Socialist Republic of Vietnam The People's Committee of Hai Duong Province The People's Committee of Dong Nai Province

Socialist Republic of Vietnam Preparatory Survey on Rental Factory Project for Japanese SMEs in Vietnam (PPP Infrastructure Project) Final Report

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Table of Contents

Chapter 0 Summary	vi
Chapter 1 Introduction	1-1
1.1 Background of the Research	1-1
1.1.1 History of Development of Industrial Parks (as of Present) and their Cha	llenges in
Vietnam	1-1
1.1.2 Government Policies on Industrial Parks in Vietnam and the Placement of the	nis Project
in them	1-1
1.1.3 Japan and JICA's Assistance Policies on Industrial Parks	1-1
1.2 The Objectives of the Research	1-2
1.3 An Overview on the Proposed Project	1-2
1.3.1 An Overview of the Considered Infrastructure	1-3
1.3.2 Project Scheme	1-3
1.3.3 The Necessity of PPP Scheme	1-5
1.3.4 Project Risks	1-6
1.3.5 Superiority of Japanese Enterprise Participation and Japanese Technology.	1-6
1.3.6 Notes on the Environmental and Social Impact	1-6
1.4 Organizational System	1-7
1.5 Schedule	1-7
Chapter 2 The Necessity of this Project and its Background	2-1
2.1 Socioeconomic Situation	2-1
2.1.1 Socioeconomic Situation of Vietnam	2-1
2.1.2 Socioeconomic Situation of the Designated Project Area	2-4
2.2 Present Situation of Industry and its Challenges	2-6
2.2.1 Industrial Trend	2-6
2.2.2 Supporting Industries	2-9
2.2.3 Growth of SME's	2-10
2.2.4 Introduction of Foreign Capital	2-11
2.3 Present Situation of Industry and its Challenges	2-16
2.3.1 Policies and Plans Relating to the Growth of Supporting Industries	2-16
2.3.2 Policies and Plans Relating to the Growth of SME's	2-17
2.3.3 Policies and Plans on Foreign Capital	2-17
2.3.4 Policies and Plans on Industrial Parks for Foreign Firms	2-18
2.4 Present Situation of Industry and its Challenges	2-19
2.5 Situation of the Donor Country on its Support Measures for the Supporting Indu	stries and
SME's	2-23
2.5.1 Situation of Japan on its Support	2-23
2.5.2 Situation of the International Financial Agencies' Support	2-24

2.6 The necessity of this project	2-25
2.7 Present Situation of Industry and its Challenges The Objective of this Project	2-25
Chapter 3 Demand Projection and Research	3-1
3.1 Situation and Trend of Industrial Clusters	3-1
3.1.1 Industrial Clusters of Japanese Expanding Industries in Northern Vietnam	ו (around
Industrial Parks in the Suburbs of Hanoi)	3-1
3.1.2 Industrial Clusters of Japanese Expanding Industries in Southern Vietnam	n (around
Industrial Parks in the Suburbs of Ho Chi Minh City)	3-2
3.2 Comparative Analysis on the Geographical Location Condition	3-2
3.2.1 Comparative Analysis on the Geographical Location Condition of Dai An	Industrial
Park	3-3
3.2.2 Comparative Analysis on the Geographical Location Condition of Nhon	Trach 3
Industrial Park	3-5
3.3 The Present Situation and Challenges of Rental Factory in Southeast Asian Cour	ntries .3-7
3.3.1 Situation of the Rental Factory Project in Southeast Asia as a Whole	3-7
3.3.2 Situation of Rental Factories in Main Countries	3-8
3.4 Questionnaire Survey for Japanese Industries on their Will to Expand in Vietnam	3-18
3.4.1 Method of Questionnaire Survey	3-18
3.4.2 Result of the Survey Research	3-21
3.4.3 The Predicted Amount of Demand Potential	3-25
3.5 Interviews of the Japanese companies with a Willingness to Expand	3-28
3.5.1 Interviews with Japanese companies that is Planning to Expand in Vietnam	3-28
3.5.2 Interviews to the Japanese Industries that have Expanded in Vietnam	3-30
Chapter 4 Facility Outline Design and Cumulative Cost	4-1
4.1 Outline design of rental factories and associated facilities	4-1
4.1.1 Design of each rental factory and related facilities	4-1
4.1.2 Administration Building(JAPAN- DESK)	4-2
4.2 Maintenance Enforcement Plan (Acquisition of JSC exclusive area, facility con	struction)
	4-3
4.2.1 Plans for the acquirement of each JSC area	4-3
4.2.2 Construction Plan for each JSC Facilities	4-3
4.3 Sales Planning for each JSC	4-5
4.3.1 Construction Cost for each JSC	4-5
4.4 Integrated Cost of Operation and Maintenance	4-6
4.4.1 Dai An JSC	4-6
4.4.2 Nhon Trach JSC	4-6
Chapter 5 Project scope and scheme	5-1
5.1 Finalization of the industrial area of this project	5-1
5.2 Finalization of project activities (scope)	5-2
5.2.1 The capacity of rental factory	5-2

5.2.2 One-stop service	5-2
5.3 Planning of project scheme	5-3
5.4 Project Risk	5-5
5.4.1 Risk analysis (Execution, Management)	5-5
5.4.2 Risk hedge and security package	5-8
5.4.3 Economic analysis on private sector	5-12
5.4.4 Economic analysis on the entire project	5-14
5.5 Analysis of stakeholder	5-16
5.5.1 Management analysis of the object industrial parks	5-16
5.5.2 Information concerning parties involved in the project	5-17
Chapter 6 Project Operation Plan	6-1
6.1 Administrative structure for management	6-1
6.2 Authorization schedule	6-1
6.2.1 Dai An SPC	6-1
6.2.2 Nhon Trach SPC	6-2
6.3 Index for management effect	6-2
Chapter 7 Environmental and Social Considerations	7-3
7.1 List of key environmental factors and easing measures and monitoring plat	n7-3
7.1.1 Current situation of the base environmental society	7-3
7.1.2 Environmental and social consideration institutions and bodies in the a	adverse party
	7-8
7.1.3 Scoping	7-31
7.1.4 Impact expectation	7-33
7.1.5 Environmental management plan and monitoring plan	7-47
7.2 Background History on Resettlement	7-51
7.2.1 Current Situation and Background History on Resettlement in Dai An Ir	ndustrial Park
7.2.2 Current Situation and Reakground History on Repottlement in Dai An Ir	
7.2.2 Current Situation and Background History on Resettlement in Dar An Ir	
7.2 Monitoring Form Droposal and Environmental Checklist	
7.3 Wonttoring Form Proposal and Environmental Checklist	
7.3.1 Wonitoring Form Proposal	
7.3.2 Environmental Checklist	
Chapter & Conclusions	8-1

Abbreviation Table

Abbreviation	Full Name
JICA	Japan International Cooperation Agency
ADB	Asian Development Bank
JETRO	Japan External Trade Organization
SPC	Special Purpose Company
JSC	Joint Stock Company
PPP	Public–Private Partnership)
GDP	Gross Domestic Product
GRDP	Gross Regional Domestic Product
ODA	Official Development Aid
FDI	Foreign Direct Investment
JBAV	The Japan Business Association in Vietnam
JBAH	The Japan Business Association in Hochiminh City
JBAD	The Japan Business Association in Danang City



Source: Survey team created based on Google Maps data

Chapter 0 Summary

Chapter 1 Preface

1.1 Background of the Survey

In Socialist Republic of Vietnam (hereinafter called "Vietnam"), out of 288 approved industrial parks (as of July 2012), only 180 parks are in operation while the remaining about 100 parks are still in the stage of land acquisition or infrastructure development. Since the land lease fee of industrial parks and export processing zones is fairly expensive in Vietnam, high land cost is one of big challenges for Japanese small and medium manufacturing industries advancing to Viet Nam. Also, due to vulnerability of infrastructure in Vietnam, capital investment is another burden for Japanese investors.

In "10 Year Strategy for Social and Economic Development (2011 - 2020)" and "5 Year Plan of Social and Economic Development (2011 – 2015)", the achievement of industrialization by 2020 is adopted as an important target. For realization of the target, the invitation of modern and environment-friendly foreign investments and strengthening of linkages among domestic enterprises are stressed as crucial components in the Plan. The Rental Factory Project for SMEs (hereinafter called the Project) is intended to help industrialization of Vietnam by the promotion of invitation of Japanese SMEs with advanced technology.

In the recent deteriorating business environment in Japan with prolonged strong yen and high cost of raw material import, etc., the number of SMEs exploring the new business opportunities in advancing into overseas market is on the rise. Following the shift of activities from domestic to overseas by large scale businesses who have been the major clients of SMEs, the advancement overseas of SMEs who have been supporting large scale businesses is also increasing. Also, among SMEs who have already extended their businesses overseas, some of them worry about the souring Sino-Japanese relationships and consider the shift of their business bases to secure destinations. On the other hand, as for industrial parks in Vietnam that is crucial for absorption of advancing SMEs, the profitability is generally lower compared to the ordinary industrial parks for large scale businesses due to higher management cost for SMEs. Therefore, industrial park development for SMEs have been stagnant.

The Japanese government recently announced the "Revitalization Strategy of Japan", in which strengthening of the support system for Japanese SMEs for advancement overseas, and the creation of "Overseas One-Stop Consultation Office" in foreign countries, etc. are stipulated. The Project was prepared in accordance with the Japanese Government's policy, JICA's assistance policy for Vietnam, and requests from business organizations of Japan. It is expected that the advancement of Japanese SMEs would promote the growth of supporting industries in Vietnam. The Project is to support the industrialization of Vietnam, and to stimulate the growth and enhance the competitiveness of Vietnam.

1.2 Purpose of the Survey

In the Survey, we confirmed the Japanese SMEs' demand for the Project as the preliminary work, and prepared the design of facilities reflecting their needs, calculated the cost, and worked out the business scheme that secures profitability. We then prepared the realistic business plan taking account of

stakeholders' business capacity as well as the scheme's impact on the environment and society. This will help the smooth implementation of the Project.

1.3 Outline of the Proposed Project

The Project is to construct and operate "Rental Factories for Japanese SMEs" in Dai An Industrial Park (Hai Duong Province) in northern Vietnam, and Nhon Trach 3 Industrial Park (Dong Nai Province) in southern Vietnam respectively. (hereinafter called Dai An JSC and Nhon Trach JSC" (both tentative names).

1.4 Organization system

In the Project, Forval Corporation is the prime company, while Mitsubishi Research Institute participates is a joint venture partner. Forval Co. played a leading role in the survey in Vietnam while MRI played a central role in the work of the confirmation of Japanese firms' needs. For ensuring efficient survey, Mr. Takesue of MRI who has sufficient experiences of JICA survey was appointed as the leader of the Survey.

1.5 Work Schedule

The survey started in July 2013, and was implemented for the completion in March 2014.

Chapter 2 Necessity and Background of the Project

2.1 Socio-Economic Situations

In Vietnam as the whole, the secondary industry that is to meet the domestic demand plays the role of engine of its economic growth. Whereas the inflation is in progress due to its economic growth, the unemployment rate is decreasing. Hai Duong Province and Dong Nai Province in which the Project areas are located have room for future industrialization and economic growth compared to Hanoi and Ho Chi Minh Cities where the economic growth is almost saturated.

2.2 Present situation and Challenges of Industry

As for the breakdown of the secondary industry, manufacturing is the mainstay in which food processing is the main force although electronic and machine industry is growing. In the Project areas, the electronic and machine industry concentrates in the north, while the food processing industry flourishes in the south. Although the growth of supporting industry is indispensable for the further growth of manufacturing industry, supporting industry is still immature due to inappropriate financial support system. Since SMEs are the major players in supporting industry, the growth of SMEs is the requisite for the growth of supporting industry. However, difficulties in access to financial sources and the lack of management knowhow and technology pose the bottleneck for growth. Domestic SMEs in supporting industry usually grow through the technology transfer from foreign businesses to domestic ones, and through trades between foreign and domestic firms. Therefore, induction of foreign capital including invitation of foreign businesses is effective for the growth of supporting industry of Vietnam. In fact, Japan is the largest supplier of foreign capital to Vietnam, and the investment from Japan has been rapidly increasing. The mainstay of Japanese SMEs in Vietnam are industries of electronics, machinery, food processing, etc.

2.3 Policy and Plans of Industrial Parks

For the growth of supporting industry and SMEs as well as invitation of foreign capital, various measures of incentives and support have been implemented. Although industrial park development for foreign businesses has been going on, foreign SMEs have difficulties moving in. In fact, virtually no rental factories for SMEs exist, and the procedure is also complicated. That is a challenge for foreign SMEs.

2.4 Systems Relevant to the Project

In Vietnam, the procedure to secure land for factories, construct factories, and start operation is highly complicated. Since it is too hard for staff of SMEs to do that, the support services for preparation of rental factories for SMEs or assistance to procedural work, etc. are indispensable.

2.5 Donors' Approach to Assistance for the Growth of Supporting Industry & SMEs

The Japanese government and international financial organizations have been providing two-step loans and technical assistance for SMEs in supporting industry. However, the assistance for industrial park development, which is crucial for the acceptance of foreign SMEs, has not been virtually implemented.

2.6 Necessity of the Project

In supporting industry, domestic SMEs usually grow through the technology transfer from foreign businesses. And SMEs' technology level and management knowhow enhances through trades between foreign and domestic firms. In fact, many Japanese firms are expected to advance to Vietnam. However, in Vietnam, the procedure to secure land for factories, construct factories, and start operation is highly complicated. It is extremely hard for staff of SMEs to deal with the situation.

With this backdrop, the provision of rental factories to Japanese SMEs together with one-stop support services to consult with advancing SMEs will greatly help the promotion of advancement of Japanese SMEs to Vietnam. Therefore, from the mutual perspective of Japan and Vietnam, the necessity of the Project is extremely high.

2.7 Purpose of the Project

For the promotion of Japanese SMEs in manufacturing industry to Vietnam, the requirements are provision of environment and facilities that reduce the initial investment cost for concentration of funds on market development, and support to SMEs for ensuring stable operation as well as continuation of operation.

The Project is to meet the above-mentioned two necessities and thereby promoting the advancement of Japanese SMEs to Vietnam, and assisting Japanese SMEs and the growth of supporting industry of Vietnam.

Chapter 3 Demand Forecast and Survey

3.1 Situation and Trend of Industrial Agglomerations

There is an agglomeration of assembly industry of transport equipment (vehicles, etc.) and electronic equipment in the northern part of Vietnam. On the other hand, a number of businesses including sales

agents, food and distribution have advanced to the southern part of Vietnam and producing products for people of Ho Chi Minh City with the population of 8 million as well as for neighboring countries.

3.2 Comparative Analysis on Conditions of Location

Dai An Industrial Park in Hai Duong Province in the northern part of Vietnam is located inside of the core economic area in the northern part of Vietnam including the capital city Hanoi, Quang Ninh Province and Hai Phong. In addition, it has a good access to international ports, river ports, domestic and international airports, and railways. Also, Nhon Trach 3 Industrial Park located in the southern part of Vietnam is 25km south east of Ho Chi Minh City, Vietnam's largest city, and located in Dong Nai Province which is adjacent to Ho Chi Minh City, Binh Duong Province adn Ba Ria Vung Tau Province. In the near future, since the inauguration of the new international airport named Long Thanh and the extension of expressway from Ho Chi Minh City is expected, access from Ho Chi Minh City will dramatically improved.

3.3 Situation and Issues of Rental Factory Projects in Southeast Asian Countries

Rental factories exclusively for SMEs are quite few in Southeast Asia. In Thailand, since advancing Japanese SMEs are increasing, there are completed or under-construction rental factories in 9 indutrial estates. In Indonesia, rental factories are few, and there is a significant shortage of small plots with the area around 1000m2 required by SMEs.

3.4-3.5 Questionnaire & Hearing Surveys on Intentions of Japanese Businesses Regarding Advancing to Vietnam

We implemented the questionnaire survey targeting member firms of the Tokyo Chamber of Commerce and Industry, firms participated in the seminar of Forval Co. in Vietnam, and those chosen from the business database, followed by hearings from those interested in advancing to Vietnam.

At the result, we confirmed that around 300 businesses are interested in the rental factories and land for factories in Dai An and Nhon Trach 3 in a short term basis. They have a variety of needs in terms of land area, and their requested land price for factories is mostly less than 200 yen/m2 per annum, and less than 500 yen/m2 per month in case of rental factories. We also confirmed the needs of support services like procedure substitution, etc.

