# Chapter 5 Investment Climate of Food Processing Business

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## 5.1 Taxes and Legal System

In this section, current conditions and trends regarding the tax and legal systems related to business activities in Cambodia are discussed.

### (1) Laws and Regulations of Business Activity

Company registration in Cambodia is usually prescribed procedures must be carried out business registration office in the office of the Department of Commerce. However, the Council for the Development of Cambodia (CDC) approved Qualified Investment Project (QIP) is consistent if it is possible to register for the CDC.

For foreign companies, "representative offices', " branches " or "subsidiaries" have been allowed to do business in Cambodia. The main laws for business development since 2006 are shown as follows.

**Table 5-1 Business Law and Regulation**

| Field | Name of Law and Regulation (established year) |
|---|---|
| Basic | Civil Code （December 2007） |
| | Law on Education （December 2007） |
| | Law on Criminal Procedure（August 2007） |
| Business | Sub-Decree #124 (RGC) on Organization and Functioning of National Center of Commercial Arbitration (August 2009) |
| | Law on Tourism （June 2009） |
| | Notice #0569 on Change of Certificate regarding Enrollment in the Commercial Register of New Form and filling in an Annual Declaration of Commercial Company（December 2009） |
| | Law on Insolvency （December 2007） |
| | Law on Standard（June 2007） |
| | Law on Secured Transaction （June 2007） |
| Trade | Prakas #734 (MEF) on Special Custom Procedures for Implementation in Special Economic Zone（September 2008） |
| | Prakas #166 on Custom Bonded Warehouse（February 2008） |
| | Law on Custom（July 2007） |
| Land and Infrastructure | Sub-Decree No 126 (RGC) on Management and Use of Co-owned Building（August 2009） |
| | Law on Concession（October 2007） |
| | Sub-Decree #114 (RGC) on the Mortgage and Transfer of the Right over a Long-Term Lease or an Economic Land Concession（August 2007） |
| | Law on Water Resource Management（June 2007） |
| Finance | Law on Finance Lease（June 2009） |
| | Law on Insurance and Trading of Non-government Securities （October 2007） |
| | Law on Anti-Money Laundering and Combating Financial Terrorism （June 2007） |
| | Law on State Securities /Bonds（January 2007） |
| Labor | Law on Amendment to Article 139 and 144 of the labor Law（July 2007） |
| | Sub Decree #16 (RGC) on Creation of National Security Fund（March 2007） |

Source：Investment Guide book in Cambodia, March 2010, Japan ASEAN Center

## (2) Tax System

In early 2003, the Cambodian government started the full implementation of advanced accounting and financial reporting with domestic and international standards level. In 2002 in Cambodia, the 'Accounting, Auditing and Accounting Act for business' was enacted, and the next year the National Accounting Council (NAC) was established as an institution under the Finance Ministry. The same year, the 'Kampuchea Institute of Certified Public Accountants and Auditors of Cambodia (KICPAA)' was established as a mechanism to monitor the quality of professional accounting organizations and operations of the private financial sector.

Sales of the company, total assets or employees of the following three criteria set by the Ministry of Economy Decree No.643 dated 26 July 2007; when you quality for two categories, you are required to submit financial statements for each fiscal year to independent certified public accountants or auditors registered with the KICPAA. The following table shows the major tax and tax rates regarding business activity in Cambodia.

**Table 5-2 Major Taxes andTax Rates**

| Major Taxes | | Tax Rates |
|---|---|---|
| Corporate Income tax | Target Corporation | 20% (Except as may be applicable investment incentives) |
| | Wood oil and gas production sharing contract and, ore, gold ore, including the development of natural resources | 30% |
| Minimum Tax | Applies only to the actual management style (QIP during the tax excluded) | 1% Of annual sales amount |
| | If more than 1 percent of annual sales income taxes, corporate income tax to pay only | |
| Withholding Tax | Service fee income received by individuals as management consultants, etc. | 15% |
| | Royal Tea for intangible assets, interest payments on mineral resources | |
| | Interest expense (other than domestic banking and financial institutions, interest paid by taxpayers engaged in business) | |
| | Rental income of premises and equipment | 10% |
| | Interest on domestic banks for residents hold term deposits | 6% |
| | Interest on domestic banks for residents hold non term deposits | 4% |
| | Payments to non-residents: interest, loyalty, rent and other revenues associated with the use of assets, dividends, compensation management technology services | 14% |
| Payroll Tax | Withholding by the employer to perform | 0～20% (Equivalent to income) |
| | Fringe benefit | 20% of market price |
| | Nonresident | 20% |
| VAT | The exemption: Object person in actual management style | |
| | Registration: All companies need to do VAT registration before starting business. Others, the following taxable income exceeds the amount of three consecutive months, it is necessary to VAT registration within 30 days. | |
| | - Sales of Goods : 125 million Riel | |
| | - Service provision : 60 million Riel | |

| Major Taxes | | Tax Rates |
|---|---|---|
| | Taxable supply: | |
| | − The supply of goods by the taxable person is made in Cambodia | |
| | − Diversion of goods by a taxable person to the use of | |
| | − Production and supply of goods and services cost less than initial cost | |
| | − Imported goods to Cambodia | |
| | Standard Tax Rate | |
| | Services provided by exports from Cambodia and abroad | 10% |
| | Tax will be deducted from input tax relating to sales | 0% |
| | Monthly declaration: Declaration of the VAT must be made before the 20thmonth | |
| Others | Specific goods and services tax | |
| | − Domestic and International Flight Ticket | 10% |
| | − Domestic and International communication cost | 3% |
| | − Beverage | 20% |
| | − Tobacco, entertainment, and those parts of motor vehicles and motorcycles exceeding 125cc | 10% |
| | − Petroleum products, automotive parts of more than 2,000 cc | 30% |
| | Property transfer tax | |
| | − Tax for the transfer of ownership of real estate and automobile companies and stock donated by the direct transfer | 4% of transfer price |
| | − Property ownership certificate can not be issued until property transfer tax is paid | |
| | Unused Land Tax | |
| | − In cooperation with state departments of special city evaluation committee undeveloped land, the land "not used" to determine whether considered favored and determine the amount of tax | 2% of unused land valu ation price |
| | Registration Tax | |
| | − Paid when companies register annually | |
| | − You are required to pay registration tax, depending on the location of each business and location. (No.2 Ministry of Economy notification dated 19 January 2007, "Notification of registration tax payable" | About 300USD |
| | Rent Tax for Land and House | 10% of rent fee |
| | Import Tax | 4 classifications (0, 7, 15, 35%) |
| | Export Tax | Mainly 10% |

Source：Investment Guide book in Cambodia, March 2010, Japan ASEAN Center

### (3) Law and Regulation on Investment

In this section, we examine financial support for the recent strengthening of the agricultural sector, e.g., public private partnership (PPP) in Cambodia as the legal framework for foreign investment, including the 'Law on Investment' and 'Law on Concessions', 'land law' regarding Food Processing for land acquisition in a stable supply of agricultural inputs, etc.

### a. Law on Investment

The Investment Encouragement Act was enacted in 1994, which was amended in 2003. The amendment has been adopted as a system of automatic investment license. The system should be completed within 31 days of the investment license procedures, unless the investments were listed in the negative list and they affect the national interest and the environment. Incidentally, the investment license is a permit for investment, not given to investors and investment companies, but only assigned to each investment. Licensed investment projects are given to the qualification of QIP.

In addition, the Japan and Cambodia Investment Agreement, 'the liberalization of investment promotion agreement with Japan for the Protection of the Kingdom of Cambodia', signed in July 2007, was published in July 2008. The main points of the agreement are as follows.

- Investment property in Cambodia (corporate bonds) and production of acquisition is subject to equal treatment with domestic companies and Japanese companies MFN.
- Free Transfer
- Equality between the contracting parties (equality between the contracting parties of both countries)
- Procedures of dispute settlement
- Transparency to investors, legal stability, better predictability

In addition, foreign investment incentives, the Law of Amendment to the Law on Investment in the Kingdom of Cambodia are defined. Incentives for the corporations are the following five items.

- Corporate Taxes until profits are generated will be exempt. From then, continuing a three-year exemption period. In addition, added to five-year exemption period of two years by industry
- Reinvestment of profits will be given special depreciation measures
- Tax exemption or reduction for capital goods and raw materials that are imported
- 100% Exemption on export duty
- Simplification of application for approval

If foreign investment is made with in the SEZ, as has been described in the ordinance for the establishment and operation of SEZ, it can receive the same incentives as QIP. In other words, a tax-incentive for investors and tenants in the SEZ does not exist. In this way, the International Monetary Fund insists on being sufficient to neighboring countries in terms of special tax incentive for the SEZ, the income tax exemption period for a maximum of 9 years, QIP tax incentive of 20%. The following table shows the incentives granted to developers and investors in the SEZ.

**Table 5-3 Preferental Treatment of SEZ**

| Beneficiary | Contents |
|---|---|
| Developer | The tax exemption period is for up to nine years. |
| | Equipment and construction materials to be imported for the construction of infrastructure in SEZ are exempt from import duties and other taxes |
| | In accordance with land law, in border and remote areas, the land under concession from the government can be subleased it to investors in the SEZ for the establishment of the SEZ. |
| Investor | Regarding duties and other taxes, you can enjoy the same incentives as other eligible investment projects. |
| | For investors in the zones for which preferential treatment is 0% VAT, the VAT amount is recorded at the time of import are exempt from production inputs, the recording is erased when the products are exported. If the product is shipped to the domestic market, according to records, it is required to pay VAT according to the amount. |
| Common | SEZ developers, investors or foreign employees in the Zone have the right to transfer to a foreign bank to receive a salary in return on investment in the SEZ. |
| | Non-discriminatory treatment as a foreigner, denationalization, and the free price guarantee is given. |

Source: Cambodian Investment Guidebook, Council for the Development of Cambodia, 2010

### b. Law on Concession

The 'Law on Concession' has been established in 2007. This law, which defines a concession in Cambodia, and also has established procedures for the concession agreement. The main contents of this law are shown as follows:

- Definition of Concession: The Ministry in charge of infrastructure projects, public-owned organizations, and local governments can make a concession contract for infrastructure projects. Available sectors for a concession contracts are, power, transportation, water supply, sanitation, information and communication technology, tourism, gas and oil-related infrastructure, hospitals, infrastructure, SEZ, infrastructure and agricultural irrigation.
- Scheme of Concession: a) BOT, b) BLT, c) BTO (build-transfer-operate), d) BOO, e) BCT (build-cooperate-transfer), f) EOT (expand-operate-transfer), g) MOT (modernize-own-transfer), h) MOO(modernize-own-operate), i) LOM(lease-operate manage), and management fields.
- Responsible Authority: CDC accepts applications for QIP based on concession agreement. In addition, CDC is supporting the project investment promotion entity of the concession business. The investment promotion entity selects the implementation body of concession business by its own risk.
- Procedure of Concession Contract: The Implementation body of concession will select a contractor by international and domestic tender biding. After selecting a contractor, the implementation body issues the notice of award (selection code), and then the implementation body completes to fix within six months after its approval.
- Role of Concession Contractor and Implementation Body: Concession subcontractors have all responsibilities for the infrastructure, unless otherwise stated in the concession

contract, essentially financing, design, construction, and operation. Instead, the earlier concession, infrastructure, reserves the right to collect fees from users using the service. In addition, concession contractors shall pay to the Cambodian government concessions or royalty fees in accordance with the concession agreement. The implementation body of concession and the relevant government agencies support the acquisition of necessary rights of land use rights, etc.

- Release of Concession Contract and Term: The maximum contract period is basically stipulated to be 30 years. However, the government may grant an additional long-term concession by the feature of infrastructure projects. The Concession Agreement stipulates the rights of both parties in the agreement, obligations, and conditions. If there is a breach of contract by the parties to the agreement, the concession contract will be canceled. In addition, compensation is subject to the terms associated with the contract termination agreement.

### c. Land Law

In order to develop the food processing industry, it is necessary to supply raw materials reliably for the industry in Cambodia at first, and to stabilize the prices of agricultural products. To realize this, large-scale agriculture production is required. In some areas the large-scale production of rice, palm sugar, cashew nuts, fruit, etc. are carried out already. However, when implementing large-scale agricultural production, by especially foreign capital, there is a large problem of land concessions, which is a major obstacle to the promotion of a large-scale food processing industry and agricultural production.

In Cambodia the land law was enacted in 2001. The method of acquiring land in Cambodia is a land concession. The Land Law defined two types of land concessions depending on the purpose of land characteristics. One is the Economic Land Concession (ELC) that is applied when a large profit is realized, and the other is the Social Land Concession (SLC) that applies mainly to the poor and farmers.

**Table 5-4 Summary of Land Concessions**

| | ELC | SLC |
|---|---|---|
| Objectives | Commercial | Social (non-profit) |
| Target | Investor | Farmer (Bottom of Pyramid) |
| Lot area (Maximum) | 1 万 ha | 1,200～3,600$m^2$ (residence)<br>2～5ha (agricultural land) |
| Term | 99years (Later be extended 70 years) | － |
| Rental Fee | 0～10USD／ha<br>Note: beside the above, resettlement cost is required | － |
| Current Condition | More than 100million ha of ELC ware issued in whole Cambodia, however much of which is undeveloped due to lack of development expertise, and the rising cost of land speculators. Therefore, the Cambodian government has been cancelling the ELC right that is not utilized correctly. | Accompanied by large-scale relocation of farmland, the approval of the country will be required for commercial development purposes. |

Source：Study Team arranged based on Land Law

The legal system of the ELC itself has been established; sub-decree for land registration is undeveloped. Therefore, there are so many cases, which other landowners except individuals and corporations who hold the ELC right may appear, and land prices are soaring due to the speculation. In order to facilitate the supply of raw materials and agricultural products, it is important to have large-scale agricultural production. But now, due to the large number of problems as described above, major obstacles to the promotion of food processing industries exists.

Currently, support for JICA (Technical Assistance) by the legislation project 'Sub-degree on registration of real estate (Ministry of Justice and the Ministry of Land)' has been. Now, drafting of the law is being conducted, and subsequently is expected to be passed by the Diet in 2013. This sub-decree will go into effect, which will eliminate many existing problems of land concession.

### d. Budget Scheme of Agricultural Sector

From the Year 2009, Ministry of Economy and Finance developed the Sustaining Fund and Developing Agricultural Sector, to provide short & medium term credit facility, the credit facility in 2009 was 18 million USD, and is doing to actively support the agricultural sector.

In addition, Prime Minister H.E. Hun Sen announced the Rice Policy in August 2010, and main public and private banks have being increasing the loans credit facility to the milled rice producers, consequently large-scale producers have expanded investment in their facilities in these years.

### e. VAT exemption for Agricultural Products

In 2008, legislation for the exemption and tax breaks in food processing inputs, e.g., imported goods and domestic produced crops, was amended. Concerning the import of capital goods as food processing machinery and raw materials, import tax will be free, or will be reduced to be 35% or 7%. The representative examples of imported materials approved by the Government are shown as follows.

- Superior Seed and bread approved by the Government
- Fertilizer and feed
- Pumping equipment and farming machinery
- Agricultural products and farming machinery approved by the Ministry of Economy and Finance

## 5.2 Food inspection and quarantine system

Inspection of processed food consists of food safety inspections and quality control inspections. The food safety inspection is for analyzing hazardous chemical components, microorganisms and trace elements such as pesticide residue and food additives from the viewpoint of food hygiene. The quality control inspection is for inspecting food quality such as active ingredients, appearance, hardness, and viscosity based on customer requirements.

In the case of food safety inspections, all exported food should comply with each particular country's standards, which are established based on food intake etc. In contrast, for the quality control inspection, the exporting country should establish its own minimum standards even though there are different requirements from different importers. In this section, food safety management of exporting food from Cambodia is reviewed, and also present situations and recommendations are described both for food safety inspection and quality control inspection.

### (1) Food safety management system for food exported from Cambodia

#### a. Food safety management system and Sanitary and Phytosanitary Measures Agreement (SPS)

The Sanitary and Phytosanitary Measures Agreement (SPS) sets the rules on food safety and animal and plant health, and was issued on January 1995 together with the establishment of the World Trade Organization (WTO). WTO members are requested to secure food safety for customers and protect against the spread of pests and diseases among animals and plants.

The importing country can accept food which is produced in an exporting country with no areas of disease outbreak, and food under maximum residue limit of residual pesticides and which uses only permitted food additives. These importing restrictions may be a trade barrier. The SPS agreement promotes the importing country using international standards and guidelines, requests based on objective and scientific data analysis and evaluation.

The SPS Agreement promotes clarification of the risk level and conducts risk evaluation systematically by using appropriate risk evaluation related to food safety and animal and plant health, and requests disclosure of information for regulations by establishing national enquiry points. Additionally, each donor supports the developing country in strengthening its own system for food safety and animal and plant health.

Cambodia has great potential for exporting agricultural raw materials and processed foods, because they can produce a lot of agricultural products. But they have following the trade issues on food safety and quality in terms of SPS points of view:

- Fishery products：Microbial and heavy metal contamination, histamine, and fish poison.
- Cashew nuts: fungi poison such as mycotoxin
- Fruit and vegetables：Spread of pests and diseases, residual pesticides
- Peppers：Microbial contamination and residual pesticides
- Rice：Plant quarantine issues on rice and residual pesticides
- Animal feed from Cassava, Soy beans, Maize: Pests and disease during storage

According to FAO, Fishery products have been prohibited for export to the EU because of poor hygiene, and for weed seed and nematode in paddies in China, residue of pesticides in black pepper in EU were found.

To solve the problems of SPS, it is important to improve the capacity of competent authorities in the Government. The inspection is for verifying whether the food or food management system complies with customer requirements. The certification is also for giving officially approved

organization assurance of meeting the customer requirements for food and the food management system.

### b. Present situations of food safety management system in Cambodia

Several Ministries are involved in the food safety management system, from primary production to food processing and distribution. The following Table 5-5 summarizes the roles and functions of each Ministry in the food safety management system from the view point of food exportation.

**Table 5-5 Food safety management system from the points of food exportation in Cambodia**

| | Primary production and primary processing | Secondary processing | Marketing | Customer Sectors | Customs |
|---|---|---|---|---|---|
| Competent Authority | MAFF | MIME | Camcontrol of MOC | MOH<br>MOT | GDCE of MOF |
| Policy and strategy | Formulation of policy, legal framework, and strategy | Formulation of policy, legal framework, and strategy | Formulation of legal framework | Formulation of policy, legal framework, and strategy | Trade promotion |
| Monitoring and inspection | Monitoring and inspection at the place of primary production and primary processing | Monitoring and inspection of food business by factory | Border inspection | Monitoring and inspection of hygiene of food in customer sector | Inspection upon arrival |
| Issuing certificates for export | Fumigation certificate ($23)<br>Phytosanitary certificate ($1.5) | Quality assurance certificate | Certificate of origin issued by MOC<br>Quality control certificate($75) | | Custom certificate by MOF |

Source : Inter-Ministerial Prakas on the Implementation and institutional arrangement of food safety based on the farm to table approach,

* The whole process takes several weeks and costs up to $20 per ton, including unofficial fees.

**The Ministry of Agriculture, Forest, and Fishery（MAFF）** is responsible for animal and plant quarantine at the border in the case of food imports and exports, but actually they have some difficulty with quarantine inspection because of limited human resources and technology. The World Bank runs the project for improving agricultural production to improve plant quarantine inspection and for issuing the phytosanitary certificate, and AusAID and NZAID have started assisting in the identification of pests and diseases. Responding to importing countries, MAFF can provide fumigation services and issue fumigation certificates.

**The Ministry of Industry, Mines and Energy (MIME)** is the responsible agency for supervising and inspection of the factories for secondary processing to certify compliance with government standards and issue production permits. Food is analyzed in the laboratory of MIME, and samples are taken from the inspectors of i. Institute of Standards of Cambodia (ISC), ii. Department of Industrial Technique, iii. Department of Water Quality Control. MIME can provide a manufacturing license to the factory, after factory audit and guidance on hygiene and sanitation at three month intervals without any sample problem.

**Camcontrol of the Ministry of Commerce (MOC)** is an agency that officially inspects

commodities which are imported, exported, and in domestic distribution, and has widespread functions for food safety, consumer protection, border inspection, and commodity inspection in the market. The inspectors in Camcontrol are 10 – 20 members in each state, and monitor petroleum, food, agricultural products, and clothing materials. Camcontrol also has another responsibility to issue quality certificates for exported agricultural products such as rice, based on the request from importing countries.

Camcontrol has a role in supervising domestic food processors to produce hygienic and not chemically hazardous food, but MIME also has a similar role. There are some problems for agencies due to overlap of similar functions and contributing inadequate quality and safety to small and medium enterprises, and some difficulties in providing administrative guidance because the Camcontrol laboratory has limited capabilities for analysis of petroleum and grains based on standards.

**The Ministry of Health** is the responsible agency for public hygiene and food safety. There are some bureaus for registering the production of medicine and cosmetics, and supervision of food safety in the consumer sector of the Food and Drug Department. The Food Safety Bureau has a project for supervising food hygiene for the restaurants in Sihanoukville, and the National Quality Control Laboratory can analyze food additives such as Saccharine, Benzoic acid, Sulfur Dioxide, and perform bacteriological testing for E.coli, S. aureus, Clostridium perfringens, and Salmonella bacteria. AusAID is now providing technical assistance for risk evaluation to MOH.

### (2) Securing safety of processed foods in Cambodia

In case of processed food in Cambodia, The Institute of Standards of Cambodia (ISC) can certify the quality and safety at factory production level, and each product is checked by analyzing market samples chemically and microbiologically in Industrial Laboratory Center of Cambodia (ILCC). However, it is hard to say whether they can perform the necessary inspections, because there is not enough equipment or analytical techniques; also the ILCC is only responsible for domestic market products, whereas Camcontrol of MOC is in charge of safety inspection of exported food, so it is difficult for ILCC to also inspect exported food.

#### a. Certification of processed food by ISC

In the case of establishing food-processing factories in Cambodia, it is necessary to get permission for establishing the factory, permission for production, and certification of compliance with Cambodian Standards from MIME; ISC issues the certificate.

The Institute of Standards of Cambodia (ISC) is an agency under the umbrella of MIME, and develops the National Standards of Cambodia, issues

**Table 5-6 Main Processed Food Standards in Cambodia**

| No. | CS Number | Standards Title |
|---|---|---|
| 1 | CS 001:2000 | Labeling for food products |
| 4 | CS 004:2005 | Vinegar |
| 5 | CS 005:2005 | Fish sauce |
| 9 | CS 009:2005 | Bottled Drinking Water |
| 51 | CS 051: 2005 | Chilli Sauce |
| 56 | CS 054: 2007 | Rice Flour |
| 57 | CS 055: 2007 | Edible Salt |
| 58 | CS 056: 2007 | Tapioka Flour |
| 59 | CS 057: 2007 | Dried Chilli |
| 60 | CS 058: 2008 | Tapioka Starch |
| 61 | CS 059: 2008 | Honey |

certificates to comply with factory and product standards, and provides quality improvement training. ISC is now receiving technical assistance from UNIDO to establish food standards.

If the manufacturers produce and sell their food products after factory certification, they have to have the product quality verification by sampling tests, the acceptance of general conditions, and payment of license fee. Now, the ISC can provide product certification for quality and safety, and they will provide system certification services such as ISO9000, ISO14000, and HACCP. Additionally, the ISC can provide certification services, but cannot provide consulting services because of a conflict of interest.

The ISC is a member agency of the International Organization for Standardization (ISO), and now entry point for WTO/TBT agreement after Cambodia became a member of the WTO. The Product Certification by ISC is compliant to ISO/IEC guide28 for third party approval of product certification by inspection and evaluation of factory quality control system.

### b. The Inspection of processed foods by ILCC

The Industrial Laboratory Center of Cambodia (ILCC) is an agency under MIME, and has a license for ISO17025 (International certification for laboratory assessment). The ILCC can provide chemical analysis and microbiological testing services for food, but cannot analyze all chemical components and trace materials with its limited equipment and techniques. However, the ILC is only responsible for analysis and submitting the data to the customers, legal measurements and administrative guidance based on the data performed by MIME.

The ILCC has three customers for analytical service. i. Provincial Department of Industry (PDI): Sample analysis collected by PDI, ii. ISC: Sample analysis for factory certification, iii. The Private Sector: Analysis for product development UNIDO has a project for SPS improvement to provide equipment, technical assistance for analysis and ISO17025 acquisition, but the ISC has budget problems regarding the purchase of reagents, medium and standard solutions for their routine analysis.

### c. Factory audit and support by General Department of Industry

The General Department of Industry (GDI) of MIME has 60 staff members across the country, and they have started to audit food factories. The factory audit division is different from the technical support division, and the Institute of Technology of Cambodia is in charge of technical support.

The number of technical support staff is only seven in Phnom Penh. Previously there were 14 technical support members, but the number decreased because of budget reduction, and there is no support function in local provinces.

