radio program, it is unable to disseminate all provincial information, and there exists a mismatch between what the farmers/traders want to know and the program content. Moreover, tele-communication between AMO/MAFF and AMO/DAFFs is often disconnected due to delayed disbursement of budget.</p> <p>Therefore, dissemination of information through local radio stations / internet system, and improvement of communication system between provinces are essential to strengthen the MIS.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
<p>Direct beneficiary : Farmer, Trader, Rice miller</p> <p>Indirect beneficiary : Consumer</p>		<p>Disseminate the provincial information through provincial radio stations</p> <p>Issue the monthly report, including the analysis of price trends</p> <p>Introduce the Internet and disseminate the daily data and monthly report through the web</p> <p>* Improvement of communication system with provincial offices (introduction of HF Radio)</p> <p>* Strengthening the field monitoring activity</p>	
<b>Required Input</b>		<b>Expected Output</b>	
<p>- Equipment : US\$ 70,000</p> <p>- Operating cost : US\$ 11,100/year</p> <p>- Manpower (MAFF/DAFF) : 16 M/M (only for new routine activities)</p>		<p>Distribution of information match to needs of farmer/trader</p> <p>Distribution of collected information without delay</p> <p>Effective use of collected information</p> <p>Improved accuracy of information</p>	
<b>Implementing Agency</b>		<b>Implementing Schedule</b>	
MAFF		Continuous activities	
<b>Pre-condition and External Condition</b>		<b>Risk</b>	
<p>Cooperation of radio stations</p> <p>Timely disbursement of budget</p>			
<b>Special Remarks</b>			
Activities marked with* are planned to start in year 2001 with national budget (ADB counterpart fund).			

- Development Target: 1. Stable and balanced regional supply-demand  
2. Reasonable price mechanism under modern business system

<b>Project No.</b>	<b>10</b>	<b>Project Name</b>	Project on Enhancement of Collaboration for MIS institutions
<b>Purpose</b>		<b>Project Area</b>	
Create a collaboration scheme among government institutions which are collecting market information to enhance the MIS of Cambodia.		Phnom Penh	
<b>Background and Rationale</b>			
<p>It is no necessary to establish another disseminating system of market information to the public in the government because MIS is already formed in MAFF. At present, not only MAFF but also MOC and Phnom Penh municipality is collecting market information respectively, but there is no collaboration among those institutions.</p> <p>Create a collaboration scheme for effective use of collected information among those government institutions to enhance the MIS in Cambodia.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
Farmer, Trader, Rice miller Government institutions, IOs, NGOs which relate to the agriculture sector.		<p>Discuss on setting a MIS platform with MAFF-MOC-Municipal office.</p> <p>Execute regular meeting to exchange information and to improve MIS.</p> <p>Formulate a monitoring system for throughput of agricultural commodity at markets in Phnom Penh.</p> <p>Implement a monitoring system for throughput and dissemination of quantitative information.</p>	
<b>Required Input</b>		<b>Expected Output</b>	
<p>- Equipment : Nil</p> <p>- Operating cost for monitoring survey : US\$ 2,500/year</p> <p>- Manpower : 80 M/M</p>		<p>Scheme of data exchange</p> <p>Demarcation of data collection</p> <p>Enforced MIS</p> <p>Collaboration in policy making on agricultural marketing</p>	
<b>Implementing Agency</b>		<b>Implementing Schedule</b>	
MAFF, MOC, Phnom Penh municipality		Project period : 2 years	
<b>Pre-condition and External Condition</b>		<b>Risk</b>	
<b>Special Remarks</b>			
Any cooperation between the government institutions may not be able to form without having a practical task or a specific subject for joint-work. Creating the collaboration among those institutions for MIS shall be very useful to work jointly to solve the future predicted problem in the marketing system of agricultural products in Phnom Penh.			



Development Target: 2. Reasonable price mechanism under modern business system

<b>Project No.</b>	<b>11</b>	<b>Project Name</b>	Project on Verification of Measuring Equipment
<b>Purpose</b>		<b>Project Area</b>	
Execute the official inspection / verification of weight measuring instruments to prevent the deceptions in paddy/rice trade.		Whole country	
<b>Background and Rationale</b>			
<p>It is pointed out from farmers that rice millers and paddy traders are doing deception in weight measurement. Although this is the problem of morals, the official inspection / verification of weight measuring instruments and enlightenment of the use of proper accuracy instruments is necessary to prevent such deceptions.</p> <p>Execute the official inspection / verification of weight measuring instruments being used by rice millers and paddy traders, which already has started in apart of the country, in each provinces.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
Farmer, Traders		<p>Execute the periodical official inspection / verification by DOIMES.</p> <p>Enlighten the use of measuring instruments having proper accuracy</p> <ul style="list-style-type: none"> <li>- Seminar for knowledge about weight measuring instruments and self-imposed management of instruments</li> </ul>	
<b>Required Input</b>		<b>Expected Output</b>	
<ul style="list-style-type: none"> <li>- Manpower : 40 M/M/year</li> <li>- Operating cost : US\$ 2,500/year</li> <li>- Equipment : Standard set (1 set/province)</li> </ul>		<p>Elimination of improper measuring instruments</p> <p>Dissemination of knowledge about weight measuring and measuring instruments</p>	
<b>Implementing Agency</b>		<b>Implementing Schedule</b>	
MOIME, DOIME		Continuous activity	
<b>Pre-condition and External Condition</b>		<b>Risk</b>	
Manpower and budget are secured.		Deception will be repeated if morals do not improve.	
<b>Special Remarks</b>			
<p>Since measuring instruments is not manufactured in the country, the inspection / verification of manufacturers is made into the matter of the future.</p> <p>The section for weights and measurements already exists in MOIME. It is required to carry out the official inspection / verification as soon as the staff and budget in each province are ready.</p>			