Section 4 Outline design of facility and cost estimates

4.2 Construction plan/Sales plan

For the Dai An JSC exclusive site, 16.53ha of the site owned by Dai An JSC. within Dai An Industrial Park will be purchased. For the Nhon Trach JSC exclusive site, 18.23ha of the site owned by Nhon Trach 3 Industrial Park One Member Company within Nhon Trach III Industrial Park will be purchased. The plant site of both JSC will be acquired in the first fiscal year of the project. Construction of facilities will be constructed in sequence within 5 years from the opening by checking the sales plan.

Chapter 5 Project scope and scheme

5.1-5-2 Decisions on the subject industrial park and the contents (scope) of the project

Rental plant shall be constructed in compliance with the Vietnam construction-related laws and regulations. As for basic plotting, in light of the needs of Japanese small-to-midsize enterprises (SMEs), the area of plot shall be 288m2-1,152m2, specification of which can be expanded to meet the needs of business development.

One-stop services will be provided in addition to general services by placing dedicated Japanese staffs (JAPAN-DESK) in the dedicated administration building for tenant companies that will be built in each JSC to assist Japanese SMEs who advance into Vietnam, in the advance preparation period, at the time to start business at the site, at the time to continue business at the site, and assist needed in their living.

5.3 Formulation of project scheme

Each JSC is planning to procure/making use of fund from the Two-step-loan scheme of JICA's overseas investment and loan (through Vietnam Commercial Bank), and build basic facilities such as rental plant building and administration building (JAPAN-DESK), cafeteria, etc. Forval Corporation will be responsible for the invitation of Japanese companies, and the companies that are in the preparation stage before advance will be provided by Forval Corporation in Japan and by Forval-Vietnam (Hanoi, Ho Chi Minh) in Vietnam. Each SPC will be responsible for the operation/management of the dedicated Rental Factories for Japanese SMEs, and their primary task is to provide one-stop service to tenant companies, work as a consultation desk for various matters, manage /supervise and planning/running of JSC. The tenant companies will sign the rental contract with each SPC according to the type of plant they move in each JSC, and pay the rent, administrative fee, and one-stop service fee stipulated in the contract.

5.4 Business risk

As countermeasures for each risk, we have analyzed 4 items, "Avoidance" "Decrease" "Retention" and "Pass-on."

- Sponsor risk: Grasp of detailed information of sponsor [Avoidance/Decrease]
- Funding risk: Use of two-step loan [Pass-on], use of creditworthiness of sponsor [Pass-on]
- Risk of completion of construction: Supervision/monitoring of the builders [Decrease]
- Technology risk: Supervision/monitoring of the builders [Decrease]
- Operation risk: Ensure procedure required by relevant ministries and agencies [Avoidance], tightening of contract conditions with the tenant companies and employees [Pass-on/Decrease], continuously grasp the tenant companies' business conditions (Decrease), and understanding of work conditions of other industrial parks [Decrease].
- Market risk: Grasp the situation of the market (country, region, industrial park) [Decrease], marketing to the candidate tenant companies [Decrease]
- Environment risk: Compliance with applicable laws and regulations [Avoidance]
- Relevant infrastructure/utilities risk: Sequentially grasp the development status [Decrease], confirm the consistency of the drawing and construction work/materials [Decrease], confirm the quality of utilities in surrounding industrial parks [Decrease], grasp the information of new utility technologies

in proper manner [Retention].

 Accident/Disaster risk: Purchase of construction insurance and [Pass-on].

5.5 Stakeholder analysis

As the Vietnamese counterparties of this project, Dai An, Tin Nghia and Nhon Trach III, have sufficient capacity to implement this project as they have record of having carried out many similar projects (development, operation and maintenance) in the past.

As for intermediary bank, we sorted out BIDV, VietinBank, Vietcombank, SHB, and HDBank focusing on their credibility, stability, financing field (record of financing to SMEs and industrial parks), presence or absence of existing business relationship with the project implementing body (Dai An and Tin Nghia) after having multiple negotiations. By looking at these intermediary banks in terms of revenue, we can say that the profit ratio of these five banks is in the range of 11% to 13% and they are achieving a high rate of return. Also, from the perspective of stability of these banks, capital-to-asset ratio is within 4% to 7%. The rating information was obtained only for BIDV, VietinBank and Vietcombank from external rating agency.

Chapter 6 Project execution plan

6.1 Project implementation structure

The company who is operating each industrial park and Forval will establis SPC (special purpose company: consortium) after going through the investment screening in accordance with the investment amount and investment field. Each SPC established will provide one-stop services to each JSC related with construction, operation/maintenance, and tenant companies (considering/settled).

6.2 **Project implementation schedule**

The sales plan of each JSC will start within 5 years from the opening sequentially from the completion of building, based on the record of interview/business meeting of Japanese SMEs on sales/invitation activities in Japan that are currently conducted by Forval and on the demand questionnaire in this survey.

6.3 Operation, maintenance and management system

The number of personnel was figured out based on the administrative experience and performance record of operation of both Dai An and Nhon Trach 3 Industrial Park One Member Company in Vietnam. Also, the tasks will be carried out by minimum personnel in each SPC in this project, as it will actively use outsourcing.

6.4 Schedule for acquiring approval and license

Dai An and Nhon Trach 3 Industrial Park One Member Company have already acquired sites for each JSC, and acquired industrial complex licensing from People's Committee and Industrial Park Management Committee. They will individually set up SPC in the subject site for the use of this project and complete registration procedures near the first quarter of 2014.

□burglary an

6.5 Operation effect index

Scheduled number of personnel (employees to hire) of companies who has decided to move in both JSC is average 10 employees in 288m2, 13 employees in 648m2, and about 100 employees in 1,152m2. When companies fill all the lot in each JSC, employment effect is expected to be 5,115 people in Dai An and 6,252 people in Nhon Trach JSC.

Chapter 7 Environmental and social considerations

Being approved by Environmental Impact Assessment (EIA), this project will develop a part of site within an existing industrial park, which had been acquired and developed for the dedicated use of Japanese SMEs, and in general, it will keep the impact on the environment only within the site itself, keep irreversible impact minimum, and can be put under control in a normal manner.

Also, as mentioned above, site acquisition of both industrial parks has completed, and the impact on society is small.

Chapter 1 Introduction

1.1 Background of the Research

1.1.1 History of Development of Industrial Parks (as of Present) and their Challenges in Vietnam

Of the 288 publicly approved industrial parks (as of July 2012) in Vietnam, there are as few as 180 that are actually operated, with the rest being in process of land acquisition or infrastructure development. Therefore, Prime Minister Nguyen Tan Dung instructed on March 6, 2013, the local authorities to temporarily cease further development of industrial park, export processing zone and economic zone in the country.

The land lease price of the industrial parks and export processing zones in Vietnam is extremely expensive, and the land lease price (per square meter) and the maximum lease period of some industrial parks are as follows: \$150/38 years in Dai Tu Industrial Park, \$125/41 years in Sai Dong B Industrial Park, and \$100/44 years in Nam Thang Long Industrial Park. Ho Chi Minh City is the most expensive in its lease price: \$100/ m2/year in Tan Thuan Export Processing Zone, \$70/m2/year in Tan Binh Industrial Park, and \$60~65/ m2/year in Dong Nai Province Amata Industrial Park. Land acquisition cost has been one of the most challenging problems for the Japanese SME's (small and medium enterprises) of the manufacturing industry.

Vulnerability in infrastructures is an issue, therefore making capital investment a burden as well; for example, private power generators need to be equipped for manufacturing companies that require a perpetual power supply.

1.1.2 Government Policies on Industrial Parks in Vietnam and the Placement of this Project in them

The accomplishment of industrialization as a country by 2020 has been declared in Vietnam's "Socio-Economic Development Strategy for 2011-2020" and "Socio-Economic Development Strategy for 2011-2015." In the 10-year strategy, an 85% share of GDP by the steel and the service industry and a 45% share of GDP by the high-technology industry have been set as a goal of the industrial structure in 2020. In addition, the attraction of modern and environmentally-friendly foreign investments and the reinforcement of the relationship between domestic enterprises have been mentioned and included in the strategy.

Rental Factories Project for Japanese SME's, the name of this project, will contribute to the industrialization of Vietnam by attracting fine Japanese SME's.

1.1.3 Japan and JICA's Assistance Policies on Industrial Parks

Due to the worsening economic situation in Japan, with long-lasting high yen and the increase in the price of resources, more SME's in Japan are seeking to expand their business overseas to improve their business. As supporting industries, there is an increasing pressure for the SME's to expand their businesses abroad because their clients, the large enterprises, are doing so as well. Even the SME's that have already started business abroad are considering the shifting of their overseas business location, as the relationship between Japan and China continues to worsen.

As stated in the "Framework for Supporting Small and Medium Enterprises in Overseas Business," published by The Small and Medium Enterprise Agency, the need to "progress with overseas business assistance" for "the SME's that wish to expand their business overseas through investment" has been increasing and this project can be regarded as following this kind of Japanese government policy.

In 2013, Japan Revitalization Strategy was issued by Prime Minister of Japan and His Cabinet, in which, with a section dedicated to "Intensive support to potential SMEs", the government aims to double export amount from motivated and potential SMEs by 2020 compared to 2010 levels by means of "Strengthening support system for overseas development of SMEs" and "Establishing 'one-stop overseas consultation offices' at sites overseas".

Also, the industry has requested government, municipal bodies and authorities for supports for expanding their business abroad. In a labor policy proposal presented on May 14, 2013 by Keidanren

(Japan Business Federation) which covered topics about the challenges and responses required for Japanese SMEs' expansion to ASEAN countries, the demands for strengthened consultation and assistance system and shared local information on labor issue and business withdrawal were highlighted.

According to JICA's country assistance program for Vietnam, assistance for industrialization of the country by 2020 has been set as the fundamental policy (the goal); to achieve the industrialization of the nation by 2020 as declared in the "Socio-Economic Development Strategy for 2011-2020" and "Socio-Economic Development Strategy for 2011-2015," the program states that it will assist in sustainable growth through international competition, in overcoming of the country's vulnerability, and in realization of a fair and just society. "Promotion of growth and strengthening international competitiveness" has been stated at the beginning of the priority area; assistance in improving the market economy, strengthening the market system for monetary and financial reforms, and nurturing industrial personnel are to be conducted to achieve sustainable growth through international competition.

By realizing the Rental Factories Project for Japanese Small and Medium Enterprises (hereinafter referred to as "this project"), it is hoped that development of Vietnamese supporting industries will be made possible through the expansion of Japanese SME's; these are exactly the assistances for the industrialization of the nation stated above, and will advance more growth and competition.

In conclusion, this project follows the Japanese government policies and JICA's country assistance policy for Vietnam.

1.2 The Objectives of the Research

This research, as the preparation phase of this project, will confirm the demand for this project by the Japanese SME's, plan a facility that will meet their needs, calculate its cost, and will make a project scheme that will ensure the project profitability. Taking the stakeholder's performance ability and this project's environmental and social impacts into account, a feasible project plan will be created, therefore contributing to the successful completion of the project.

1.3 An Overview on the Proposed Project

This project, in the midst of the worsening economic situation that encompasses the Japanese SME's, will contribute to both the Japanese SME's that are seeking to expand their businesses location and their business fields and Vietnam, a nation that is striving to be industrialized through the growth of domestic supporting industries.

However, there are many barriers for the Japanese SME's on starting Vietnamese business, as the SME's have different characters from those of the large Japanese enterprises, including their invulnerability and strength.

For Japanese SME's, acquiring land, and constructing and operating their own factory will take a large amount of initial investment.

In addition, even though there are 288 Industrial Parks placed in Vietnam, the environment for the Japanese SME's to be able to operate and stabilize quickly has not yet been provided.

Japanese SME's, apart from the large enterprises, do not own a large amount of human resources that can create a desirable operation environment.

This project is to reduce the many challenges and barriers concerning overseas businesses and to create an environment where the Japanese SME's can fully concentrate on their main business field.

To realize this, this project will provide an environment with facilities including the "rental factory facility" which can minimize the initial capital investment and factory operation/maintenance cost for the Japanese SME's, and at the same time will provide a "rental industrial park for the Japanese SME's" that will have the functions of assistance in related law procedures and employment, to provide an operation environment that will appropriately suit the Japanese SME's.

1.3.1 An Overview of the Considered Infrastructure

This project will provide facilities such as rental land for factories that is suitable for the Japanese SME's characteristics, size, and their form of expansion; it will also provide a one-stop assistance in soft areas such as the necessary procedures for business management and operation.

The rental factory facility has considered the situation of demand from this research, and to meet the demands of the Japanese SME's, has prepared a rental factory area of minimum 288 m²~ 152 m² (building area).

Also, the specifications are set so that the area can be expanded as the tenant company expands its business from the area that was initially necessary in its stage of early expansion phase; both the northern and the southern industrial parks have this specification.

	Hard Provision	Soft Provision			
a)	Provision of rental factory land that is flexible	d) One-stop assistance service with the necessary			
	in area to meet the needs of the characteristics	soft assistance about local business			
	and the size of the enterprise, with the	management and operation			
	minimum area standard of 288 m ² ~1152 m ²	*Individual response in Japanese			
b) c)	Provision of fundamental facilities that will enable the quick operation of the Japanese SME's Provision of infrastructures, with the consideration of their environmental impacts	 *Assistance in related law procedures (registration license acquisition, accounting, judicial procedures, labor procedures) *Provision of information on exploiting the local domestic market 			
		*Provision of labor resources *Assistance with care of the transferred employees *Individual response to troubles			

Table 1.3.1 An Overview of the Provided Services

Source: the research team

1.3.2 Project Scheme

(1) Business Scheme

This project is to construct, operate, and maintain a new "rental industrial park for the Japanese small and medium enterprises" in Dai An Industrial Park in northern Vietnam (Hai Duong Province) (hereinafter referred to as "Dai An JSC (tentative)") and in Nhon Trach III Industrial Park in southern Vietnam (Dong Nai Province) (hereinafter referred to as the "Nhon Trach JSC (tentative)").

In the northern part, an SPC (special purpose company) will be established to manage and operate Dai An JSC, with the joint investment of Dai An J.S. Company, which operates and maintains Dai An Industrial Park, and a Japanese enterprise, Forval Corporation.

Dai An J.S. Company will develop, construct, and prepare the industrial park facilities of Dai An JSC, while Forval Corporation will take on the attraction of Japanese SME's and the development and provision of soft area services.

In the southern part, an SPC (special purpose company) will be established to maintain and operate Nhon Trach JSC, with the joint investment of Nhon Trach 3 Industrial Park One Member Company, which operates and maintains Nhon Trach III Industrial Park, and Forval Corporation.

Nhon Trach 3 Industrial Park One Member Company will develop, construct, and prepare the industrial park facilities of Nhon Trach JSC, while Forval Corporation will take on the attraction of Japanese SME's and the development and provision of soft area services.

Each JSC located in the north and the south will utilize JICA's Two Step Loan Scheme for overseas investment finance (via Vietnamese commercial banks), and will prepare the fundamental facilities (rental factory buildings, administrative buildings (JAPAN-DESK), cafeteria, power facilities such as power

supply, water supply, etc.), that follow the Vietnamese regulations and are necessary for the Japanese SME's in these industrial parks.

Each JSC is supplied by each industrial park's existing utilities (electric power company, the water suppliers, telecommunications, etc.) through their systems, and will supply its client JSC's and provide the Japanese SME's tenants with electricity, water, and the treatment of industrial effluent.

Each JSC is able to select its building area, minimum of 288 m²~1152 m², according to the Japanese SME's' characteristics and size; they are able to adjust to the growth and expansion of business.

Also, the mentioned industrial parks provide a "one stop service," which supports the Japanese SME's smooth business expansion, as well as the industrial park facilities. The one stop service will give the necessary local support for the Japanese SME's on their form of expansion and their growth and development process.



Figure 1.3.1 The Proposed Business Scheme for this Project

(2) Operation/Management Plan

The work of this project will be allocated to the operation company, SPC, of each JSC and the investors of SPC's: Di An J.S. Company, Nhon Trach 3 Industrial Park One Member Company, Forval Corporation, and the local enterprise Forval Vietnam.