The following six processed foods have been supported by GIZ and ADB to improve hygiene and quality, but in terms of technical support to processed food companies, the problem is not enough human resources for training in food technology:

1. Drinking water 273 factories
2. Ice 321 factories

3. Soy-fish-chili sauce 64 factories（Control 3-MCPD as food additives）
4. Noodles 91 factories（Control borax as food additives9
5. Meatballs 56 factories

### d. Inspection system for exporting processed food

Camcontrol disseminates monthly inspection reports in Khmer as statistical information on the website. The following box summarizes the report for reference:

**Report on the work of Camcontrol in January 2010 (Unofficial translation)**

I. Protect public health and domestic users

1. Inspection of Goods along the border

1.1 Inspection of imported goods

The procedure of control action of imported goods is set based on the result of the inspection of the previous months by using risk control technique. The main objective of this inspection is to prevent the import of goods; especially food, which is defective, no commercial brand, expired, or containing banned chemicals. Main imported items are foods, chemicals, oil, drugs, cosmetics, raw materials for garment, and others, and Camcontrol have found some goods which do not comply with technical regulations or rules: chicken meat, eggs, chicken meatballs, grain powder, noodles etc.

1.2 Inspection of exported goods

Main export goods passed through the inspection are animals, fish, milled rice, agricultural seeds, processed wood, apparel and clothes, and others.

2. Inspection of the market and food manufacturing location

2.1 Market inspection

Based on the study of each month's action plan, it was established to tackle the goods, which are risky by eliminating or reducing the risk to an acceptable level for the following month. In foods, the focus is on pesticide residues, banned chemicals, viruses, and changed quality, expired goods, or others not good for human health. The targets for inspection are: drinking water, ice, sausages, meatballs, noodles, mixed pork, chili sauce etc.

2.2 Inspection at the food processing workplace

The inspection of the market is further completed by inspection of hygiene at the manufacturing place by providing ideas to improve the safety and quality of the product and training the manufacturer to GMP and HACCP. Main targeted products are drinking water, chili sauce, ice, fish sauce, noodles, meatballs etc.

2.3 Inspection of petroleum

Petroleum inspection is focused on the analysis of quality of products when imported and at all distribution outlets in order to protect the economic values of the consumer and promote fair competition in this business.

3. Business inspection (as third party)

Camcontrol implemented this service requested from customers such as WFP, SGS Thailand Green trade and insurance company in order to confirm the quality and the condition of the goods and evaluate the breakage etc. Camcontrol received 9 requests from customers, WFP inspection in (beans, salt, rice) 7 cases, SGS Thailand (shoes, garments) 2cases

4. Quality analysis

Camcontrol has a laboratory for testing food and petroleum., the department at the laboratory had done the quality test, food stuffs 100 samples and petroleum 117 samples, and found 20 samples did not meet the standard. Main chemical analysis samples are cooking oil, white sugar, seeds, seasoning powder, salt, rice noodles, processed meat; microorganism samples are drinking water, ice milk, fruit and meat; petroleum samples are gasoline, diesel, kerosene, etc..

II. Law promotion and technical regulation
Camcontrol promotes the laws on food control, safety of the products and services as well as the technical regulations for the purpose of expanding the understanding to various institutions, producers, retailers, and the public in order to understand the role and responsibility in evaluating the safety of the foods.

III. Training meeting and seminar
Camcontrol provides opportunity to train staff by sending them to attend seminars, training courses and the meetings inside the country or overseas.

IV. Revenue

V. Future implementation task

Camcontrol is responsible for a wide range of inspections from those domestically distributed in the markets to those exporting and importing products at the border. But the capacity and technical level of the laboratory is not clear without information about analytical items, determined amount of substances or detection limit for each item. It is necessary to reconstruct the inspection system for export products because the number of formal exports agricultural products such as rice will increase both quantitatively and qualitatively.

### e. SPS related assistance to Cambodia

Main SPS related assistance to Cambodia is summarized by donor and by agency in the following table:

**Table 5-7 Main SPS related assistance to Cambodia by donor and by agency**

| | MAFF | MIME | MOC (Camcontrol) | MOH | Others |
|---|---|---|---|---|---|
| World Bank /IFC | Agriculture production improvement project(IPM) | | | New laboratory construction | SME agri-business oriented project |
| FAO | IPM development assistance | | | | |
| EU | Early warning system establishment assistance (Fishery products) | | Laboratory capacity building for export/import inspection Proficiency test for microbiological testing | | Awareness of EU food safety regulations |
| AusAID | Risk management technical assistance Agriculture value chain program (CAVAC) | Risk management technical assistance | Risk management technical assistance | Risk management technical assistance | |
| NZAID | Phytosanitary capacity development program in Mekon region | | | | Food safety management improvement in Cambodia, Laos, Vietnam |

| | MAFF | MIME | MOC (Camcontrol) | MOH | Others |
|---|---|---|---|---|---|
| UNIDO | | Standards development assistance, Capacity building for HACCP,ISO9001, ISO14000 | | | |
| USAID | | | | | ASEAN value chain assistance |
| DANIDA/DIFD | Assistance to Small and medium fisheries | | | | |
| ADB | | Supply analytical equipment | | | |

Source：Prepared by Study team from An Action Plan to improve SPS Capacity in Cambodia(FAO)

In terms of assistance for plant pests and disease countermeasures, MAFF has received Integrated Pest Management (IPM) assistance from the World Bank and FAO, and capacity building assistance from NZAID. MIME has received several types of assistances on food standards establishment and its capacity building from UNIDO and equipment supply from ADB. Additionally Camcontrol has also received technical assistance on food export/import inspection and microorganism testing with capacity building.

### f. Some issues concerning processed food in Cambodia

Cambodia has a lot of agricultural raw material, but few processed foods, and the food industry in Cambodia has several issues described as follows: if a food processing factory complies with Cambodian standards, it increases production costs and makes the product expensive, but the consumers do not buy high price products because they prefer low prices. Domestic processed food cannot compete with Imported processed food because they are good quality and beautiful packaged, and it is difficult to export processed food to foreign countries since it cannot meet the requirements of international markets.

Government agencies also have some issues as follows: the Institute of Standards of Cambodia (ISC) under MIME has a mandate to set the standards and to audit the manufacturers, but only a limited number of staff can audit some factories near Phnom Penh, so it is difficult for the ISC to cover all food factory audits in the country. The Department of Industrial Technique (DIT) of MIME has provided some assistance on management improvement and hygiene control to soy sauce and meatball factories, and recently they also supplied management and 5S training to rice millers. However, DIT dose not have enough practical knowledge and experience to train rice millers.

The Industrial Laboratory Center of Cambodia (ILCC) is a laboratory under MIME, and has an ISO 17025 license as quality standard of the laboratory. It can analyze samples from domestic factories and markets with limited component analysis. Using analytical equipment provided by some donors and by the Government, ILCC can conduct only basic analysis, but for difficult to analyze food additives and pesticide residues it will take time to purchase the necessary

equipment and develop new analytical techniques. Also it seems difficult for the ILCC to conduct inspection of export foods because of this mandate, even though ADB supports equipment and analytical technique.

Cambodia has the potential to increase the export of processed food such as rice officially. Meanwhile, the Cambodian government should strengthen inspection capacity to secure the quality and safety of exported products. As previously mentioned, export product inspection is one of the roles of Camcontrol, but there are some issues with inspection technology and reliability of analytical results, so the Government should consider improving the inspection system.

The more the number of exported foods increases, the greater the number of inspection samples and items expands immediately. Therefore, if it is difficult for existing government laboratories to analyze large amounts of samples and items; strengthening the export inspection system is important, by utilizing private sector laboratories inside and outside the country.

From the observations of existing laboratories, it seems to take time to develop human capacity in the laboratory, even though necessary equipment may be purchased. One of the reasons is that not so many universities or training institutes educate and train chemists and technicians. The Study Team recommends a long-term project to tackle human resource development in order to establish a training program for chemists and engineers separately

### (3) Quality Standards and inspection of processed food in Cambodia

In terms of production and distribution of processed food in Cambodia, there are the following issues for quality standards:

- The quality and production standards for processed food are not yet well established; it is difficult to point out the discrepancy for trading, and it may contribute to risk for the buyer.
- In the case of price formation, the quality standards and their inspection methods are not yet defined, so the trading system is not clear.
- Some processors do not have their own quality objectives and quality standards, and cannot ensure their quality. Therefore, they cannot maintain quality constantly.
- Though the quality of raw materials is low, some processors do not make efforts to improve the quality of processed food as final products.
- Some small and medium food processing enterprises do not have the necessary equipment for quality control, so they cannot check the product quality.
- Government inspection institutes do not have enough equipment and lack human resources; it is difficult to conduct reliable inspections.

After setting quality standards for processed food, the quality and price for the grade will be formulated, and effective and fair-trading can be carried out; clarifying the price with the quality increases the product reliability. Additionally, if the inspection methods for quality standards are standardized, all stakeholders can use the methods, and the processors can have self-imposed tests

with the quality standards.

In the case of setting quality and grade standards, it is important to consider that the standards should be the minimum followed as a nation and if the standards can be accepted by the customers. After establishing the standards, it is necessary to require that they show the standard in the customer sector and to promote the standards with the prices.

The Study Team recommends technical cooperation to establish the quality and grade standards for processed food, and more detailed ideas will be mentioned later.

## 5.3 Industrial Infrastructure

### (1) Roads

Primary roads consist of R.N 1 to 7, which extend radially, total length is 2,117km in 2009, and the share of R.N 1 to 7 plus 2 & 3 digit highways occupy 30% of the total length of all roads in Cambodia. According to the Asian Highway Vision, R.N 1, 3, 4, 5, 6, 7, 33 and 48 in Cambodia fall under the Asian Highway.

The Asian Development Bank, the World Bank, Japanese grant aid, and others support the development of the major roads that were destroyed by the civil war. Almost all 1-digit national roads have been completed, and double-digit roads are still under development. The ADB has a plan to develop local roads by priority in the fifth plan from now on.

The 1-digit national roads extend radially around Phnom Penh City as describe above. However, the ring road development around Phnom Penh City has been delayed, and so land transportation is inevitably concentrated in the center of Phnom Penh City. Thus, traffic jams have become a serious problem.

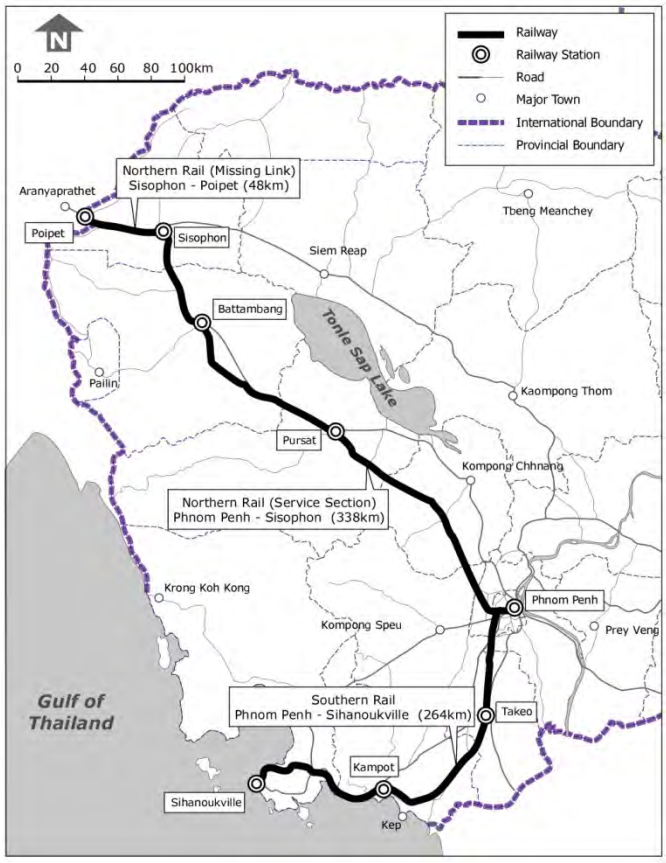
The rehabilitation of N.R.1 was carried out with Japanese grant aid, and also the construction of Neak Loeung Bridge over the Mekong River has begun. When the bridge connects the land between Bangkok and Ho Chi Minh City, it will contribute significantly to the formation of an economic block with a focus on the South Economic Corridor.

Currently, the rehabilitation project of R.N.8 (109km including the bridge over the Mekong River) located between R.N.1 and R.N.7 has n begun. The road is very important to link the shortest distance between Phnom Penh and the Vietnamese border. But this road is illegal in Vietnam currently.

### (2) Railways

Cambodian railways that have an important position in linking the Indochina Peninsula consist of the following 3 lines, the length is around 647km.

- Northern Line…386km, Phnom Penh to Poipet at the Thai Border）
- Southern Line…264km, Phnom Penh to Sihanoukville International Port）
- Feeder Line…6km, Phnom Penh to crop warehouses located near the Tonle Sap Lakefront




Source：Study Team

**Figure 5-1 Current Rail Network in Cambodia**

The part (48km) near Thai border of Northern Line was removed during the civil war. In addition, the cause consisted of the deviation of the railway orbit, getting worth of accuracy by blast during preliminary restoration time, and the missing bolts and joint-bolts pulled out regular service of railway transportation. Thus, twice rehabilitation with the help of the ADB (2001 to 2003, years 1993-1995) was made.

Once you have collected the luggage, irregular services (1/week in the Southern Line, 3/day in the Northern Line) were operated. In such a situation to derail many times for a day at 10 km per hour, hence not enough revenue to maintain for running a railway business was created. Therefore, large-scale renovation has begun with the ADB loan, the Organization of Petroleum Exporting Countries (OPEC) loan, and Australian grant aid in January 2008 again.

A joint venture of two companies, Thai and French construction companies began construction in October 2010. The project is under taking construction between Sihanoukville port and Kampot City now, which is scheduled for completion in June 2012. But the project is supposed to be completed by 2013 in practice.

In October 2010, a leg Line (about 109 km, the leg between the cement factory located at the west point of 9.4 km far from the Phnom Penh station) of the Southern was opened, and is not carrying regular service. In near future, the rehabilitation leg between Sihanoukville and Kampot city will be completed in about 2013, and the Southern Line is expected to play a major role as a means of major logistics.

A feasibility study on railway development between Baddoeng city near Phnom Penh and Lokninh city in Vietnam supported by the Chinese Government has been carried out. The Government of Cambodia is looking for a donor for the railway development.

The railway rehabilitation project supported by the ADB consists of 3 parts, rehabilitation of Northern Line and Southern Line and development of missing link connecting to Thailand. In the beginning, the specs of the both rehabilitations are the same, maximum axle weight is 20 tons and average speed is 50km/h. However, the condition of Northern Line is worse than the Southern Line, hence the spec of maximum axle weight of the Northern Line has been changed from 20tons to 15tons. But the planning of the maximum axle specs of bridge and calbart on the Northern Line has not changed considering the future improvement plan.

The total cost of the railway project is 63.71 million USD, the cost of Southern Line project is 35.01 million USD, the cost of Northern Line project is 16.49 million USD and the cost of missing link project is 12.21 million USD. The project term of both the Northern and Southern Lines is 30 months, and the development term of the missing link section is 24 months. The Southern Line project includes the development of a railway cargo terminal connecting to the container terminal in Sihanoukville port. The main finance measure is an ADB loan, with harmonizes with OPEC/OFID, Malaysian and Thai Government Loans.

The railway missing links of the leg (about 48km) between Poipet and Sisophon and the leg (about 255km) between Phnom Penh and the Vietnam border remain. The FS on the development of railway leg between Ho Chi Min and Loc Ninh has been completed. The Chinese Government conducted the pre-FS on the development of the railway leg between Loc Ninh and Phnom Penh in Jun 2005, and in addition the Chinese Government also completed the FS in October 2010. The Chinese Government is interested in this project as well.

**Table 5-8 Summary of Railway Rehabilitation Project**

| | Northern line | Southern Line | Missing Link |
|---|---|---|---|
| Leg | PP - Sisophon 338km | PP - Sihanoukville 266km | Sisophon – Poipet 48km |
| Velocity | 50km | 50km | |
| Track | Ballast compensation for whole rail line | Replacement from 90% of existing wooden sleepers to PC Sleepers Rehabilitation of ballast and rail connection parts | Rehabilitation for whole line Replacement from the existing to second-hand rail line supported by Malaysian Government |
| Axle Load | 15ton | 20ton | - |
| Bridge / Calpart | 32Bridges (Length 593m)、77 Calparts | No Bridge, 37 Calparts | Rehabilitation of 6Bridges |
| Construction Period | 30 months | 30 months | 24 months |
| Cost (mil. USD) | 16.46 | 35.01 | 12.21 |
| Completion Year | 2012 | 2011 (PP–Touk Meas 2010※) | 2011 |

Footnote: The railway development between Phnom Penh and Touk Meas (Cement Factory) has completed according to the business contract between Toll Company and cement factory. The opening ceremony has hold on 1st October 2010.

Source: 'Data Collection System on Integrated Physical Distribution System in Kingdom of Cambodia', JICA, 2010

The railway Rehabilitation project that had new project items is in operation. The new items are to develop Samron station and workshop, railroad to 'Green Trade Warehouse' that is located at the northern point of 6km far from Phnom Penh City and additional improvement of both Southern and Northern Line. The additional project cost is 68.6 million USD. The financers of the project consist of mainly an ADB loan, and additional grant aid of AusAID, and the budget of the Cambodian Government.

The consumption of cement in Cambodia depends on imports from Thailand, and the consumption volume has being running higher than the rate of GDP growth. The imported cement from Thailand is transported from Sihanoukville to Phnom Penh by rail. 3 cement plants in Kampot province are under construction as a whole and a part of it has already been completed. When the plants run at capacity, the production volume will reach 2.5 million tons, and rail will transport it.

When the Northern Line connects to the Thai railway network, Thai investors have a plan that many agricultural products in the western region in Cambodia will be transported by rail.

**Table 5-9 Financing Source of Railway Development Project Cost**

(Unit : Mil. USD)

| Source of Fund | Original Project | Supplementary Financing | Total |
|---|---|---|---|
| ADB | 42.0 | 42.0 | 84.0 |
| OFID | 13.0 | 00.0 | 13.0 |
| Gov. of Australia | 00.0 | 21.5 | 21.5 |
| Gov. of Malaysia | 2.8 | 00.0 | 2.8 |
| Gov. of Cambodia | 15.2 | 5.1 | 20.3 |
| Total | 73.0 | 68.6 | 141.6 |

Source: 'Data Collection System on Integrated Physical Distribution System in Kingdom of Cambodia', JICA, 2010

### (3) Waterway Logistics

Cambodia has 2 international ports, one is Sihanoukville and another is Phnom Penh port.

Sihanoukville port facing the open sea handles international container cargo. It is difficult for a large container ship like a Panamax-ship to enter because the ship needs 13m as a depth of water to do so. When you export most products in Cambodia from Sihanoukville port to the international market, the products need to go through Singapore or Hong Kong that have an international hub port. Therefore, transport costd to access the international market from Cambodia remain high.

The throughput volume of international port in Cambodia ran over 200million tons in 2008. 40% of the throughput volume was container cargo, 62,256TEU in 2010 (actual) and 73,000TEU in 2011 (expected value), and 30% is cement, 20% is petroleum products. Currently most imported cargo comes from Asian countries (e.g., Thailand, Malaysia, etc.).

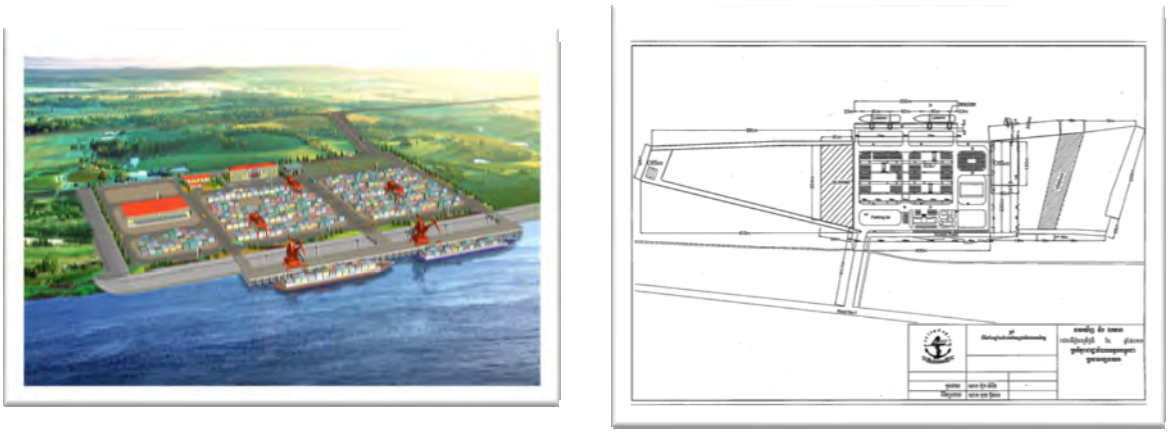
After the ODA loan started in 1999, the Japanese Government has supported development of Sihanoukville port as container handling port. And Japan Government also support Sihanoukville

port SEZ neighboring the container yard of the port continuously. The SEZ will be open in November 2011.

In addition, the contract of the Japan ODA loan (7,176 million yen) was signed up in August 2009. The content of the loan is to develop a multi-purpose terminal including bulk terminal and oil product yard. Currently the throughput volume of Sihanoukville port doesn't increase due to development of a small private port. When the multi-purpose terminal is completed in 2014, the throughput volume is expected to increase.

The rail rehabilitation project is under construction now; the railroad will be linked to the Sihanoukville port directly in 2012. However, the progress of construction is slightly delayed, so it might be completed in 2013. When the railroad is linked to Sihanoukville port directly, the port is expected to handle container cargo, petroleum products and the other bulk cargo, and would change the transport mode from road to rail. Then the port would become the export center of food processing products using agricultural products in Cambodia.

On the other hand, Phnom Penh Port that is located in the center of Phnom Penh city and faces the Tonle Sap River handles 1.2 million tons of throughput volume, and more than 60% is petroleum products, about 30% is container cargo including mainly consumption goods. The throughput volume was beyond 50,000TEU in 2009 and reaching the handling capacity. A new container terminal located at a point 25km from the existing port is being developed with Chinese Government support (loan project). Based on the MOU between Cambodia and the Chinese Government, the development project is divided into two phases. The first phase is to be carried out by the Chinese Government, and the second phase has no donor as of October 2011. Phnom Penh Autonomous Port (PPAP) who is the port owner expects that the throughput of container cargo would be 300,000TEU in 2015. The new port is expected to play a role of milled rice export center based on the Rice Policy. In addition, SEZ development nearby the new port concentrating on food processing zone is planned, and a grain terminal development nearby the new port concentrating on milled rice is also being considered by PPAP.



Source：PPAP

**Figure 5-2　Image of New Port (left side) and Basic Plan (right side)**

PPAP intends to shift more than 75% of the cargo share from the existing port area to the new one, and for the former to concentrate on handling imported consumption goods and improving the terminal for sightseeing ships.

The PPAP additionally manages Kilometer No.6 Port, Tonle Bet Port, Koh Rohka Port (Prey Veng), Chhlong Port (Kratie) and Stung Treng Port (Stung Treng) except the existing and new Phnom Penh Port. The PPAP has a plan to develop the river transport network connecting each to other ports under the umbrella of PPAP for the purpose of contribution of congestion reduction in Phnom Penh city and for regional economy enhancement.

Currently the river logistics using river ports has being decreasing due to road improvements and the problem of water depth margin between dry and wet seasons. Especially, only passenger traffic is in operation with the upstream river ports located at more northern points than Phnom Penh city.

Transport of agricultural and low-leveled food processing products fits in with river transport, in comparison with road transport by truck, because river transport is cheaper than road transport. Especially, accessibility from rural to central markets will be improved drastically, and consequently it will contribute to development of agricultural productivity. Furthermore, it will also contribute to congestion reduction in Phnom Penh city and CO2 reduction as an eco-friendly measure.

### (4) Airports

There are 11 airports in Cambodia. Only 2 airports, Phnom Penh and Seam Reap Airport, run regular flight services. The number of foreign tourists in 2008 was about 2 million, and 1.43 million made uses of Phnom Penh and Seam Reap for international tourism.

Sihanoukville airport nearby Sihanoukville port was re-opened in January 2007, but is now inactive.

In the future, development of regional airport might be important for transport of organic vegetables and high value added processed foods for markets of developed countries.

### (5) Dry Ports

About 70-80% of import/export cargo from/to Cambodia goes through Phnom Penh and Sihanoukville port presently. However, both ports have no spare space for interim storage, vanning and devanning, tec. Hence both ports need dry ports for cargo handling facilities. In particular foreign capital needs a more efficient logistics system, e.g., development of dry ports, networking system of dry ports, improvement of inter-modal system, etc. for foreign direct investment.

There are 9 dry ports in Phnom Penh city, which are owned and operated by not only private but also public entities. These dry ports are concentrated in the southern area of Phnom Penh airport and along R.N.4 in which concentrates on garment factories for export.

There are 7 dry ports in actual operation of the 9 dry ports; only 3-4 dry ports maintain an international standard level. Most dry ports with international standard facilities specialize in buyers consolidation system of garments for export to Europe and North America. A Just-In-Time logistics system for imported goods (mainly consumption goods) is not in general use in Cambodia but is in developed countries.