- Development Target: 1. Stable and balanced regional supply-demand  
2. Reasonable price mechanism under modern business system

<b>Project No.</b>	<b>12</b>	<b>Project Name</b>	Project on Improvement of State Rice Procurement System
<b>Purpose</b>		<b>Project Area</b>	
Attain the fairness and transparency in the state rice procurement by introducing the improved procurement system based on the market mechanism.		Whole country	
<b>Background and Rationale</b>			
Reportedly, the total rice supply for the army and police was 70,000 tons in 1999. Except rice procurement by WFP, state rice procurement is the only large quantity demand and it must have a large influence to formation of domestic price and the business of rice millers. The procurement has been under the hand of solo agent and it is pointed out that the dealing in procurement is not transparent.			
To modernize the rice business in the country, transparency and fairness shall be attained in the rice procurement of the largest quantity.			
<b>Beneficiary</b>		<b>Main Activity</b>	
Direct beneficiary : Trader, Rice millers who have no vested interests  Indirect beneficiary : The nationals		Draft the improved state rice procurement system - Procurement system with improved fairness and transparency based on the market mechanism - Application of specification dealing - Study on role/function of GTC  Trial and monitor/evaluate the new procurement system	
<b>Required Input</b>		<b>Expected Output</b>	
- Manpower : 58 M/M ( 5 expertise / 5 persons ) - Operating cost, equipment and C/P cost - Estimated required cost : US\$ 600,000		Improved procurement system and related law/regulation	
<b>Implementing Agency</b>		<b>Implementing Schedule</b>	
MOC, MOI, MOJ		Study and planning : 2 years Monitoring : 3 years	
<b>Pre-condition and External Condition</b>		<b>Risk</b>	
The Council of Ministries approves draft system. Quality standard is formulated.		Opposition from a vested-interests group	
<b>Special Remarks</b>			

- Development Target:     2. Reasonable price mechanism under modern business system  
                                   3. Improvement of post-harvest quality control of rice

<b>Project No.</b>	<b>13</b>	<b>Project Name</b>	Project on Establishment of Rice Quality and Inspection Standard
<b>Purpose</b>		<b>Project Area</b>	
<p>By establishing the rice quality standard, realize:          Improvement of rice quality,   Uniformity of paddy quality,          Formation of open index price information to the public,          Strengthening of MIS (Market Information System),          Improvement of dealing system in the market,   Use of standard inspection methodology.</p>		<p>Whole area in Cambodia          (Phnom Penh and other few important points of rice marketing/movement)</p>	
<b>Background and Rationale</b>			
<p>It is difficult to orient to market economy (dealing with specification in quality and in quantity) properly on account of a lack of business creditworthy to both of the seller and buyer, because most of dealing system is proceeded among exclusively individual persons. A sizable quantity of milled rice with the specified quality may not be produced. In addition, dealing procedure with actual sample and / or actuals is inefficient/ irrational transaction. There is the situation that quality may not well ascertained during the dealing to give the buyer almost of risks. Accordingly, the dealing with fair and impartiality is generally not be performed in the market, and buying price tends to be the lowest level of quality/ grade across the board. It would never lead to benefits of farmer, to indistinct/ evasive situation on the forming of rice price and government's purchase, moreover, to have no target/ indication in order to improve rice quality.</p> <p>Rice quality standard shall be enacted and introduced. If that happens, price information (MIS) by quality/ variety/ grade as an accurate index data in the market will be put to practical use in order to initiate efficient/ fair dealing with specification and to rectify unreasonable gap of the price, and to prove worth in the market (the buyer). It would be an incentive activity to continue through monitoring system of market price in the market. At the same time, standardization of inspection methodology shall be enacted and introduced to farmer, rice millers, and traders. It is very important for them to accomplish self-imposed inspect (quality control) at the pre-distribution through quality standard or individual specification.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
<p>Direct beneficiary : Farmer,          Trader, Rice Miller, Whole-saler/Retailer          Indirect beneficiary : Consumer</p>		<p>Provide training for enacting and introducing of rice quality standard and standard inspection methodology.          Improve equipment and renovate existing building.          Provide the program for persons in the executing organization.          Improve the monitoring system on market price reflected in the quality.</p>	