Company Name	Area	Role			
Di An J.S Company	Northern Vietnam Hai Duong Province	Development/construction/maintenance of "Dai An JSC," developed and constructed in the north			
Nhon Trach 3 Industrial Park One Member Company	Southern Vietnam Dong Nai Province	Development/construction/maintenance of "Nhon Trach JSC," developed a ai constructed in the south			
Forval Corporation	Japan	Promotion activities of the industrial parks to enterprises in Japan Promotion to lure Japanese SME's One stop service provider			
Forval Vietnam	Hanoi,Ho Chi Minh	One stop service provider			
Northern/Southern SPC	Hai Duong Province Dong Nai Province	Operation/maintenance of Dai An JSC and Nhon Trach JSC Support desk for tenant enterprises			

Table 1.3.2 Operation companies and their roles

(3) Financing Plan for the Public and the Private Sectors (Initial investment and Operation/Maintenance Cost)

The total project cost will be procured 30% by the operating enterprises of each industrial park and the SPC capital, and the rest, 70%, will be procured by JICA through overseas investment finance (Two Step Loan via local financial institutions (finance)).

1.3.3 The Necessity of PPP Scheme

PPP(Public-Private-Partnership) is a system of various types of partnerships between the public and the private sectors; it is understood in a narrow sense as a system to utilize private capital for a public project, but it can be understood, in a broader sense, as a system where the public and the private cooperate with each other to run a project smoothly. For example, deregulation and special measures for labor and taxation policies, or land acquisition and coordinating of the associated rights are something that the private sector cannot handle by itself, and the public actively taking part in this would be considered a PPP.

The Dong Nai project, with the cooperation of the state-run enterprise that operates the industrial parks, as a whole, is considered to be the content of this project. If it is a project for just renting a rental factory, the public sector should operate it as part of their usual industrial park operation business, with no private sectors involved. However, as stated above, what the Japanese SME's currently need for starting business in Vietnam, is support on the gathering of the live local information and the operation procedures including labor, taxation, and human resources. Therefore, not only renting rental factories for the

Japanese SME's, but a new scheme that will provide various soft needs that the Japanese SME's need with one stop service is critical. Also, as for information gathering, the information provided by the Vietnamese government or the state-run enterprises will need to be evaluated by the Japanese private enterprises. To add on, assistance in operation procedures such as labor, taxation, and human resources goes over the present Vietnamese government and the state-run enterprises' area of responsibility; this could be made up with the participation of private enterprises that have detailed knowledge on the Japanese enterprises and their expansion.

On the other hand, when thinking about conducting this project solely with private sectors, various troubles occur. For example, industrial parks with high-potentials where the rental factory project could be implemented are already operated by the state-run enterprises; constructing a new industrial park nearby from scratch, ignoring the intentions of the state-run enterprises, could threaten their profits, and it is most likely that the province will not accept the construction. Even if it was able to get accepted by the municipal government, to actually start operating the industrial park, complex procedures such as land acquisition and the discussion with the local residents would be required, which would be a very challenging task for Japanese enterprises. By cooperating with the province and the state-run enterprises, these challenges can be avoided. In addition, the construction of the industrial parks in this project have already been commenced by the state-run enterprises and do not need prior permission acquisition, so the rental factory business by PPP will be conducted smoothly.

Proposed project in Hai Duong Province is expected to be a project solely with private sector cooperation. Although the site preparation of the industrial park has already been finished, cooperation with the partner company, not only with the private sectors, is essential for carrying out this project, such as the smooth execution of the construction plan and simplification/deregulation of permission procedures for the industries.

1.3.4 Project Risks

The main risks associated with this project are as stated below. First, there is a possibility that certain types of industries will not be able to rent factories due to local environmental regulations. Regarding this, information on various regulations will be carefully collected with their problems identified, to avoid troubles with SME's that are considering future overseas business expansion.

Particularly in developing countries, there are some risks of cost increase due to delay in construction. This risk will be dealt by including countermeasures for the delay and methods of checking milestones to avoid delay in the plan.

1.3.5 Superiority of Japanese Enterprise Participation and Japanese Technology

The participation of Japanese industries and Japanese technology have superiority over other countries and enterprises in the following way:

This project offers services for Japanese SME's seeking to expand their business in Vietnam; with the participation of Japanese industries, not only Vietnamese, in this PPP project, it will be able to contact more Japanese SME's, attracting more SME's.

The soft technology, not only the hard technology, to offer a one stop service which gathers live local information and assists with maintaining management including labor, taxation, and human resources, will be critical in this project. The services needed by the Japanese industries will be provided by utilizing the consulting knowledge and experiences for private sectors accumulated by Forval Corporation and Mitsubishi Research Institute from their past projects.

1.3.6 Notes on the Environmental and Social Impact

The designated project area is an area already approved by the Vietnamese government (the land has already been acquired and prepared) as an Industrial Park, part of which will be utilized for this project. Therefore, involuntary resettlements and new land acquisition for this project are not planned.

On establishing the industrial park, it is expected that the industrial park strictly follows the Vietnamese environmental regulations, ordinance by the Ministry of Natural Resources and Environment, and the guidance of the Natural Resources and Environment Bureau of the province. Also, the SME's that use the rental factories are mostly engaged in assembly operations; the project is not intended to attract industries that may do serious harm to the environment, therefore having a low environmental risk.

1.4 Organizational System

Forval Corporation is the representative company in this project, with Mitsubishi Research Institute as the joint enterprise. Forval Corporation will take the initiative of the local research, and Mitsubishi Research Institute will take initiative of the research on the domestic demand by the SME's. To conduct the research smoothly, Takesue from Mitsubishi Research Institute, with his rich experience of JICA research, will be appointed as the supervisor.

1.5 Schedule

This research has begun in July 2013 and conducted to finish in March 2014.

Chapter 2 The Necessity of this Project and its Background

This chapter will discuss the necessity and the objective of this project, with consideration to socio-economic situation of the designated area in Vietnam, as well as its present situation and challenges in industrial trend (supporting industries, SME's, foreign direct investment, etc.), government policies and plans relating to industrial parks, policies relating to business, and the donor's policies and achievements on its supporting industries and its support policies for SME's.

2.1 Socioeconomic Situation

2.1.1 Socioeconomic Situation of Vietnam

When looking at the socioeconomic situation of Vietnam, the secondary industry is the driving force behind economic growth. Although inflation has been progressing with economic growth, the unemployment rate has decreased.

(1) Economic Growth Rate

GDP (Gross Domestic Product) growth rate of Vietnam had been around 7~8% in the last ten years, but due to the world financial crisis after the Lehman Shock, its growth in overall economy dwindled in 2008 and 2009. Some signs of recovery started to be seen 2010. In particular, the secondary sector, such as the manufacturing industry, served as the engine to drive the economic growth of the past 10 years, and it constantly recorded over 10% growth rate during 2001~2007 (except for 2002). However, the secondary sector was the most influenced by the financial crisis, and the decrease in GDP growth during 2008 and 2009 was the largest in this sector. (Figure 2.1.1)



Source: General Statistics Office of Vietnam2012, "Statistical Yearbook of Vietnam 2011"

Figure 2.1.1 Change in GDP Growth Rate in Vietnam (Reference Year 1994)

(2) Industrial Structure

Up until 2002, the tertiary sector had its most share of GDP, but as the secondary sector underwent through a continuous high-economic growth, the proportion of the secondary sector caught up with that of the tertiary sector in 2002, and surpassed from 2003, holding 41.96% of the whole GDP in 2010. On the other hand, the primary sector, with agriculture as its main industry, dwindled in its proportion of GDP, contrary to the rapid growth of the secondary sector.(Figure 2.1.2)



Source: General Statistics Office of Vietnam2012, "Statistical Yearbook of Vietnam 2011"

Figure 2.1.2 Change in Industrial Structure in Vietnam (Reference Year 1994)

(3) The structure of the Gross Domestic Expenditure

The driving force of economic growth of the demand side is the dynamic private consumption; it continues to hold more than 60% of the whole demand during 2005~2010. The next driving force is the gross capital formation, sharing approximately 30~40% of the whole demand. Investment on fixed assets occupies most of the gross capital formation, but it is assumed that most of the fixed asset investment is foreign investment. On the other hand, government expenditure is very limited; therefore, private consumption and private investment including foreign investment are the two driving forces of Vietnamese economic growth.

However, trade deficit is a negative factor in economic growth. This shows that Vietnam is not able to supply its demand completely with domestic product; this issue is closely related to the underdeveloped supporting industries. (Figure 2.1.3)



Source: General Statistics Office of Vietnam2012, "Statistical Yearbook of Vietnam 2011"

Figure 2.1.3 Gross Domestic Expenditure by its Components (Reference Year: 1994)

(4) Inflation Rate

Consumer Price Index, which shows the inflation rate, has stayed in high level since 2003, with prominent peaks of 19.9% in 2008 and 18.1% in 2011, after a dip of 6.5% in 2009. IMF estimate showed that the country's inflation rate after 2012 would keep in the range of 7-8%.

Progressing of inflation is a huge negative factor in the Vietnamese economic planning and in luring foreign enterprises; how the government deals with inflation is carefully being watched.



Source: International Monetary Fund, 2013, "World Economic Outlook Database"

Figure 2.1.4 Change in Vietnamese CPI

(5) Unemployment Rate

Although the unemployment rate gradually decreased from 6.42% in 2000 to 4.29% in 2010, it increased again to 4.51% in 2011. The unemployment rate in Vietnam is at a lower level than other developing and emerging countries, but increase in employment opportunities has been an important issue for the central and the municipal governments. (Figure 2.1.5)



Source: International Monetary Fund, 2013, "World Economic Outlook Database"

Figure 2.1.5 Change in Unemployment Rate in Vietnam

2.1.2 Socioeconomic Situation of the Designated Project Area

Compared to the rather economically-saturated areas of Hanoi and Ho Chi Minh, the designated areas of the project, Hai Duong Province and Dong Nai Province, have some space left for further industrialization and economic growth in the future.

(1) Around Dai An Industrial Park

Hai Duong Province, where Dai An Industrial Park is located, is in the east of and adjacent to Hanoi, the center of northern Vietnam. Hai Duong Province has a population density of 1,038 people/ km², approximately half of Hanoi's population density of 1,962 people/ km². (Table 2.1.1)

The Gross Regional Domestic Product (GRDP) of Hanoi in 2010 was 246.7 trillion Vietnamese Dong (VND), being significantly large in the area, but manufacturing industry in Hai Duong Province has developed as well, with 31.4 trillion VND. On the other hand, while the average per capita GRDP in Hanoi is 37.28 million VND, in Hai Duong Province it is 18.31 million VND, reaching approximately half of the standard in Hanoi. (Table 2.1.2)

Compared to Hanoi where urbanization and economic growth has already taken place, it is expected that Hai Duong Province still has room left for further industrialization and economic growth.

Also, in Hai Duong Province and neighboring cities such as Hanoi and Hai Phong, many Japanese companies from automobile and machinery manufacturing sectors have their production bases, which can buy from newly expanding SMEs in the supporting industries. (Table 2.1.3)

 Table 2.1.1 Population/Population Density in Provinces and Cities around Dai An

 Industrial Park

City/Province	Population (thousand)	Area(Km ²)	Population Density (Population/km ²)
Hanoi	6,562	3,345	1,962
Hai Duong	1,713	1,650	1,038

Source: General Statistics Office of Vietnam2012, "Statistical Yearbook of Vietnam 2011"

Table 2.1.2 GRDP/per capita GRDP in Provinces and Cities around Dai An Industrial Park(2010)

City/Province	GRDP	Average Per Capita GRDP		
City/Flovince	(1 billion VND)	(thousand VND)	(U.S. Dollar)	
Hanoi	246,737	37,283	1,911	
Hai Duong	31,361	18,310	938	

Source: Each province/city 2011 Statistical Yearbook

Note :(a) The number of GDP is shown with current price.

(b) Average per capita GRDP in U.S. Dollars is calculated based on the exchange rate as of 2010/12/20: 1 USD=19,513 VND.

Table 2.1.3	Presence of J	apanese	companies	in Provinces	and	Cities	around D	Dai An
					I	ndust	rial Park	(2010)

City/Province	Companies
Hanoi	Toshiba Machine, Fanuc, Mitsubishi Heavy Industry, Sumitomo Heavy
	Industry, Shimadzu Corporation, Toshiba, Takasago Thermal Engineering
	Co., Sanwa Shutter Corp., INAX, HOYA, Panasonic, Canon, NEC,
	Yamaha Motor, Mitsui Engineering and Shipbuilding Corp., Denso
Hai Duong	Brother, Uniden
Hai Phong	Citizen Machinery
Vinh Phuc	Toyota Motor Corporation, Honda R&D Co., Ltd, Terumo Corporation
Bac Ninh	Canon, Nissin Electric Co., Ltd., Tabuchi Electric Co., Ltd
Hung Yen	Canon, Bunka Shutter Co.,Ltd

Source: Esnet Corporation

(2) Around Nhon Trach 3 Industrial Park

Dong Nai Province, where Nhon Trach 3 Industrial Park is located, is adjacent to and in the east of Ho Chi Minh City, the center of southern Vietnam.

While population density of Ho Chi Minh City is 3,630 people/km², Dong Nai Province is 435 people/km², approximately 10% of that of Ho Chi Minh City. (Table 2.1.3)

Ho Chi Minh City, as the largest commercial city in the nation, many industrial sectors located there are those of the best in the nation; therefore the city's GRDP in 2010 was 422.3 trillion VND. Manufacturing industries are developing in Dong Nai Province as well, with GRDP of 76 trillion VND. On the other hand, while per capita GRDP in Ho Chi Minh City is 57.09 million VND, that of Dong Nai Province is 29.52 million VND, reaching approximately half the standard of Ho Chi Minh City. (Table 2.1.4)

Compared to Ho Chi Minh where urbanization and economic growth has already taken place, it is expected that Dong Nai Province still has room left for further industrialization and economic growth.

Dong Nai Province and neighboring Ho Chi Minh City have been home of food processing and other light industries more than automobile and machinery manufacturers. However, a few Japanese companies have their production bases, which are likely to buy from newly expanding SMEs.

 Table 2.1.4 Population/Population Density in Provinces/Cities around Nhon Trach 3

 Industrial Park

City/Province	Population(thousan d)	(Km ²)	Population Density (Population/km ²)
Ho Chi Minh City	7,397	2,096	3,530
Dong Nai	2,569	5,903	435

Source: General Statistics Office of Vietnam, 2012, "Statistical Yearbook of Vietnam 2011"

Table 2.1.5 GRDP/Per Capita GRDP in Provinces/Cities around Nhon Trach 3 Industrial Park (2010)

City/Province	GRDP	Per Capita GRDP		
	(million VND)	(thousand VND)	USD	
Ho Chi Minh City	422,270	57,091	2,926	
Dong Nai	76,025	29,523	1,513	

Source: Each province/city 2011 Statistical Yearbook

Note :(a) The number of GDP is shown with current price.

⁽b)Average per capita GRDP in U.S. Dollars is calculated based on the exchange rate as of 2010/12/20: 1 Dollar=19,513 VND.

Table 2.1.6 Presence of Japanese companies in Provinces and Cities around Nhon Trach3 Industrial Park (2010)

City/Province	Companies
Ho Chi Minh City	FANUC
Dong Nai	NEC Tokin
Binh Duong	Mitsubishi Motors Corporation, Kubota Corporation, Rinnai Corporation, Hoya, Omron Corporation

Source: Esnet Corporation

2.2 Present Situation of Industry and its Challenges

This section will take a look at the present situation and its challenges of the following things in Vietnam and the designated areas of the project: industrial trend, supporting industries, development of SME's, and foreign investment.

2.2.1 Industrial Trend

Manufacturing industry of the secondary sector is the main industry; of which food processing is the main force, with electronics and mechanicals as the growing forces. As for the designated area of the project, electronics and mechanicals gather in the north and food processing gather in the south.

(1) The Structure of the Secondary Sector and its Change

As seen in 2.1.1, the secondary sector holds 42% of the Vietnamese GDP; here we will take a look at the breakdown of the secondary sector.

The secondary sector includes mining/quarrying, manufacturing, supplying of electricity/gas/steam/air conditioning supply, construction, and water supply/sewerage/waste management/remediation activities industry. The share of the manufacturing industry, the main force, rose up by 3.6 points from 55.5% in 2005 to 59.1% in 2010. The second force, construction industry, enlarged its share from 21.5% in 2005 to 22.4% by 0.9 points. In addition, gas/steam/air conditioning supply industry increased its share from 6.7% to 7.3% during the same period, but mining/quarrying industry has greatly decreased from 14.3% in 2005 to 9.3% in 2010, the sole industry in the secondary sector where its share has decreased. Also, the water supply/waste management industry continues to keep its share of 1.9%. (Figure 2.1.5)

Relating to these structural changes and characteristics, the GDP annual growth rate of each industry in the secondary sector from 2005-2010 is as follows: overall average growth of 7.9%, manufacturing 9.3%, electricity/gas/steam/air conditioning 9.9%, construction 8.7% (all of which so far are above average), water supply/waste management 7.4% (slightly lower than average), and mining/quarrying -0.9% (negative growth). (Figure 2.1.5)

The contrast of mining/quarrying industry and the manufacturing industry is an evidence of the industrialization of Vietnam.