**Table 5-10 Summary of Existing Dry-Ports**

| Name | | Location | Lot area (ha) | Remarks |
|---|---|---|---|---|
| 1 | MSE KPM Inland Port | Vang Sreng St. | 15.0 | SKL Group Holding, No Extension Area |
| 2 | Depot M.S.Overseas Transport Co., Ltd. | Vang Sreng St. | 2.0 | SKL Group Holding, No Extension Area |
| 3 | So Nguon Dry Port | Vang Sreng St. | 10.0*1 | No Extension Area, Less Accessibility |
| 4 | Bok Seng PPSEZ Dry Port Co., Ltd | PPSEZ along NR.4 | 11.0 | Singapore Capital, No extension Area |
| 5 | Tec Srun Dry Port | NR.4 | 3.5 | Backyard is cultivated area, Installation of ASYUCUDA（EDI） |
| 6 | Olair Dry Port Worldwide Logistics | NR.4 | 3.0 | No Extension Area |
| 7 | Teng Lay Dry Port | Ring Road | 4.0 | Extension area in the neighboring area |
| 8 | CWT Dry Port | NR.4 | 16.0 | Run by Port Authority of Sihanoukville |
| 9 | Phnom Penh Dry Port | NR.4 | 1.5 | Inactive Dry-Port now |

*1：Website of So Nguon Co. Ltd.
Source：Study Team

### (6) Power

The mechanization of agricultural cultivation and installation of irrigation plants has not become widespread in Cambodia because energy costs in Cambodia are quite high.

The unit cost of electricity in Cambodia is 1.6 times higher than the unit cost in Thailand and 3.8 times higher than Vietnamese costs, therefore the business climate in Cambodia runs into trouble in terms of industrial development. The rate of electrification is about 20%, urban areas are mostly electrified, and the rate of rural area is electrified at the same time. Electrical generation in urban areas depends mostly on diesel electric generation from imported fossil fuel. Most electric demand is concentrated in Phnom Penh city. However power loss in Phnom Penh rises often because the trunk power grid is less developed. The gross power generation capacity is about 500MW in 2010. According to an EDC (Electricité du Cambodge) officer, the power generation capacity will reach 1,500MW in 2015; the electrical power distribution is expected to become stable.

One of the major barriers to FDI in Cambodia is supposed to be unit cost of electric power, which is higher than neighboring countries. The high cost of electricity is a factor that blocks the mechanization of agriculture, installation of irrigation plants, and enhancement of the capital-intensive food processing industry.

The management of EDC has been in deficit up to now; therefore the EDC depends mostly on a subsidy from the Cambodian Government. The responsible mechanism of the deficit operation is

that the buying price of electricity from IPP (Independent Power Producer) is kept higher than the selling price to customers in Cambodia by national policy.

There are potential resources of power in Cambodia now, e.g., waterpower on the Mekong River (8,600MW), petroleum oil and natural gas within the maritime border, and potentially coal in the northern region of the country.

The current development plan of power plants consists of several hydropower plants supported by the Chinese and Vietnamese Governments, a coal heat power plant in Sihanoukville supported by the Malaysian Government, and the others. Particularly when the Kamuchai hydropower plant (193MW) is completed, the plant will contribute mainly to power supply into Sihanoukville port and industrial zones. Regarding the development and the plan of the power grid, WB and ADB have been supporting this.

Many small-scale IPPs sell most power supply to EDC in general; the price level of power is relatively higher than the neighboring countries, and supply is unreliable. Many food-processing industries usually use a diesel-generating system because of unreliable power supply, and diesel oil for power generators is imported from Thailand. To reduce energy prices for industry enhancement, it might be desirable to enhance the development of power plants and the transmission system, and promote the development of alternative energies.

### (7) Others

Since the civil war the water supply plan has been carried out gradually, for example, Phum Prek water treatment plant financed by Japanese grant aid, consequently the diffusion rate of water supply is 67.4% in urban areas and 29.4% in rural areas relatively. A yen-loan agreement of 'Niroto water supply development project' was contracted in March 2009, and the Japanese Government intends to continue to support the water supply project in Cambodia.

The following table shows a comparison of main production activitiy costs among major cities in GMS countries.

**Table 5-11 Comparison of Activity Costs in Major Cities（As of Jan.2011）**

| | | Phnom Penh | Bangkok | Ho Chi Minh |
|---|---|---|---|---|
| Wage（USD/month, As general worker in manufacturing） | | 101 | 263 | 114 |
| Rent | | | | |
| | Rent of Industrial Park（USD/㎡/month） | 0.04[*1] | 6.89 | 0.21 |
| | Office Rent（USD/㎡/month） | 10[*1] | 22 | 38[*2] |
| Electricity Cost as institutional Use | | | | |
| | Base Cost（USD/month） | na | 7.48 | Na |
| | Usage Cost（USD/kWh/month） | 0.19 | 0.12 | 0.05 |
| Water Supply Cost as institutional Use | | | | |
| | Base Cost（USD/month） | na | na | Na |
| | Usage Cost（USD/㎥/month） | 0.30 | 0.31-0.52[*3] | 0.38[*4] |

Source：Study team based on JETRO material

※ 1: Substitute for PPSEZ Case
※ 2: Regular Rate
※ 3: Pay-as-you-go
※ 4: Substitute for Manufacturing Case

As shown in the above table, wage level rent of office space in Phnom Penh is cheaper than both Bangkok and Ho Chi Minh by comparison. In fact, wage levels in Cambodia have been rising gradually in recent years; the rate of wage growth in Cambodia is lower than both cities, and this trend will be expected to continue for the time being. Regarding labor quality in Phnom Penh, factory workers are diligent, have good hands and endure of long working hours; on the other hand, office workers are also good at English and clean people in general. Regarding the quantity levels of workers, Cambodia has a large potential labor force, for instance, the population growth rate is 1.64% (0.65% in Thailand, 1.15% in Vietnam), the ratio of the labor force is about 5 million less than 30 years old, and less than 20 years old is 46%. However, highly educated leaders are lacking currently.

## 5.4 Logistics System

### (1) Current Condition and Issues

To enhance the food-processing industry and expand exported goods stemming from agricultural products in Cambodia, an efficient logistics system is needed. The establishment of a supply system of agricultural products that includes a collection system from farmer to the factory, and interim storage facilities for the agricultural products is very important for development of food processing industry. The logistics system that depends on truck transportation in Cambodia is weak and inefficient, therefore the cost of logistics is high, and market accessibility for farmers for both domestic and international markets is quite low level. Consequently the logistics system in Cambodia is one of the main factors that encumber not only the incentives of agricultural productivity but also the growth of food-processing industry.

Domestic transportation by truck in Cambodia is quite expensive due to complicating formal and informal factors. Therefore, international competitiveness of agricultural products and processed foods is encumbered by expensive domestic logistics. In addition, this expensive cost is one of the factors that keep the farmers' incomes low level.

Improvement of the logistics system in Cambodia will bring improvement in market accessibility, creation of high value-added processed foods and agricultural products and contribute to establishment of an efficient value chain from domestic farmers to the international market via not only international but also domestic production factories. Establishment of efficient supply chain would also contribute to national economic growth based on rich agricultural productivity in Cambodia.

Domestic logistics costs by truck consist of not only regulatory truck cost (driver cost, fuel cost and depreciation cost of truck) but also formal and informal additional facilitation costs.

The farm-gate price of agricultural products in Cambodia is lower than that of Thailand and Vietnam, therefore the agricultural products in Cambodia have price competitiveness without domestic logistics cost (trucking cost plus formal/informal facilitation cost). In fact, there is no international price-competitiveness due to the inefficient domestic logistics system.

The CBTA (Cross border Transport Agreement), which is a multi-lateral agreement, has been

expanding among GMS countries with the aim of improvement of international logistics and enhancement of trade expansion. Especially, the repeal of limited number of mutual entry vehicles in the bilateral agreement of CBTA is expected to enhance and make more efficient the logistics system. Meanwhile, the domestic transportation market will be open to international logistics companies from the developed countries; the domestic logistics companies will inevitably face international competition.

**Table 5-12 Progress of CBTA (Bilateral Agreement)**

| | Contents |
|---|---|
| Thailand | In 1999 Cambodia signed the CBTA (Cross Border Transport Agreement) among GMS countries. The protocols and supplement of CBTA was completed in 2007. The first step of bilateral agreement of CBTA between Cambodia and Thailand was completed in 2005, and then Thai Government planed to carry out the development of the border post between Cambodia and Thailand in 2009, but this project has not been completed due to the border problem between Thailand and Cambodia. |
| Vietnam | In 1999 Cambodia signed the bilateral agreement CBTA (Cross Border Transport Agreement) between Cambodia and Vietnam in June 1998. And then the protocol of CBTA was signed; the agreement went into effect in September 30 2005. In Cambodia 40 vehicles (bus=19, truck=21) were registered as mutual entry vehicles, and in Vietnam only 40 buses were registered. The limited number of mutual entry vehicles was expanded up to 150 based on a bilateral agreement of CBTA agreed in March 2007.<br>Mutual entry transportation without checking at the border post has proceeded gradually; the registered vehicles of Vietnam are already up to the limit (150), but of Cambodia not yet. The latest agreement has already signed, and the agreement expands the limit number of mutual entry vehicles from 150 to 300. In future, the limit number is supposed to be unrestrainted.<br>In July 2009, MOU (Minutes of Understanding) of bilateral agreement regarding SSI (single stop inspection) was signed, and that went into effect within 3months of the agreement. CCA (Common Control Area) which has inspection facilities was constructed at the zero point between Cambodia and Vietnam in 2010, however the CCA is not active due to no inspection stuff, no computer network, no inspection scheme, etc. |
| Lao PDR | The Bilateral agreement with the Lao PDR keeps the number of mutual entry vehicle at 40 each. The sightseeing route, Pakse in Lao and Phnom Penh and Pakse and Siem Reap, was opened for private operation after the agreement.<br>There is a border post between Cambodia and Lao based on the agreement, however there is no SSI function and no good distribution now. |

Source：'Data Collection System on Integrated Physical Distribution System in Kingdom of Cambodia', JICA, 2010

The logistics network of not only physical infrastructure but also the computer network system between the central consumer market in Phnom Penh and the center of agricultural products in rural areas is less-developed. Most farmers in rural areas have to transport to the central consumers market in Phnom Penh by truck with expensive logistics costs. Other options for agricultural products that are transported to the central market are to ship from rural market for low prices, or to export unofficially to neighboring countries with low prices, or to give up. The current condition of domestic logistics is one of the constraints for productivity incentive for farmers.

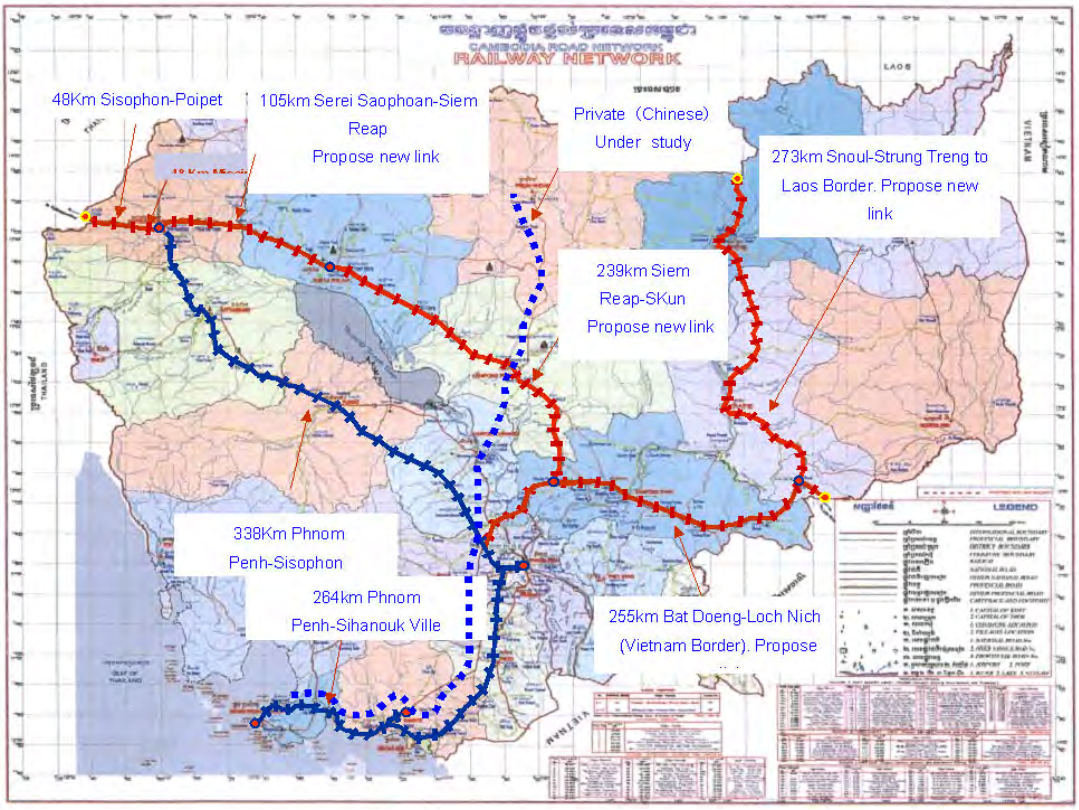
International transport of bulk cargo is increasing drastically from Phnom Penh Port to Saigon and Cai Mep Port in Ho Chi Minh, due to the progress of port development in Ho Chi Minh.

The Rice Policy announced by the Cambodian Government targets export of 1 million ton of milled rice byp to 2015. The realization of the target in the Rice Policy needs expanded

investment in milling plants and international port for milled rice handling. The handling capacity of 1 million tons of milled rice annually does not exist for Pnom Penh and Sihanoukville Port currently. A new container terminal has been developed along the Mekong River at the point of 25km downstream from the existing port, which is financed by the Chinese Government; meanwhile the Japanese Government develops a multi-purpose terminal in the Sihanoukville Port. PPAP has just start discussing berth development for milled rice export to contribution to realization of the Rice Policy, at the same time PAS (Sihanoukville Autonomous Port) started discussing the possibility of milled rice exports as one of ideas for usage of the new multi-purpose terminal.

### (2) Perspectives of Cambodian Logistics

It is very important for the improvement of the logistics system to creak diversification of transport network for strengthening industrial competitiveness, especially for the food processing industry in Cambodia. The railway rehabilitation project supported by the ADB and other donors will contribute to streamlining the logistics system by increasing the transport options, in particular the Southern Line will connect to Sihanoukville Port directly. Furthermore, the F/S on railway development between Phnom Penh and Ho Chi Minh has been competed with the support of the Chinese Government in 2010, and now the Cambodian Government is looking for a donor to conduct the railway development. This railway project will also contribute to the growth of agricultural and food processing production through the improvement of logistics system in Cambodia.




Source：'The data collection survey on transportation sector in the kingdom of Cambodia', JICA, 2010

**Figure 5-3 Future Vision of Cambodian Railway Network**

For the diversification of the transport system, it is very important to develop the logistics centers (logistics nodes), for instance, the development of the agricultural central market in not only Phnom Penh but also regional centers with information facilities and network connecting to each other to share market information.

There is development potential of inland water transport in Cambodia. Particularly, when the inland water route between Mekong River and Tonle Sap Lake is developed as a domestics logistics network, market accessibility of agricultural products for farmers in rural areas would be improved and the food processing industry would take advantage of row procurement more easily, consequently the food processing industry in Cambodia would achieve price competitiveness for the international market. The development of a country-elevator system[1] at appropriate points together with the re-development of the inland water system might contribute considerably to not only enhancement of domestic agricultural productivity and distribution but also increased exports of milled-rice mentioned in the Rice Policy.

In regard to sea transportation, currently the Sihanoukville Port is being developed step by step. It is necessary to develop larger container berths alongside the pier for over 10,000 DWT vessels with the aim of expanding milled rice exports as mentioned in the Rice Policy.

In the long term, the development of the cold chain system will be needed to heighten the high-value added level of agricultural products and processed foods for export. However, the limit of electricity capacity generation blocks the development of the cold chain system due to lack of electrical power and low development of power grids. In around 2013 – 2015, the capacity of power generation will be improved drastically due to the support from the donors and international agencies, and then the condition of cold chain system development will be met, hence now the needs of the feasibility study and future plans for the development of the cold chain system is soaring.

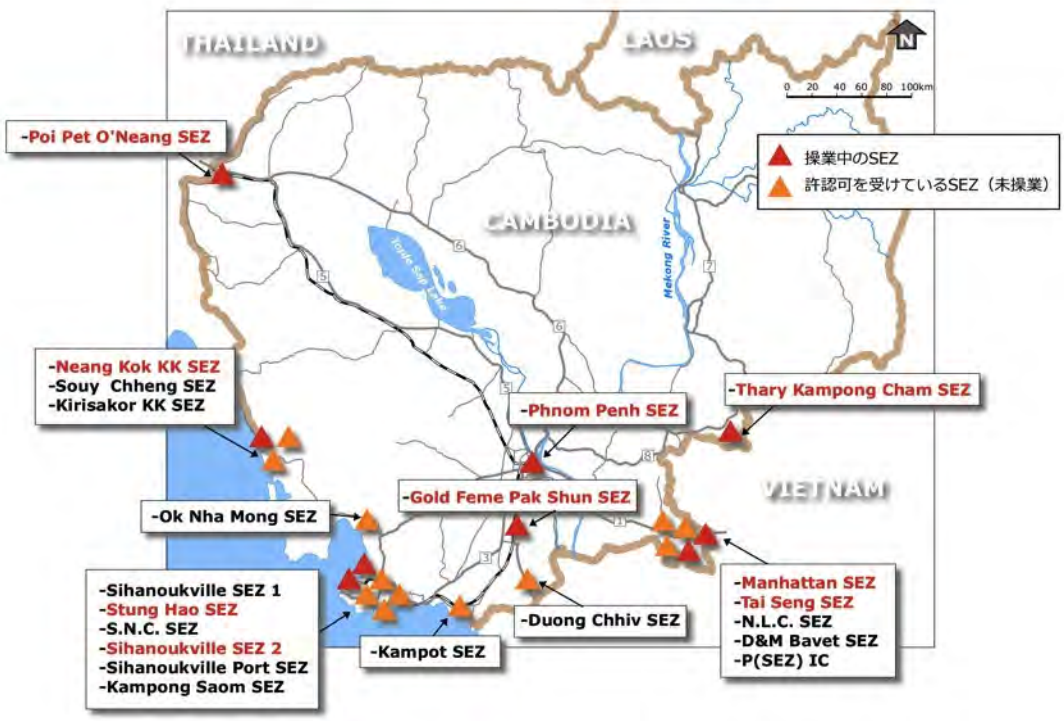
## 5.5 Development Locations

In general, the strategic location of food processing industry has to be not only near the agricultural production areas but also near the consumption and export centers like the rear of the international ports. From the aspect of private investment efficiency, the existing SEZ should be utilized maximally.

Special economic zones approved by the Government are distributed mainly along main roads (R.N. 1, 2, 3, 4 and 5), near at the border of neighboring countries, near international ports for export, and Phnom Penh City.

The location of the strategic food processing industry should be selected based on the examination of efficient coordination between agricultural production and potential markets, not only international but also domestic, with the aim of enhancement of competitiveness.

[1] It is kind of silos and grain storage facilities, called a grain elevator terminals in allotted areas. Huge silos (bins) and loading grain elevators, and preparation plants including grain drying facilities. New Orleans in the USA is a major center for grain exports, which are often set up in many terminals. For example, when the rice was harvested, and brought to the elevator, storage silo and prepared dry, and when needed, rice with sliding rice plant is to be shipped.




Source: 'The study on constriction and the real estate market in south-east Asian Countries', Ministry of Land, Infrastructure, Transportation and Tourism, 2011

**Figure 5-4 Location of Existing SEZs in Cambodia**

# Chapter 6 Value Chain Analysis in the food processing sector

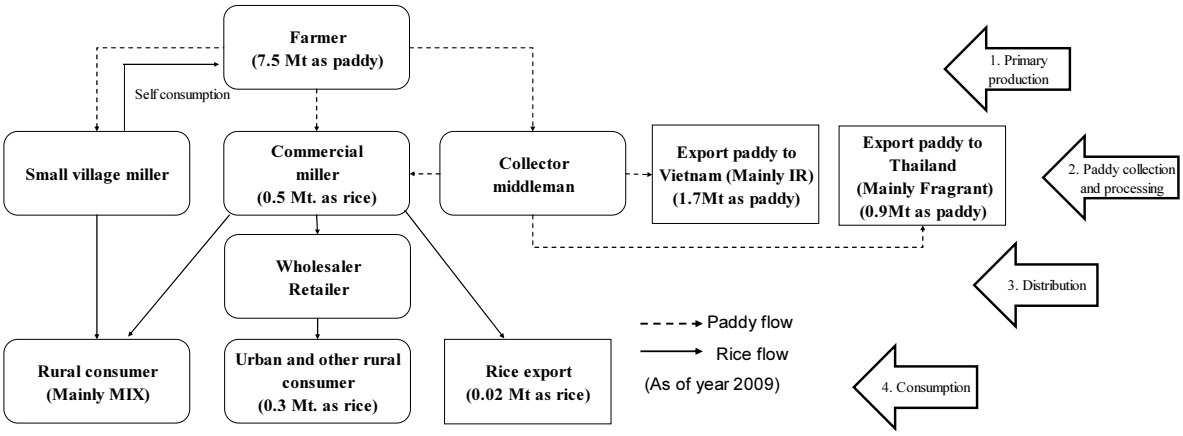
# Chapter 6 Value Chain Analysis in the food processing sector

## 6.1 Current status of value chain analysis for processed food (Comparison with neighboring countries)

To analyze the value chain for processed food in Cambodia, the Study Team has compared the rice value chain in Cambodia with the rice value chain in Vietnam and Thailand, which are major rice exporters, as examples.

### (1) Rice value chain in Cambodia

The following figure shows the rice value chain in Cambodia from primary production to consumption through processing and distribution.




Source：The Study Team prepared based on An Economic Survey of Rice Sector in Cambodia, afd 2010

**Figure 6-1 Rice Value Chain in Cambodia**

In Cambodia, most rice farmers consume about 40% of their production, and a small village miller mills the self-consumption rice. The milling is done for free, but the local miller keeps the husk, bran and broken rice in exchange. Farmers sell their surplus paddy to collectors and sometimes directly to commercial millers. About 60% of harvested paddy goes into the market.

The paddy collection involves collectors, middlemen, and traders. Collectors cover four or five farmers and gather the rice from farmers into small warehouses; middlemen go to the collectors with trucks to buy paddy. These intermediary traders are involved in interprovincial and cross border trade with Vietnam and Thailand. They sell their paddy to traders located close to the border, who are in direct contact with Vietnamese millers. They are also involved in the trade of soybeans, sesame, and fertilizers.

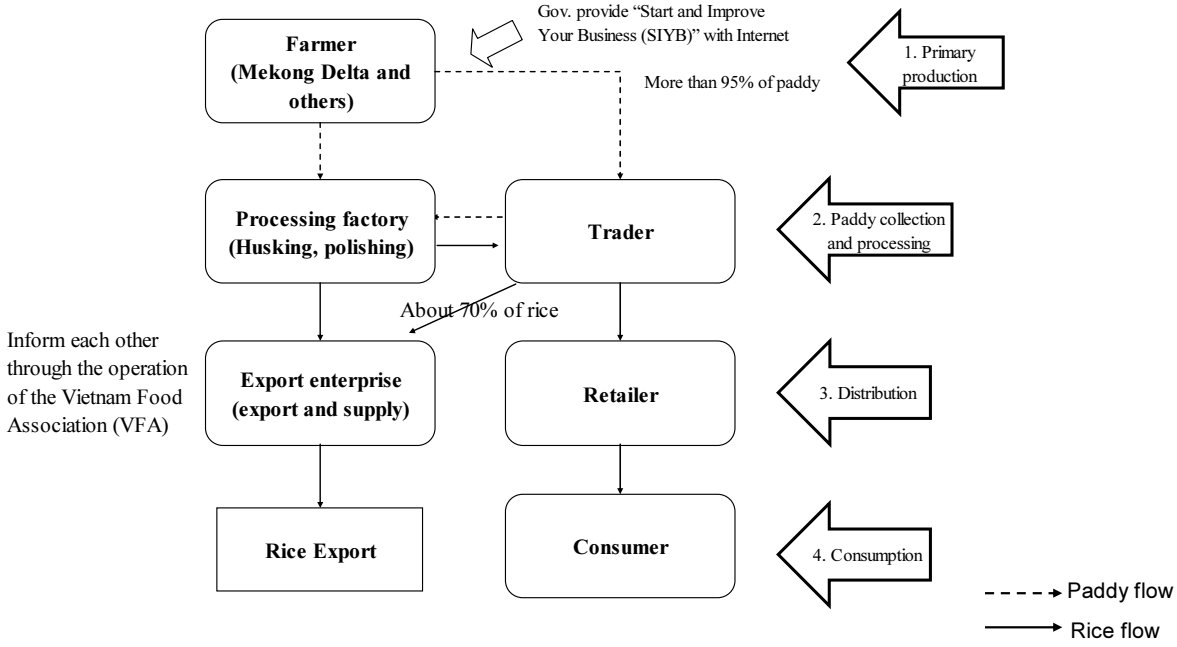
Cambodia exports the surplus rice as paddy to Vietnam and Thailand, by-passing the milling. Middlemen sell paddy to traders who transport the bags to Vietnamese and Thai traders across the borders, although export of paddy is not allowed. Most of the paddy exported to Vietnam comes from the dry season harvest of IR variety rice. Thailand imports mainly fragrant paddy, while

Vietnam imports IR, fragrant, and mix varieties. In 2009, 1.7 million tons of paddies were exported to Vietnam, and 0.9 million tons of paddies were exported to Thailand.