<b>Required Input</b>	<b>Expected Output</b>
<p>(Part I)  Instructing for enacting and introducing rice standard and standard inspection methodology:  - Manpower : 3 persons for 40 M/M (some program is proceeded in spot during the instruction period)  - Equipment : temporary set for standardizing x 1 set</p> <p>(Part II)  Detailed design (research/ design/ execution) for improvement of equipment and renovation of existing building:  - Manpower : 9 M/M (4 kinds of expertise)  - Equipment : A set of equipment for equipment and renovation of existing building</p> <p>Total estimation : US\$2,400,000</p>	<p>Enacting of rice quality standard and standard inspection methodology  Improvement of equipment for rice inspection  Decision of inspection method  Information of rice price reflected in quality/grade  System of domestic procurement of rice for support and for government distribution  Promotion of human resource for standardizing rice quality (paddy/ brown rice/ milled rice)</p>
<b>Implementing Agency</b>	<b>Implementing Schedule</b>
Camcontrol, MOC, MAFF	Part I : 2 - 2.5 years Part II : 8 months ( at the same period of Part I ) Execution of Part II : 4 months
<b>Pre-condition and External Condition</b>	<b>Risk</b>
Smooth enacting of standards Cooperation of farmer, rice miller, trader Cooperation of mass media	Reaction of beneficiaries with informal trade, farmers and custom millers
<b>Special Remarks</b>	
The improvement of standards is important, one of the precedent activities would be taken into consideration. ( Part II will start at the beginning of Part I and will complete during the introduction period of Part I, before the monitoring )	

- Development Target:
1. Stable and balanced regional supply-demand
  2. Reasonable price mechanism under modern business system
  4. Development of rice border trade

<b>Project No.</b>	<b>14</b>	<b>Project Name</b>	Project on Improvement of Rice and Paddy Trade System
<b>Purpose</b>			<b>Project Area</b>
Paddy cross-border trade shall be institutionalized and systematized, and the domestic and regional trading system for paddy/rice shall be rationalized through which the following will be expected: increase in domestic value-added of paddy/rice, elimination of illegal fee collection, keeping record on paddy/rice trade including cross-border, and development and promotion of intra-regional paddy/rice trade			Whole Cambodia
<b>Background and Rationale</b>			
<p>Since 1995 in Cambodia, domestic production of paddy could meet with the internal demand, and reached the level having a certain surplus. Due to the small-sized domestic market as well as poor transportation infrastructure within the country, considerable amount of paddy is flowing cross-borders, especially to Vietnam and Thailand. In other words, Cambodian farmers are securing their income by depending on the neighbor countries. Therefore, determination of paddy selling price by Cambodian farmers is dominated by traders from Vietnam and Thailand. In addition, these trade transaction is carried out unofficially, resulted in: (a) it is impossible to precisely grasp the quantity of paddy flown cross-borders; (b) there exist several systems in which Cambodian traders and transporters should pay fee as a kind of custom duty. The fee collected illegally is not flowing to the national revenue; and (c) Cambodia itself is losing value-added through the said trade transaction.</p> <p>On the other hand, in view of Cambodia's participation to ASEAN, it is urgent matter that Cambodia shall take prompt action to establish its basic policy for the domestic rice industry to encounter the effect of AFTA. Especially, it is quite important issue how to establish good relation with neighbor countries, Thailand and Vietnam, which are the first and the second largest rice exporting country.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
<p>Direct beneficiary : Trader, Transporter, Rice millers who are connecting with paddy/rice marketing</p> <p>Indirect beneficiary : Consumer or The nationals</p>		<p>Study on establishment of institutionalized paddy trading system and enact the regulations; Conclude paddy/rice trading treaty with neighboring countries under the concept and the framework of AFTA; Study on improvement of paddy/rice trading system and establish the system</p> <ul style="list-style-type: none"> <li>- Streamlining of procedures</li> <li>- Elimination of illegal and unfair collection of fee</li> <li>- Management of trading volume of paddy/rice including their demand/supply</li> </ul>	
<b>Required Input</b>		<b>Expected Output</b>	
<ul style="list-style-type: none"> <li>- Man power: 111 M/M (4 expertise and 10 persons)</li> <li>- Remuneration, out-of-pocket expenses, equipment/machinery cost and C/P expenses</li> <li>- Estimated required cost : US\$ 1.55 million</li> </ul>		<p>Paddy trading institutionalizing method Paddy/rice trading treaty with ASEAN member countries Reporting and recording system on export and import of paddy/rice and inspection system Statistics on paddy/rice trading</p>	

<b>Implementing Agency</b>	<b>Implementing Schedule</b>
MOC, MAFF and Ministry of Justice	Study/preparation : 2 years
<b>Pre-condition and External Condition</b>	<b>Risk</b>
<p>Recognition by Council of Ministers with highest priority</p> <p>Opening study/work processes and keeping transparency</p> <p>Prompt decision making by concerned ministries</p> <p>Understanding of neighboring countries</p>	<p>Resistance by groups with benefit from the illegal fee collection</p> <p>Rice businessmen in neighboring countries</p> <p>Opposition movement by rice growers and their pressure group in neighboring countries</p>
<b>Special Remarks</b>	
It is prerequisite to obtain cooperation from the international and the regional support agencies.	