Figure 2.2.1 Change in the Share of Each Subsector of the Secondary Sector (2005~2010)



Source: General Statistics Office of Vietnam2012, "Statistical Yearbook of Vietnam 2011"

Source : General Statistics Office Of Vietnam, 2012, "Statistical Yearbook of Vietnam 2011"

Figure 2.2.2 Average Growth Rate of Each Subsector of the Secondary Sector (2005~2010)

(2) The Structure of Manufacturing Industry and its Change

The structure of manufacturing industry, which holds 59.1% of the secondary sector, and the change of its subsectors are as follows.

In 2010, food was the main force in manufacturing industry, with the share of 20.6%. The following subsectors were other non-metallic mineral products (9.1%), fabricated metal products (6.3%), rubber and plastic products (5.3%), other transportation equipment (5.0%), leather and related products (4.9%), wearing apparel (4.7%), chemicals and chemical products (4.6%), textiles (4.5%), basic metals (4.4%), and computer and electronic/optical products (4.2%).

The change in the proportion of each subsector in each year of 2005~2010 has been shown on table 2.1.1, but figure 2.1.5, based on table 2.1.1, reflects each sector's rank (proportion) in manufacturing industry and its change from 2005 to 2010.

According to this figure, repair and installation of machinery equipment (the lowest rank) did not change during the five years of 2005~2010. Ten subsectors including coke and petroleum products, fabricated metals, computer, electronic/optical products, other transportation equipment, basic metals, pharmaceutical, medicinal, chemical and botanical products, motor vehicles, other manufacturing, rubber/plastic products, and furniture increased in its share.

On the other hand, eleven subsectors including the other non-metallic mineral products, tobacco, chemicals and chemical products, textiles, food, leather and related products, machinery equipment, beverage, printing and recording media, wood and wooden products, and paper and paper products decreased in their share.

On the contrary to the traditional subsectors (such as other non-metallic mineral products), while food and building materials are at the center, still holding a high share, modern subsectors such as computer, electronic/optical products, electricity equipment, machinery equipment, and motor vehicles, still hold a small share; this is an interesting structural characteristic of the Vietnamese manufacturing industry.

		2005	2006	2007	2008	2009	2010
Manufacturing Total		100.0	100.0	100.0	100.0	100.0	100.0
1	Food	21.4	21.3	21.1	21.1	21.0	20.6
2	Beverage	3.2	3.1	3.1	3.4	3.3	2.9
3	Tobacco	3.2	3.0	2.5	2.2	2.1	2.0
4	Textiles	5.4	4.9	5.1	4.7	4.6	4.5
5	Wearing Apparel	4.4	4.3	4.6	4.7	4.7	4.7
6	Leather and Related Products	5.4	5.0	4.9	4.8	4.6	4.9
7	Wood and Wooden Products	2.3	2.4	2.2	2.1	2.2	2.2
8	Paper and Paper Products	2.4	2.4	2.3	2.5	2.4	2.3
9	Printing and Recording Media	1.0	0.9	0.7	0.7	0.7	0.7
10	Coke and Petroleum Products	0.2	0.1	0.1	0.1	0.7	2.2
11	Chemicals and Chemical Products	5.8	5.7	5.6	5.3	5.3	4.6
12	Pharmaceutical, Medicinal, Chemical and Botanical Products	1.0	1.0	1.0	1.1	1.1	1.4
13	Rubber and Plastic Products	5.2	5.4	5.3	5.6	5.3	5.3
14	Other Non-Metalic Mineral Products	10.5	9.6	9.6	9.3	9.9	9.1
15	Basic Metals (Steel)	4.0	3.9	3.7	3.8	3.9	4.4
16	Fabricated Metal Products	5.0	5.1	5.6	5.8	6.0	6.3
17	Computer, Electronic/Optical Products	3.4	3.9	3.9	4.0	4.0	4.2

Table 2.2.1 Proportion of Each Subsector in Manufacturing Industry and its Change
(Unit: %)

		2005	2006	2007	2008	2009	2010
18	Electrical Equipment	3.4	3.7	4.4	4.1	3.9	3.6
19	Machinery Equipment	1.5	1.7	1.1	1.2	1.1	1.1
20	Motor Vehicles	2.9	3.3	2.7	3.2	3.3	3.2
21	Other Transportation Equipment	4.5	5.2	5.6	5.6	5.5	5.0
22	Furniture	3.1	3.0	3.5	3.3	3.1	3.2
23	Other Manufacturing	0.8	0.7	0.9	1.0	1.0	1.1
24	Repair and Installation of Machinery and Equipment	0.3	0.3	0.3	0.3	0.3	0.3

Source : General Statistics Office of Vietnam2012, "Statistical Yearbook of Vietnam 2011"





Figure 2.2.3 Proportion of Each Subsector in Manufacturing Industry and its Change (2005~2010)

2.2.2 Supporting Industries

For further growth of the manufacturing industry, the growth of supporting industries is essential, but since supporting measures such as corporate finance are not satisfactory, the supporting industries are still underdeveloped.

(1) The Role of the Supporting Industries

In addition to the simple processing export industry where affiliate makers expand their business overseas with the assemblers of enterprises such as Samsung and Cannon, industries for domestic markets have reached a stage of expansion these years. The next step, the expansion of foreign large enterprises with the existing domestic supporting industries, is awaited, and the enforcement of the supporting industries is ever more important.

(2) Problems of Supporting Industries

However, the domestic procurement rate of parts and materials of the Japanese industries in Vietnam remain low at 24%. This, compared to the 56% in Thailand, and the 40%'s in Indonesia and Malaysia (JICA (2012)"Energy in Vietnam ~The Present Situation and the Future of Japanese ODA~"), is quite low, showing that the supporting industries are still underdeveloped.

Growth of manufacturing industry of the supporting industries is considered the most important, but the standard is still low. Even if foreign large enterprises expand their business in Vietnam, since the supporting industries are few, they would end up importing their materials. When there are not enough local suppliers, such as the high-tech industries, they would start doing in-house production with assemblers, contributing to the sales of the assemblers. As a result, the foreign investment would return abroad (based on an interview with the Foreign Investment Department of the Ministry of Planning and Investment). There are other cases where the foreign enterprises in Vietnam switched their strategy, changing their location of operation to China, starting to produce in China, and exporting to Vietnam (based on an interview with International Cooperation Department of the Ministry of Industry and Trade).

(3) Hindrance to the Development of the Supporting Industries

At local hearings, the following were pointed out as hindrances to the development of the supporting industries.

Because supporting industries have lower profit rate, capital tends to escape to other industries with higher profit rate. They have smaller domestic market. Moreover, the foreign enterprises could be worried about imitations (based on an interview with the International Cooperation Department of the Ministry of Industry and Trade). There are few corporate finance agencies, and as for credit enhancement, even though the system has been introduced, the operation is still underdeveloped, and the speed of policy execution is slow as well. Compared to Japan, Vietnam has a weaker legal system of legislative-ordinance-official notice. For example, the amended labor law has been put into practice without administrative instruction, so its execution depends on the ability of the official in charge. In Vietnam, even administration is expected to achieve short term goals, a policy such as the expansion of supporting industries as a part of SME support, something that produces a long-term benefit, is not understood easily. Vietnam has a trend of decentralization, so each province has its own policies and regulations; therefore expansion into several provinces in the country is complicated (based on an interview with the Foreign Investment Department of the Ministry of Planning and Investment).

2.2.3 Growth of SME's

Since most of the supporting industries are SME's, for the growth of supporting industries, the growth of SME's is essential; however, capital access, the unsatisfactory knowledge, and management technology are the bottleneck.

(1) Successful Cases of Growth of SME's of Supporting Industry

The following are the successful cases of the growth of SME's of supporting industry.

- The domestic enterprise of 2nd tear, originally for delivering to Cannon, opened up in Nomura Hai Phong Industrial Park; it turned out to supply not only Cannon but the other enterprises that came afterwards such as Kyocera, Xerox, and Brother.
- Hai Van Corporation received product samples from the Japanese Kobayashi Corporation, and was able to produce the same products through Kobayashi Corporation's technical assistance. Also, a metal processing industry company was now able to deliver parts to Toyota (Vietnamese Chamber of Commerce and Industry).
- Honda was able to procure around 60~70% of its parts for motorbikes domestically, and it started to produce at a cost where it was able compete in the domestic market (based on an interview with the Foreign Investment Department of the Ministry of Planning and Investment).
- In the case of Nomura Hai Phong Industrial Park, Ebara Corporation taught the domestic enterprises and they grew up to be able to deliver their products to GE.

• In Thang Long Industrial Park, the produced flaps for Boeing 737 were sent to Komaki Factory in Japan for examination; with improvement in their skill of inspection, they were now able to do the inspection in Vietnam.

JICA Senior Volunteers have been doing technical assistance to the domestic SME's; the SME's claims that the Japanese used construction machines are better than the cheap Chinese/Korean construction machines. In addition, there are Vietnamese companies with a large storage for materials like the Japanese SME's; the domestic SME's have a high compatibility with the Japanese SME's (based on an interview with the Foreign Investment Department of the Ministry of Planning and Investment).

(2) The Problems of SME's

In Vietnam, as a result of the reformation of the domestic enterprises, private sectors hold 45.9% of GDP, and 42.0% of the net profit by all the enterprises (both data of 2007); most of the private sectors are SME's (as of 2006 they are 98% of the total number of enterprises).

However, their access to capital and the unsatisfactory knowledge and skills of management are the bottleneck of SME's (JETRO (2008) Support Project of SME's (III) Post-Project Evaluation Sheet). In addition, most local people have the picture of large enterprises that produce high-tech parts like Sumitomo Electric as the image of supporting industries; they do not recognize the SME's of supporting industries. The domestic investors and government think that it is more efficient to invest in larger enterprises. However, in fact, because the products of the supporting industries are cheap, the cost of the final assembled product is lowered, giving price competitiveness; despite this, the public supporting agencies such as corporate finance do not understand (based on an interview with the Foreign Investment Department of the Ministry of Planning and Investment).

At the hearing sessions with the enterprises who have expanded their business, the fact that the material procurement and environment for outsourcing are unsatisfactory was pointed out; providing a better environment, such as giving information about these topics and giving support in prospecting domestic market are on high demand.

2.2.4 Introduction of Foreign Capital

As seen in 2.2.3, in supporting industries, the domestic SME's grow through technical cooperation by the foreign industries to the domestic industries, or through interaction between the foreign and domestic industries. Therefore, for the growth of supporting industries, introducing foreign capital, such as the expansion of foreign enterprises, is effective. In Vietnam, Japan has the most foreign capital investment, and its increasing these years. Major industries of Japanese SME's are electronics/machinery and food processing.

(1) The Overview of Foreign Capital

The number of newly introduced foreign capital in Vietnam (the aggregate until the end of 2011) was 13,440, with 199.1 billion dollars, and average investment being 14.8 million dollars.

While the average investment in both Hanoi and Ho Chi Minh City are lower than the national average, in Hai Duong Province in the north and Dong Nai Province in the south, the designated areas of the project, the average investment is higher than the national average; this shows that there is more investment in manufacturing, an industry with larger scale investment, than in service industry. In addition, as seen in Table 2.2.2, while Dong Nai Province is only about 20% of Ho Chi Minh City in GRDP, the foreign investment is as much as 60%, showing that foreign capital is popular in the area.

Dong Nai Province is the province with the most investment from foreign enterprises, but there are challenges as well; there are companies with deficit in their balance sheets, or companies that quit with their pay unpaid, and the luring of the supporting industries is unsatisfactory (based on an interview with Dong Nai Province People's Committee Chamber of Commerce and Industry).

Table 2.2.2 The Cumulative Total and Average Scale of Foreign Capital of the DesignatedProject Area (aggregate until the end of 2011)

	Cumulative Total of	Cumulative Total	Average Investment	
City/Province	Foreign Capital	(Million USD)	Scale	
	Introduced		(Million USD)	
Vietnam	13,440	199,079	14.8	
Hanoi	2,253	23,596	10.5	
Hai Duong	253	5,286	20.9	
Ho Chi Minh City	3,967	32,020	8.1	
Dong Nai	1,075	18,200	16.9	

Source : General Statistics Office of Vietnam 2012, "Statistical Yearbook of Vietnam 2011"

Taking a look at the total amount of foreign capital from 2005 to 2012, fluctuations exist, but overall, Hai Duong Province in the north changes within 1 billion USD and Dong Nai Province in the south changes within 1~2 billion USD each year. Neither simply increases nor decreases, so the outlook is unclear. Both do not reach the amount of foreign capital in the neighboring large cities of Hanoi and Ho Chi Minh City for most of the years. When looking at the number of foreign capital investments, both Hai Duong Province in the north and Dong Nai Province in the south stays around 30-40, and neither simply increases nor decreases.



Source : General Statistics Office Of Vietnam,2012, "Statistical Yearbook of Vietnam 2011" Figure 2.2.3 Amount of Foreign Capital in the Project Area by the Year





Figure 2.2.4 Number of Foreign Capital Investment in the Project Area by the Year

(2) Trend of Japanese Industries Expansion and Investment 1) Vietnam

Taking a look at the amount of investment by country, Japan is ranked at the first, double the amount of the second place, significantly larger compared to the other countries.

Country/Region		Total			
		Number	Amount Million USD		
1	Japan	378	5,138		
2	Singapore	138	1,728		
3	Korea	332	1,178		
4	Samoa	8	908		
5	Virgin Islands	42	788		
6	Hong Kong	59	658		
7	Taiwan	104	453		
8	Cyprus	3	378		
9	China	85	345		
10	Malaysia	44	224		
Total		1,535	13,013		

Table 2.2.3 FDI towards Vietnam approved in 2012 by Country

Note: The data is the approved FDI from 2012.1.1~2012.12.15

Source: Foreign Investment Department of the Ministry of Planning and Investment

The expansion of Japanese enterprises to Vietnam started in 1994, but due to Asian Currency Crisis in 1997, the amount and number of investment (referring to direct investment, the same shall apply hereinafter) both decreased in 1998, to 660 million dollars and 65 investments to 110 million dollars and 12 investments. The number of investments gradually recovered starting in 1999, but the amount of investment continued to dwindle until 2003. Also, due to the issue of Japan joining the permanent members of the United Nation, a large scale anti-Japanese sentiment arouse in China in 2005; therefore both the amount and number of investment increased in 2005. The number reached its peak of 154 in

2007, and the amount reached its peak of 7.65 billion dollars in 2008. Even though the amount decreased sharply again after the Lehman Shock to 77 investments and 140 million dollars, it recovered once again in 2010 to 114 investments and 2.04 billion dollars. (Figure 2.2.6)

With the economic cooperation of the two countries after the declaration of "Japan-Vietnam Joint Statement" by both the Japanese and the Vietnamese prime ministers in 2010 and 2011, there were 227 investments and 2.62 billion dollars invested in total by the Japanese enterprises to Vietnam in 2011. In 2012, it rose up to 378 investments and 5.13 billion dollars, nearly doubling in its amount.



Source: Vietnam Seminar (2011.9.3) handout "Newest Economic Information on Vietnam and the Present Situation for Expanding Japanese Enterprises" (created by Hiroyuki Moribe Chief Researcher of the JETRO Overseas Research Department)

Figure 2.2.6 FDI Investment Amount and Number of Project by the Japanese Industries to Vietnam and their Change

Of the expanding Japanese enterprises, there are 71 SME's (with less than 300 million yen share capital), of which 49 are from the manufacturing industry. Taking a look at the manufacturing industries, there are many machines, metals, chemicals rubber, and food industry.

These industries, as seen in Table 2.2.4, are the main developing sectors in Vietnam, and the role the Japanese SME's will play will be significant.