Cambodia presently deeply depends on the trade policy of neighboring countries such as Thailand and Vietnam. If Vietnam or Thailand close their borders or tax the paddy imports to protect their domestic markets, the domestic paddy price will decrease in Cambodia. Thus, the formal export of rice from Cambodia is the highest priority issue.

### (2) Rice Value Chain in Vietnam

The rice value chain from primary production to processing, distribution, and consumption in Vietnam is shown below:




Source：The Study Team prepared based on Value chain of rice export in Vietnam, Vo Hung Dung, 2011

**Figure 6-2 Rice Value Chain in Vietnam**

The Mekong Delta is the region, which contains half the number of rice producers. Rice farmers are strongly affected by climate conditions such as rain, storms and flooding. Also the shortage of risk insurance, traffic problems, and capital and poor knowledge are big problems for farmers.

To avoid disadvantages for farmers, the government implements some training courses and supporting programs to help them acquire knowledge for business. SIYB – Start and Improve Your Business program by the Vietnam Chamber of Commerce and Industry (VCCI) Cantho, vocational training by the government, providing computers for farmers to connect to the internet in rural areas are examples of this.

Traders usually have boats with low tonnage, and go around and buy paddy from the farmers; they take husked rice and go to the polishing factories. More than 95% of rice from farmers will be brought by traders and transported to milling and polishing factories. Export companies buy about 70% of rice exported from intermediary traders.

Generally farmer's stay away from exporters, and exporters has no connection with farmers. Therefore, traders are an intermediate factor, they have information and a relationship between two sides, and so they become an indispensable factor in the Vietnam rice market operation.

Husking factories work in peeling, rice husking, rubbing rice dry, and whitening and domestic market supply. Some factories carry out only peeling rice husk; whitening and mixing grain rice with broken rice are done by polishing plants to supply the export enterprises. These polishing plants are often parts of a supply company for rice export.

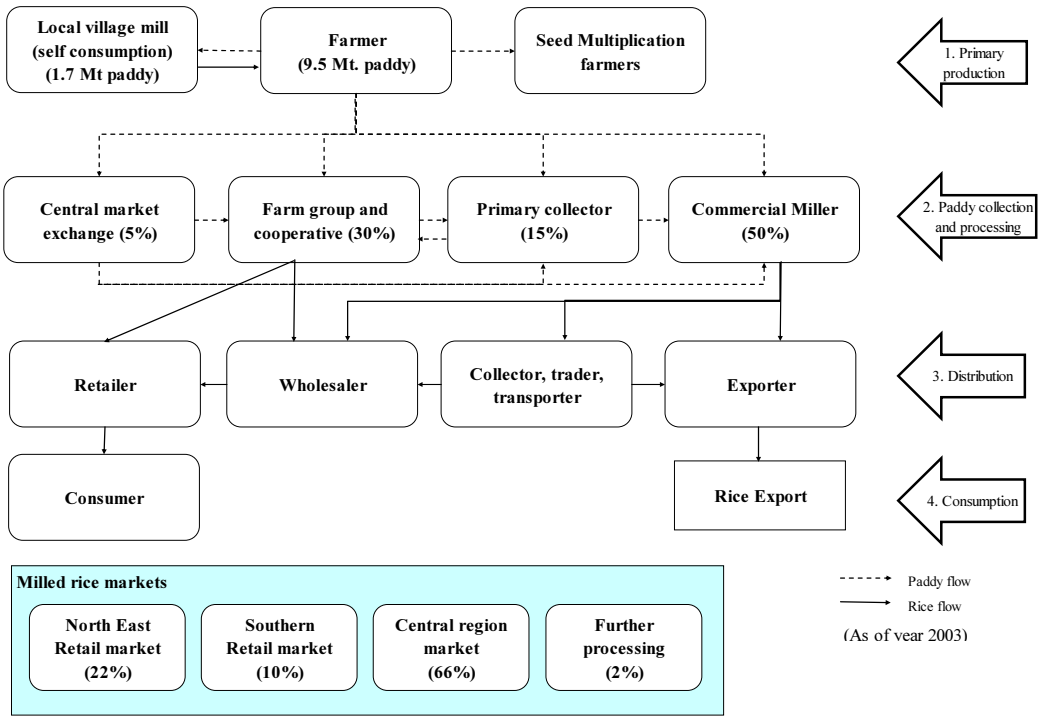
Vietnamese rice export enterprises include both rice export enterprises and supply for rice export enterprises. These export enterprises do transactions, make contracts, and perform the process of rice export. Presently these enterprises are mostly members of the Vietnam Food Association (VFA). These export enterprises buy rice from the supply enterprises. The supply enterprises keep material facilities and equipment for rice polishing and do the final steps, such as: cleaning, color and impurities separation, mixing broken rice, wrapping, and delivery to ships for export.

Compared with traders, farmers and factories, export enterprises are superior at the arrangement level, knowledge of the markets and psychology of customers, because they have better machinery, and the employee force is more fluent. The business enterprises have property, a warehouse system, and they are stronger than the others in this chain by approaching capital. Export enterprises exchange information with each other through the operation of the VFA.

Improvements in competitiveness will focus on continuing to upgrade infrastructure, the traffic system, warehouses, and storage for national food security and policies for supporting farmers. If the financing system to farmers is improved, it is expected to increase farmer's incomes because they will not need sell paddy immediately after harvesting at low prices.

### (3) Rice Value Chain in Thailand

The following figure shows the rice value chain in Thailand from primary production to consumption through processing and distribution;




Source: The Study Team prepared Northeast Thailand Rice Value Chain Study, Agrifood Consulting International, 2005

**Figure 6-3 Rice Value Chain in Northeast Thailand**

In Thailand, farmers generally mill their own rice at the local village mill for their own consumption, and sell to primary collectors in the local town, or if the farmer has enough surplus paddy, they can sell directly to the central market exchange or to commercial rice mills. Commercial rice mills can receive paddy from primary collectors, the central market exchange, or from farmers themselves.

Milled rice is distributed from mills to collectors and traders and to wholesalers in towns and larger markets. From these wholesalers the rice is distributed to consumers through retailers. Mills are involved in the export trade, and larger mills are fully integrated into the export chain.

Regional paddy production, about 9.5 million tons in 2003, moves along two major channels: approximately 1.7 million tones of paddy to the subsistence channel and 6.8 million tons of marketed paddy through commercial channels. The marketed paddy channel commences with sales to either collectors or mills directly. The sales of paddy to primary collectors and through the Central markets in the region are respectively 15 and 5 percent. Collectors sell paddy to commercial mills. Direct sales of farmers to millers amount to about 50 percent of marketed production. Cooperative mills generally use their own marketing channels and buy from cooperative farmers; approximately 30 percent of the marketed paddy moves through this channel. Using an estimated recovery rate of 65 percent for commercial and cooperative mills, this corresponds to 4.4 million tons of milled rice.

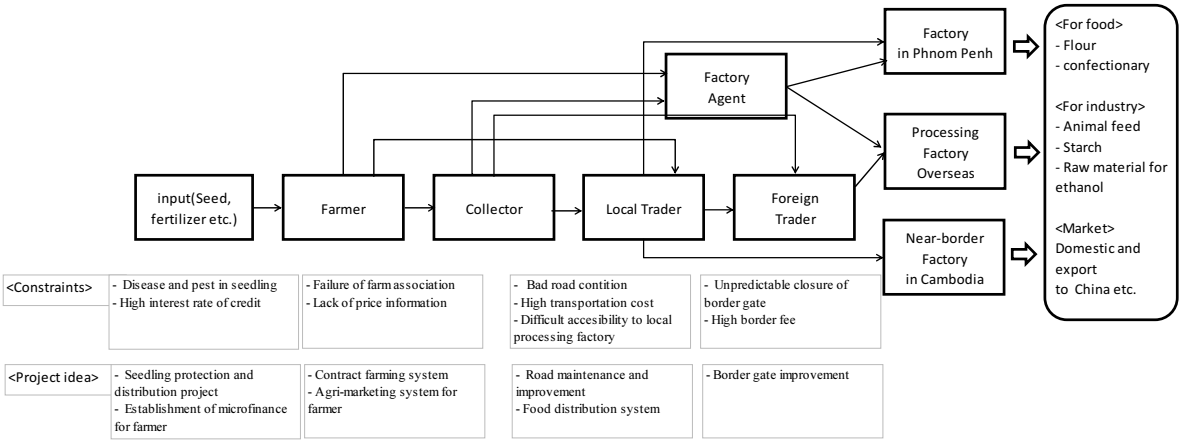
After the milling stage, rice is marketed through different channels with a major distinction between domestic and export channels. The milled rice for domestic channels is marketed to traders, direct sales to retailers, and wholesalers. There are various markets for by-products; swine producers use a large quantity of broken rice so they prefer buying from millers.

## 6.2 Value Chain Analysis for main processed foods in Cambodia

As the rice value chain has already been explained in the previous section, the value chains for cassava, corn, and cashew nuts will be described in this section.

### (1) Cassava Value Chain Analysis

The Value Chain for Cassava in Cambodia is described as follows:




Source: The Study Team prepared from Cassava Value Chains Analysis in Cambodia, Dan Dissemination Conference, October 2009

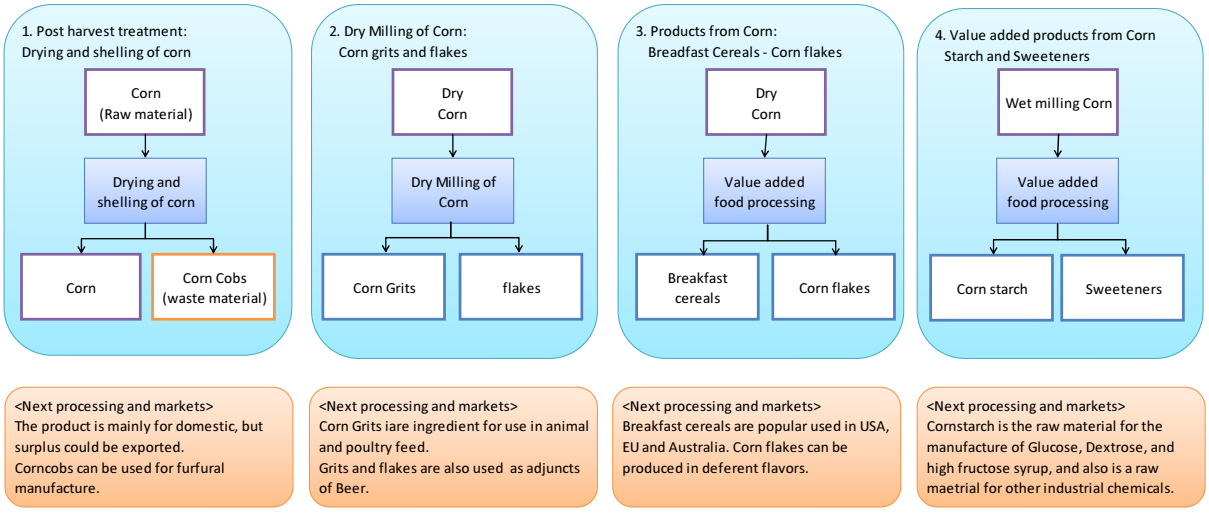
**Figure 6-4 Cassava Value Chain in Cambodia**

The majority of farmers sell raw cassava to traders, but some other farmers sell dry cassava to traders. Collectors are major market agents in cassava marketing chains, and collectors work for different agents as local traders, foreign traders, and factory agents.

The cassava trade largely happens through cross-border trade with low value-added. There are some challenges for production and trade. For farmers: pests and disease in seeds, shortage of capital to invest in proper production, high interest rate of credit, and labor shortage during harvest season. For trade: lack of marketing, lack of price information among farmers, unpredictable closure of border gates, high border fees, bad road conditions.

### (2) Maize Value Chain in Cambodia

The Maize Value Chain in Cambodia consists of the four stages below: post harvest treatment, Dry milling of corn, Products from Corn, and Value added products from Corn.




Source：The Study Team prepared by Corn value chain analysis in Cambodia

**Figure 6-5 Corn processing Value Chain in Cambodia**

The 1st stage is Post harvest treatment: Drying and shelling of corn. Corn after harvesting is dried, shelled to separate the corn and corncobs and the separated corn is further dried. This is an essential step before the corn can be used for food and feed purposes. The product is ready to market, and is an intermediate raw material for corn-based products. The product is mainly for the domestic market but any surplus could be exported. Corncobs are waste material, and can be used for furfural manufacture.

The 2nd stage is Dry milling of Corn: Corn grits and flakes. Corn grits are ingredient for use in animal and poultry feed. Grits and flakes are also used as adjuncts in the manufacture of beer. Corn can be used in the preparation for food items at home. The product is for the domestic as well as the export market.

The 3rd stage is Products from Corn: Breakfast Cereals – Corn flakes. Breakfast cereals are popular products in the USA, Europe and Australia. Corn flakes can be produced in different flavors. The product is mainly for export such as to the USA and Europe. The products can also be sold through food chain stores in Cambodia.

4th stage is Value added products from Corn – Starch and Sweeteners. Cornstarch is the raw material for the manufacture of Glucose, Dextrose, and High Fructose syrup. Cornstarch is also is a raw material for other industrial chemicals. It is used as a sizing agent in the textile industry and in the preparation of adhesives. The product is mainly for the export market such as the USA and Europe.

Maize has a much broader range of applications such as animal feed, breakfast cereals, sweeteners, ethanol etc. It is recommended to consider expanding the added value based on cost estimation and demand from the domestic and international markets.

### (3) Cashew nuts Value Chain in Cambodia

Cambodia has good quality in-shell cashew nuts available, which are currently exported to Vietnam for shelling, losing a major opportunity to add value. The development of a new shelling plant in Cambodia would enable value added through local shelling and open doors for building a shelling industry. It would also create competition for in-shell nut exports, enhancing their value.

At present the international market for cashew nuts is expanding, and Cambodia has potential markets in surrounding countries such as China and Malaysia. Organic cashew nuts have a demand in the European market,, especially England and Germany., and the buyers are looking for new suppliers.

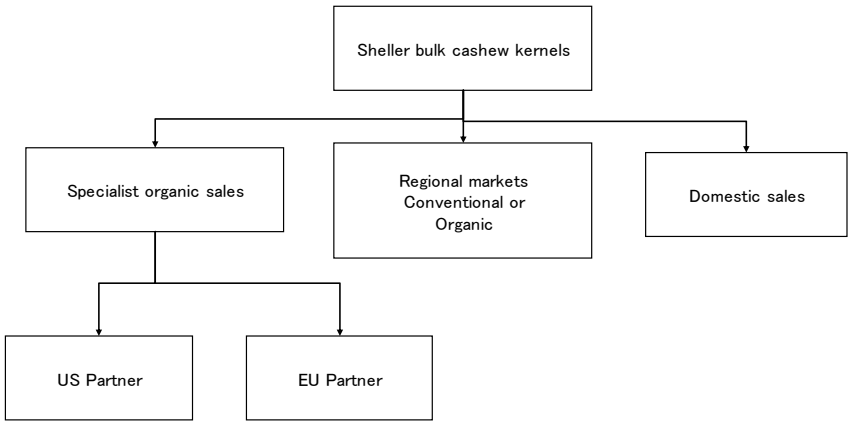



**Figure 6-6 Organic Cashew Nuts Value Chain**

Cambodia made valuable strides in the world market in 2009.

- Cambodia has commenced the export of in-shell cashew nuts to India. This adds a new destination to the established Vietnamese market for in shell. This also marks the entry of Cambodia cashews into the world market, and provides the Cambodian exporter with access to information.
- Cambodian shellers have recommended processing on a small scale for the domestic market, because the strength of the Indian industry is its domestic market. The development of a domestic market in Cambodia is essential.
- Vietnamese processors have stated their intention to establish cashew operations in Cambodia. It is unclear whether this includes processing, but seems to be limited to post-harvest assembly and drying of in-shell stocks for export to Vietnam.
- One processor in Cambodia has developed contacts with organic marketing companies in the EU, allowing an exchange of information and the development of a marketing chain in readiness for the first exports of organic cashew kernels.

## 6.3 Issues and policy proposal

### (1) Issues for value chains of processed food in Cambodia

In terms of the comparison of the processed food value chain with neighboring countries, the rice value chains are characterized in each country as in following table:

**Table 6-1 Rice Value Chain comparisons among Cambodia, Vietnam, and Thailand**

| | Cambodia | Vietnam | Thailand |
|---|---|---|---|
| Primary production | Captive consumption for farmers is 40% of total paddy production<br>Problems are mixing rice variety etc. | Financial difficulties for farmers, Lack of Information for market price etc.<br>SIYB program by Government | Captive consumption for farmers is 18% of total paddy production.<br>Seed multiplication system |
| Collection and processing | Collectors →Middlemen → Rice millers in Vietnam and Thailand<br>Collectors → Commercial millers | Collectors→ Husking and polishing factory | Collectors、Commercial millers、Cooperatives、Central paddy market |
| Distribution | Wholesalers, Retailers | Exporters（Export and supply）, Retailers | Traders、Exporters、Wholesalers、Retailers |
| Consumption | Export<br>Consumers in local and urban areas. | Export<br>Customers | Export<br>Consumers |

At the primary production stage, there is no technical guidance or information dissemination for farmers in Cambodia, but there is dissemination of market and price information in Vietnam, and seed multiplication services in Thailand on the premise of export products. And, at the next paddy collection and processing stage, commercial rice millers do not have a heavy burden, since the paddy passes through the middlemen to the millers in Vietnam and Thailand.

In Vietnam, husked and polished rice is sold to domestic consumers, but for export additional cleaning, color sorting, impurity elimination and packaging are performed. The milling process is separated into two phases managed by exporters, and the exporters have an important role for exporting rice in Vietnam.

In Thailand, farmers can select the paddy supply destination based on the production amount of paddy, such as collector, central markets and cooperatives. The exporters have a lot of power for exporting rice since they have all the necessary information for export rice about the specifications from importing countries, price information, and miller's capacity.

There are a lot of lessons to be learned from above value chain samples.

- Thailand and Vietnam have their own rice supply chain from primary production to paddy collection, processing, distribution, and consumption, based on their rice export performance and experience.
  → Establishment of supply chain for exporting processed food
- Need more assistance for farmers on technical, information and marketing issues than

Thailand or Vietnam.

→ Extension to farmers for exporting processed food

- There is no export specialized trader in Cambodia, so the millers have to provide services for domestic and export products.

  → To strengthen the function of exporting business operators.

From the value chain of main processed foods in Cambodia, almost all products are exported to Thailand or Vietnam without processing. The following issues may be extracted from previous discussions:

- The financial system is not yet established for purchasing operating capital for farmers as raw material suppliers to buy inputs such as seeds and fertilizers.
- Market access is difficult for farmers to sell the products to collectors, so it makes for weak bargaining and marketing power.
- High transportation costs for primary products and their processed food, and post-harvest loss because of lack of infrastructure.
- Cassava and maize can be processed to a wide range of value added products, but are presently processed in neighboring countries. It is difficult to expand the range of processing because of lack of technology in Cambodia. Also, foreign investment may be less because of high electricity and transportation costs.
- It is difficult to be aware of the customer needs and to develop and sell the saleable products since there are not many opportunities to participate in the international market.

# Chapter 7 Potential for the food processing business

# Chapter 7 Potential for the food processing business

## 7.1 Market environment for strategic food processing

Transformations in the food processing sectors are increasingly seen as strategic from the point of economic growth in the Mekong region. However, changes in diet are presumed to process in each developing stage.

The main basic stream of these changes is discussed from agricultural food processing to processed foods and consumption increase of daily products and meat.

### (1) Domestic market

The domestic agricultural products and processed food market is mostly concentrated in Phnom Penh. As a result, most agricultural products and processed foods have been transported to local markets via Phnom Penh.

Most domestic milled rice and vegetables are transported by truck to Phnom Penh. On the other hand, many foreign-made processed foods are transported by truck to Phnom Penh via Thailand or Vietnam.

In recent years, processed food container transportation from the port of Cai Mep and Saigon in Vietnam has gradually increased traffic volume. However, the domestic transactions in Phnom Penh between sellers and buyers are basically done by negotiated transactions. Therefore, information of agricultural prices is only available for sellers. Although there is an agricultural marketing information service supported by CIDA, its cover areas and penetration ratio is limited. Having weak bargaining power, farmers are forced to accept the offered price of the middleman. To give incentives for farmers to increase production, creation paddy market, where many buyers and sellers gather for their products transaction, shall provide more opportunities for farmers to see better buyer.

### (2) The International Market

A large amount of domestic agricultural products are exported unofficially as raw material from Cambodia to Vietnam and Thailand. The main reasons for unofficial export are poor quality of products, and lack of international marketing experience in all value chain stakeholders. Thus, Cambodian traders highly depend on Thai and Vietnamese traders.

At present paddy, cassava, maize, cashew nut, which are relatively large products in Cambodia are exported to neighboring countries for processing, and are then exported to the international market as processed food.

There is high demand for agricultural commodities such as wheat, maize, soy beans from the international market. However, it is very difficult for Cambodia to satisfy international demand at the current domestic production level. Also, these key food commodities must be cost competitive among agricultural countries.

By reducing production costs and improving the distribution system, Cambodia could compete well with other countries in international markets.

According to table 7-1, Cambodian rice and cassava export prices are 2.9% and 8.1% higher than the top 10 countries average, respectively. In addition, the export price for maize is 1.8 times higher than the top 10 countries average. Given the current situation, it is necessary to find a competitive advantage such as fertile land, and growing niche varieties.

**Table 7-1 Comparison of market prices**

| | Rank | Area | Average price (USD/ton) | Price Comparison |
|---|---|---|---|---|
| Rice/Paddy | Top10 countries average | | 260 | 100.0% |
| | | Cambodia | 267 | 102.9% |
| | | Thailand | 250 | 96.5% |
| | | Viet Nam | 268 | 103.1% |
| Cassava | Top10 countries average | | 97 | 100.0% |
| | | Cambodia | 104 | 108.1% |
| | | Thailand | 104 | 108.1% |
| | | Vietnam | 104 | 108.1% |
| Corn/Maize | Top10 countries average | | 73 | 100.0% |
| | | Cambodia | 134 | 183.0% |
| | | Thailand | 34 | 45.9% |
| | | Vietnam | 18 | 24.5% |
| Soybeans | Top10 countries average | | 262 | 100.0% |
| | | Cambodia | 267 | 102.0% |
| | | Thailand | — | — |
| | | Vietnam | 265 | 101.5% |

Source : FAO STATS 2009, Country by Commodity

## 7.2 Existing food processing business

Cambodia has few main agricultural industries in the country. Due to that fact, foreign companies would be able to receive investment incentives in many sectors.

Completion of the Southern Economic Corridor (Ho Chi Minh – Phnom Penh - Bangkok) will lead to a rapid and large-scale logistics and cost reduction. In addition, economic liberalization in the GMS, about 330 million people, will appear. Therefore Cambodia is expected to advance manufacturing and processing bases as a commodity transit country.

### (1) Existing foreign food processing companies

Of domestic food processing companies, many of them are `labor intensive` and sizes are mostly small and micro business. Food processing companies with foreign capital such as Thailand, Vietnam and Malaysia have procured raw material by import from the homeland.

For most foreign companies, the key constraint of business expansion in Cambodia is domestic power conditions and electricity costs. High production costs and cumbersome export procurement are also disincentives. In particular it seems that unofficial trade becomes a necessary evil on the importing side as official imports cause them problems.

Table 7-2 presents details of the foreign food processing companies, which employ over 100 workers in 2010.

＜Characteristics of foreign food processing companies＞

- Many are interned for domestic market expansion.
- Except for milling operations, beverage (beer, soft drinks, etc) manufacturing, sugar, noodle industry, food-processing companies have not grown large.
- As capital-intensive food processing requires a huge capital investment, only rice businessman and foreign capital can enter this sector in Cambodia.
- Foreign food processing companies seeking to export, procure raw material from abroad. On the other hand, foreign food processing companies targeting the domestic market, procure raw material domestically.