Development Target: 1. Stable and balanced regional supply-demand

<b>Project No.</b>	<b>15</b>	<b>Project Name</b>	Project on Increase of National Rice Reserve
<b>Purpose</b>		<b>Project Area</b>	
<p>By means of increasing the volume of national food reservation, improve stable and balanced food supply to deficit areas and redress the price gaps.</p> <p>Enhancement of national food reservation system, Utilization of existing warehouses, Improvement of quality control of paddy, Utilization of existing milling facility</p>		<p>Study : Whole country Model plan : Surplus provinces and Deficit provinces (e.g. Phnom Penh, Bat Dambang, Prey Veng)</p>	
<b>Background and Rationale</b>			
<p>The Cambodia government is obliged to reserve 3000 tons of rice for ASEAN Food Security Reserve. The government recognizes the necessity of the national food reserve, but due to the scarce government budget, only 1000 tons of paddy is reserved by GTC. On the other hand, WFP, NCFDM and NGOs have distributed 30,000 to 35,000 tons of rice to the vulnerable people and victims in these years.</p> <p>Cambodian government should fulfill the obligation for ASEAN Food Security Reserve, also should take over the role of relief work instead of WFP in the future. In order to realize these under the tight national budget situation, (a) utilization of national food reserve for the official relief works and (b) generation of fund by milling the increased volume of paddy into white rice (added value) are considered as counter measures.</p> <p>This project aim to reserve 5,000 tons of paddy (3,000 tons of white rice) at the state warehouses and to handle (mill) 25,000 tons of paddy as a model plan in the first stage. As a final goal, expand the reserve and value added activities to every province and reserve/distribute 50,000 tons of paddy (32,000 tons of white rice, equal with distributed volume by WFP and others).</p> <p>Through the procurement of material paddy and distribution of white rice, regional imbalance and price gap of food will be redressed, also it will contribute to the stabilization of paddy/rice price.</p>			
<b>Beneficiary</b>		<b>Main Activity</b>	
<p>Direct beneficiary : None (enhancement of governmental function and system) Indirect beneficiary : Vulnerable people</p>		<p>Field survey Validity verification of the amount of national food reserve Study on facility for food reserve, make plan, implementation Study on facility for milling, make plan, implementation</p>	
<b>Required Input</b>		<b>Expected Output</b>	
<p>Study : 39 M/M, US\$815,000 Implementation : 37 M/M, US\$760,000 Facility and equipment : US\$3,260,000 Total estimation : US\$4,835,000</p>		<p>Overall plan of national paddy reserve Utilization plan of reserved paddy Effective utilization of state warehouses Effective utilization of milling facility Implementation of the model plan</p>	
<b>Implementing Agency</b>		<b>Implementing Schedule</b>	
<p>MOC and GTC Related organization : NCFDM, MAFF, MIME</p>		<p>Period of study : 0.8 year Period of implementation : 1.2 year Total : 2.0 years</p>	

<b>Pre-condition and External Condition</b>	<b>Risk</b>
<p>Legislation concerning with market oriented economy is not changed.</p> <p>State own warehouse, milling facility and land are available.</p> <p>Responsible ministry is clarified definitely.</p> <p>Incentive of government staff in implementing agency is maintained.</p>	<p>Resistance of commercial rice millers, etc.</p>
<p><b>Special Remarks</b></p> <p>Making a plan with the relief plan for disaster victim which NCfDM have been executing.</p>	



## **5.3 Evaluation of the Proposed Projects**

### **5.3.1 Procedure of Evaluation**

As a premise of project evaluation, logical criteria of evaluation shall be defined. In this Study, a methodology called ‘Analytic Hierarchy Process (AHP)’ is applied to maintain the logic in the process of the prioritizing. The procedure of evaluation is as follows:

- a. Select items of criteria
- b. Clarify a hierarchy of selected items
- c. Clarify an importance of each item (set a value of each criterion)
- d. Evaluate each project
- e. Calculate a score of each project at every criterion
- f. Calculate a overall score of each project

#### **(1) Contents of evaluation criteria**

The contents of evaluation criteria set by the Study Team are shown in the next table. The criteria are classified into three levels.

The first level is comprehensive indicator of evaluation and is composed of five items. A criterion “Consistency with National Policy” judges whether the project is appropriate or not. A breakdown of this criterion in the second level is consistency/contradiction with “the National Plans”, “Market mechanism” and “Poverty reduction”.

“Output of Project” and “Input of Project” is for evaluating a scale, impact and an effect against cost of the proposed projects. “Output of Project” is quantitative benefit and qualitative effect, so that the “Population of beneficiary”, “Sustainability”, “Immediate effect” and “Comprehensive/Ripple effect” are set in this criterion. “Input of Project” is generally a fund, facility/equipment and human resource, and “Revolving fund”, “Initial investment”, Necessary staff” and “Necessary facility” are set in this criterion.