Upper Category	Category	Number of Enterprises	Upper Category	Category	Number of Enterprises
Construction		4	Transportation , Postal		1
Manufacturing	Food	4	Wholesale, Retail		7
	Textile	3	Service		10
	Pulp/Paper	2	Total		71
	Chemical/Rubber	7			
	Metal	11			
	Machine	17			
	Other manufacturing	5			
	Subtotal	49			

Table 2.2.4 The Component of the Expanding Japanese Enterprises by their Sectors

Source: TOYO KEIZAI INC. (2013) Overseas Expanding Enterprises (By Country)

2) Designated Area of the Project

The Japanese enterprises that have expanded their business all over Vietnam belong to the Japan Business Association in Vietnam (JBAV), located in Hanoi in the north, the Japan Business Association in Ho Chi Minh City (JBAH) in the south, and the Japan Business Association in Da Nang (JBAD) in the central part. Therefore, the number of enterprises that belong to these three Japan Business Association does not necessarily cover all the Japanese enterprises in Vietnam, but can be expected to reflect their trend.

As shown in Figure 2.2.1, the number of enterprises that belong to all the Japan Business Association in Vietnam was 327 in 2000, of which JBAH having 212 and JBAV 115, but in 2008, with the newly established central JBAD, they had a total of 743 enterprises, increasing to 953 in 2011. As of 2011, JBAH had 501, JBAV 405, and JBAD 47; the southern Vietnam has the most enterprises at the top.

The members of JBAV in the north, since its establishment, have been increasing (except during the Asian Currency Crisis); in the last six years its members doubled to 520. However, these years, due to the low yen, the number of new members have decreased by 30%. The SME's (categorized as SME's under the Small and Medium-sized Enterprises Act) are 40% of JBAV, and the recently joined enterprises are plastic injection, mold, plating, and automobile parts. The manufacturing industries tend to be successful in their expanded business (according to an interview with JBAV).

On the other hand, as for JBAH in the south, there has been a change in the type of industries recently. In other words, non-manufacturing industries such as service, retails, logistics, IT (information technology), and trade have increased, from the former manufacturing industries; from export processing industries to industries that match the Vietnamese domestic demand (according to an interview with JBAH).



Figure 2.2.7 Change in the Number of Members of Japan Business Association in Vietnam

Source: Vietnam Seminar (2011.9.13) handout "Newest Economic Information on Vietnam and the Present Situation of Expanding Japanese Industries" (created by Hiroyuki Moribe, Chief Researcher of the Overseas Research Department of JETRO)

Note: the North data is from JBAV, the south data is from JBAH, and the central data is from JBAD.

2.3 Present Situation of Industry and its Challenges

To grow supporting industries and SME's and introduce foreign capital, there are various support and assistance measures taken. Even though industrial parks for foreign enterprises have been constructed, there are few small-scale rental factories; the administrative procedures are complicated as well, making it difficult for the foreign SME's to enter as tenants.

2.3.1 Policies and Plans Relating to the Growth of Supporting Industries (1) Vietnamese Government

There are two laws on the growth of supporting industries in Vietnam: "Policies on development of a number of supporting industries" (Prime Minister's Decision, NO.12/2011/QD-TTg) in 2011 and "Guiding the financial policies specified in the Prime Minister's Decision" (by the Ministry of Finance, NO.96/2011/TT-BTC).

The Prime Minister's Decision No.12 gives the definition of the kinds of supporting industries in Vietnam, along with the various incentive measures the designated industries can receive. The Ministry of Industry and Trade (MOIT) is in charge.

1) Defining the Target Industries

The industries defined under supporting industries will be the following six.

Machine/IT/Automobile Manufacturing and Assemble/Sewing/Leather and Shoes Manufacturing/High-Technology Industries

2) Incentive Measures

a) The permission to use the government maintained websites for advertisement for free b) Higher priority in allocating the land for the facility c) Exemption from tariff etc.

The No.96 government order describes the various supporting and assisting measures related to the funding of the enterprises of the supporting industries.
- Measures for the exemption of tariff
- Financial assistance plans for SME's
- High priority in loan from national development fund
- · Measures for postponement on the payment of value-added tax
- Measures for exemption from land use fee and tax
- · Measures for exemption of corporate tax (the target area for this project is not
- included)

2.3.2 Policies and Plans Relating to the Growth of SME's (1) Vietnamese Government

The Vietnamese Government executed a Corporate Act in 2000, mainly to simplify the process to establish a company, and this led to a sharp increase in the number of private enterprises. In 2001, the Small and Medium-Sized Enterprise Agency, which is in control of SME's (currently the Agency for Enterprise Development, AED), was placed under the Ministry of Planning and Investment (MPI). In 2006, the "Small and Medium Industries Development Plan: 2006~2010" was presented, and various measures for simplifying the governmental procedures, nurturing industrial human resources, and reinforcing the competitiveness of the SME's were created. In addition, since 2008 when the influence of financial crisis was apparent, the government executed supporting policies for SME's such as the decrease of corporate tax to 30%, postponement of tax payment, subsidized interest of 4%, etc. (JICA (2005) "Pre-Project Evaluation Sheet on Supporting Measures for Small and Medium Enterprises (III)").

"Decree on Assistance to the Development of Small and Medium Sized Enterprises" (Government Decree) (NO.56/2009/ND-CP) describes the supporting and assisting measures for SME's. These are supporting measures on financing (credit guarantee by the government, supporting measures for the development of SME's by central bank, favorable interest, and favorable lending by the Small and Medium Industries Supporting Fund), land acquisition, tax rate, favorable measures on labor, and government technical assistance.

(2) Hai Duong Province

Small and Medium Industries Supporting Fund is placed in each province, and the scale differs from province to province. However, in Hai Duong Province, it is not established due to its financial situation. There are measures to support the intellectual property of SME's and programs for supporting the development of industries as well (based on a hearing from the chamber of commerce and industries of the Hai Duong People's Committee).

(3) Dong Nai Province

In the Decree No.56, it is stated that the government actively takes part in the supporting of SME's. Therefore, the assistance for supporting industries is being considered by agencies such as the People's Committee of Dong Nai Province (based on a hearing from the chamber of commerce and industries of the Dong Nai People's Committee).

2.3.3 Policies and Plans on Foreign Capital

(1) Vietnamese Government

When receiving economic assistance such as the ODA loan, there is going to be a burden of reimbursement in the future; therefore, the government is putting an emphasis on private investment from overseas that does not need a reimbursement (based on a hearing from the Department of Foreign Investment of the Ministry of Planning and Investment).

According to the Foreign Investment Law that was amended in 2007, it was guaranteed that the nationalization of foreign firms and the confiscation of the capital of foreign investors would not be conducted, therefore progressing even more actively on the introduction of foreign capital.

According to the Decree No.87/2010/ND-CP, details on a number of articles of the law on import duty and export duty, the exemption of import tax (when reimporting to Vietnam after processing overseas, investment advancement project, imports by ODA fund) are stated.

Other than this, Corporate Tax Law (No.14/2008/QH12) and "Investment Law (including exemption of tax measures) Executing Guidelines" state the exemption of corporate tax, but the designated area of this project and support industries are out of the scope (only limited to company activities in low-developed area, export processing zone, high-tech park, and other infrastructure projects that are considered important).

(2) Hai Duong Province

Assisting policies for SME's (supporting industries) are executed according to policies of the central government. In addition, support is not to exceed the regulation by the central government.

The province is luring foreign firms using the advantages of Hai Duong Province; the convenience of transportation, the location of the province (near Hanoi and Hai Phong), designated priority area of the north, and the abundant young labor.

Of the supporting industries, the province is focusing on the expansion of high-tech industries. In addition, it is interested in the expansion of automobile and machine production, shipbuilding, electronics, IT, sewing, and leather (based on a hearing with the Chamber of Commerce and Industries of the Hai Duong Province People's Committee).

(3) Dong Nai Province

The strategy of the province is to lure the Japanese supporting industries and high-tech industries even more (based on an interview with the Operation Committee of the Dong Nai Industrial Park).

It is trying to get its own preferential treatment measures approved by the prime minister, but the administrative procedure is very complicated, and they have not been approved as of present.

The Investment Law in 2006 has some room for amendment; while it has simplified the inspection procedures during the time of expansion, it has remained to inspect very strictly at the time of withdrawal. The province has been trying to simplify the procedures of re-application after the investment approval period has finished and the one-stop service (based on an interview with the Department of Planning and Investment of Dong Nai Province People's Committee).

2.3.4 Policies and Plans on Industrial Parks for Foreign Firms (1) Vietnamese Government

Of the 288 Industrial Parks nationwide, there are 180 in operation, and the remaining 100 are in their process of land acquisition and infrastructure preparation. It is planned that the total area of industrial parks will be expanded to 200,000ha (about triple the size) by 2020.

(2) Hai Duong Province

The province is putting its emphasis on growth of industrial parks and industrial clusters as well, and they serve as the saucer for the foreign firms. The rent price is cheaper than Hai Phong, which is its merit (based on an interview with the Chamber of Commerce and Industries of the Hai Duong Province People's Committee).

According to the socio-economic master plan of Hai Duong Province, there are 18 industrial parks planned to be provided by 2020, of which 11, including Dai An (expansion), have their detailed plan prepared.

 Table 2.3.1 Industrial Parks in Hai Duong Province with Detailed Design

```
    Nam Sach IZ (62,42 ha)
    2. Dai An(expansion) (607,22 ha)
    Phuc Dien IZ(expansion) (297,45 ha)
    Tan Truong IZ(expansion) (310,66 ha)
    Viet Hoa - Kenmark (46,4 ha)
    Lai Vu IZ (212,89 ha)
    Cong Hoa (357,03 ha)
    Lai Cach IZ (132,4 ha)
    Cam Dien - Luong Dien (183,96 ha)
    Kim Thanh (164,98 ha)
    The West area of Phu Thai IZ (21,7 ha)
```

(3) Dong Nai Province

To support the three industrial parks (not part of this project) chosen by the People's Committee, the following supporting policies are being considered and are going to be submitted to the central government, but whether it will be accepted or not is not clear. The selection criteria are the geographical location and the credibility of the developers.

- a) There is a corporate tax break. Currently, the corporate tax ranges from 20~22%, but the rate is planned to be lowered to half the current rate. Whether the submitted plan will be accepted or not is not clear. The period will be 15 years; there will be an exemption from tax during the first four years, and in the 5th to 13th year, currently during consideration, the tax rate will be half.
- b) Land tax will be free for 11 years.
- c) Import duty for facilities will be exempted (based on an interview with the Chamber of Commerce and Industries of the Dong Nai Province People's Committee)

2.4 Present Situation of Industry and its Challenges

To acquire land for factories in Vietnam, construct factories and start operating, there are complicated procedures. It is difficult for the human resources of the SME's to handle these procedures, and rental factories and support services are essential. The figure on the next page shows the system and procedures relating to the construction and operation of factories; it shows that various procedures are necessary.

No.	Item	Agency	Company	Office for Japanese Employees	1 month	2 months	3 months	4 months	5 months	6 months
	Temporary land contract	People's Committee or Industrial Park Operating Company	0		excludes period for s	electingland	Exemption of			
1	Temporary office contract	Office operating company, etc.		0	excludes period for s	electing office	investment certificate Office establishment			
2	Investment certificate acquisition	Ministry of Planning and Investment or the Management Committee	0		1-2 months of (depends on o	documentation company)	15 sales receivin	days after g document		
	Japanese employee office establishment permission acquisition	Chamber of Commerce or Management Committee		0	1-2 months of (depends on o	f documentation company)	15 sales receivin days for	days after g document (7 Hanoi)		
3	Company seal acquisition (soon after the acquisition of investment certificate)	National security and social stability management department	0	0			Cr se	eating document i curity police (4day	n national /s)	
4	Tax code acquisition (10 days within the acquisition of investment certificate)	Tax Bureau	0	0				Creating applicat tax bureau (5 day	tion document and publishin ys after receiving the docum	gatthe ent)
5	Notice of company/office establishment (30 days within the acquisition of investment certificate)	Newspaper Media	0	0				Print for 3 conse	cutive days	
6	Bank account	Bank	0	0				📫 nextday		
7	(after January 1st 2012, all companies acquire VAT invoice on their own; purchase from the tax office	Tax Bureau/Printing	0						Print after approval from the tax bureau (about a month)	
8	License tax (the month of investment certificate acquisition)	Tax Bureau	0					Tax paym documen (30 days v tax code)	ent possible after tation of the application within the acquisition of	
9	Construction approval acquisition	Department of Construction	0						about a month	
10	Disaster prevention approval application	Fire Department	0						about 2 wee the docume	ks after receiving nt
11	Various procedures on environment	Department of Natural Resources and Environment	0						about 2 wee the docume	eks after receiving nt
12	Fiscal year notice (if necessary)	Tax Bureau	0					Only turn	in the notice	
13	Change and correction to financial system (if necessary)	Ministry of Finance	0					about	2 weeks	
14	Appointing chief accountant (not necessary for the first year)	Tax Bureau	0						Register within 10 days of a	ppointment 📫
15	Activity notice (45 days within the establishment permission)	Chamber of Commerce or Management Committee		0					Application document weeks)	tation (about 2
16	Work permission acquisition	Department of Social Issues of Labor and wounded soldiers)	0	0				Docume sales day	nt preparation and issue (10 y after receiving the docume	nt)
17	Temporary stay permission (work VISA acquisition)	Management department of national security and entry/exit of the country	0	0					Document preparation	on and issue (5 sales ie document)
18	Salary table registration	Department of Social Issues of Labor and wounded soldiers)	0	0				Re	gister within 6 months of contablishment	mpany
19	Application and payment of compulsory insurance	Department of social insurance	0	0				lr ta	nmediately after registering ble	the salary
20	Registration of work rules (for industries with 10 workers or more)	Department of Social Issues of Labor and wounded soldiers) or management committee	0	0				R	egister within 6 months of co stablishment	ompany
21	Registration of labor agreement (if necessary)	Department of Social Issues of Labor and wounded soldiers)	0	0				R	egister within 6 months of co stablishment	ompany

Table 2.4.1 Systems on Construction and Operation of Factories

Source: JETRO Hanoi Office, "Manual on the Establishment of Vietnamese Firm and Office for the Transferred Staffs" September 2012

Also, there are many regulations on labor. For example, a careful attention is needed for minimum wage, payment of social insurance of the workers, and labor related regulations.

•Minimum Wage

The government announced the Decree 103/2012/ND-CP PDF to raise the minimum wage of the domestic and foreign firms on 2012/12/4. It becomes effective on 2013/1/20, and the new minimum wage will be effective from 2013/1/1.

Social Insurance

Law on Social Insurance 71/2006/QH11

The Social Insurance Law, consisting of 11 chapters and 141 sections in total, went into effect from 2007/1/1 to offer legal basement of social insurance.

•Regulations on the Social Insurance Handbook issue, management, and the its use

The chief of the social insurance agency published the Decision 555/QD-BHXH stating the new rules for social insurance handbook issue, management, and its use. The new rule offers resolution to several problems that existed in the former rules: for example, there were two handbooks issued for a single work, or the same handbook was issued to more than two workers. This was in effect in place of Decision 3636/QD-BHXH of 2008/6/16, and was in effect from 2009/1/1.

•Guidance on the compulsory social insurance

Decree 152/2006/ND-CP(2006/12/22)

Regulation on the Compulsory Social Insurance under the Social Insurance Law

Published by the Department of Ministry of Labor, Invalids, and Social Affairs; Circular 03/2007/TT-BLDTBXH (2007/1/30)

Detailed guideline on Decree 152/2006/ND-CP

Circular 19/2008/TT-BLDTXH (2008/9/23) and Circular 41/2009/TT-BLDTBXH by the Ministry of Labor, Invalids and Social Affairs

Addition to the Circular 03/2007/TT-BLDTBXH: giving support for leave from work for sickness, beneficiaries for maternity leave, beneficiaries for the labor-related accidents, work-related sickness, pension, and survivor's benefit.

Decision 902/QD-BHXH (2007/6/26) by the chief of the department of social insurance

Detailed guideline on Decree 152/2006/ND-CP: Rules on the collecting money for the compulsory social insurance and health insurance

According to these guidelines, after 2007/7/1, female workers must continue to pay for their health insurance during their maternity leave. The maternity leave is included in the total contribution-paid period of both social insurance and health insurance.