**Table 7-2 List of foreign food processing companies in Cambodia**

| Category | Original Country | Place of factory | Num of employee | Target market | Procurement method |
|---|---|---|---|---|---|
| Beer | Malaysia | Sihanoukville | 1,000 | Domestic | Imported |
| Beer | France | Kandal | 150 | Domestic | Imported |
| Beer &Soft drink | Vietnam | Kampong Cham | 250 | Domestic | Imported |
| Feed & meat | Thailand | Kandal | 400 | Domestic | Imported |
| Seafood processing | U.K | Sihanoukville | 800 | Abroad | Domestic |
| Sugar production | China | Kampong Speu | 400 | Abroad | Domestic |
| Sugar production | Thailand | Koh Kong | 1,500 | Abroad | Domestic |
| Sugar production and ethanol | India | Kratie | 700 | Abroad | Domestic |
| Seasoning | Japan | Phnom Penh | 150 | Domestic | Imported |

Source：MIME

### (2) Status of Japanese Companies

Japanese companies in Cambodia were mainly ODA-related trading, construction companies and consultancies until the early 2000s. However, in the wake of Japan-Cambodia investment agreement in July 2008, Japanese company's business expansion in Cambodia has been very active.

Cambodia's trade with Japan has increased steadily but since 2009, both imports and exports plunged due to the global economic crisis. Exports in 2010 were 14 billion yen (up 33% from the previous year), imports 18.2 billion yen (up 37% from the previous year), which suggests a solid recovery.

However, from the viewpoint of Japan's total trade (exports 67.4 trillion yen, imports 60.6 trillion yen in 2010, MOF trade statistics import 2010) and trade to Thailand (Exports about 3 trillion yen, imports about 1.7 trillion yen) , Cambodian presence is clearly small.

The surge in exports in 2008 for Cambodia and sharp decline in 2009 resulted from general machinery and transport equipment. (Figure 7-1)

According to the Trade Statistics (MOF, 2010), the major items of exports from Japan to Cambodia are machinery and transport equipment and it occupies 77 % of total trade. Among them, 'general machinery' and 'transport equipment' occupies 34% and 38% of total trade, respectively. On the other hand, 'clothing and accessories' and 'foot wear' achieved 41% and 58% of total imports from Cambodia respectively and these two total reach 99% of total imports.

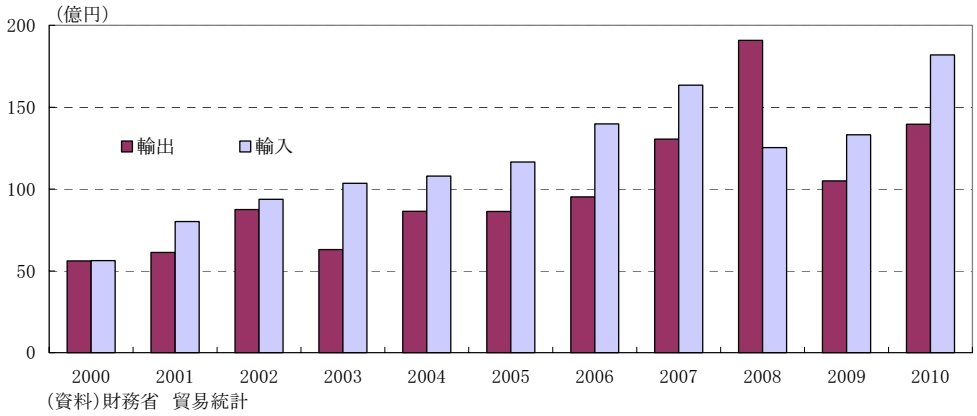
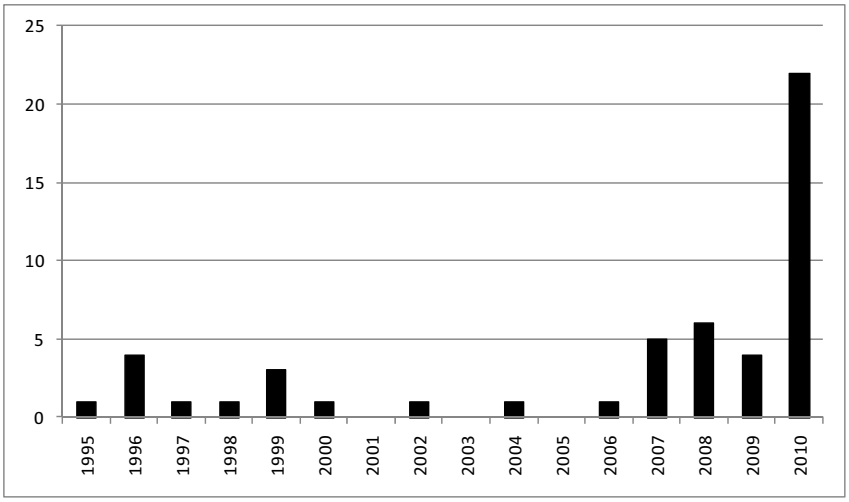



**Figure 7-1　Trends in Japan's exports to and imports from Cambodia (yen-based)**

Meanwhile, Japanese firms' investment in Cambodia has been increasing especially in the manufacturing industry sector in recent years.

As seen in Figure 7-2, the Japanese investments over 1995- 2010 counts total 51, in 2010, investment has rapidly increased.




Source：CDC

**Figure 7-2　Trendof Japanese Direct Investment in Cambodia**

### (3) Level of investment interest by Japanese companies

According to the Council for the Development of Cambodia (CDC), a total of 195 Japanese companies have visited the CDC for 20 months from January 2010 until August 2011. Of the 50 companies that have decided to expand into Cambodia, a half company has a high feasibility (August 2011).

However, the number of agricultural and food processing companies has narrowed down to just 19 companies, and food processing companies will be reduced to only 4. (Figure7-3)

These 19 companies are classified as follows:

- The four companies that are mainly food processing operations (No. 3, 13, 15, 16 ; two of four are rice sector, the other is seasoning or noodles)
- The five companies that are mainly production and export for agricultural raw material (No.2, 9, 10, 11, 19).
- The five companies that are mainly production for bio fuel plant (No.1, 5, 7, 8, 14)
- One company that is mainly agricultural machinery manufacturing and sales (No.17)
- One company that is rice milling machinery manufacturing and sales (No.18).
- The three companies that focus on other related business (No.4, 6, 12)

At this time, Japanese companies' expansion into the full-scale food industry in Cambodia is still very limited.

According to JETRO research, the construction of power plants for stable power supply, construction of highways/ bridges, and improvement of human resources has been strongly required by Japanese companies in Cambodia.

**Table 7-3 List of Japanese companies interested in Cambodia (Jan 2010-Aug 2011)**

| Enterprise (in ascending order) | Business | Status（as of Aug 2011） |
|---|---|---|
| 1 | Agriculture (Jatropha) | Under consideration |
| 2 | Fragrant Rice (Production & Export) | Implementing |
| 3 | Japonica Rice (Production) | Under consideration |
| 4 | Agriculture (Spices & Fruit) | Decided for Implementation |
| 5 | Agriculture (Jatropha) | Under consideration |
| 6 | Cassava (Procure for Foodstuffs) | Under consideration |
| 7 | Agriculture (Jatropha) | Under consideration |
| 8 | Agriculture (Jatropha) | Under consideration |
| 9 | Mung Bean (Production & Export for Processing) | Implementing |
| 10 | Mung Bean (Production & Export for Processing) | Under consideration |
| 11 | Mung Bean (Production & Export for Processing) | Under consideration |
| 12 | Seed (Production) | Under consideration |
| 13 | Instant Noodles | Prospective |
| 14 | Agriculture (Cassava for Ethanol) | Decided for Implementation |
| 15 | Rice Milling | Under consideration |
| 16 | Food (Seasoning, etc.) | Under consideration |
| 17 | Agricultural Machinery | Under consideration |
| 18 | Rice Milling Machinery | Under trial operation |
| 19 | Oil Crop (Export) | Under consideration |

Source： interview by CDC（2011.08）

### (4) Business Potential for Japanese companies

To promote the food processing business in Cambodia, agricultural production, storage pickup, food processing, along with public support at every stage of export logistics is strongly needed. In addition, import of capital and technology transfer from the private sector are also important conditions for promoting expansion of Japanese companies business.

In particular, Cambodia has potential for agricultural investment using the advantage of the long-term international food market in free trade with ASEAN countries (tariff elimination) and technology transfer. Therefore Cambodian business potential is expected to expand in the future with the ODA.

As for the situation faced by the Japanese food markets, there are raw materials prices rises due to international trade fluctuations, and shrinking domestic demand due to aging. This situation is expected to continue over the near future. To overcome this situation, domestic food makers are focusing on overseas growth markets particularly in Asia through the acquisition of new land.

The purpose of the business expansion of food related companies in Asia, 'securing the local market', 'production network', 'exporting products to the growing market', 'ensure use of the labor force', is considered large. Thus, basic investment conditions such as infrastructure and cold chain developments are urgently needed for business.

In the case of frozen food in Thailand by Japanese firms to establish a Joint Venture with local companies, there has been success, which has become a import base for Japanese food processing. However, product supply to the domestic market in Thailand has not been achieved even in this successful case.

Once a stable supply of cheap labor in Cambodia with the improvement of quality, it considered to establish a frozen food processing zone as well as cases in Thailand. Cambodia can develop into a long-term supplier of products to neighboring countries, i.e. Thailand and Vietnam.

Similarly, there is a trend of seasoning products such as tapioca export to neighboring countries i.e. Thailand. If Cambodia can supply raw material cheaper than Thailand, Cambodia can presumably join the same trend.

In Vietnam, the young average age of the population is around 20 at present. According to the estimation of the national economy, the amount of sweets consumed by a high proportion of young consumers is said to have remained for 10 years from 2.5 times in 2002.

The major players of confectionery products can be divided into foreign companies and local companies. Foreign companies, Mars (U.S.), Lotte (Korea) are famous for gum and chocolate products in general; on the other hand local companies such as Kind and Bibika mainly produce biscuits and candy.

Japanese confectionery makers currently have not made the business of local production; exports and sales have remained only a local product that is manufactured in Thailand or Singapore.

However, if Cambodia can clear a certain level of hygiene and quality control in the field, is

considered a business model holds that manufacture of imported raw material and export products to neighboring countries.

# Chapter 8 Supporting Strategy and Proposed Project

# Chapter 8 Supporting Strategy and Proposed Project

## 8.1 Supporting Strategy

As an assumption of examination of the supporting strategy for the strategic development of processed food in Cambodia, an industrial strategy is needed to foster the Food Processing Industry based on the current situation and issues in the Food Processing Industry in Cambodia.

In particular, price and supply stability of raw material of agricultural products is very important for enhancement of food processing industry, and at the same time, upgrades of the logistics system and processed food security control are also important to strengthen the international competitiveness of the food processing industry in Cambodia as well.

In Cambodia, the grains, e.g., rice, soybeans, cassava, maize and cashew nuts without value added in the rough mainly export to the neighboring countries currently. The exported agricultural products are used as raw material by the food processing industries in neighboring countries.

First of all, it is important not to export agricultural products as raw and low-level processing input, rather to become high-value added product, and then to be exported from Cambodia into the international market directly. In addition, it is also important to develop a food processing industry with ingredients that are used in Cambodia, with import replacement for the processed food products imported from neighboring countries and abroad as much as possible.

Thus, Cambodian food processing industries will grow from Cambodian agricultural products, such as raw materials like rice, soybean, cassava, maize, etc., and will maximize the development benefit for farmers. This should be fostered in the short term.

In the middle to long term, Cambodia should aim at expansion of exports to the international market and of import substitution in the domestic market with usage of domestic fruits, organic vegetables, pepper, sesame, etc. as a raw material for the food processing industry in Cambodia through cost reduction by mass production, quality improvement, and the other factors.

In addition, in the long term, the dairy and pastoral sector should be developed and develop a new market of processed meat and dairy products.

＜Phased Development Strategy＞

| | |
|---|---|
| Short Term： | To aim at producing processed food (high-value added of agricultural products) by utilizing the irregularly exported agricultural products without value-added and expanding processed food exports regularly. |
| Middle Term： | To aim at further expansion not only of exports to the international market by the cost reduction and upgrading of quality control but also of supply to the domestic market by import substitution. |
| Long Term： | To aim at gaining new market sectors. |

## 8.2 Evaluation of Candidate Projects

### (1) Categories of Agricultural Sectors

In this section, the issues about food processing industry of each agricultural product in Cambodia through the analysis of raw materials productivity, potential of the food processing industry, hard & soft infrastructure and the others are presented. The potential is based on the needs of several Japanese companies through the verbal investigation.

We arranged "Current Condition and Issues" through the analysis of existing study and statistical data and hearing investigation to farmers, local companies, existing Japanese food processing companies of and government officers. Next we arranged "Potentiality" through needs survey for Japanese companies who have intentions to move into Cambodia. And we arranged "Support Direction" including proposed project's items through the discussion and conference with the related government officers, knowledgeable persons and international aid agencies.

In addition, supporting sectors and items based on the above are examined as well. The classification of the supporting sectors and items for Japanese assistance is 4 sectors, e.g., Raw Materials, Food Processing, Logistics and Trade &Marketing.

Approach of Examination for Support Project

| | |
|---|---|
| Current Condition and Issues | - To analyze existing study and statistical data<br>- To investigate through hearing survey for international aid agencies, farmers, middle-man, food processing companies, government officers and existing Japanese companies |
| ⇩ | |
| Potentiality | - To investigate through hearing with existing Japanese companies and the companies those have intention to invest in Cambodia. |
| ⇩ | |
| Support Direction | - To examine through discussion and conference with related government officers, the international agency officers, and knowledgeable person both in Cambodia and Japan |

Based on the above discussion, and short field (as high urgency), medium-term sector, long-term field (as low urgency) were classified through the examination due to the urgency level of assistance and the potential of the agricultural product.

| | |
|---|---|
| Short Term Sector: | Rice, Maize, Soybeans, Cassava, Cashew-nuts |
| Middle Term Sector: | Vegetables, Pepper, Sesame, Fruits |
| Long Term Sector: | Dairy and Pastoral Sector |

## a. Short Term Sector

### Rice

<table>
<tr><th></th><th colspan="4">Contents（Rice）</th></tr>
<tr><td>Issues</td><td colspan="4">- Low level postharvest treatment and processing technology (Improper postharvest treatment; Low performance of processing equipment; Lack of equipment for producing high quality milled rice; and inexperience with milling technology)<br>- Inferior quality of milled rice (Low milling recovery; Non-uniformity in quality of milled rice; Sizable kernel breakage; Low whiteness degree & luster; and Low milled rice quality far below international standard)<br>- Varietal mixture<br>- Low working efficiency of modern rice mills producing high quality milled rice<br>- High energy cost (Low self-sufficiency rate of energy; High cost; and Undeveloped alternative energy)<br>- Underdeveloped secondary processing technology (Incomplete secondary processing technology; and Insufficient utilization of by-products)<br>- Sizable and informal paddy export (Saturated domestic market for staple food; Competition in paddy procurement with neighboring countries; and Strong demand for paddy in neighboring countries)<br>- Lack of paddy market (Difficulty in stable paddy procurement; Lack of quality standard; Incomplete market information system; Non-linkage of quality and prices; and Low paddy quality)<br>- Lack of capital for procurement of paddy (Ineffective financing system)<br>- Due to small bargaining power of farmers, and farmers are disadvantaged relative to the buyer</td></tr>
<tr><td>Potential<br>(Based on verbal investigation of Japanese Companies)</td><td colspan="4">- Realization of Paddy Market to establish quality standards and a market information system, and also facilitate paddy procurement of rice millers. In addition, quality-linked prices of paddy are formulated. Through the market information system, dealing prices in the market are as indicative prices open to the public, which can be helpful for rice growers; millers; and exporters, to make a future business plan.<br>- It becomes possible to transform current informal paddy exports to the formal system, if the majority of buyers from neighboring countries participate in the newly established Paddy Market as buyers.<br>- If facilitation of paddy procurement, strengthening of rice mills, enhancement of working efficiency of rice mills, and improvement of milling technology are all attained, informal exports of paddy are reduced and formal exports of value-added milled rice are increased.<br>- Low quality milled rice in Cambodia is dependent more on improper postharvest treatment and milling technology, than on the milling equipment itself. Advances in technology can lead to remarkable improvements of quality of milled rice.<br>- Promotion of secondary processing of rice contributes to the expansion of rice-based processed food; development of import-substitutes (rice noodles, etc.); and reduction of informal paddy exports.<br>- Full utilization of by-products of rice contributes to vitalization of relevant industry and improvement of the energy situation.<br>- Improvement of all the above issues eventually leads to an increase of rice growers' income.<br>- The technology and experience of Japan can be applied effectively to the areas of rice milling, secondary processing of rice and utilization of by-products.</td></tr>
<tr><td>Support Policy</td><td colspan="4">- Due to the national policy in Thailand that contains rice purchasing by the government and major flood affection, the price of rice would be soaring this year. Thus, increase of rice production volume is needed by means of enhancement of providing good seed, irrigation system improvement.<br>- To improve rice processing technology and post-harvest processing including secondary processing and by-product utilization.<br>- To establish paddy market and support management of the market, and establish a market information system and quality standards.</td></tr>
<tr><td rowspan="2">Support Sector and Items</td><td>Raw Material</td><td>Food Processing</td><td>Logistics</td><td>Trade &Marketing</td></tr>
<tr><td>- Irrigation Development<br>- Selection of good seed<br>- Technical Cooperation for Organizing Farmers<br>- Financial Cooperation for the Agro-Processing<br>- Permeation of C/F method</td><td>- Installation of Current Technology<br>- Enhancement of Quality Control<br>- Promotion of by-product utilization<br>- Promotion of postharvest technology</td><td>- Upgrade of Logistics System<br>- Public market development</td><td>- Promotion of marketing technology<br>- Simplification of trade procedure<br>- Development of grain trade terminal<br>- Food Processing SEZ Development</td></tr>
</table>

Source：Study Team

## Maize

| | Contents（Maize） | | | |
|---|---|---|---|---|
| Issues | - Lack of processing equipment (Dependence on imports)<br>- Lack of knowledge and experience of processing<br>- Low-level food safety and hygiene<br>- Underdeveloped packaging materials industry (Glass bottles, plastic bags, etc. are dependent on imports, increasing the processing cost)<br>- Costly and unstable electric power supply (leading to high processing costs and lowering of working efficiency)<br>- Undeveloped market for processed food<br>- Lack of maize market (Lack of indicative prices; Non-linkage of quality and prices; Low maize quality<br>- Lack of working capital (Ineffective financing system)<br>- Sizable and informal maize exports (Competition in maize procurement with neighboring countries; Strong demand for maize in neighboring countries; and Less availability of maize for processing)<br>- Ineffective maize collection system (Lack of drying and storage facilities) | | | |
| Potential (Based on verbal investigation of Japanese Companies) | - Realization of Maize Market to establish quality standards and a market information system, and also to facilitate maize procurement of processors. In addition, quality-linked prices of maize are formulated. Through the market information system, dealing prices in the market are as indicative prices open to the public, which can be helpful for maize growers and processors to make a future business plan.<br>- It becomes possible to transform current informal maize exports to the formal system, if the majority of buyers from neighboring countries participate in the newly established Maize Market as buyers.<br>- If facilitation of maize procurement and development of processing technology are attained, the variety of processed food is expanded with improvement in quality, and also informal maize exports are reduced.<br>- Full utilization of by-products of maize contributes to vitalization of relevant industry and improvement of the energy situation.<br>- The technology and experience of Japan can be applied effectively to the areas of animal feeds, processed foods, non-processed food and utilization of by-products. | | | |
| Support Policy | - To improve the processing technology including utilization of by-products and expand the breed variety by means of the diversification from animal feed to processed food.<br>- To establish paddy market and support management of the market, and establish a market information system and quality standards. | | | |
| Support Sector and Items | Raw Material | Food Processing | Logistics | Trade &Marketing |
| | - Technical Cooperation for Organizing Farmers<br>- Financial Cooperation for the Agro-Processing | - Installation of Current Technology<br>- Installation of Current facility<br>- Enhancement of Quality Control<br>- Promotion of by-product utilization<br>- Promotion of postharvest technology | - Upgrade of Logistics System<br>- Development of regional roads<br>- Public market development | - Promotion of marketing technology<br>- Simplification of trade procedure<br>- Development of grain trade terminal<br>- Food Processing SEZ Development |

Source：Study Team

## Soybeans

| | Contents（Soybeans） |
|---|---|
| Issues | - Lack of processing equipment (Dependence on imports)<br>- Lack of knowledge and experiences of processing<br>- Low-level food safety and hygiene<br>- Underdeveloped packaging materials industry (Glass bottles, plastic bags, etc. are dependent on imports, increasing the processing cost)<br>- Costly and unstable electric power supply (leading to high processing costs and lowering of working efficiency)<br>- Undeveloped market for processed food<br>- Lack of soybean market (Lack of indicative prices; Non-linkage of quality and prices; Low soybean quality<br>- Lack of working capital (Ineffective financing system)<br>- Sizable and informal soybean exports (Competition in soybean procurement with neighboring countries; Strong demand for soybean in neighboring countries; and Less availability of soybean for processing)<br>- Ineffective soybean collection system (Lack of drying and storage facilities) |

| | | | | |
|---|---|---|---|---|
| Potential (Based on verbal investigation of Japanese Companies) | - Realization of Soybean Market to establish quality standards and a market information system, and also to facilitate soybean procurement of processors. In addition, quality-linked prices of soybean are formulated. Through the market information system, dealing prices in the market are as indicative prices open to the public, which can be helpful for soybean growers and processors to make a future business plan.<br>- It becomes possible to transform current informal soybean exports to the formal system, if the majority of buyers from neighboring countries participate in the newly established Soybean Market as buyers.<br>- If facilitation of soybean procurement and development of processing technology are attained, the variety of processed food is expanded with improvement in quality, and also informal soybean exports are reduced. Further, various soybean-based drinks, popular with Cambodian citizens but currently very dependent on imports, can be produced locally (import substitute).<br>- Full utilization of by-products of soybean contributes to vitalization of relevant industry and improvement of energy situation.<br>- The technology and experience of Japan can be applied effectively to the areas of soybean oil, meal (de-oiled soybean), and a variety of soybean-based processed foods. | | | |
| Support Policy | - To improve the processing technology including utilization of by-products and expand the variety of processed products from primitive small scale of soy source product to high-valued processed food products.<br>- To establish paddy market and support management of the market.<br>- To establish a market information system and quality standards. | | | |
| Support Sector and Items | Raw Material | Food Processing | Logistics | Trade &Marketing |
| | - Technical Cooperation for Organizing Farmers<br>- Financial Cooperation for the Agro-Processing | - Installation of current technology<br>- Enhancement of Quality Control<br>- Promotion of postharvest technology<br>– SME support | - Public market development | - Promotion of marketing technology<br>- Development of grain trade terminal<br>- Food Processing SEZ Development |

Source：Study Team

## Cassava

| | Contents（Cassava） |
|---|---|
| Issues | - Lack of processing equipment (Dependence on imports)<br>- Lack of knowledge and experience of processing<br>- Low-level food safety and hygiene<br>- Limited variety of secondary processed foods<br>- Underdeveloped packaging materials industry (Glass bottles, plastic bags, etc. are dependent on imports, increasing processing costs)<br>- Costly and unstable electric power supply (leading to high processing costs and lowering of working efficiency)<br>- Undeveloped market for secondary processed food<br>- Lack of cassava market (Lack of indicative prices; Non-linkage of quality and prices; Low cassava quality<br>- Lack of working capital (Ineffective financing system)<br>- Sizable and informal cassava exports (Competition in cassava procurement with neighboring countries; Strong demand for cassava in neighboring countries; and Less availability of cassava for processing)<br>- Ineffective cassava collection system (Lack of drying and storage facilities) |
| Potential (Based on verbal investigation of Japanese Companies) | - Realization of a Cassava Market to establish quality standards and a market information system, and also facilitate cassava procurement of processors. In addition, quality-linked prices of cassava are formulated. Through the market information system, dealing prices in the market are as indicative prices open to the public, which can be helpful for cassava growers and processors to make a future business plan.<br>- It becomes possible to transform current informal cassava exports to the formal system, if the majority of buyers from neighboring countries participate in the newly established Cassava Market as buyers.<br>- If facilitation of cassava procurement and development of processing technology are attained, the variety of processed food is expanded with improvement in quality, and also informal cassava exports are reduced.<br>- Full utilization of by-products of cassava contributes to vitalization of relevant industry and improvement of the energy situation.<br>- The technology and experience of Japan can be applied effectively to the areas of secondary processing of cassava starch. |
| Support Policy | - To improve the processing technology including utilization of by-products.<br>- To establish paddy market and support management of the market<br>- To establish a market information system and quality standards. |

| Support Sector and Items | Raw Material | Food Processing | Logistics | Trade &Marketing |
|---|---|---|---|---|
| | - Irrigation Development<br>- Financial Cooperation for the Agro-Processing<br>- Technical Cooperation for Organizing Farmers<br>- Pest Control and Countermeasures | - Installation of Current Technology<br>- Installation of Current facility<br>- Enhancement of Quality Control<br>- Promotion of by-product utilization<br>- Promotion of postharvest technology | - Upgrade of Logistics System<br>- Public market development | - Promotion of marketing technology<br>- Development of grain trade terminal<br>- Food Processing SEZ Development |