In terms of “Feasibility of Project”, it is the evaluation of real surrounding conditions of the proposed projects. The “Implementing agency” is evaluated by the items of “Existing facility”, “Technology”, “Number of staff” being set in the third level of criteria. “Financial background”, “Cost-estimation”, “Risk of external factor” and “Enthusiasm of participant” are also included in this criterion. The last item in the first level of criteria is “Influence on environment”. The environment includes not only the natural matter but also the social matter, so that “Conflict of interest” and “Destruction of environment” are included in this criterion.

### Criteria for Evaluation

	1st Level	2nd Level	3rd Level	Contents of evaluation	
Criteria 1	Consistency with National Policy	1.1	The National Plans	Degree of consistency, contradiction	
		1.2	Market mechanism	Yes or No, Degree of consistency	
		1.3	Poverty reduction	Yes or No, Degree of consistency	
Criteria 2	Output of Project (Effect of Project )	2.1	Population of beneficiary	Number of beneficiary, Countable or uncountable	
		2.2	Sustainability	Evaluation if the effect is sustainable or not	
		2.3	Immediate effect	Whether the effects of project appear immediately	
		2.4	Comprehensive effect	Whether the ripple effect of project on many fields is big or small	
Criteria 3	Input for Project (Contents of Project )	3.1	Revolving fund	Size of necessary revolving fund,	
		3.2	Initial investment	Scale of initial investment, Ability of estimation	
		3.3	Necessary staff	Number of necessary staff	
		3.4	Necessary facility	Scale of necessary facility	
Criteria 4	Feasibility of Project (Evaluation of present situation)	4.1	Implementing agency	4.1.1 Existing facility	Whether the necessary facility and equipment exists or not.
				4.1.2 Technology	Whether the technologies of staffs are appropriate.
				4.1.3 Number of staff	Number of staff, Ability of practical use of staffs
		4.2	Financial background		National finance, Financial Support form other countries
		4.3	Cost-estimation		Possibility of the accurate cost-estimation
		4.4	Risk of external factor		Exchange rate, international rice price, political condition
		4.5	Enthusiasm of participant		Degree of enthusiasm of participant
Criteria 5	Influence on environment	5.1	Conflict of interest	Degree of conflict	
		5.2	Destruction of environment	Degree of damage	

## (2) Importance of criterion

Generally, the importance of each criterion is not equal. Relatively one might be more important than another, i.e. criterion itself has own priority. After examining about the importance of each criterion in the development concept for the master plan, a score point clarifying the importance of each criterion were set in accordance with the AHP method. The score point of each criterion in the first level is as follows.

1. Output of Project	: 0.325	point
2. Feasibility of Project	: 0.256	point
3. Consistency with National Policy	: 0.183	point
4. Influence on Environment	: 0.120	point
5. Input for Project	: 0.116	point

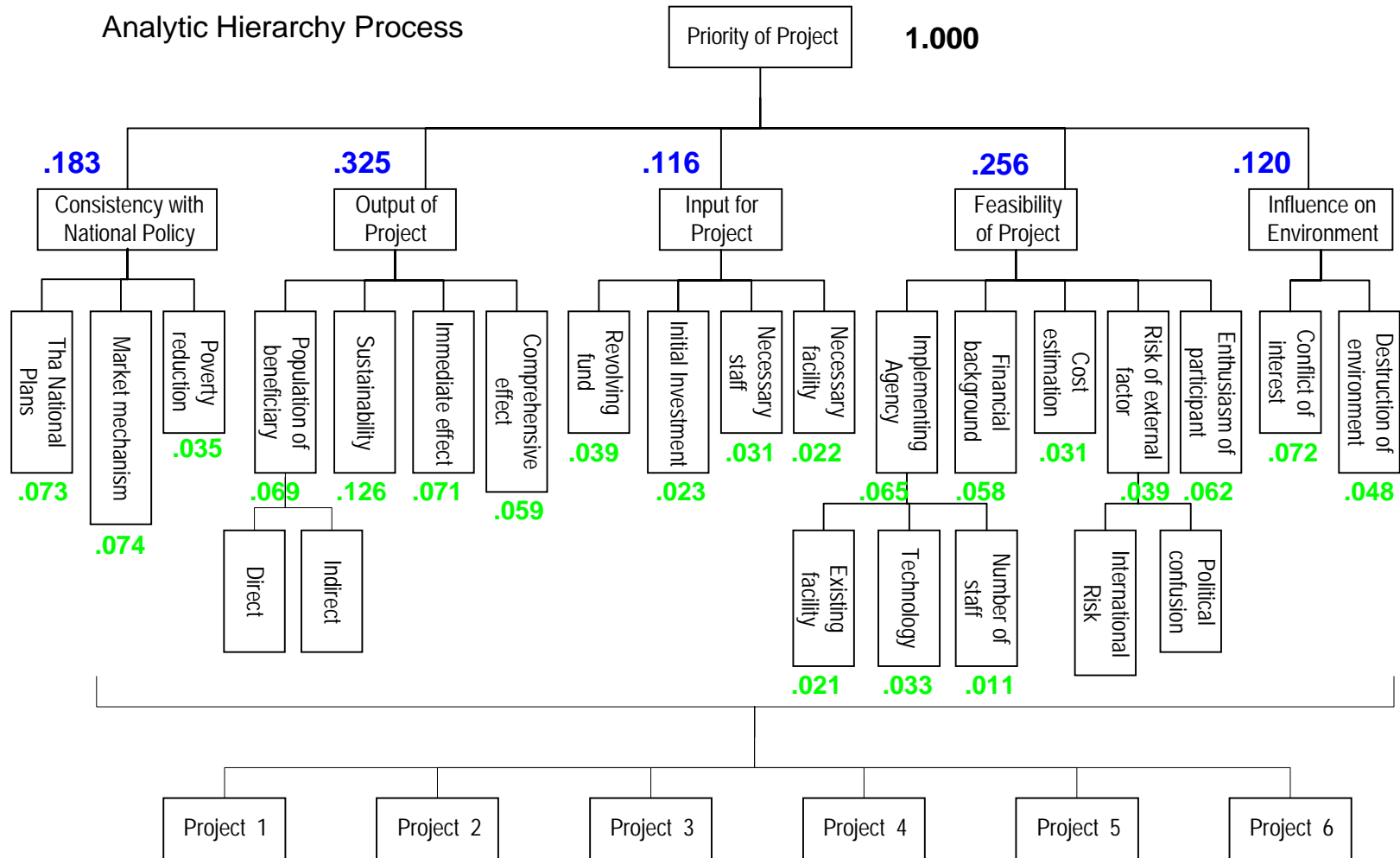
Detailed result of clarifying the importance of each criterion is illustrated in the following figure.