Decision 1111/QD-BHXH on the management of insurance fee collection

oGovernment Punishment on the Violation on Social Insurance Contribution

The government published the Decree 86/2010/ND-CP on 2010/8/13, and defined the punishment for violating the social insurance contribution. The unpaid insurance fee for insurance over 500 employees will be punished with 24.1 million~30 million VND, with 101~500 employees 18.1 million~24 million VND, with 51~100 employees 10.1 million~18 million VND, with 11~50 employees 5 million~10 million VND, with 1~10 employees 1 million~5 million VND. Also, there

may be supplementary punishment such as the interest for postponement of insurance fee payment. In addition, for employees who submit false information to illegally receive insurance benefits may be due to a punishment of 10 million~50 million VND, for companies that do not apply for the compulsory insurance will be due to 0.3 million~25 million VND per worker unapplied, and for companies that do not apply for compulsory insurance handbook by the deadline will be due to 0.3 million~0.7 million VND per person unapplied.

•Contribution to the Unemployment Insurance Fund

Decree 127/2008/ND-CP on Unemployment Insurance Fund was put into effect from 2009/1/1. According to this rule, the payment for unemployment insurance fund will be both from employees and the employers. However, the employees need to have a labor contract with the employer of at least 12 months, and the employer needs to employ at least 10 employees.

Rate of contribution will be as follows:

- 1%: by employees
- 1%: by employers
- 1%: by the government

Note: The government published Decree 100/2012/ND-CP on 2012/11/21 to add to the above Decree 127/2008/ND-CP. The new decree will be effective from 2013/1/15.

The basic wage for the unemployment insurance contribution will be the wage written on the labor contract. However, the maximum will be 20 months of general minimum wage.

Note: The Ministry of Labor, Invalids, and Social Affairs published Circular 32/2010/TT-BLDTBXH on 2010/10/25, and presented the execution guidelines of the decree.

According to the rules by Circular 32, the unemployed workers can get a payment of 60% the wage the worker used to receive in the last six months before unemployment. Also, if he had been contributing to the unemployment insurance for 144 months, then he will be able to receive the payment for 12 months.

oHealth Insurance

The congress approved the law relating to health insurance 25/2008/QH12 and started executing on 2009/7/1. Also, under the guideline to this law, Decree 62/2009/ND-CP, the employer burden will be 3% of contract wage and the employee burden will be 1.5%. The maximum monthly payment used for medical insurance fee calculation is 20 times the general minimum wage (approximately 16.6 million VND). The circumstances eligible for health insurance payment are as follows.

- Diagnosis, treatment, rehabilitation, periodical checkups on the fetus, and child delivery
- The early diagnosis of certain illness designated by the Ministry of Health and diagnosis that require detailed testing
- Medicine, medical equipment, high-technology services

•Amendments to the obligatory joining of health insurance

The Ministry of Labor and the Ministry of Finance have published Circular 09/2009/TTLT-BYT-BTC

on 2009/8/14 (in effect from 2009/10/1). According to this circular, employees who have been bound to their labor contract for more than three months (including foreign workers) will be expected to join compulsory insurance. Also, voluntary medical insurance system is stated in detail under the circular.

Source: JETRO website

2.5 Situation of the Donor Country on its Support Measures for the Supporting Industries and SME's

Japan and other international financial agencies have been conducting two-step-loans and technical assistance, but support for luring foreign firms has not been conducted yet.

2.5.1 Situation of Japan on its Support

Since 1999, supporting projects for SME's (two step loan projects) have been conducted by ODA loan, and phase 3 has started in 2009. A total of 27.3 billion yen have been given. This is to give ODA loan from national banks to SME's via Participating Financial Institutions (PFI's), based on credibility inspections by them. The PFI's have increased from four in the beginning to the current number of 27.

In addition to this, technical/management assistance, human resource supply, policy execution/system creation has been conducted by JICA senior volunteers, professional dispatch/training, and technical cooperation project. There is a matching project of the foreign firms and the domestic SME's of supporting industries, but the luring of foreign firms itself has hardly ever been done before.



Source: JICA Vietnam Office (2013) Overview of the SME Support Reinforcement Project

Figure 2.5.1 JICA's SME Supporting System

2.5.2 Situation of the International Financial Agencies' Support

World Bank and Asia Development Bank, both international financial agencies, offer two-step-loan for SME's, just like Japanese ODA.

(1) World Bank

There are 55.62 million dollars in Vietnam Inclusive Innovation Project, a two-step-loan for SME's, established in 2013. World Bank lends the money to the Ministry of Finance (MOF); the World Bank does not do direct investment to city banks. The interest rate from World Bank to MOF is 1.25% for 25 years, with an additional service fee of 0.2%. The money is lent in U.S. Dollars, so the exchange risk will be taken by the MOF of the donor country, but the interest rate, taking the exchange risk into account, is about 6% annually (based on an interview with the World Bank Vietnam office).

(2) Asia Development Bank

There are 800 thousand dollars from the Supporting the Second Small and Medium-Sized Enterprises Development Program, a two-step-loan established in 2008 for the SME's. The money is lent through the Ministry of Planning and Investment from ADB to city banks. A Subprogram I (total of 40 million dollars) was placed under the same framework.

2.6 The necessity of this project

Through the technical cooperation and the transaction between foreign firms and domestic firms, the rich production technology and knowledge on management are transferred to domestic SME's, raising the technology standard for the supporting industries. Therefore, to grow the supporting industries, introducing foreign capital, such as the expansion of foreign firms, is effective. It is hoped that many Japanese SME's will be expanding their business, since Japan is the largest direct investing country to Vietnam.

Recently, there are many SME's that are trying to improve their business management by overseas expansion or follow the client large firms' overseas expansion, due to the worsening business environment in Japan. However, acquiring factory land, constructing a factory and starting to operate it comes with many complicated procedures, and it is difficult for the human resources of the SME's to handle them.

Under this situation, offering rental factories for Japanese SME's and providing a one stop supporting service for various issues that SME's face due to their business expansion would encourage these SME's to expand to Vietnam. Therefore, the necessity of this project is quite high, from the standpoint of both Japan and Vietnam.

2.7 Present Situation of Industry and its Challenges The Objective of this Project

For the Japanese SME's to expand their business in Vietnam, supporting measures to provide an environment where the initial capital cost is lowered, the exploiting of the new market can be done, and a long-term stable operation is possible, is necessary.

This project will quicken the expansion of Japanese SME's into Vietnam by providing both of the two objectives stated above. The objective of this project is to advance on with the supporting measures for Japanese SME's and the growth of supporting industries in Vietnam.

Chapter 3 Demand Projection and Research

This chapter will show the situation and trend of the industrial clusters in the project target area, especially the Japanese firms, and will compare and analyze with the other countries and regions. Also, it will organize the current situation, challenges, and model cases of rental factory projects in Vietnam and other Southeast Asian countries. To conclude, there will be an analysis of a questionnaire survey of Japanese enterprises conducted through various groups, and we will show their reasons of expansion into Vietnam, types of industry, forms of expansion, time of expansion, and demand for rental factories.

3.1 Situation and Trend of Industrial Clusters

Here, the situation and trend of industrial clusters in northern and southern Vietnam, the target areas of the project, will be discussed.

3.1.1 Industrial Clusters of Japanese Expanding Industries in Northern Vietnam (around Industrial Parks in the Suburbs of Hanoi)

In northern Vietnam (Figure 3.1.1), assembly industries for transport utilities (e.g. automobiles) and electronic devices have accumulated. There are many Japanese large manufacturing enterprises and their affiliated enterprises expanding overseas in the fields of automobiles (mainly two-wheeled vehicles), home appliances, and electronic devices.



Source: the research team

Figure 3.1.1 Map of the 25 Provinces and Cities in Northern Vietnam

For example, in two-wheeled vehicle industry, Honda and Yamaha have expanded their business in northern Vietnam; these two firms occupy about 75% of the Vietnamese two-wheeled vehicle industry. Honda has employed about 7,700 workers and produced about 1.5 million~1.7 million vehicles/year, and the produced vehicles are sold in the domestic Vietnam market. Yamaha produces about a little less than 1 million vehicles.

For office automation appliances, Cannon has expanded in northern Vietnam. About 70% of inkjet produced for the whole world have been produced in Vietnam; about 1 million inkjets are produced and exported every month. Brother produces its all-in-one inkjet printers in northern Vietnam and exports them all over the world.

The number of enterprises that belong to the Japan Business Association in Vietnam is 400 in the northern district at the end of last year, but when including the ones that are not registered, it is said that there are about double the number of firms, and it currently has an upward trend.

3.1.2 Industrial Clusters of Japanese Expanding Industries in Southern Vietnam (around Industrial Parks in the Suburbs of Ho Chi Minh City)

In southern Vietnam (Figure 3.1.2), many firms including sales, food, and logistics have expanded, and they produce products for Ho Chi Minh City, a city that holds 8 million population, and for neighboring countries.

In addition, there are many Japanese small and medium parts manufacturers gathered that produce and supply the set manufacturers in north transportation equipment, precision machines, and electronic parts. For example, harness parts used by Sumitomo Wiring Systems are produced by parts manufacturers in southern Vietnam. Other than this, there are food/food processing industries such as ROHTO Pharmaceutical, Sapporo Beer, and Ajinomoto; health care products and consumer products are very active as well.

Also, there are cases of logistic industry expansion; for example, Family Mart (18 convenience stores have opened near Ho Chi Minh City), AEON, and Takashimaya. There are many Japanese eat-out chain restaurants as well.



Source: research team

Figure 3.1.2 Map of the 19 Provinces and Cities in Southern Vietnam

3.2 Comparative Analysis on the Geographical Location Condition

We will do a comparative analysis of the appropriateness of developing this project in Dai An Industrial Park and Nhon Trach 3 Industrial Park based on the geographical location.

The main points to be considered in a geographical location of an industrial park are that they are close to large cities where the products are consumed, there is large accumulation of industry, goods, information, finance, and human resources, and transportation infrastructure that will serve as logistics network is satisfactory. From this standpoint, the two largest cities in Vietnam, Hanoi and Ho Chi Minh City, are located close by, and there are many Japanese enterprises that have already expanded (Figure 3.2.1); therefore, the north and the south regions are more appropriate in their geographical locations, compared to the central part.



Number of Japanese Companies in Vietnam

Source: Vietnam Seminar (2011/9/3) handout "Newest Economic Information on Vietnam and the Present Situation of the Expanding Japanese Industries" (by Chief Researcher Hiroyuki Moribe, JETRO Department of Overseas Research)

Note: The data is derived from that of JBAV in the north, JBAH in the south, and JBAD in the middle.

Figure 3.2.1 The Number of Enterprises Registered to the Japan Business Associations in Vietnam (as of 2011)

3.2.1 Comparative Analysis on the Geographical Location Condition of Dai An Industrial Park

From the standpoint stated above, the geographical location of Dai An Industrial Park is very suitable.

The industrial park is located in the central economic area in the north, including Hanoi, Quang Ninh, Hai Duong, and Hai Phong. In addition, the National Highway No.5, which the industrial park is located along, connects the capital Hanoi and the port city Hai Phong, and will continue to service as an important transportation infrastructure in the logistics of economic area in the future. Access to international port, river port, domestic/international airport, and railway is very convenient, which can minimize the transportation cost to domestic/international markets. Below, the access to important locations from Dai An Industrial Park are shown. (Figure 3.2.2)

- Along National Highway No.5
- 7km to the New National Highway No.5 between Dai An and Hai Phong (To be constructed in 2014)
- 80km to Noi Bai Airport
- 50km to central part of Hanoi, the capital
- 50km to Hai Phong Port and Hai Phong Airport
- 80km to Quang Ninh Port
- 1.5km to Tien Kieu River
- 2km to the railway station
- 5km to central part of Hai Duong



Source: Dai An Industrial Park Overview

Figure 3.2.2 Location of Dai An Industrial Park

Also, even though Hai Duong Province is behind Hanoi and Hai Phong in terms of existing Japanese enterprises, it is ranked 3rd in the north for the number of Japanese enterprises (Figure 3.2.3). System of inter-firms supply and cooperation has been constructed in the province, such as the delivery of parts manufacturing industries to assemblers, reuse of other firms' effluent, etc., and efficient enterprise activities have been made possible.



Source: research team

Figure 3.2.3 Number of Industrial Parks and Japanese Enterprises in Main Cities of Northern Vietnam

3.2.2 Comparative Analysis on the Geographical Location Condition of Nhon Trach 3 Industrial Park

As with Dai An Industrial Park, the geographical location of Nhon Trach 3 Industrial Park is very desirable. It is 25 km in the southeast of Ho Chi Minh City, the largest city in Vietnam, located in Dong Nai Province; the province is surrounded by Ho Chi Minh City, Binh Duong Province, and Ba-Ria Vung Tau Province (Figure 3.2.4), and of the 2.56 million population, 1.63 million, 63%, are labor workers, and GDP per capita is 1,629 dollars. There are several significant transportation projects in Dong Nai Province: Long Thanh International Airport and Bien Hoa New City Project (2020), Nhon Trach New City (2020), and new National Highway. Nhon Trach III Industrial Park is 30 km (70~90 minutes) to the central part of Ho Chi Minh City via ferry, and 60 km (120 minutes) by National Highway No.51. In the near future, Long Thanh International Airport will open and the national highway will be extended from Ho Chi Minh City, and the access from the city will improve drastically.



Figure 3.2.4 Location of Nhon Trach III Industrial Park

Also, in Dong Nai Province, as a result of industrial clusters (Figure 3.2.5), there is an inter-enterprise supply and cooperation system, and efficient enterprise activities have been made possible, such as the delivery of parts manufacturing industries to assemblers.



Figure 3.2.5 Number of Industrial Parks and Japanese Enterprises in Main Cities of Southern Vietnam

3.3 The Present Situation and Challenges of Rental Factory in Southeast Asian Countries

Below, we will show the present situation and challenges of rental factory in Southeast Asian countries, including Vietnam. Also, the overview of rental factory project cases in Indonesia and Vietnam (model cases to this project) will be shown, using the research result of the "Basic Information Research and Confirmation on Support of Expansion of Japanese SME's into Asia Region, Including Vietnam and Indonesia Industrial Parks," conducted by Mitsubishi Research Institute, ordered by JICA. For the model cases, we have chosen the area where an industrial park or a rental factory of certain scale is located and where there are many Japanese SME's.

3.3.1 Situation of the Rental Factory Project in Southeast Asia as a Whole

The overall trend is that the rental factories in Southeast Asia are located in existing, large-scale industrial parks. There are barely any rental factories especially designed for SME's. The existing rental factories provide an area of over 2000 m² and 3000 m², which are far too large for SME's; the ideal area of around 1000 m² are very few. Also, as rental factory developers, small-scale rental factories have a low profitability, which gives them less motivation to enlarge the existing rental factory project scale.

Below, we will show the present situation and challenges of rental factory projects in Southeast Asia from their geographical location, hard, and soft.

(1) Geographical Location

The existing rental factories are located in large-scale industrial parks. When constructing and operating rental factories, it is likely that they will be built in existing industrial parks or within township developing area that includes industrial parks.

This is because there is a possibility of getting the large-scale enterprises located in the industrial park as one of the clients, and various infrastructures that are prepared in the industrial park are available for use. Various infrastructures include utility facilities such as the electricity supply facilities, water supply facilities, and telecommunication facilities.

Also, convenience stores, restaurants, post offices, firehouses, customs office, and banks are located. Service industries such as maintenance firms, material trading companies, logistics companies are located as well. There are lodging facilities for personnel on business trip and housings for the employees. These service infrastructures that are necessary for doing business activities and infrastructures necessary for the living of employees are more likely to be prepared in large-scale industrial parks.

However, there are existing industrial parks and townships that have a deep understanding of rental factories because of the management plan of the developers and want to actively take part in them, and ones that are more interested in selling the land; therefore, when developing rental factories, it is important to carefully examine the two and conduct the project with the understanding by the developers.

(2) Hard infrastructure

The Japanese industries that expanded overseas were rather fairly large in their scale. There were cases where they used rental factories during their initial period of overseas expansion or used rental factories for storage. Therefore, there were more large-scale rental factories of $2000 \text{ m}^2 \sim 5000 \text{ m}^2$. On the contrary, recently, the numbers of enterprises of medium and small scale expanding overseas are increasing. To answer their needs, smaller scale rental factories, with an area of 320 m^2 per unit, have started to come out. Here, there are enterprises that lend one unit, or enterprises that lend two or three consecutive units. From now on, when establishing rental factories for Japanese SME's, these kind of small scale rental factories will be necessary. Below are the hard conditions necessary for rental factories.