Source：Study Team

## Cashew-nut

| | Contents（Cashew-nut） |
|---|---|
| Issues | - Low-level food safety and hygiene<br>- Costly and unstable electric power supply (leading to high processing costs and lowering of working efficiency)<br>- Undeveloped market for secondary processed food<br>- Lack of market (Lack of indicative prices; Non-linkage of quality and prices; Low quality)<br>- Sizable and informal exports (Competition in procurement with neighboring countries; Strong demand in neighboring countries; and Less availability for processing) |
| Potential (Based on verbal investigation of Japanese Companies) | - The cashew-nut market has maintained a stable demand in the world. In Cambodia the production volume of cashew nuts is 300,000 ton annually, and fourth in the world (first is Vietnam, second is India, and third is Nigeria), which is special agricultural production in Cambodia. And as cashew nuts are in a wide range of processed foods, it should be aimed to promote the planning intensively for export, and it has a high potential as ingredient in processed foods.<br>- The fare trade market and organic market in the world is expanding, and according to the IFC report, the average growth rate of market expansion is 7% annually for over the past 10 years. By improving production technology, the production potential would be apparent.<br>- In the market of Europe and North America, cashew nuts as raw material in Cambodia has price competitiveness, with use of preferential tariff, in comparison to that in Vietnam and India. |
| Support Policy | - To improve the processing technology including utilization of by-products and expand the variety of processed products.<br>- To establish the quality and safety controls completely and make it complete<br>- To install know-how of processing technology, processing facilities and marketing technology. |

| Support Sector and Items | Raw Material | Food Processing | Logistics | Trade &Marketing |
|---|---|---|---|---|
| | | - Enhancement of Quality Control<br>- Promotion of by-product utilization | - Development of collection System | - Promotion of marketing technology |

Source：Study Team

## b. Middle Term Sector

### Vegetable（Mug Beans, Organic Vegetable）

| | Contents（Vegetable） | | | |
|---|---|---|---|---|
| Issues | - Small production volume by each producer<br>- Limited variety of secondary processed foods<br>- Low-level food safety and hygiene<br>- Lack of market (Lack of indicative prices; Non-linkage of quality and prices; Low quality)<br>- Sizable and informal Import<br>- Lack of collecting system (less developed rural road)<br>- Lack of contract farming scheme (land concession problem) | | | |
| Potential (Based on verbal investigation of Japanese Companies) | - The high potential of fertile land located around the Tonle Sap area. There exists high potential of exporting high value added organic vegetables and expanding the potential of the food processing industry.<br>- Currently Japan imports mug beam from China. Due to the diversification because of the appreciation of the currency value in China, Cambodia would have high export potential to the Japanese market.<br>- In particular, labor-intensive processing such as sorting parts contains the job growth potential.<br>- Due to stabilization of long-term contract farming productivity, promoting high value-added markets, etc., vegetables in Cambodia contains the potential to supply the restaurant, hotel, and retail shop chain market in large cities such as Phnom Penh. | | | |
| Support Policy | - To improve pest control<br>- To install production facilities and technology for production of value-added products<br>- To strengthen collection system of vegetables<br>- To establish public market mechanisms and increase productivity<br>- To improve the rural mountain road network<br>- To install know-how of marketing and quality controls | | | |
| Support Sector and Items | Raw Material | Food Processing | Logistics | Trade &Marketing |
| | - Pest Control and Countermeasures | - Installation of Current facility<br>- Enhancement of Quality Control<br>- Promotion of by-product utilization<br>- Promotion of postharvest technology | - Development of collection System<br>- Development of regional roads<br>- Public market development | - Promotion of marketing technology<br>- Food Processing SEZ Development |

Source：Study Team

### Pepper

| | Contents（Pepper） | | | |
|---|---|---|---|---|
| Issues | - Small production volume by each producer<br>- Low-level food safety and hygiene<br>- Lack of working capital (less developed financing scheme)<br>- Lack of collecting system (less developed rural roads)<br>- Lack of contract farming scheme (land concession problem) | | | |
| Potential (Based on verbal investigation of Japanese Companies) | - Expanding stable international markets of pepper worldwide, potential as not only raw material but also processed food contained due to upgrading quality and production by sober and low cost labor in Cambodia. The production process is labor-intensive; it is desirable to further increase production to take advantage of cheap and sober labor in Cambodia.<br>- It is considered to aim at providing for the international market due to product branding and to the processed food industry. | | | |
| Support Policy | - To stabilize production volume and price by the contract farming method<br>- To improve management system of quality control<br>- To install current facilities and technology for increase of value added production<br>- To install marketing know-how and a quality control system | | | |
| Support Sector and Items | Raw Material | Food Processing | Logistics | Trade &Marketing |
| | - Permeation of C/F method | - Enhancement of Quality Control | - Public market development | - Promotion of private participation<br>- Promotion of marketing technology |

Source：Study Team

## Sesame

| | Contents（Sesame） | | | |
|---|---|---|---|---|
| Issues | - Small production volume by each farmer<br>- Low-level food safety and hygiene<br>- Lack of working capital (less developed financing scheme)<br>- Lack of contract farming scheme (land concession problem) | | | |
| Potential (Based on verbal investigation of Japanese Companies) | - The sesame world market has being expanding in recent years, and the production volume would be expanded. Sesame is one of the expected agricultural goods for export to Japan.<br>- Myanmar and China are major producers in Asia, and Cambodia also has potential for production. For the time being, the field of sorting tasks and packaging regarding the processing industry is considered to absorb the labor force. | | | |
| Support Policy | - To stabilize production volume and price by the contract farming method<br>- To improve management system of quality control<br>- To install current facilities and technology for increase of value added production<br>- To install marketing know-how and a quality control system | | | |
| Support Sector and Items | Raw Material | Food Processing | Logistics | Trade &Marketing |
| | - Permeation of C/F method | - Enhancement of Quality Control | - Public market development | - Promotion of marketing technology |

Source：Study Team

## Fruit（Dragon Fruits, Mango, Palm, etc.）

| | Contents（Fruit） | | | |
|---|---|---|---|---|
| Issues | - Small production volume by each producer<br>- Low-level food safety and hygiene (pesticide residue)<br>- Costly and unstable electric power supply (leading to high processing costs and lowering of working efficiency)<br>- Lack of food processing technology<br>- Less developed cold chain system<br>- Due to small bargaining power of farmers, farmers are disadvantaged relative to the buyer | | | |
| Potential (Based on verbal investigation of Japanese Companies) | - There exists business possibilities by import substitution for consumer goods of fruits imported from neighboring countries, i.e. China, Malaysia, etc.<br>- It is very important to stabilize production volume and price and branding for the market that contains high-middle class people in urban areas.<br>- It is desirable to install current technology of food processing based on low cost labor force regarding primary processing, purees, and IFQ for processing in grand.<br>- It is possible for the beverage industry to expand markets in neighboring countries that are mature and with population growth. | | | |
| Support Policy | - To improve pest control<br>- To establish cold chain system<br>- To improve management system of quality control<br>- To install current facilities and technology for increase of value added production<br>- To install marketing know-how and a quality control system | | | |
| Support Sector and Items | Raw Material | Food Processing | Logistics | Trade &Marketing |
| | - Pest Control and Countermeasures | - Installation of current technology<br>- Enhancement of Quality Control | - Development of collection System<br>- Development of Cold Chain System | - Promotion of marketing technology |

Source：Study Team

### c. Long Term Sector

**Dairy and Pastoral Sector**

| | Contents（Dairy and Pastoral Sector） | | | |
|---|---|---|---|---|
| Issues | - Small production volume by each producer (less-organized management)<br>- Low-level food safety and hygiene (pesticide residue)<br>- Costly and unstable electric power supply (leading to high processing costs and lowering of working efficiency)<br>- Lack of food processing technology<br>- Less developed cold chain system | | | |
| Potential | - Cambodian economy contains potential for the dairy and pastoral sector in the near future according to income growth, and that will bring business possibilities for meat processing. | | | |
| Potential (Based on verbal investigation of Japanese Companies) | - To establish cold chain system<br>- To organize farmers for effective management system<br>- To improve the management system of quality control<br>- To install current facilities and technology for increase of value added production<br>- To install marketing know-how and a quality control system | | | |
| Support Sector and Items | Raw Material | Food Processing | Logistics | Trade &Marketing |
| | - Technical Cooperation for Organizing Farmers | - Installation of current technology<br>- Enhancement of Quality Control | - Development of Cold Chain System | - Promotion of marketing technology |

Source：Study Team

## (2) Evaluation of Support Sectors and Items

The supporting items derived from the examination in above sector ware evaluated based on the evaluation items, one is high urgency items and another is large benefit to the national economy through the fearing investigation to the farmers, private investors, existing public and private companies and government agencies. However, the existing projects conducted by JICA or the other donors are excluded from priority items.

**Table 8-1 Exisiting JICA Projects**

| Support Sector | Contents |
|---|---|
| 1) Improvement of farming system -Irrigation Development-farm field-water management | - Basic technique (fertilizer, pesticide, water management) of farming business project in Battanbang Province<br>- Intensive Irrigation Development Project in Kompong Chunamg Province |
| 2) Food Processing and Distribution | - Improvement project of vegetable production and distribution cooperated with a private NGO<br>- Production business of organic fertilizer with Nagoya Uni. And Tokyo agriculture Uni. in Takeo Province |
| 3) Quality Control and Trade | - Manpower disputing project (to Japan and Vietnam) |

Source：Study Team

**Table 8-2 Evaluaton of Support Sector and Items**

| Support Sector and Items | | Evaluation Items | | Priority | Remarks (Existing Support Entity) |
|---|---|---|---|---|---|
| | | Urgency | National Benefit | | |
| Raw Material | Irrigation Development | ○ | ○ | | JICA support |
| | Selection of good seed (Rice) | ○ | ○ | | Cambodian Gov. |
| | Technical Cooperation for Organizing Farmers | ○ | ○ | ○ | |
| | Financial Cooperation for the Agro-Processing | ○ | ○ | ○ | |
| | Permeation of C/F method | ○ | | | |
| | Pest Control and Countermeasures | ○ | | | |
| Food Processing | Installation of current technology | ○ | ○ | ○ | |
| | Quality Control | ○ | ○ | ○ | |
| | Installation of Current Technology | ○ | ○ | ○ | |
| | Fosterage of support industry | ○ | | | |
| | Promotion of by-product utilization | | ○ | | |
| | Promotion of postharvest technology | ○ | ○ | ○ | |
| | SME support | ○ | | | |
| Logistics | Upgrade of Logistics System | ○ | ○ | ○ | |
| | Development of Collecting System | ○ | ○ | ○ | |
| | Development of regional roads | ○ | ○ | | ADB |
| | Public market development | ○ | ○ | ○ | |
| | Development of Cold Chain System | | ○ | | |
| Trade &Marketing | Promotion of marketing technology | ○ | ○ | ○ | |
| | Simplification of trade procedure | ○ | ○ | | WB, ADB |
| | Development of grain trade terminal | ○ | ○ | ○ | |
| | Food Processing SEZ Development | ○ | ○ | ○ | |

Source：Study Team

The following table shows appropriate supporting schemes by the supporting section.

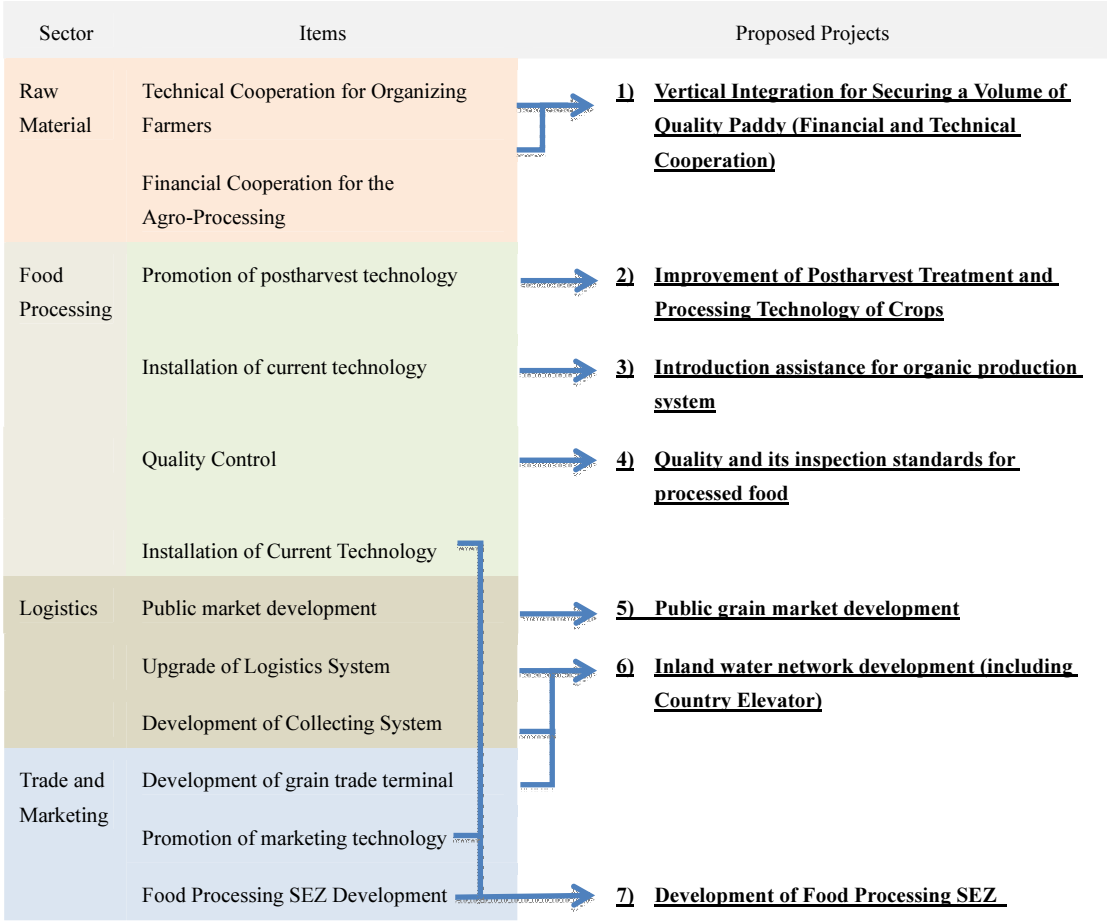
**Table 8-3 Supporting Scheme**

| | | ODA | | | PPP |
|---|---|---|---|---|---|
| | | Grant | T/A | Loan | |
| Raw Material | Irrigation Development | ○ | | | |
| | Selection of good seed (Rice) | ○ | | | |
| | Technical Cooperation for Organizing Farmers | | ○ | | |
| | Financial Cooperation for the Agro-Processing | | | ○ | |
| | Permeation of C/F method | | ○ | | |
| | Pest Control and Countermeasures | | ○ | | |
| Food Processing | Installation of current technology | | ○ | | ○ |
| | Quality Control | | ○ | | ○ |
| | Installation of Current Technology | | ○ | | ○ |
| | Fosterage of support industry | | | | ○ |
| | Promotion of by-product utilization | | ○ | ○ | ○ |
| | Promotion of postharvest technology | | ○ | | ○ |
| | SME support | | ○ | | ○ |
| Logistics | Upgrade of Logistics System | | | ○ | |
| | Development of Collection System | | ○ | ○ | |
| | Development of regional roads | ○ | | | |
| | Public market development | | ○ | | |
| | Development of Cold Chain System | | | ○ | |
| Trade &Marketing | Promotion of marketing technology | | ○ | | ○ |
| | Simplification of trade procedure | ○ | | | |
| | Development of grain trade terminal | | | ○ | ○ |
| | Food Processing SEZ Development | | | ○ | ○ |

Source：Study Team

### (3) Proposed Projects

Based on the above evaluation, the eight proposed projects are selected according to high priority support items. The project summaries are shown as follows.



## Proposed Project 1： Vertical Integration for Securing a Volume of Quality Paddy (Financial and Technical Cooperation)

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| Support Sector | Raw Material: Technical Cooperation for Organizing Farmers<br>Raw Material: Financial Cooperation for Agro-Processing |
| Project Name | Vertical Integration for Securing a Volume of Quality Paddy (Financial and Technical Cooperation) |
| Target Commodity & Target Area | Target Commodity：Rice<br>Target Area：Existing Rice Field and Tonle Sap lake |
| Background /Objective | The most critical challenge in the rice production for supplying the materials for processed foods is “securing a volume of quality paddy”.<br>Collecting a large amount of paddy through cooperatives is difficult. This is because farmers in Cambodia are said to not be willing to take collective action in agricultural cooperatives due to the difficulty of building mutual trust among people from their historical background.<br>In this regard, it is necessary to collect a volume of quality paddy by using the market mechanism. This project will create a mechanism to collect a volume of quality paddy by integrating the producers under the umbrella of the large-scale millers who know the international markets.<br>The project aims at upgrading the quality of Cambodian rice, which strengthens the competitiveness of the rice sector industry as a whole. It also benefits other related industries such as animal feed industries.<br>The project aims at creating this collecting mechanism in the rice sector. It will accumulate the technologies, technical know-how, and capital in the rice sector, which will pave the way for other crops. |
| Benefit to Cambodia | Beneficiaries<br>(Direct beneficiaries)<br>Farmers and the related group and food processing companies in the target area<br>(Indirect / mid- & long-term beneficiaries)<br>General consumer, large scale consumer, distributers and exporters<br>Benefits<br>- The export of rice will be expanded and the competitiveness of the rice industry will be strengthened through financing the millers, facilitated by investing in quality rice processing facilities<br>- A volume of quality paddy is collected at millers.<br>- Credit with a low interest rate will be provided to farmers<br>- Farmers will be able to have a stable income source through supplying quality paddy to millers.<br>- 9.5 million farmers in the Plain and Tonle Sap Regions will be benefited.<br>- The mechanism created through the project for the rice can be applied to the other crops. |
| Benefit to Japanese Company | Beneficiary<br>Rice miller, food processing companies, plant maker<br>benefits<br>- To expand business opportunities due to stable supply system of raw material to food processing makers in Cambodia<br>- To expand business opportunities for milled plant maker and farming machinery maker to delivery. |
| Supporting scheme | Loan Aid, Technical Cooperation |
| Budget | J. Yen 3 – 5 billion (3 – 4 years)* |

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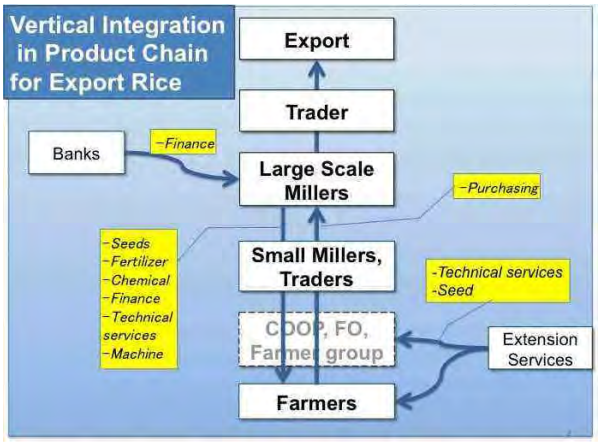
| Components | This project tries to build a vertical integration into large-scale millers and/or exporters who know the export markets.<br>It will create a mechanism to finance the large-scale millers and/or rice exporters through financial institutions in which a mechanism of financing to farmers at low interest rates is also included.<br>Farmers groups (community) are created under the umbrella of major millers and exporters who provide to farmers low interest credits. The major millers and exporters create a mechanism to purchase an amount of good quality paddy from farmers by providing good seeds, fertilizers, pesticides, rental equipment and technical assistance (See the figure below).<br>Project Components:<br>- Providing finance to millers through financial institutions.<br>- Technical cooperation:<br>✓ To create the mechanism and to make it operational<br>✓ To disseminate quality rice seeds.<br>✓ To facilitate export: rice export association<br>✓ To educate millers and farmers: creating a platform for farmer communities and millers to discuss<br>✓ Necessary at any stage of value chain.<br>  <br>**Conceptual Framework for Collecting a Volume of Quality Paddy by Integrating into Millers** |
| Counterpart | Ministry of Agriculture, Forestry and Fisheries<br>Ministry of Industry, Mining and Energy |

※Study Team assumed project cost based on past similar projects

## Proposed Project 2 : Improvement of Postharvest Treatment and Processing Technology of Crops

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| Support Sector | Food Processing: Promotion of postharvest technology |
| Project Name | Improvement of Postharvest Treatment and Processing Technology of Crops |
| Target Commodity & Target Area | Target Commodities<br>Rice, Maize, Soybean and Cassava (hereinafter called four (4) commodities)<br>Target Areas<br>Main growing and processing areas of four (4) commodities |
| Background /Objective | In Cambodia, postharvest treatment and processing technology of crops are generally low-level or undeveloped, thus causing substantial and informal export in the form of unprocessed raw materials to neighboring countries (Vietnam and Thailand).<br>In the case of rice, quality of milled rice is far below international standard level, which is dependent, more on improper postharvest treatment and milling technology, than on milling equipment itself. Also, underdeveloped technology for secondary processing and utilization of by-products leads to low working efficiency and high processing cost of rice mills. For maize, the majority use of processed maize is animal feed. Likewise, in the case of soybean, soy sauce is the major processed product. Currently, variety of processed food from these commodities is very limited. Processing of cassava is widely conducted on a small scale. However, primary processing for making chips and starch is low technology level and secondary processing (animal feed; biomass ethanol; food additives; by-products utilization; non-food use, etc.) is underdeveloped.<br>Technology and experiences of Japan can be applied effectively for all the processing areas of rice, maize and soybean, and for the area of secondary processing of starch of cassava. This project aims at overcoming main constraints of the food processing industry in Cambodia under the technical cooperation of Japan. |
| Benefit to Cambodia | Beneficiaries<br>(Direct beneficiaries)<br>- Growers' groups and processors in target areas and commodities<br>- C/P officers in target areas<br>(Indirect / mid- & long-term beneficiaries)<br>- Individual consumers, large-scale consumers, distributors, exporters, etc.<br>- All relevant players for other areas and commodities<br>Benefits<br>- Postharvest treatment and processing technology are more developed; quality of processed food is improved; and processed food is more diversified.<br>- Vitalization of food processing industry as a result of above outcome leads to a reduction of the outflow of raw crops to neighboring countries.<br>- Promotion of utilization of by-products accelerates development of alternative energy and improvement of energy issues (high cost & unstable supply). In addition, other relevant industry (cooking oil, animal feed, etc.) can be vitalized.<br>- By establishment of technical basis for food processing industry, the environment is well developed for expansion of job opportunities in Cambodia.<br>- As a result of above outcome, farmers' income is expected to increase.<br>- Through the project, various types of capacity building of target groups are promoted, i.e. (1) Capacity to identify problems on postharvest and processing of crops; (2) Capacity to narrow down causes and measures for improvement of the problems; (3) Capacity to set a target of improvement; (4) Capacity to verify and feedback measures for improvement; and (5) Capacity to practice preventive measures of problems.<br>- C/P officers transferred technology in the project are, after the project finished, expected to continue to support target group (growers and processors), playing the same role as Japanese experts, and also transfer the skill to other area's officers for sustainability and extension of the project, with possible application to other commodities. |

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| Benefit to Japanese Company | Beneficiaries<br>Four (4)-commodities-related processors, distributors, international traders, etc. of Japan, e.g. Rice millers; Rice milling machinery manufacturers; Rice-bran extraction/ refinery processors; Feed producers; Soybean-based food processors; Cassava-starch-based secondary processors; and relevant distributors / international traders.<br>Benefits<br>- By establishment of technical basis for food processing industry, the environment is well developed for investment of Japanese enterprises.<br>- Participation of experts from Japanese food processing related business of rice, maize, soybean and cassava (hereinafter called four (4) commodities) (having already invested or concern for investment in Cambodia) in this project (Expert Group) will lead to more practical outcome. Also, any partnership with target groups (local processors / growers' groups) of this project will facilitate investment by Japanese firms. |
| Supporting scheme | Technical Cooperation Project (with Preparatory Survey before the project) |
| Budget | J. Yen 400-500 million (for three years, 150-200 M/M) ※ |
| Components | Preparatory Survey (Assuming the Technical Cooperation Project)<br>Items to implement in the survey:<br>- Ex-ante evaluation of the project<br>- Identification of target areas and groups (determine model growers' groups and processors through local offices of C/P and municipalities concerned)<br>- Drafting an implementation schedule<br>- Finalizing of detail focusing items for technical support in the project (Kinds of processed food, Kinds of postharvest treatment & processing technology, etc.)<br>- Planning of manning schedule for Japanese experts and Cambodian C/P.<br>- Other matters concerned (if any)<br>Input<br>(Japan side)<br>- Long-term experts for:<br><1> Project leader and postharvest treatment & processing technology of crops<br><2> Assistant(s)<br>- Short-term experts for:<br><1> Specific technology applicable for processing of each commodity<br><2> Common technology applicable for processing of four (4) commodities<br><3> Marketing<br>- Training program (assuming training in Japan and Thailand)<br>- Provision of equipment (Machinery for demonstration, various testing equipment, etc.)<br>(Cambodia side)<br>- Project manager<br>- C/P officers in charge<br>- Local cost (Project office, vehicles, etc.)<br>Target Groups for Technical Support<br>- Growers' groups and processors in target areas and commodities<br>- C/P officers in target areas<br>Main Focusing Areas for Technical Support<br>From the viewpoint of effective application of technology and experiences of Japan, and also current technology level and market potential of Cambodia, main focusing areas for technical support in the project are identified as follows:<br>- Rice: Postharvest treatment, milling technology and utilization of by-products<br>- Maize: Processing for various maize-based food and utilization of by-products<br>- Soybean: Processing for various soybean-based food<br>- Cassava: Secondary processing for various starch-based food<br>Capacity building of target groups intended in the project<br>The project aims at the following type of capacity building:<br>- Capacity to identify problems on postharvest and processing of crops<br>- Capacity to narrow down causes, and measures for improvement of the problems<br>- Capacity to set a target for improvement<br>- Capacity to verify and feedback measures for improvement<br>- Capacity to practice preventive measures for problems |