The most important criterion is “Output of Project” with 0.325 point; i.e. the Study Team regards expected effect of the project as the most important factor in selecting priority project. Among the second level of the criteria, the “Sustainability” is regarded as most important.

The second important is “Feasibility of Project” with 0.256 point. As shown in the points of the second level criteria, “Implementing agency” and “Enthusiasm of participant” are more taken into consideration rather than items relating to a project fund.

Third one is “Consistency with National Policy” with 0.183 point. Consistency with market mechanism marked 0.074 and with the National Plans marked 0.073. Poverty reduction is rather lighter since the scope of work of the master plan focuses on market oriented economy. “Influence on Environment” marked 0.120 points and “Input for Project” marked 0.116 points.

### Structure of Criteria and Importance of Each Criterion



### (3) Evaluation and scoring

Following the above criteria, the 15 projects for the master plan were evaluated. At first, each project was evaluated and the scores were calculated with the following formula criterion-wise.

$p_{nm}$  = Score on criterion “m” of Project “n”

$w_m$  = Importance of criterion “m”

$$P_{mn}W_m = \begin{bmatrix} p_{11} & p_{12} & \dots & p_{1m} \\ \vdots & & & \vdots \\ p_{n1} & \dots & & p_{nm} \end{bmatrix} \times \begin{bmatrix} w_1 \\ \vdots \\ w_m \end{bmatrix} = \begin{bmatrix} p_{11} w_1 + \dots + p_{1m} w_m \\ \vdots \\ p_{n1} w_1 + \dots + p_{nm} w_m \end{bmatrix}$$

Then, overall scores were summed up for comprehensive evaluation with the following formula.

$$\begin{aligned} \text{Overall Score of Project “n”} = & \text{Score on Consistency with National Policy} \times 0.183 \\ & + \text{Score on Effect (output)} \times 0.325 \\ & + \text{Score on Input} \times 0.116 \\ & + \text{Score on Feasibility} \times 0.256 \\ & + \text{Score on Environment} \times 0.120 \end{aligned}$$

#### 5.3.2 Result of Evaluation

The result of evaluation is shown in the following table by the comprehensive scores in the first level of criteria. The overall scores are in range from 0.194 to 0.285, and it is judged by numerical analysis that there is no significant difference in the scores. That is, there is no project can be given obvious priority or be given remarkably low validity in the 15 proposed projects.

### Result of Evaluation

Criteria		1	2	3	4	5	Overall Score
		Consistency with National Policy	Output (Effect)	Input	Feasibility	Environment	
Points of Importance		0.183	0.325	0.116	0.256	0.120	
1	Promotion of Seed Distribution	0.049	0.070	0.036	0.048	0.040	0.243
2	Improvement of Post-harvest Processing	0.041	0.064	0.021	0.043	0.045	0.214
3	Open Paddy Market Project	0.063	0.090	0.021	0.049	0.028	0.251
4	Improvement of Agri. Marketing System in Phnom Penh	0.051	0.065	0.032	0.039	0.030	0.218
5	Enhancement of RMA Activities	0.044	0.071	0.035	0.060	0.049	0.258
6	Establishment of Agricultural Cooperatives	0.049	0.070	0.036	0.048	0.040	0.243
7	Enhancement of Agencies in charge of Agri. Coops.	0.046	0.069	0.032	0.049	0.043	0.239
8	Improvement of Marketing Extension Service	0.072	0.070	0.031	0.065	0.046	0.284
9	Enhancement of Market Information Service	0.055	0.072	0.035	0.066	0.057	0.285
10	Enhancement of Collaboration for MIS Institutions	0.046	0.067	0.047	0.056	0.046	0.262
11	Verification of Measuring Equipment	0.051	0.088	0.040	0.051	0.038	0.269
12	Improvement of State Rice Procurement System	0.045	0.060	0.039	0.037	0.032	0.212
13	Establishment of Rice Quality and Inspection Standard	0.043	0.067	0.027	0.042	0.040	0.218
14	Improvement of Rice and Paddy Trade System	0.075	0.099	0.027	0.045	0.035	0.280
15	Increase of National Rice Reserve	0.036	0.052	0.016	0.049	0.041	0.194

In the process of clarifying the importance of each criterion, relatively heavier weight was put on “Output of project”, then on “Feasibility of project”. Therefore, the projects in the following situations obtained the higher score in comparison.