- Factory area: approximately $500m^2 \sim 1000m^2$. It is desirable if the area can flexibly change its size according to the needs of the enterprises.
- Form of factory: detached housing type and apartment type (row house type). Some enterprises like the detached type more. However, to be able to flexibly change the size, it needs to be an apartment type.
- Form of building: for the withstanding of load and the convenience of carry-out and take-in, there is a greater demand for one-story type. Even if the building is a one-story type, there are cases where the office is located on the mezzanine floor. However, if it is a light industry, it is possible that the tenant

will be located on the second floor.

• Administrative Building: there were rental factories that have a meeting room or a reception room that can be used together by the tenants. For rental factories that are located in a large-scale industrial parks, there are cases where the industrial parks already have the administrative building prepared. However, when the distance to the administrative building in the industrial park is too far, building an administrative building for rental factories is effective as well.

(3) Soft infrastructure

In the case of SME's that have little experience in expanding business overseas, they have little knowledge in various procedures and have language barriers; it is difficult for them to establish factories and smoothly operate on their own. Therefore, to encourage the expansion of SME's, soft support as stated below, along with rental factory service, is necessary. However, these procedures are essential during the time of enterprise establishment, and after experiencing the operation for a while, each company will be able to deal them on their own. For these support measures, there are cases where they get an administrative staff to do the procedures in place, like the Indonesia TT Techno Park (stated later), but in many cases, they introduce the local professional firms.

- Establishment of the company, support on the various procedures on the construction of the factory
- Accounting and tax procedures support
- Support on acquiring human resources such as workers and executives
- Support on acquiring a translator
- Support on material procurement
- Support on marketing

Besides these procedural supports, small troubles may occur when starting to operate. If a professional personnel is stationed to deal with such kinds of troubles and to answer any concerns when needed, it will be a factor that will let the tenants to expand with less worries.

Also, having a periodical information exchange between the tenant enterprises, and holding meetings that will provide information on local law changes will be important as well.

3.3.2 Situation of Rental Factories in Main Countries

Below, we will show the situation of rental factory projects in Southeast Asia for the Japanese SME's.

(1) Thailand

1) Overview

In recent years, there are more SME's that are expanding into Thailand; more firms are renting factory facilities called rental factories, to minimize investment cost and the time it takes to start operating. To meet this kind of demand, the construction of rental factories in various industrial parks has been progressing. According to "Situation of Asian Rental Factories (2012.3)" by Japan External Trade Organization (JETRO), there are rental factories that are already completed or under construction in nine industrial parks. However, while the needs for rental factories are increasing, there are voices by the Japanese firms that they "do not need a space this large when starting to operate." Especially with SME's that want a rental factory more frequently than the large firms, it is confirmed by the JETRO research that they want factories with the area around $400 \sim 1,000 \text{ m}^2$.

2) Ota Techno Park

We will introduce the famous rental factory in Thailand, Ota Techno Park.

Overview

Ota Techno Park is located in Amata Nakorn Industrial Estate, a drive of an hour in the south of Bangkok, Thailand.Amata Nakorn Industrial Estate was established in 1989, with an area of 3,020 ha, 550 factories, 145 thousand workers (3,000 Japanese). It is one of the largest industrial parks in Thailand, which is known to have infrastructures such as road, electricity, water, and telecommunication.

Of the tenants, 60% are Japanese enterprises, and 33% of the tenants are of automobile related industries; it is a production point of Japan's manufacturing industry.

Ota Techno Park is a condominium rental factory of the apartment type, built in Amata Nakorn Industrial Park in 2006.

The lot area is 1.76 ha, and as of 2012, there were 17 units with an area of 320 m² each. During the third phase of the project, 16 units with an area of 320 m² are planned to be provided, but depending on the demand, they may change the area to 500 m² or 800 m².

Other than these rental factories, there is one administrative building, with an administrative office and three meetings free for use with a reservation. Ota Techno Park is separated as a single unit, with a security guard of 24 hour security, a parking lot, a motorbike parking space, a garden, and power receiving facilities provided as common utilities.

The layout of each factory is determined by each renting enterprise; it conducts the construction on its own, determining the place of the administrative office, meeting rooms, and bathrooms. When moving out, recovering the factory back to its original state is required.



Source: Amata

Figure 3.3.1 Layout Overview of Ota Techno Park

Project Scheme and Local Partners

The project scheme is shown in Figure 3.3.2. Ota Techno Park is invested by Amata Corporation and Summit Group, 49% each (other enterprises have invested 2%), and Amata Summit, established in 2004, operates the place. The capital of Amata Summit is 0.3 billion Baht.

Amata Summit is an enterprise for developing and operating rental factories in Amata Nakorn Industrial Estate, and there are five employees, with no Japanese.

Ota Techno Park was wholly invested and constructed by Amata Summit, and Ota district has supported marketing.



Figure 3.3.2 Project Scheme of Ota Techno Park

However, there are no plans for condominium rental factories, in the same form of Ota Techno Park. The following were listed as the reasons.

- The maintenance cost of the common area is very expensive, and it has a worse profitability compared to the detached type rental factories.
- The firms prefer detached factories, and condominium type rental factories are harder to sell.
- They are not suitable for businesses with mass production using many workers.
- 320 m²/unit is too small. When placing administrative office and machines, an area of 1,000 m² is necessary.

The rent price, as shown in Table 3.3.1, is slightly higher in condominium rental factories.

Condominium Rental Factories (Ota Techno Park)	 Rental Cost: 200 Baht/m²/month Common Service Fee: 105 Baht/ m²/month
Detached Rental Factories	• Rental Cost: 210 Baht/ m ² /month

(Note) Both have a contract period of three years, and a deposit worth 4 months.

Ways to Support and Lure Expanding Enterprises

As for business environment of the expanding enterprises, it can be categorized into three of the following:

- Hard infrastructure such as social infrastructure and business infrastructure
- Living Environment
- Soft infrastructure for factory operation

Ota Techno Park, since it is placed in Amata Nakorn Industrial Estate, can share the hard infrastructure and living environment offered by Amata Nakorn Industrial Estate. In addition to this, in the case of industrial parks for SME's and rental factories, the support in the soft area will be critical. The following table organizes these supports for enterprises in Ota Techno Park.

	Services and Facilities Offered by	Services and Facilities Offered by Ota
	Amata Nakorn Industrial Estate	Techno Park
Hard Infrastructure such as Social Infrastructure and Business Infrastructure	 Preparing road Supplying utilities such as electricity and water Telecommunication facilities 	 Operating and managing the common utilities (security, garden, parking lot, power receiving facilities) Providing meeting rooms
Social Living	 Rich commercial districts 	—
Environment	• Existence of neighboring Japanese	
	industries	
Soft	 Holding Japanese Association 	Holding monthly meeting
Infrastructure on	Meeting	• Dealing with concerns on enterprise
Operation of the	 Holding Human Resource Club 	establishment and BOI administration
Factories		 Introducing supporting agencies for
		accounting and human resource recruitment
		• Dealing with concerns in Japanese

Table 3.3.2 Support Situation for Enterprises Expanding to Ota Techno Park

Source: Mitsubishi Research Institute

Of these, the situation of support in the soft area for firms in Ota Techno Park is as follows.

- For concerns relating to the establishment of a company of BOI administration, they have supported via e-mail prior to the expansion; they have introduced professional firms for procedures in enterprise establishment and BOI administration.
- They have introduced accounting firms and firms for recruiting workers. However, the cost comparison and selection of the firm will be done by the client.
- There is a staff who can speak Japanese in Amata Summit, so if there is anything the company wants to discuss about, they can get the support via e-mail or telephone.
- The meeting rooms in the administrative building are free for use with reservation.
- Amata Nakorn Industrial Estate holds Japanese Association Meeting once every few months. This is a meeting done by Amata Corporation, and it is held and run by Japanese workers.
- Aside from this, there is a meeting called Human Resource Club, where each personnel of the human resource department get together once in few months and exchange information on wage and resources.
- In Ota Techno Park, there is a monthly meeting to exchange information and to give requests.

(2) Indonesia

1) Overview

As for Indonesia, Table 3.3.3 shows the industrial parks that Japanese enterprises have expanded to, the existence of rental factories and the number of enterprises; this table is targeting main areas of Jakarta and West Jawa Province. There was some demand for rental factories, but generally, in the existing industrial parks, there were few that provided rental factories; the units the industrial parks offered were 2,000 m² and 3,000 m², and there were few small-scale units with around 1,000 m² that had the high needs of the SME's.

Region	Name of Industrial Park	Rental Factory	Number of Japanese Enterprises
Metropolitan area around Jakarta	Kawasan Industri Pulogadung	_	13
	Jababeka Industrial Park	0	43
Dalaai Waat	MM2100 Industrial Town	0	63
Jewe	Greenland International Industrial Center	—	2
Jawa	East Jakarta Industrial Park (EJIP)	—	72
	Lippo Cikarang Industrial Park	0	20
	Karawang International Industrial City (KIIC)	0	45
Karawang,	Suryacipta City of Industry	—	12
West Java	Kawasan Indusri KIIC	—	71
	Bukit Indah Industrial Park	0	23
Serang,	PT. Krakatau Industrial Estate Cilegon (KIEC)	—	4
West Java	Modern Cikande Industrial Estate	—	2

Table 3.3.3 Situation on the Provision of Rental Factories in Indonesia

Source: research team (2012 data)

Below, we will introduce the model case of rental factory project in Indonesia, Toyota Techno Park, based on the research by Mitsubishi Research Institute in 2012.

2) Toyota Techno Park

Overview

Toyota Techno Park was constructed by Toyota Tsusho Corporation, purchasing a part of Kawasan Industri Mitrakarawang (KIM) Industrial Park. KIM Industrial Park is an industrial park that Honda had been producing automobiles in for twenty years, and it is within 30 minutes from the assembly factory of Toyota.

Indonesia is the fourth techno park that is constructed by Toyota Tsusho. The first was in Bangalore, India, developed as an industrial park for primary sector with a land and a building prepared, by a joint venture of Toyota and Toyota Tsusho. They provided an exclusive service on administrative procedures. The second one was an industrial park for suppliers by Denso, located 150 km in the east of Bangkok, Thailand. Here, the land and the building was each owned by the tenant enterprise, and did an outsourcing of administrative procedures for the tenant enterprises. In Indonesia TT Techno-Park, with the experience of the two industrial parks, they decided to provide both hard and soft services. In other words, along with providing rental factories, they provide an outsourcing service of administrative procedures on site.

Expansion of automobile parts manufacturers into Indonesia will increase in its speed in the future, and the industrial park is aimed to acquire land for new expansion of automobile parts manufacturers and support them on the administrative procedures; also, by gathering the local companies (logistic companies, engineering companies, etc.) of Toyota Tsusho in the area, it is aiming to develop a comprehensive service for the manufacturing clients.



Source: Press Release by Toyota Tsusho

Figure 3.3.3 Techno Park Projects in the World

Project Scheme and Local Partners

Toyota Tsusho purchased six units (15 ha) from Kawasan Industri Mitrakawarang (KIM) Industrial Park, and it has constructed one building in each unit, providing the divided spaces.

Each unit has an entrance of 30m, depth of 73m in the factory part and 12m in the office part, and will rent the necessary space starting with minimum area of 2100 m^2 . Since the span of the pillars are 10m, the tenant is able to expand the area by 10m. It was established in 2011/10, and it has already been sold out.

The factories are fully equipped with a bathroom, a kitchenette, and a meeting room for 5~6 people; in the common space, there are large meeting rooms, canteen, a place of worship, first aid, etc. The minimum tenancy period is three years, and the deposit and the penalty in case of early move-out has not been determined.

In the two buildings of the first phase of the project, five tenants are planned to move in, and besides these, an affiliate enterprise of Toyota Tsusho, a logistics company, is planned to move in. With this, the on-site logistic function will be provided.

The cost required for moving in is as follows.

The rental fee of the factories is 6.5U.S.\$/m²/month, and there is no common service fee.

The cost of outsourcing of administrative procedures is 9,800 dollars/enterprise/month.

Cost of marketing support will be determined by each tenant enterprise and the marketing department.

The cost of start-up support will be 18 thousand US\$/enterprise, and this includes the cost of temporary office during the establishment preparation period.





Support System for Expanding Enterprises

For outsourcing of the administrative procedures, there will be 20 staffs stationed in the management office from Toyota Tsusho Indonesia. In addition, to support other marketing procedures (materials and utility parts procurement, insurance, IT system, etc.) 10~20 staffs will be stationed.

As for tax procedure consulting, a professional will be introduced, and a staff will give advices with the professional. Financial-related procedures that should be requested to the bank will be advised as well.

(3) Vietnam (Cases of Other Rental Factory Project)

Below, we will introduce the model case of rental factory project in Vietnam, Thang Long Industrial Park I and Nomura Hai Phong Industrial Park, researched by Mitsubishi Research Institute in2012.

1) Thang Long Industrial Park I

Overview

In 1997, Sumitomo Corporation established Thang Long Industrial Park I, with the joint venture of national cast metal manufacturer under the Ministry of Construction.

At first, there were three Japanese staffs for sales work, but currently there is only one, doing the operation and management. The industrial park was sold in three terms, and the land was sold out in 2009. It is doing the selling of land and renting of factories. For rental factories, they have built 2,000 m² area of rental factories in the 6,000 m² area of land, and there are more than 20. They have started constructing a smaller scale row-house type rental factories as well.



Source: Thang Long Industrial Park I Overview Figure 3.3.5 Layout Overview of Thang Long Industrial Park I

Project Scheme and Local Partners

In Thang Long Industrial Park I, there are ready-built house project and rental factory project. As for the rental factory project, they have built apartment factories (two buildings of 500 m² size rental factories, total of 11 units) using rental factory district of 1.6 h in 2011.4, since they could not use the whole area of 2,000 m² of land, as the trend after 2009. This type of small-scale rental factories were rare in Vietnam during that time, there was a lot of reaction. Of the 11 units, there were four reserved by the end of the year, and the demand increased after 3.11 Great Japan Earthquake. By the end of 2012, 10 units were already under contracts. The rental fee was 7 US\$/m², and the maintenance cost was 2,000 US\$/year/enterprise. The minimum tenancy period was 3 years, the standard set at 5 years.





Ways to Support and Lure Expanding Enterprises

An information exchange meeting for all enterprises is held every month, providing information on labor problems and answering any concerns when necessary. Also, there is a tenant enterprises meeting every month, only for the tenants at the rental factories, exchanging information and discussing about car sharing, etc.

To acquire worker human resources, they have posted a recruitment poster at the entrance of the industrial park. They have posted the posters on the bulletin boards of Dong Anh People's Committee and Bac Giang Province People's Committee. Technicians, engineers, and staffs are recruited through recruitment site (Vietnam works, etc.) by each enterprise.

2) Nomura Hai Phong Industrial Park

Overview

Nomura Hai Phong Industrial Parks was established in 1994, 85 km from Hanoi, 15 km from Hai Phong Port. It has a total area of 153 ha, a sales area of 123 ha, excluding the common part. It is the first Japanese industrial park in northern Vietnam located along National Highway No.5. It has facilities necessary for business such as in-house power generator, customs, post offices, and banks; it is an industrial park of high quality.

In Nomura Hai Phong Industrial Park, in addition to the ready-built factories, rental factories are being developed and operated. Rental factories were constructed in 1997 with reference to the industrial parks in Thailand.

The types of tenant enterprises are machine, chemical, furniture, plastic formation, jewelry processing, CD/DVD disc production, etc.

Project Scheme and Local Partners

The project was a joint venture project of Nomura Securities Corporation and the city of Hai Phong, with investment rate of 70% by Nomura Securities Corporation and 30% by city of Hai Phong. Hai Phong invested on the land with the right to use for 50 years as a capital, and construction was conducted by Nomura Securities Corporation.





As for rental factory project, there are four four-story buildings and two one-story buildings. The four-story buildings have one factory on each floor, with 1,200 m² working space and 300 m² utilities, and have 16 rooms in total. The rental cost is $4.5 \text{ US}/\text{m}^2$ as of 2012.

As for the one-story buildings, there is $1,000 \text{ m}^2$ working space and 500 m^2 utilities, and the office is located on the mezzanine floor. The rental cost is $5 \text{ US}/\text{m}^2$, and the maintenance cost is $0.15 \text{US}/\text{m}^2$. The minimum tenancy period is 2 years. As of 2012, there was 70% tenancy rate.