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| | Activities<br>- Japanese experts, together with C/P officers, clarify current status and constraints on postharvest and processing technology of four (4) commodities (from harvest up to finished processed product).<br>- Japanese experts play two (2) roles; one is the support of target growers and processors, and another is technology transfer to C/P officers.<br>- Small-scale market surveys are conducted periodically to know the market requirement.<br>- Verification tests on improvement of processing technology are conducted by use of the equipment provided, and the results of tests are fed back to the activity.<br>- C/P officers are, after the project finished, expected to continue to support the target group (growers and processors), playing the same role as Japanese experts, and also transfer the skills to other area's officers for sustainability and extension of the project. |
| Counterpart | Ministry of Agriculture, Forestry and Fisheries<br>Ministry of Commerce<br>Municipalities concerned<br>Growers' and Processors' Organization (Cooperative, Association, etc.)<br>Remark:<br>One (1) C/P agency is advisable. In case a plural number of C/P agencies is organized, the role of each agency needs to be clarified in such a way as "Implementing Agency", "Cooperating Agency", etc. |

※Study Team assumed project cost based on past similar projects

## Proposed Project 3： Introduction assistance for organic production system

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| Support Sector | Food Processing: Installation of current technology |
| Project Name | Introduction assistance for organic agricultural products and processed food |
| Target Commodity & Target Area | Target Commodities<br>Target commodities are prioritized from cashew nuts, rice, corn, soybeans, cassava, and vegetables etc. after discussion with Cambodian side.<br>Target Areas<br>Main growing and processing areas of above commodities |
| Background /Objective | The purpose of this project is to promote brand building of Cambodian processed foods by introducing organic products. Even in Cambodia, the number of consumers who are seeking healthy and safe food is increasing, and the organic products market is expanding in the EU, US and Japan.<br>First, explain some knowledge of organic products and introduce organic production system of EU, US and Japan. Secondly, provide marketing assistance to sell the organic products in domestic and international markets. Finally, assist in building Cambodian organic brands. |
| Benefit to Cambodia | Beneficiaries<br>(Direct beneficiaries)<br>- C/P officers of MAFF and PDAF<br>- Grower's groups and processors in target areas and commodities<br>(Indirect / mid- & long-term beneficiaries)<br>- Domestic consumers, distributers, exporters of organic produces and processed food<br>- Consumers, distributors, exporters of organic produces and processed food in EU and US.<br>Benefits<br>- Growers and processors clearly understand the production method of organic produces and processed foods, and can produce products, which comply with markets.<br>- Organic certified growers and processors increase, which can apply production organic production methods.<br>- Organic certified growers and processors can supply their products to domestic and international new markets, including EU, US and Japan.<br>- The production of organic produce and processed food increases, and then the income of relevant organizations from primary production to the market is also likely to increase.<br>- Cambodian organic produce and processed food will get a lot of visibility in EU, US and Japan, and the Cambodian organic brand will be recognized in the markets. |
| Benefit to Japanese Company | Beneficiaries<br>- Processing and distribution companies who supply organic produces and processed food to Japan market.<br>- Japanese companies who supply organic produce and processed food to EU and US.<br>- Certification bodies for organic produce and processed food<br>Benefits<br>- The technical basis for organic produces and processed food are established, and the environment for promoting the penetration of Japanese companies is established.<br>- By cooperation with local companies, Japanese companies have the possibility of Cambodian companies becoming production base to export the products to EU, US and Japan. |
| Supporting scheme | Technical cooperation project, cooperation preparatory study |
| Budget | J. Yen 300-400 million（for three years, 150-200 M/M） |
| Components | Cooperation preparatory study for technical cooperation project<br>Contents：<br>- Prior evaluation for the project<br>- Specifying the implementation agency and target products.<br>- Planning time schedule<br>- Specifying contents of technical assistance (Summarizing issues and needs survey)<br>- Assignment plan for Japanese experts and Cambodian counterparts<br>- Other special instructions |

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| | Technical Cooperation Project<br>Inputs<br>(Japan side)<br>- Long-term experts (Leader and organic system institution, coordinator) (plural)<br>- Short-term experts (Organic production and training for agricultural products and processed food) (plural)<br>- Acceptance of trainees in Japan<br>(Cambodian side)<br>- Project manager<br>- Counterparts (plural)<br>- Local costs (Office, vehicles etc.)<br>Technical assistance target group<br>Direct target：<br>- Counterparts in target area<br>- Farmers and processors in target commodities and area<br>Main target fields in this project<br>- To assist in establishing an organic production system in Cambodia<br>- To assist in introducing an organic production system to farmers and processors in Cambodia<br>Capacity development for target group by the project<br>- Counterparts<br>Introduction and extension of organic production system<br>- Farmers and processors<br>Assistance for introduction of organic production to farmers<br>Assistance for introduction of organic production to food processors<br>Activities<br>- Japanese experts grasp the present situations and issues of Cambodian organic products together with counterparts.<br>- Japanese experts establish the organic production system in Cambodia together with counterparts.<br>- Japanese experts introduce and provide guidance to farmers and processors on organic production system together with counterparts.<br>- Periodic market survey to grasp the market needs<br>- Counterparts will transfer the technologies to other areas, and be responsible for sustainable practices in organic production. |
| Counterpart | MAFF, MIME |

※Study Team assumed project cost based on past similar projects

## Proposed Project 4： Quality and its inspection standards for processed food

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| Support Sector | Food processing：Food quality and safety control |
| Project Name | Quality, grades and its inspection standards for processed food |
| Target Commodity & Target Area | Target commodities<br>Target commodities are prioritized from rice, corn, soybeans, and cassava after discussion with Cambodian side.<br>Target areas<br>Main growing and processing areas of above commodities. |
| Background /Objective | The purpose of this project is to consolidate quality and its inspection standards for exported products. It is important for Cambodia to consolidate their own country's standards for product quality and grade and their inspection standards as minimum national criteria, which is a trading tool, and facilitate export of Cambodian products.<br>Target products are prioritized from rice, cassava, maize, and soybeans based on discussion with Cambodian counterparts. |
| Benefit to Cambodia | Beneficiaries<br>(Direct beneficiaries)<br>- C/P officers of MAFF, MIME and Camcontrol<br>- Distributors and exporters in target areas and commodities<br>- Processors in target areas and commodities<br>(Indirect/ mid-& long-term beneficiaries)<br>- Grower's group and middle man in target areas and commodities<br>- Domestic consumers and retailers for target commodities<br>- Cambodian Government<br>Benefits<br>- Quality standards for main agricultural produces and processed food will be determined and the testing methods will be also established.<br>- Exporters will be able to negotiate with importers based on the quality standards, and export business is promoted.<br>- Cambodia will be able to export the products based on its own standards to comply with importers' requirements; the reliability of products will be improved. And it will promote more exportation.<br>- Growers will be able to produce their products to comply with quality standards; it will connect quality improvement, production increase.<br>- Capacity to establish quality standards will be strengthened, and quality level of the products are improved, and it may promote employment. |
| Benefit to Japanese Company | Beneficiaries<br>- Japanese companies who consider producing domestically and export food in Cambodia.<br>- Japanese companies who consider exporting processed food to EU, US, and Japan.<br>Benefits<br>- Japanese companies will be able to develop business at ease, because the reliability of Cambodian processed food is improved by clarifying the quality standards.<br>- Informal cost will be reduced, and the transparency will also increase.<br>- The positioning of Cambodia for processing and distribution of processed food will be clarified. |
| Supporting scheme | Technical Cooperation Project, cooperation preparatory study |
| Budget | J. Yen 300～400million（for three years, 150-200 M/M）※ |
| Components | Cooperation preparatory study for technical cooperation project<br>Contents：<br>- Prior evaluation for the project<br>- Specifying the implementation agency and target products.<br>- Planning time schedule<br>- Specifying contents of technical assistance (Summarizing issues and needs survey)<br>- Assignment plan for Japanese experts and Cambodian counterparts<br>- Other special instructions<br>Technical Cooperation Project<br>Inputs<br>(Japan side)<br>- Long-team experts (Leader and food quality standard system, coordinator) (plural) |

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| | - Short-term experts (Quality, grade, and inspection standards) (plural)<br>- Acceptance of trainees in Japan<br>- Equipment supply<br>Technical assistance target group<br>Direct target:<br>- Counterparts in target area<br>- Farmers and processors in target commodities and area<br>Main target fields in this project<br>- To assist in establishing quality and grade standards system in Cambodia<br>- To assist in establishing inspection standards and methods in Cambodia<br>Capacity development for target group by the project<br>- To establish Cambodian processed food quality standards, studying existing quality standards in the markets<br>- Collecting quality standards information from major importing countries: the EU, Philippines, Indonesia, Russia, Africa etc.<br>- Collecting quality standards information from major exporting countries: Thailand and Vietnam.<br>- Establishing capacity development program<br>Capacity development for target group by the project<br>- MIME/MAFF staff<br>Introduction and extension of quality and inspection standards for processed food<br>- Camcontrol<br>Training for Inspection standards and methodology<br>Establishing capacity development program<br>Activities<br>- Japanese experts grasp the present situation and issues of quality standards in major import/export countries together with counterparts.<br>- Japanese experts establish the standards for quality, grading, and inspection for each product in Cambodia together with counterparts.<br>- Japanese experts introduce and provide training to farmers, processor, and traders on quality and inspection standards.<br>- Periodical market surveys to grasp the market needs<br>- Counterparts will transfer the technologies to other areas, and be responsible for sustainable practices on organic production. |
| Counterpart | MAFF, MIME<br>Ministry of Commerce, Camcontrol<br>Note: It is better to select one implementation agency. If two or more agencies are selected, it is desirable to clarify each one's position as main and collaboration agencies. |

※Study Team assumed project cost based on past similar projects

## Proposed Project 5： Establishment of Public Agricultural Market

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| Support Sector | Logistics: Public market development |
| Project Name | Establishment of Public Agricultural Market |
| Target Commodity & Target Area | Target Commodities<br>Rice, Maize, Soybean and Cassava (hereinafter called four (4) commodities)<br>Target Areas<br>Target areas are assumed to be the major growing areas of the four (4) commodities, the areas bordering to neighboring countries (Vietnam & Thailand) and the areas along the major rivers, from the viewpoints of production and distribution. |
| Background /Objective | In Cambodia, public marketplaces for major crops are not established as of yet. This leads to a lack of quality standard and incomplete market information system that should be a fundamental system in distribution, making smooth procurement of crops as raw materials difficult for processors. Also, no linkage of quality and prices lowers the quality of crops. These constraints, together with underdeveloped processing technology, result in low working efficiency of processors, causing substantial and informal export of crops in the form of unprocessed raw materials.<br>Due to increase of agricultural productivity, surplus raw grain spills out to the neighboring countries irregularly in these years. The development of 'Open Grain Market' will contribute to stable price and supply of agricultural products in Cambodia by means of the normalization of grain transaction.<br>In the case of rice, in the past, the "Open Paddy Market" has been established under the pilot project supported by Japan in December 2003 to September 2006. The operation, however, has not continued long. In Thailand, the neighboring country, many paddy marketplaces are established nationwide, where it is usual for rice growers to sell their crops and rice millers to buy the same as raw materials for processing. Causes for the aforesaid case of failure are to be clarified for improvement.<br>This project aims at overcoming main constraints of the food processing industry in Cambodia by establishing the properly designed Public Agricultural Market (hereinafter called the Market). |
| Benefit to Cambodia | Beneficiaries<br>(Direct beneficiaries)<br>- Growers' groups, processors and traders (collectors, wholesalers, etc.) for target areas and commodities<br>(Indirect / mid- & long-term beneficiaries)<br>- Individual consumers, large-scale consumers, distributors, exporters, etc.<br>- All relevant players for other areas and commodities<br>Benefits<br>- Sellers and buyers of crops can have many chances to meet each other for dealing, enabling to transact the quality and volume of crops demanded.<br>- Establishment of quality standard and market information system enables to formulate quality-linked prices as indicative prices to be open to the public, and to produce and procure the crops for processing in accordance with business plans of growers and processors.<br>- Sustainable supply of crops as raw materials for processing is attained.<br>- Improvement of quality of crops as raw materials for processing is attained.<br>- Since each lot-volume for dealing will probably become larger, the organization and collective shipment of growers can be promoted.<br>- Improvement in supply and quality of the crops vitalizes the food processing industry, reducing the outflow of unprocessed crops to neighboring countries.<br>- With establishment of sustainable crops-supply system, the environment is well developed for expansion of job opportunities in Cambodia.<br>- As a result of above outcome, farmers' income is expected to increase. |
| Benefit to Japanese Company | Beneficiaries<br>Four (4)-commodities-related processors, distributors, international traders, etc. of Japan, e.g. Rice millers; Rice milling machinery manufacturers; Rice-bran extraction/ refinery processors; Feed producers; Soybean-based food processors; Cassava-starch-based secondary processors; and relevant distributors/ international traders.<br>Benefits<br>- With establishment of sustainable crops-supply system, the environment is well |

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| | developed for investment of Japanese enterprises.<br>- Involvement of Japanese food processing machinery manufacturers or the machinery users (food processors) in management of the Market (e.g. for operation; maintenance and management of the equipment installed in the Market) will trigger the promotion of investment of Japanese enterprises. |
| Supporting scheme | Grant Aid (with Preparatory Survey before the project) |
| Budget | J. Yen 400-600 million (3-4 marketplaces, Roughly 2 years) ※ |
| Components | Preparatory Survey (Assuming the Grant Aid)<br>Items to implement in the survey:<br>(1) Reconfirmation of the background, objective, outcome of the project and the C/P's ability<br>(2) Verification of the relevance of the grant aid in terms of technical, financial, social and economical aspects.<br>(3) Reconfirmation of the basic plan of the project<br>(4) Basic design of the project<br>(5) Estimation of the project cost<br>Above (3) and (4) include identification of target areas and location of the Market; identification of target commodities by each marketplace; management system of the Market (function and role of each player); specification of the building and equipment of each marketplace; and drafting of the implementation schedule. The number of target commodities is to be one (1) or two (2) for each marketplace to keep the Market from operational confusion.<br>For the commodity of rice, causes for the aforesaid case of failure (Discontinuance of "Open Paddy Market" in the pilot project, 2003-2006) are to be clarified from a comprehensive viewpoint (including responsible government agency; implementing body; and operation system), for reflection in design of the Market. From this aspect, a field survey in Thailand also needs to be conducted to see their advanced system and experiences of the paddy market. Further, in the said pilot project, the relevant data collection and detail design have already been conducted in various candidate sites. It is advisable to utilize such available information for efficiency of the survey.<br>Project Components<br>The project comprises the following components:<br>- Marketplaces (Establishment of the spot for dealing of crops)<br>- Market information system (Collection, preservation and publication of the dealing data in the Market)<br>- Quality standard (Establishment and application of quality standard)<br>Scope of application of the fund in the grant aid<br>- Procurement of equipment to be installed in each marketplace<br>- Procurement of standard spare parts for the equipment to be installed in each marketplace<br>- Dispatch of Japanese experts (advisors) required for installation work and trial operation of the equipment (2 experts for 2 months)<br>- Dispatch of Japanese short-term experts for advisory services for management of the Market and maintenance of the equipment (2 experts for 1 year)<br>- Training program for the C/P officers (4 officers for 3 months, assuming the training in Thailand)<br>Input of Cambodia side<br>- Project manager<br>- C/P officers in charge<br>- Local cost (Project office, vehicles, etc.)<br>- Acquisition and preparation of the land for the Market<br>- Procurement of the building for the Market (by utilization of existing warehouses or new construction)<br>- Maintenance of the buildings<br>- Installment and maintenance of the equipment to be installed in the Market<br>Outline of the site area, building and equipment for each marketplace (Tentative idea)<br>- Number of the marketplaces: 3 – 4<br>- Site area: 4 – 5 ha, including access road; parking; handling space; drying space; etc.<br>- Building: 3,000 – 6,000m², including storage; space for the equipment; working space, etc. |

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| | - Equipment: weighbridge; forklift; weigher; quality inspection devices; dryer; cleaner; communication facilities; information management facilities; office equipment; vehicles (trucks for transportation services), etc.<br>(Above design is to be finalized in the Preparatory Survey, based on commodities, handling volume, etc. in each marketplace.)<br>Owner of the Market<br>Ownership of each marketplace is to belong to the government of Cambodia (municipality covering each site).<br>Operation system<br>Comprehensive study needs to be conducted in the Preparatory Survey for the operation system of the Market, which is considered to be a key factor for success of the project. Outsourcing to the private sector is the mainstream in management of the Market in Thailand where many paddy markets are in operation. The Thai paddy markets are usually managed jointly by BAAC (Bank for Agriculture and Agricultural Cooperatives); Agricultural Cooperatives; and Private enterprises concerned. Feasibility of the outsourcing to the private sector, whether totally or partly (e.g. the private sector to undertake operation and maintenance of the equipment), should be studied in the Preparatory Survey. |
| Counterpart | Ministry of Agriculture, Forestry and Fisheries<br>Ministry of Commerce<br>Municipalities concerned<br>Remark:<br>One (1) C/P agency is advisable. In case plural number of C/P agencies is organized, the role of each agency needs to be clarified in such a way as “Implementing Agency”, “Cooperating Agency”, etc. |

※Study Team assumed project cost based on past similar projects

## Proposed Project 6： Inland water network development (including Country Elevator)

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| Support Sector | Logistics: Upgrade of Logistics System &Development of Collecting System<br>Trade &Marketing: Development of grain trade terminal |
| Project Name | Inland water network development (including country elevator development) |
| Target Commodity & Target Area | Target Commodities<br>All agricultural products in Cambodia<br>Target Areas<br>Several river ports alongside Tonle Sap Lake and Bassack/Mekong river |
| Background /Objective | 67% of transported goods by inland water are food products including fruits. Phnom Penh Port and Siem Reap Port play the role of distribution centers between main cities, meanwhile the other river ports play the role of feeders of short trips for rural residents between bridges and transport measures for residents in rural areas without bridges.<br>This project will also contribute mostly to decrease of CO2 emissions and congestion mitigation in Phnom Penh.<br>In addition, PPAP owns other river ports except Phnom Penh Port, including a new container port under construction, and has re-development plans for each port. The network development among the ports will contribute to activation of the regional economy.<br>The linkage between Phnom Penh port as an international port and domestic river port will enhance accessibility to the international market for the whole country.<br>And additional development of country elevator with the river port, which includes interim storage and primary processing of the grains, as not only distribution center but also export center of grain (mainly milled rice) and processed food, will contribute to reliable supply of raw material to the food processing industry and expansion of grain exports to the international market. |
| Benefit to Cambodia | Beneficiaries<br>(Direct beneficiaries)<br>- Growers' groups, processors and traders (collectors, wholesalers, etc.) for target areas and commodities<br>(Indirect / mid- & long-term beneficiaries)<br>- Individual consumers, large-scale consumers, distributors, exporters, etc.<br>- All relevant players for other areas and commodities<br>Benefits<br>- To prevent irregular grain and paddy leakage to other neighboring countries<br>- To become actual potential of grain productivity<br>- To expand grain exports<br>- To increase and stabilize farmer's incomes<br>- To improve market accessibility for agricultural products and processed foods<br>- To reduce traffic congestion in Phnom Penh<br>- To improve the energy efficiency of transportations<br>- To activate regional economy due to regional economy connection |
| Benefit to Japanese Company | Beneficiaries<br>Food processing companies, distributor, trading companies, and participating companies of management business<br>Benefits<br>- To expand the business field in Cambodia<br>- To expand business opportunities by means of decrease of business risk due to the establishment of stable supply system of raw grain<br>- To expand business opportunity of plant facilities delivery including maintenance business for plant maker.<br>- To expand business opportunity of port operating business and logistics business for distributors, trading companies.<br>- To expand business opportunity for private companies due to cooperation with ODA project |
| Supporting scheme | Yen Loan (including F/S) |
| Budget | J. Yen 1-5 billion (for 2-3years)※ |

| | |
|---|---|
| Components | This project assumes PPP (Private Public Partnership) for the development scheme. The development of river port infrastructure and installation of country elevator plant s will be financed by yen-loans, and the management of country elevators will be trusted to private operators and the owner of land and related infrastructure is the Government. For instance, Special Purpose Company (SPC) will be established by cooperation between Japanese and local companies; Japanese companies are supposed to be trading companies or logistics companies; and local companies are supposed to be large rice millers. The government as an asset owner will entrust management of business operation to SPC.<br>In addition, this project applies to a full turnkey scheme (succession of FS, EN, LA, the selection of consultants and construction), the project term and cost will be reduced by a full turnkey scheme. The project items are shows as follows;<br>1. Feasibility Study<br>Selection of river port<br>Data collection and analysis for Infrastructure and port service<br>Examination of development concept<br>Development cost examination<br>Examination of project development scheme<br>Impact study of socio-economy and environment<br>Economic and financial analysis<br>2. Detail design<br>3. Selection of contractor<br>4. Development of river port infrastructure and installation of country elevator facility<br>5. Selection of port and country elevator operator<br>6. Support of human resource development for business management<br>7. Others<br>  <br>Note: The photo of the Columbia grain export elevator on the west coast in Portland, Oregon, U. S. In our country, was introduced to the installation of elevators in the United Statestook the line that the Ministry of Agriculture in 1964 as a business model. Drying rice preparation was carried out to improve the working environment of farmers that plays the role of three types of storage. In addition, the elevator countries including the United States are soybeans, characterized in that target a variety of crops such as corn. |
| Counterpart | - Ministry of Public Works and Transport<br>- Phnom Penh Autonomous Port<br>- Council for Development of Cambodia<br>- Provincial Governments that manage the selected port of this project<br>Note: The counterpart of the project is desirable that a single agency. In case of several entities of counterpart, you should clarify the role of the agency. |

※Study Team assumed project cost based on past similar projects

## Proposed Project 7： Development of SEZ specialized as Food Processing Industry

| | |
|---|---|
| Support Sector | Food Processing: Installation of Current Technology<br>Trade &Marketing: Food Processing SEZ Development |
| Project Name | Development of SEZ specialized as Food Processing Industry |
| Target Commodity & Target Area | Target Commodities<br>Paddy and the other grains<br>Target Areas<br>Phnom Penh Municipality and surrounding area |
| Background /Objective | The grain, e.g., mainly paddy, cassava, maize, corn, etc., in the rough exports to the neighboring countries irregularly. The main causes are the shortage of food processing technology and facilities, of marketing know-how and a less-developed distribution network of grain and processed food products.<br>Hence, this project will contribute mainly to creation of food processing industry and increase/ stabilization of farmer's incomes, and to the national priority policy, e.g., Rice Policy, Rectangular Plan, etc. |
| Benefit to Cambodia | Beneficiaries<br>(Direct beneficiaries)<br>- Growers' groups, processors and traders (collectors, wholesalers, etc.) for target areas and commodities<br>(Indirect / mid- & long-term beneficiaries)<br>- Individual consumers, large-scale consumers, distributors, exporters, etc.<br>- All relevant players for other areas and commodities<br>Benefits<br>- To prevent irregular grain and paddy leakage to other neighboring countries<br>- To realize actual potential of grain productivity<br>- To expand processed food exports<br>- To increase and stabilize farmer's incomes<br>- To enhance FDI into the field of food processing industry<br>- To create job opportunities<br>- To install the latest technology of food processing<br>- To stabilize the structure of the macro economy by industrial diversification |
| Benefit to Japanese Company | Beneficiaries<br>Food processing companies, distributor, trading companies, and participating companies of SEZ management business<br>Benefits<br>- To expand business field and opportunity in Cambodia<br>- To expand business cooperation opportunity with the existing Japanese companies in Thai and Vietnam<br>- To expand business opportunity due to decrease of business risk by the development of hard and soft infrastructure<br>- To expand business opportunity regarding management of SEZ, logistics business and food processing business, especially, the cooperation with ODA project makes the business risk decrease drastically<br>- To establish new business center and supply-chain in GMS |
| Supporting scheme | Yen Loan (including F/S) |
| Budget | J yen 3-10 billion (for 3-4years)※ |

| | |
|---|---|
| Components | This project assumes PPP (Private Public Partnership) for the development scheme. The role of public is to development and own infrastructure, e.g., land, access road, water supply, drainage, power plans, etc.), management and custom office. Meanwhile, the operation of SEZ will be entrusted to private companies. The main SEZ functions except industrial complex are interim storage of grain, food inspection, custom clearance, convention facility, logistics facility, etc. In addition, this project includes technical transfer of marketing and management know-how as well.<br>For instance, Special Purpose Company (SPC) will be established by cooperation between Japanese and local companies; Japanese companies are supposed to be trading companies or logistics companies; and local companies are supposed to be large rice millers. The government as an asset owner will entrust management of business operation to SPC.<br>In addition, this project applies to a full turnkey scheme (succession of FS, EN, LA, the selection of consultants and construction), the project term and cost will be reduced by a full turnkey scheme. The project items are shows as follows;<br>1. Feasibility Study<br>Selection of development area<br>Demand forecasting<br>Examination of concept and function<br>Basic plan<br>Impact study of socio-economy and environment<br>Economic and financial analysis<br>Economic Impact Assessment<br>Examination of development and management scheme<br>2. Detail design of SEZ<br>3. Selection of contractor<br>4. Development of SEZ (including land acquisition)<br>5. Selection of business operator of SEZ<br>6. Support of know-how of business management<br>7. Others |
| Counterpart | Ministry of Public works and Transport<br>Ministry of Commerce<br>Ministry of Industry, Mining and Energy<br>Council for the Development of Cambodia<br>Phnom Penh Autonomous Port<br>General Department of Customs and Excise of Cambodia<br>Note: The counterpart of the project is desirable to be a single agency. In case of several counterpart entities, you should clarify the role of each agency. |

※Study Team assumed project cost based on past similar projects

# Appendix

# Data Collection Survey on Selecting the Processed Food to be Focused and Promoting Foreign Direct Investment in Food Business in The Kingdom of Cambodia

Photo Book

November 2011

International Development Center of Japan Inc.