- Although it is not an on-going project, assistance of a foreign country or NGO has already been performed in the field connecting with the contents of the project.
- The budget measure for some part of the project activities has already taken by the Cambodia government.
- A part of contents of project activity has already performed in limited scale/area.

As supplementation, the Study Team states that the criteria of evaluation which were set and used in this study are not universal, and the scores of each project are not absolute value.

### 5.3.3 Selection of Priority Project

As the result of evaluation in the preceding section, the 15 projects for the master plan are in similar importance and there is no project being given obvious priority.

On the other hand, each project has a different prospect of implementation due to the differences in pre-condition, capability of implementing agency, etc. As stated in the preceding section, the projects in the following situations were judged having a higher prospect of implementation.

- Assistance of a foreign country or NGO has been performed in the field connecting with the contents of the project.
- The budget measure for some part of the project activities has already taken by the Cambodia government.
- A part of contents of project activity has already performed in limited scale/area.

The Study Team hope to realize a implementation of 15 proposed projects equally, and has selected the projects with comparatively lower prospect of implementation as the priority project; i.e. select a project with higher necessity of technical assistance in its implementation. The selected priority projects are the following 6 projects.

- No. 2 Project on Improvement of Post-harvest processing
- No. 3 Open Paddy Market Project
- No. 6 Mater Plan Study on Establishment of Agricultural Cooperatives
- No.13 Project on Establishment of Rice Quality and Inspection Standard
- No.14 Project on Improvement of Rice and Paddy Trade System
- No.15 Project on Increase of National Rice Reserve

The reasons for non-selected projects are summarized as follows.

#### Project on Promotion of Seed Distribution (No. 1)

Extension of high quality seed is essential for improving the rice quality. A focus is placed on the seed distribution in the planning because the seed production is in a field of agricultural production; i.e. seed production is pre-condition for the project. AusAID have been carrying out continuous assistance in a field of seed production, and it is judged to be appropriate to carry out the seed distribution project after examining outcomes of Private Seed Company system in AQIP (Agricultural Quality Improvement Project).

In the field of seed distribution, a new system of seed distribution, which is introducing a function of seed clearing and exchanging this cleaned seed with ordinary paddy in a paddy market, is proposed in Open Paddy Market Project.

#### Project on Improvement of Agricultural Marketing System in Phnom Penh (No.4)

This project is purposed to formulate an improvement plan for supply-and-distribution of agricultural products to Phnom Penh City against a problem predicted in future. Then, the project is planned to implement after 4 to 5 years. Moreover, rice is a less important in this project than other agricultural commodities such as perishable horticultural products.

#### Project on Enhancement of Rice Millers' Association Activities (No.5)

The contents of the project activities meet the direction of support activities of EDC (UNDP ) which has been supporting the RMA. In addition, available supporting resources to RMA are already considerably ready by the presence of Mekong Project Development Facility, which is specializing in development of SME under the World Bank Group/IFC.

#### Project on Enhancement of the Agencies in Charge of Agricultural Cooperative (No.7)

Enhancement of the agency includes aspects of strengthening human resources and equipment/facility improvement. As a matter of fact, implementation of the master plan study shall enforce the capability of the agency in charge of agricultural cooperative through OJT. Also, seminar and overseas training are planned as a part of the master plan study.

#### Project on Improvement of Marketing Extension Service (No.8)

Already the importance of providing the marketing extension services to farmer has recognized by MAFF and the budgets for an initial stage of the project is now under preparation. In the initial stage, marketing extension services will be attempted to vegetable growers as pilot case and present staff members of MAFF/AMO are capable to provide necessary training to DAFF staff without technical assistance.

#### Project on Enhancement of Market Information Service (No.9)

The purpose of the project is in enhancing the MIS activities of MAFF/AMO by improving the communication means and by strengthening the monitoring activities. Although the inputs for the project are relatively small, it is recognized by MAFF that expected outcomes are essential to straighten the activities of MIS. Then, the budget for year 2001 to 2005 is already under preparation by MAFF.

#### Project on Enhancement of Collaboration for MIS Institutions (No.10)

This project does require neither large fund nor technical assistance. Sitting down at a meeting table to discuss the way of collaboration is not considered a difficult task from the viewpoint of third party. Either MAFF or MOC can take an initiative to start the planned activities.