Oversea Merchandise Inspection Co., Ltd

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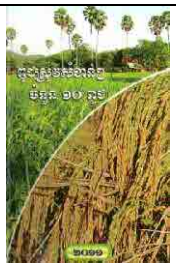

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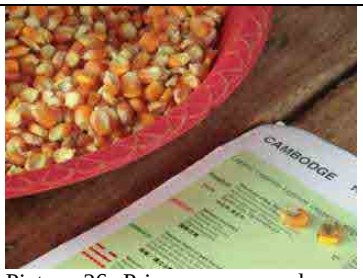

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# Information Collected

| NO. | Title | Date of publish | Language | Size | Page | Hard/ Soft | Copy | Publisher | how to collect | Type |
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| 2 | MWRAM, Program design document for strategy for agriculture and water 2010-2013 | Apr-10 | English | CD | 450 | Soft | 1 | MAFF, MWRAM | Free | Policy |
| 3 | MAFF, Action Plan for Implementing Policy Paper on the Promotion of Paddy Production and Rice Export, Aprill 2011 | Apr-11 | English&Khmer | A4 | 108 | Hard | 1 | MAFF | Free | Policy |
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| 8 | ROYAL GOVERNMENT OF CAMBODIA, NATIONAL STRATEGIC DEVELOPMENT PLAN UPDATE 2009-2013, NOVEMBER 2009 | Nov-09 | English | A4 | 198 | Soft | 1 | RGC | Web | Policy |
| 9 | ROYAL GOVERNMENT OF CAMBODIA, The Rectangular Strategy for Growth, Employment, Equity and Efficiency in Cambodia, July 2004 | Jul-04 | English | A4 | 25 | Soft | 1 | RGC | Web | Policy |
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| 11 | MAFF, Agriculture Sector Development Plan 2006-2010, | | English | A4 | 52 | Soft | 1 | MAFF | Web | Policy |
| 12 | Council for Social Development, NATIONAL POVERTY REDUCTION STRATEGY 2003 - 2005, 20 Dec 2002 | 20-Dec-02 | English | A4 | 253 | Soft | 1 | CSD | Web | Policy |
| 13 | Ministry of Planning, Statistical Yearbook of Cambodia, 2008, December 2008 | Dec-08 | English&Khmer | A4 | | Soft | 1 | Ministry of Planning | Web | Statistics |
| 14 | Strategy for Agriculture & Water 2006-2010 | Mar-07 | English&Khmer | A4 | 115 | Hard | 1 | MAFF& MOWRAM | | Policy |

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|---|---|---|---|---|---|---|---|---|---|---|
| 15 | Guide book for Pest Management | Aug-11 | English | A4 | 95 | Hard | 1 | MAFF & JICA | | Report |
| 16 | Agriculural Market Information for June 2011 | Jun-11 | Khmer | A4 | 74 | Hard | 1 | MAFF | | Statistics |
| 17 | Research Achievment in 10 years (1999-2009) | Oct-09 | Khmer | A4 | 107 | Hard | 2 | CARDI | | Report |
| 18 | JNNC | Jan-11 | Japanese | A4 | 79 | Hard | 1 | JNNG | | Report |
| 19 | Overview on Power Sectors in Ccambodia | | English | A4 | 102 | Hard | 1 | JICA | | Statistics |
| 20 | Agriculture Statistics 2005-2006 | 10-Aug-06 | English&Khmer | A4 | 101 | Hard | 1 | MOP | | Statistics |
| 21 | Agriculture Statistics 2006-2007 | 30-Jun-07 | English&Khmer | A4 | 104 | Hard | 1 | MOP | | Statistics |
| 22 | Description rice variety realeased by the varietal recommendation committee of Cambodia (1990-2000) | 2011 | English | Handbook | 75 | Hard | 1 | CARDI | | Pamphlet |
| 23 | Handbook on Commerical Registration | | English | Handbook | 116 | Hard | 1 | ADB&MOC | | Policy |
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| 25 | 10 rice varieties for Export | 2011/2/7 | Khmer | Handbook | 53 | Hard | 1 | MAFF | | Report |
| 26 | First and the Only SEZ adjoining the international deep seapot in Cambodia | | English | A4 | 10 | Hard | 1 | Sihanouk Ville Port SEZ | | Pamphlet |
| 27 | Golden rice (Cambodia) Co..Ltd , The perfect Taste of Cambodian Rice | | English | A4 | 2 | Hard | 1 | Golden rice | | Pamphlet |
| 28 | Sihanouk Ville Autonomous Port | 2011 | English&Khmer | A4 | 18 | Hard | 1 | Sihanouk Vill Autonomous Port | | Pamphlet |
| 29 | The organization and its main activities | 18 | English&Khmer | A4 | 18 | Hard | 1 | Asean-Japan Centre | | Pamphlet |

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| 30 | Ajinomoto (Cambodia ) Co.,Ltd | | English&Khmer | A4 | | Hard | 1 | Ajinomoto | | Pamphlet |
| 31 | New Industries New Skill, Can Cambodian Workers Handle the New Capital Intensive Industries | 16-31-Aug-2011 | English | A4 | 55 | Hard | 1 | The Cambodia Daily Magazine | | Others |
| 32 | Why invest in Cambodia | Jan-11 | English | A4 | 4 | Hard | 2 | CDC | | Pamphlet |
| 33 | Documentation of Ago-ecosystem, Farmland Identification, Essential Character for 10 Rice varieties & How to choose the seed | 16-Jun-11 | Khmer | Handbook | 32 | Hard | 1 | CARDI | | Report |
| 34 | The marketing & Trading of rice in Cambodia | Mar-11 | English | Handbook | 119 | Hard | 1 | Koji Oshikava | | Report |
| 35 | Present condition & Problems of rice industry in Cambodia | 2008/Dec | Japanese | A4 | 29 | Hard | 1 | Koji Oshikava | | Report |
| 36 | Cambodian Standard CS 0055:2006 for Milled Rice | 2008 | English | A4 | 15 | Hard | 1 | MIME | | Others |
| 37 | Trade Sector Development and AID for Trade in Cambodia | Jul-11 | English | A4 | 59 | Hard | 1 | MOC | | report |
| 38 | Technical Working Group on Agriculture and Water | Apr-10 | English | A4 | 216 | Hard | 1 | MAFF & MOWRAM | | report |
| 39 | Strategy for Agriculture & Water 2010-2013, Harmonized Program Design Document | Apr-10 | English | A4 | 54 | Hard | 1 | MAFF & MOWRAM | | Policy |
| 40 | Program Design Document Annexes for Strategy for Agriculture and Water 2010-2013 | Apr-10 | English | A4 | 218 | Hard | 1 | MAFF & MOWRAM | | Policy |
| 41 | Program Design Document AIDE MEMOIRE for Strategy for Agriculture and Water 2010-2013 | Apr-10 | English | A4 | 41 | Hard | 1 | MAFF & MOWRAM | | Policy |
| 42 | Statistics for Rice Miller in Cities/Provinces 2010 | | Khmer | A4 | 2 | Hard | 1 | MIME | | Statistics |
| 43 | Statistics for Rice Miller in Cambodia 2009 | | Khmer | A4 | 2 | Hard | 1 | MIME | | Statistics |
| 44 | SMEs Sector and Sub-Sector in 2010 | | Khmer | A4 | 2 | Hard | 1 | MIME | | Statistics |

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| 46 | Food & Beverage Factories Registered under MIME from year 1994-2010 | 2010 | English | A4 | 3 | Hard | 1 | MIME | | Statistics |
| 47 | Administrative Boundaries | 2005 | English | A4 | 1 | Hard | 1 | MIME | | Map |
| 48 | Cambodia Medium Term Technology Adaptation Framwork | | English | A4 | 65 | Hard | 1 | MIME | | Report |
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| 50 | Regional Expert Group Meeting on the Development of Dry Ports along the Asian Highway and Trans-Asian Railway Networks | Nov. 2010 | English | A4 | | Hard | 1 | ESCAP | | Report |
| 51 | Conferel,Discover the Real Taste of Cambodia | 2008 | English | A4 | 1 | Hard | 1 | Confirel | | Pamphlet |
| 52 | Short-term Expert of Rice Processing Industry Adviser in Kingdom of Cambodia, Work Plan (Draft) | Dec-09 | English | A4 | 9 | Hard | 1 | OMIC | | Report |
| 53 | Statistic of Milled Rice Export for 12 months in 2010 | 2010 | English | A4 | 29 | Hard | 1 | MOC | | Statistics |
| 54 | Cambodia Export Statistics by Country 2008 | 2008 | English | A4 | 201 | Hard | 1 | MOC | | Statistics |
| 55 | Cambodian Export Statistics by Product 2008 | 2008 | English | A4 | 137 | Hard | 1 | MOC | | Statistics |
| 56 | Organic Agriculture and Food Processing in Cambodia Status and Potential | Apr-11 | English | A4 | 57 | Hard | 1 | Cambodian Organic Agriculture Association (COrAA) | | Report |
| 57 | CARDI Anunual Report 2006-2009 | 2011 | English&Khmer | A4 | 135 | Hard | 1 | CARDI | | Report |
| 58 | The Original Point and Speak Phrasebook | | Others | Handbook | 128 | Hard | 1 | CJCC | | Others |
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| 60 | Pocket Guide for Inspectors on Banned and Restricted Pesticides | Dec-10 | English&Khmer | Handbook | 69 | Hard | 1 | QCAM/JICA/MAFF | | Report |
| 61 | Technical Instruction for Bottle Drinking Water Production | 2010 | Khmer | Handbook | 10 | Hard | 1 | MIME | | Others |
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| 63 | Soy Bean | 2005 | Khmer | Handbook | 16 | Hard | 1 | MAFF | | Others |
| 64 | Technical Instruction for Ice Production | 2010 | Khmer | Handbook | 6 | Hard | 1 | MIME | | Others |
| 65 | Corn | 2003 | Khmer | Handbook | 12 | Hard | 1 | MAFF | | Others |
| 66 | Cassava | 2003 | Khmer | Handbook | 12 | Hard | 1 | MAFF | | Others |
| 67 | Technical Instruction for Soy Saurce Production | 2010 | English | Handbook | 8 | Hard | 1 | MIME | | Others |
| 68 | Early floating rice and Dry Season rice Production | 2010 | Khmer | Handbook | 12 | Hard | 1 | MAFF | | Others |
| 69 | Kroma Magazine | Apr-Jun-2011 | Japanese | Handbook | 133 | Hard | 1 | MOT | | Others |
| 70 | Kroma Magazine | Jul-Sep-2011 | Japanese | Handbook | 139 | Hard | 1 | MOT | | Others |
| 71 | Senior Transport Officials Meeting, Siem Reap Cambodia | 24-26 May 2011 | English | A4 | | Hard | 1 | ASEAN | | Report |
| 72 | Soil Type Map in Cambodia | | English | Map | 1 | Hard | 1 | | Purchased | Map |
| 73 | Cambodian Administrative and Road Network | | English | Map | 1 | Hard | 1 | | Purchased | Map |
| 74 | Rice Processing Improvement in Cambodia | 12-Mar-10 | English | A4 | 16 | Hard | 1 | MIME | | Report |

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|---|---|---|---|---|---|---|---|---|---|---|
| 75 | Japanese ODA to the S.V.Port up to now | 5-Sep-11 | English | A4 | 3 | Hard | 1 | | | Others |
| 76 | Inspection Report for the Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port in Cambodia | Jul-11 | English | A4 | 12 | Hard | 1 | JICA | | Report |
| 77 | The Statistics of Cargo | 5-Aug-11 | English | A4 | 1 | Hard | 1 | Planning & Statistics Dept, Sihanoukville Autonomous Port | | Statistics |
| 78 | Cambodia Road Map | | English | | 1 | Hard | 1 | | | Map |
| 79 | Cambodia Country Maps | | English | | 1 | Hard | 1 | | | Map |
| 80 | Capacity Building for the Quality Standard Control of Agricultural Materials (Chemical Fertilizers and Pesticides | Jul-10 | English | A4 | 1 | Hard | 1 | QCAM/JICA/MAFF | | Others |
| 81 | Sar Chey (Corn Breed) | | Khmer | A4 | 1 | Hard | 1 | CARDI | | Others |
| 82 | Loeung Mongkol (Corn Breed) | | Khmer | A4 | 1 | Hard | 1 | CARDI | | Others |
| 83 | CD 1 | | | | 1 | Soft | 1 | | | Others |
| 84 | CD 2 | | | | 1 | Soft | 1 | | | Others |
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| 86 | Agricuture Sector Financing and Services for Smallholder Farmers | Sep-10 | English | A4 | 57 | Soft | 1 | CEA | | Statistics |
| 87 | MAFF Annual Report 2010-2011 | 05-07-Apr/2011 | English | A4 | 105 | Soft | 1 | MAFF | | Report |
| 88 | Agricutural Marketing Information Bulletin 2010 | 2010 | English&Khmer | A4 | 32 | Soft | 1 | MAFF | | Statistics |
| 89 | Agricultural Marketing Information Bulletin 2009 | 2009 | English&Khmer | A4 | 27 | Soft | 1 | MAFF | | Statistics |

| NO. | Title | Date of publish | Language | Size | Page | Hard/ Soft | Copy | Publisher | how to collect | Type |
|---|---|---|---|---|---|---|---|---|---|---|
| 90 | Agricultural Marketing Information Bulletin 2003 | 2003 | English&Khmer | A4 | 88 | Soft | 1 | MAFF | | Statistics |
| 91 | Agricultural Marketing Information Bulletin 2002 | 2002 | English&Khmer | A4 | 87 | Soft | 1 | MAFF | | Statistics |
| 92 | Agricultural Marketing Information Bulletin 2007 | 2007 | English&Khmer | A4 | 57 | Soft | 1 | MAFF | | Statistics |
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| 94 | Description rice variety realeased by the varietal recommendation committee of Cambodia (1990-2000) | 2001 | English | A4 | 75 | Soft | 1 | CARDI | | Pamphlet |
| 95 | Agricultural Marketing Information Bulletin for July 2011 | Jul-11 | English&Khmer | A4 | 30 | Soft | 1 | MAFF | | Statistics |
| 96 | MAFF Agricultural Statistics 2008-2009 | 30-Jun-11 | English | A4 | 96 | Soft | 1 | MAFF | | Statistics |
| 97 | Agricultural Marketing Information Bulletin for April 2011 | Apr-11 | English&Khmer | A4 | 65 | Soft | 1 | MAFF | | Statistics |
| 98 | MAFF Agricultural Statistics 2006-2007 | 30-Jun-07 | English | A4 | 106 | Soft | 1 | MAFF | | Statistics |
| 99 | JNNC | Jan-11 | Japanese | A4 | 79 | Soft | 1 | JNNG | | Report |
| 100 | Overview on Power Sectors in Ccambodia | | English | A4 | 102 | Soft | 1 | JICA | | Statistics |
| 101 | Strategy for Agriculture & Water 2006-2010 | Mar-07 | English | A4 | 87 | Soft | 1 | MAFF& MOWRAM | | Policy |
| 102 | Agricultural Marketing Information Bulletin forJune 2011 | Jun-11 | English & Khmer | A4 | 30 | Soft | 1 | MAFF | | Statistics |
| 103 | Agricultural Marketing Information Bulletin for April 2011 | Apr-11 | English & Khmer | A4 | 32 | Soft | 1 | MAFF | | Statistics |
| 104 | Overview on Transport Infrastructure Sectors in the Kingdom of Cambodia | 2010 | English | A4 | 49 | Hard | 1 | IRITWG | | Statistics |

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| 105 | Monitor Report: Policy Document on Paddy Production and Rice Export | 10-Oct-11 | English | A4 | 4 | Hard | 1 | ADB | | Report |
| 106 | Equip Seed Company Brochure 1 | | English | A4 | 1 | Hard | 1 | AQIP Seed | | Others |
| 107 | Equip Seed Company Brochure 2 | | English | A4 | 1 | Hard | 1 | AQIP Seed | | Others |
| 108 | Equip Seed Company Brochure 3 | | English | A4 | 1 | Hard | 1 | AQIP Seed | | Others |
| 109 | Technical Package to improve rice production | 2011 | Khmer | Handbook | 43 | Hard | 1 | CARDI | | Report |
| 110 | Post Harvest Management | Jul-11 | Khmer | Handbook | 25 | Hard | 1 | MAFF,IRRI & ADB | | Report |
| 111 | Rice (Nutrition, Weed & Seed Management) | | Khmer | A4 | 52 | Hard | 1 | MAFF | | Report |
| 112 | Rice Production in Cambodia | 1997 | English | A4 | 112 | Hard | 1 | MAFF,IRRI & AUSAID | | Report |
| 113 | Food & Beverage Factories Registered under MIME from year 1994-2010 | 2010 | English | A4 | 3 | Soft | 1 | MIME | | Statistics |
| 114 | Cambodia | 2010 | Japanese | A4 | 158 | Hard | 1 | JICA | | Report |
| 115 | Cambodia Agricultural Value Chain Program | 2-Sep-11 | English | A4 | 4 | Hard | 1 | CAVAC | | Pamphlet |
| 116 | Statistic of Industrial Crops Harvest in dry season 2004-2005 | 2005 | Khmer | A4 | 13 | Hard | 1 | K.Chhnang Dept of Agri | | Statistics |
| 117 | Statistic of Harvest in Kompong Chhnange 2005-2007 | 2007 | Khmer | A4 | 19 | Hard | 1 | K.Chhnang Dept of Agri | | Statistics |
| 118 | FAO Technical Cooperation Department Field Program Activities | 26-Aug-11 | English | A4 | 3 | Hard | 1 | FAO | | Statistics |

＜Cambodia＞

| Interview date | List of Visiting Place | Topic of Interview |
|---|---|---|
| 12-Aug | Ministry of Public Works and Transport | Present condition of Cambodian transport Infrastructure |
| 18-Aug | The Council for the Development of Cambodia | Business interest for Japanese Companies |
| 18-Aug | Phnom Penh Special Economic Zone Com | Business interest for Japanese Companies |
| 19-Aug | JETRO Phnom Penh Branch | Business interest for Japanese Companies |
| 23-Aug | JICA Capacity building for the Quality Standard Control of Agricultural Materials | Possibilities of Cambodian agribusiness |
| 24-Aug | TAIWA SEIKI CORPORATION | Investment interest by Taiwa Seiki Corp |
| 24-Aug | Bio Agri (Cambodia) Co., Ltd | Investment interest by Bio Agri Co., Ltd |
| 24-Aug | Inabata & Co., Ltd | Investment interest by Inabata Co.,Ltd |
| 24-Aug | Hatanaka Bussan Co., Ltd | Investment interest by Hatanaka Bussan Co., Ltd |
| 24-Aug | JC Holdings Co., Ltd | Investment interest by JC Holdings Co., Ltd |
| 24-Aug | Emerging Market Consulting | Projecct summary by IFC in Cambodia |
| 25-Aug | Ajinomoto (Cambodia) Co., Ltd. | Business strategy by Ajinomoto Co., Ltd |
| 26-Aug | Golden Rice (Cambodia) Co., Ltd. | Business strategy by Large Rice Miller |
| 26-Aug | KURATA Pepper Co., Ltd | Present condition of Cambodian agriculturel sector (Rice) |
| 28-Aug | Cereal Trader | Present condition of Cambodian agriculturel sector (Cereal) |
| 30-Aug | Provincial Department of Agriculture, Battambang | Present condition of Cambodian agriculturel sector (Cereal) |
| 2-Sep | Provincial Department of Agriculture, Kandal | Agribusiness condition in Kandal Province |
| 5-Sep | Provincial Department of Agriculture, Kampong Cham | Agribusiness condition in Kampong Cham Province |
| 5-Sep | Grain Trader & Processor, Kampong Cham | Present condition of Cambodian agriculturel sector (Cereal) |
| 5-Sep | Cassava Processor | Present condition of Cassava |
| 5-Sep | Ministry of Industry, Mines and Energy | Supporting scheme for SME by MINE |
| 6-Sep | Provincial Department of Agriculture, Prey Veng | Agribusiness condition in Kandal Province |
| 6-Sep | Sihanoukville Autonomous Port | Business strategy by Shhanoukville Autonomous Port |
| 6-Sep | Chunthom Rice Mill | Present condition of rice value chain |
| 7-Sep | Cambodian Organic Agriculture Association | Business strategy by Cambodian Organic Agriculture Association |
| 7-Sep | Rice Production, General Directorate of Agriculture, MAFF | Supporting Scheme for Rice sector by Rice Department, MAFF |
| 9-Sep | Provincial Department of Agriculture, Takeo | Agribusiness condition in Takeo Province |
| 9-Sep | Pheach Sophat Rice Mill | Present condition of rice value chain |
| 13-Sep | Department of Planning and Statistics, MAFF | Business of Dep of Planing and Statistics, MAFF |
| 13-Sep | National Productivity Center of Cambodia | Business of NPCC, MINE |
| 14-Sep | Institute of Standards Cambodia, MINE | Business of ISC, MINE |

| Interview date | List of Visiting Place | Topic of Interview |
|---|---|---|
| 15-Sep | Extension Department, MAFF | Supporting Scheme for Rice sector by Extension Dep, MAFF |
| 15-Sep | Industrial Laboratory Center of Cambodia (ILCC), MINE | Supporting Scheme for Rice sector by Dep of ILCC, MINE |
| 16-Sep | Trade Promotion Department, MOC | Supporting Scheme for Rice sector by Dep of Trade Promotion, MOC |
| 21-Sep | Green Trade (public enterprise), Ministry of Commerce | Business strategy by Green Trade, MOC |
| 21-Sep | Cambodian Agricultural Research and Development Institute | Business of CARDI |
| 20-Sep | Agricultural Marketing Office, Department of Planning and Statistics, MAFF | Present condition of Cambodian Rice Market |
| 20-Sep | Lim Kong Leang Fish sauce | Business condition of fish sorce processing |
| 21-Sep | Farmer Organization Office, Department of Extension, MAFF | Business of Farmer Organization Office, MAFF |
| 21-Sep | Department of Trade Statistics and Information, MOC | Present condition of International Trade |
| 22-Sep | Chawpey Cooperative, Takeo | Business strategy by Agri Cooperative |
| 28-Sep | SRA SOR KHMER ANGKOR CO. Ltd | Business strategy by Rice wine company |
| 3-Oct | AQIP SEED CO., Ltd. | Business of AQIP |
| 3-Oct | Consumer protection and Fraud Repression Department, Cam Control | Business of Camcontrol |
| 3-Oct | General Department of Industry, MINE | Business of General Department of Industry, MINE |
| 3-Oct | Department of Industrial Techniques, MINE | Business of Dep of Industrual Techniques, MINE |
| 6-Oct | Ministry of Public Works and Transport | Role of MPWT for Rice Policy |
| 10-Oct | Asian Development Bank | Present condition of illgal fee in Cambodia |
| 10-Oct | CEDAC | Business strategy by CEDAC |
| 9-Oct | JICA The Project for Strengthning Port Operation and Management | Potential and Business strategy by Shhanoukville port |
| 19-Oct | Phnom Penh Autonomous Port | Vision of Phnom Penh Autonomous Port |
| | | |

＜Japan＞

| Interview date | List of Visiting Place | Topic of Interview |
|---|---|---|
| 25-Jul | ASEAN-JAPAN CENTER | Business potential for Japanese firm |
| 26-Jul | Japan Food Industry Center | Business potential for Japanese firm |