#### Project on Verification of Measuring Equipment (No.11)

This project does require neither large fund nor technical assistance, and main part of the project activity has already been performing in Bat Dambang province with limited scale. Moreover, the



responsible / implementation agency is Ministry of Industry, Mines and Energy.

Project on Improvement of State Rice Procurement System (No.12)

This project is purposed to enact the improved procurement system of state rice to army/police to attain the fairness and transparency and it does require neither very large fund nor technical assistance. In case restoring a specialized government agency for rice procurement like a controlled economy time, government policy of rice marketing needs to be altered.

## 5.4 Implementation Plan

### 5.4.1 Implementation Schedule

Project period of each project is shown in the profile of project respectively. Based on the prospect of implementation and the implementation order may be specified by correlation between the projects, overall implementation schedule is prepared as shown in the next figure.

#### **Prospect of implementation**

The under-listed projects are judged having higher prospect of implementation as the result of the evaluation in the preceding section , and these projects are planned to carry out immediately.

Project on Enhancement of Rice Millers' Association Activities (No.5)

Project on Improvement of Marketing Extension Service (No.8)

Project on Enhancement of Market Information Service (No.9)

Project on Enhancement of Collaboration for MIS Institutions (No.10)

Project on Verification of Measuring Equipment (No.11)

#### **Correlation of projects**

In case the output of a certain project is a pre-condition/external condition of other project, implementation schedule is specified naturally. The projects in such a relation are as follows.

#### **Project on Enhancement of Collaboration for MIS Institutions      Project on Improvement of Agricultural Marketing System in Phnom Penh**

Collaboration scheme among the MOC-MAFF-Municipality is essential to implement the Project on Improvement of Agricultural marketing System in Phnom Penh. Such scheme among the government institutions shall not be made without any practical subject to deal with jointly. Therefore, it is planned to incubate an effective scheme through the implementation of Project on Enhancement of Collaboration for MIS Institutions in which the contents of activities are less complex, prior to the implementation of the Project on Improvement of Agricultural marketing System in Phnom Penh.

#### **Project on Enhancement of the Agencies in Charge of Agricultural Cooperative      Master Plan Study on Establishment of Agricultural Cooperatives**

Establishment of the agency in charge of agricultural cooperative (i.e. implementation agency for the master plan study) is the pre-condition of the master plan study. As a matter of fact, implementation of the master plan study shall enforce the capability of the agency in charge of agricultural cooperative. Therefore, both of the projects are planned to carry out in parallel mode.

Project on Establishment of Rice Quality and Inspection Standard      Open Paddy Market Project

Practical use of rice quality standard is planned to initiate in a model paddy market. Considering the required time to create rice standard and the required time to establish a model market, there will be no problem if both of the projects commenced at the same time.

Project on Establishment of Rice Quality and Inspection Standard      Project on Improvement of Post-harvest Processing

Quality Standards and standard methods for quality test is essential to clarify the target for quality improvement. Considering the required time to establish/strengthen the system for technical extension and considering a fact that the implementing agency is different, there will be no problem if both of the projects commenced at the same time.

#### **5.4.2 Implementation Agency**

Master plan is composed of 15 projects and each project has different combination of implementation agency/section and operating agency. MOC and MAFF concern to the most of the projects. Each ministry should manage/supervise the implementation of concern projects and should clarify the responsible section/person for coordination works and preparation works. Many procedures and time will be required until reaching to the implementation stage. Especially in the project with foreign assistance, a continuous follow-up is indispensable.

In the following projects, cooperation of MOC and MAFF is indispensable. Moreover, a leading/responsible ministry should be clarified in each project.

- Project on Increase of National Rice Reserve
- Open Paddy Market Project
- Project on Enhancement of Collaboration for MIS Institutions
- Project on Improvement of Agricultural Marketing System in Phnom Penh
- Project on Improvement of Rice and Paddy Trade System
- Project on Increase of National Rice Reserve

### Implementation Schedule of Master Plan Projects

Field Project	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
<b>Quality Improvement</b>										
1 Project on Promotion of Seed Distribution		.....	—————							
2 Project on Improvement of Post-harvest Processing	—————									
<b>Marketing Improvement</b>										
3 Open Paddy Market Project	—————									
4 Project on Improvement of Agricultural Marketing System in Phnom Penh				.....	—————					
5 Project on Enhancement of Rice Millers' Association Activities	—————									
<b>Supporting System</b>										
6 Master Plan Study on Establishment of Agricultural Cooperatives		.....	—————							
7 Project on Enhancement of the Agencies in Charge of Agricultural Cooperatives	—————									
8 Project on Improvement of Marketing Extension Service	—————									
9 Project on Enhancement of Market Information Service	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
10 Project on Enhancement of Collaboration for MIS Institutions	—————									
<b>Marketing Environment</b>										
11 Project on Verification of Measuring Equipment	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
12 Project on Improvement of State Rice Procurement System	.....	—————								
13 Project on Establishment of Rice Quality and Inspection Standard	—————									
14 Project on Improvement of Rice and Paddy Trade System	—————									
<b>Food Security</b>										
15 Project on Increase of National Rice Reserve	.....	—————								

..... Preparation  
 ——— Project period  
 - - - Continuous activity