Source: Nomura Hai Phong Industrial Park Overview



Ways to Support and Lure Expanding Enterprises

In Nomura Hai Phong Industrial Park, the tenant enterprises will be supported until they acquire the investment license: writing an application for investment permission (translating into Vietnamese and bringing them for the enterprises are possible as well), taxation registration, making the official company seal, public announcement of the establishment of the company, and acquiring the copy of licenses with government official seal (license/notarized/copy). Also, a local firm will be introduced for assistance in import procedures and interior constructions.

The industrial park is not directly involved in acquiring the human resources; the support is done through the employment service center of HEZA (Haiphong Economic Zone Authority: in charge of expansion into industrial parks).

(4) Others

There are more than 200 industrial parks developed by government agencies in Malaysia, and the supply is enough. There are cases where local private developers are constructing them, and the factories are both for sale and rent. There are rental factories in Free Industrial Zone (FIZ) as well. The rental cost differs between regions. (JETRO "Situation of Asian Rental Factories" (2012.3))

In Philippines, rental factories are not very popular, but there are some industrial parks operated by Japanese industries in the southern part of Manila metropolitan area: in Cavite, Laguna, and Batangas Provinces. (JETRO "Situation of Asian Rental Factories" (2012.3))

In Cambodia, industrial parks that offer rental factories have started to come out recently.

3.4 Questionnaire Survey for Japanese Industries on their Will to Expand in Vietnam

3.4.1 Method of Questionnaire Survey

The main objective of this survey research is to confirm the number (the quantitative demand) of the Japanese industries that need to use the rental factories, and the ideal (the qualitative demand) of them, from the standpoint of the Japanese industries. These data will then be reflected upon the project plan of rental factories, and will try to realize the construction of rental factories that meet the real needs of the Japanese industries.

The survey was conducted to industries that are members of Tokyo Chamber of Commerce and industry (hereinafter referred to as "Tokyo CCI"), have participated in Forval Vietnam seminars, and that have been chosen from enterprise database. This will confirm the will of Japanese industries for expansion into Vietnam and the demand for rental factories.

The survey was conducted under the following flow. (1) A draft of survey is created in early July, (2) then the hearing to Japanese industries with a will of expanding into Vietnam will be conducted based on this survey draft. (3) Based on the result of the hearing, the questionnaires of the survey will be edited. In this way, by conducting an individual hearing of enterprises in prior to the questionnaire survey, we will be able to provide appropriate questions from the viewpoint of the real enterprises; therefore more effective answers will be received.

As for sending, collecting, and adding up, (4) the surveys will be sent to the Tokyo CCI members from Tokyo CCI, to the seminar participants from Forval, and to the chosen enterprises from the database from Mitsubishi Research Institute. (5)By mid-August, whoever sent the surveys collects and inputs the data and the adding up and analysis will be done by Mitsubishi Research Institute.



Figure 3.4.1 Flow Chart of Survey Research

Note: the questions on the survey are as shown in Table 3.4.1.

First, we will get the information of company overview, such as the type of industry and its annual sales. Then time of expansion, type of industry to be expanded and its form will be clarified. However, for expansion location, if we limit the location to two places (Dai An and Nhon Trach III), with the limited information the Japanese domestic enterprises possess, it may lead to inappropriate answers, so we have modified the choices to "around Hanoi" and "around Ho Chi Minh."

Next, the specifications of the rental factories and specific needs (area, form of building, contract fee, etc.) on the tenancy conditions and related needs on soft services and living environment will be asked. Any requests for the support by the Japanese government and the direct involvement of Japanese developers will be asked as well.

Lastly, we will ask to write down the challenges and risks in a free writing form.

Factors	Specific Question Content	
Overview of the Company	• Type of industry, capital, number of workers, etc.	
Will of Expansion	• If it has expanded already (yes/no)	
	• The willingness to expand (want to expand to new areas/want to	
	increase the investment)	
	• Which location the company wants to expand to (around	
	Hanoi/around Ho Chi Minh/others)	
Form of Expansion	• Form of expansion (single investment/joint venture, transferring	
	factory/establishing a distribution agency, others(be specific))	
Time of Expansion	• Time of expansion(Within half a year/within one year/within three	
	years/more than three years/undecided)	
Demand for Demand for	• If the company wants to own a company; if it does, what kind of	

Table 3.4.1	Questionnaires	and its	Contents
	a account an oc		0011101110

Rental	Rental	form it wants to have (rent a factory land on its own and construct its
Factories and	Factories	own factory building/rental factory)
Industrial Land	Size	• How many m ² the factory area would desirably be
	Office	• Within the factory or in the administrative building
	Contract	• How many years the contract would hold
	Rental Cost	• How much would be affordable for rental factory/industrial land
		rental cost (including maintenance fee) per month per m ² (we will
		set several price ranges)
Demand for soft	The	• What the necessary soft services are (the following component will
support such as	Necessary	be evaluated on its significance on the scale of 1~5)
one stop service	Service	1. Support on factory lease contract agreement
	Contents	2. Support on acquiring the investment permission license
		3. Support on acquiring the labor permission for the transferred
		workers and business VISA
		4. Support on opening a bank account
		5. Support on preparing factory facilities
		o. Support on recruitment of numai resources and creating fabor
		7 Support on creating the company rules
		8. Support on choosing a logistics company
		9. Support on creating an telecommunication and network
		environment
		10. Support on creating various publications
		11. Answering various concerns after tenancy
		12. Providing common facilities (meeting room, reception room,
		cafeteria, etc.)
		13. Support desk for accounting/IT/logistics/procurement
		14. Holding interactive meetings, study sessions and information
		exchange meetings by tenants
		15. Introducing professionals, such as on laws
		and procedures for entering schools
		17 Introducing medical agencies
		18 Arranging local cell phones and company vehicles
		19. Introducing travel agency
	Service Fee	• When adding on top of the rental cost, up until how many % is
		affordable
Others	Living	• What kind of demand there is on living environment (for each
	Environment	component below, evaluate their significance on a scale of $1 \sim 5$)
		1. Housings and dormitories for employees
		2. Japanese restaurants nearby
		3. Japanese schools nearby
		4. Hospitals nearby (especially ones that can speak Japanese)
		5. Commuting means between the city and the industrial park
		(e.g. bus)
	C1 11	6. Medical Facilities
	Challenges	• What the challenges of expansion are (for each component below,
	01 Expansion	evaluate their significance on a scale of $1 \sim 5$)
	Expansion	1. Not being able to communicate in English 2. Difficulty in conviring market information
		2. Difficulty in acquiring investment system information
		4. The government agencies are bureaucratic
1	1	T. The government agencies are buleaucratic

5. Judicial system and regulations are complicated and unclear
6. The procurement of utilities are difficult
7. The increase in the wage of the labors
8. It is not easy to send money overseas

Source: research team

3.4.2 Result of the Survey Research

(1) Demand for factory land and rental factories in both of the industrial parks

We were able to confirm that there is a demand for rental factories and factory land of Dai An and Nhon Trach III Industrial Parks.

Around Hanoi (Dai An), there were four enterprises that requested a rental factory, nine enterprises that requested factory land near Ho Chi Minh City (Nhon Trach III) and 12 enterprises that requested a rental factory.

60% of the enterprises that request a factory land and 42% of the enterprises that request a rental factory are planning to expand within three years.

Currently the location is still a vacant lot, but as factory buildings and Japan desks are constructed, it is hoped that the visiting enterprises will have a more detailed image of the industrial parks, raising the rate of contract.



Figure 3.4.2 Narrow-down of Enterprises that Request a Factory Land/Rental Factory in Each Industrial Park

We need to prepare facilities on the project area, so that the visiting enterprises will have a better image of the area.

(2) Requested Area

We were able to see that there were various needs on the desirable area.

500 m2 for factory area, and between 1,000~2,000 for rental factory floor space are common.

The reason the requested area is large is because there are industries with big domestic factories and industries that request larger factories than their domestic factories.

However, it is possible that they may decide to have a smaller factory when actually taking a look at the project site.

[Supplementary Note based on a hearing with a Domestic Industry]

In foreign factories, there are more stocks, so the area of factory may be bigger as well.

Table 3.4.2 The Requested Area

Area for Factory Land (11 Answers) Rental Factory Floor Area (19 Answers)

%		%
0%	\sim 500 m ²	17%
9%	$500 \sim 1,000 \text{ m}^2$	17%
9%	$1,000 \sim 1,500 \text{ m}^2$	28%
18%	$1,500 \sim 2,000 \text{ m}^2$	17%
0%	$2,000 \sim 3,500 \text{ m}^2$	11%
9%	$3,500 \sim 5,000 \text{ m}^2$	11%
	% 0% 9% 18% 0% 9%	% \sim 500 m ² 9% 500 ~1,000 m ² 9% 1,000 ~1,500 m ² 18% 1,500 ~2,000 m ² 0% 2,000 ~3,500 m ² 9% 3,500 ~5,000 m ²

A large area unit that will meet the demands of the industries will be needed to prepare.

(3) Affordable Cost

Most of the factory land is less than 200 yen/ m2/year, and most rental factories are less than 500 yen/ m2/year.

However, since the local situation is not clear, there are many undetermined cost for the factory land.

The cost on the project plan has been set at the neighboring Japanese industrial park prices.



Factory Land (11 Answers)



Rental Factories (19 Answers)

Figure 3.4.3 Affordable Rental Cost

The cost of the support services are to be put on top of the rental cost at a certain rate. The affordable service cost rate is less than 15% in most cases.

However, there are many undetermined answers because they do not know the local situation.

[Supplementary Note based on a hearing with a Domestic Industry]

The rental cost will not be a problem with profiting companies (the home appliances industries have low unit price, so they tend to be more sensitive).



Figure 3.4.4 Affordable Service Fee Rate

(4) Demand for Soft Support

We were able to see that there is a demand for support services such as the administrative procedure agent services.

Of the soft support menu, the ones that have greater needs are the following: start-up procedure support such as support on contract agreement, acquiring the investment permission license, acquiring the labor permission for the transferred workers and business VISA, and opening a bank account.

These services are not done in Vietnamese industrial parks, and are limited to introducing professionals even in other Japanese industrial parks; the procedure agent is this project's own unique service.

The expanding enterprises are concerned that the system and regulations are complicated and unclear, so the procedure agent services that solve these problems are very important.

There are other menus that many companies feel are necessary. For SME's, only 1~2 Japanese staffs are able to come to the local factory, so all of these menu are important for the companies to be able to focus on their operation of business.

[Supplementary Note based on a hearing with a Domestic Industry]

The one stop service, in particular, has a great necessity for companies that are planning to expand their business overseas in the future.



(37 Answers)

Figure 3.4.5 Needs for Soft Support

For SME's to focus on their own business production, all of these menu are necessary, and we need to make the industries realize the value of support services.

3.4.3 The Predicted Amount of Demand Potential

Of the manufacturing SME's in Japan nationwide, we have predicted the number of companies that want a factory land or a rental factory in Vietnam (all of Vietnam). Next, of those companies, we have predicted the total of companies that want a factory near Hanoi or Ho Chi Minh City (regional total). The companies that request a factory land and rental factory mostly "employ more than six workers, are of beverage/food industry or machinery manufacturing industry under 50 million yen capital," so companies under these conditions will be the target.

Currently, there are 38 expanding companies near Hanoi and Ho Chi Minh City.

In a short term, the following 306 are likely to move in.

There are companies that have already started consulting with Forval about moving into Dai An and Nhan Trach III factory land or rental factory, and currently, there is a high possibility that these enterprises will actually move in.

Also, according to the survey research conducted, besides the mentioned companies above, there were 26 companies that requested a factory land/rental factory near Hanoi/Ho Chi Minh City, and many of these enterprises are likely to move into Dai An and Nhon Trach III that have rich support services.

In addition, as a result of the survey research to the municipalities of the Kanto area (currently under negotiation), there were 30 enterprises that requested an expansion of factory in Vietnam. Many of these enterprises have the possibility of moving in to Dai An and Nhon Trach III.

To sum these up, it is projected that about 306 companies have the possibility of moving into Dai An and Nhon Trach as of present. The planned units for sale are 260, so they will cover this demand. Introduction of other possible tenants are expected from the tie-up financial institutions on table 6.2.1.

Ngành
Manufacturing
Food and Beverages
Textile
Wooden
products/Furniture/Equipment
Pulp/Paper/Paper products
Chemicals
Medical equipment/cosmetics
Plastic Products
Rubber Products
Ceramics
Steel
Non-steel metals
Metals
General Machines
Electric machines/IT machines/
Electric parts
Automobiles/automobile parts/other
transportation machines
Precision apparatus
Other Manufacturing
Non-Manufacturing
Total

Table 3.4.3 The industries of Forval negotiated industries



Figre 3.4.6 Predicted Sum of Short Term Demand Potential

On the other hand, for middle term, the enterprises that have already expanded overseas are expected to expand in Vietnam. The number of enterprises owning a location in China was calculated with the rate of the possession of overseas locations by SME's of manufacturing industries, and the rate of the possessions of Chinese locations by the overseas location owning enterprises (JETRO Questionnaire Survey of Overseas Business Expansion (2012)). We have calculated the number of enterprises seeking to expand in Vietnam with the rate of willingness to expand in Vietnam by the enterprises that own a location in China (JICA Bangladesh Research). Of this, we have calculated the percentage of enterprises that request a factory and the percentage of enterprises with the request of areas near Hanoi and Ho Chi Minh. We have found out that of the enterprises owning a factory in China, there were 1,800 industries that are planning to request a factory near Hanoi and Ho Chi Minh.

Also, in the long term, the percentage of enterprises that request a factory land or a rental factory out of the total answers will be the "request rate for factory land and rental factory." (Since the SME's chosen from the "Tokyo CCI Research Database" are chosen randomly regardless of their willingness to expand, so this sample will be used.) Request rate for factory land and rental factory will be multiplied to the target enterprise numbers all over Japan, to calculate the "number of industries that request a factory land r a rental factory all over Vietnam."

The percentage of requesting industries by region out of the factory land/rental factory requesting industries is the "request rate for factory land and rental factory by region." By multiplying the "number of industries that request a factory land or a rental factory" with the "request rate for factory land and rental factory" with the "request rate for factory land and rental factory by region," we have calculated the "number of industries requesting factory land/rental factory by region."

The demand for the factory land is 1,100 industries around Hanoi, 1,800 around Ho Chi Minh City; as for rental factories, the demand was 700 industries around Hanoi and 1,300 around Ho Chi Minh City. Of the industrial parks in areas around Hanoi and Ho Chi Minh, this industrial park is the only one that is supported by the Japanese government, and many SME's are expected to select this industrial park.

The number of industries that request a factory land or a rental factory near Hanoi and Ho Chi Minh City



Figure 3.4.7 The Predicted Total of the Long-Term Demand Potential



Figure 3.4.8 Predicted Total of the Demand Potential
3.5 Interviews of the Japanese companies with a Willingness to Expand

3.5.1 Interviews with Japanese companies that is Planning to Expand in Vietnam

With the target of nine enterprises that have answered "have already expanded in Vietnam," and "interested in or planning to expand in Vietnam" we have conducted a Interviews. This is to listen to the background and their ideas behind their reaction.

We have organized the information from the Interviews in Table 3.5.1. Of the nine that visited, one company (B Company) has already expanded in Vietnam, and is planning a further increase in factories in Vietnam. Also, three firms (C Company, E Company, and F company) have recently expanded to Indonesia, Cambodia, and Thailand, but of the three two (C and F) are planning to make Vietnam the next destination. These companies had planned to expand in Vietnam as well, but they have ended up choosing other countries for this project. In addition, D company and E company both own a production location in Vietnam, but they have made the Chinese locations smaller or they have quit, and planned to develop new locations in Vietnam, etc.

Based on these Interviewses, below can be said.

(1) Pathway for Japanese Industries to Expand in Vietnam

When expanding business in Vietnam, there are cases where the project done in Japan came overseas for the first time. There are other cases where enterprises that had expanded to China started expanding to Vietnam as a China-plus-one, and cases where they have expanded in Vietnam as the next destination from Thailand, Indonesia, and other Southeast Asian countries (ASEAN).

(2) The Motives for Expanding in Vietnam

The motivation for expanding into Vietnam can be categorized into the following three:

- As the client has decided to expand abroad, there is a demand to move and expand as well.
- They expand their business seeking for low cost production. Here, we have a case where the industries are expanding their factories that used to be located in China to seek for even lower human resource cost; there are other cases where the companies expand to pay less transportation cost and tax cost.
- There is a limit in Japanese domestic market, so they expand their business to seek for more sales. This, in addition to the existing transactions with the current clients, enables the companies to exploit new Japanese clients (including other industries as well), exploiting of the local market, and exporting from Vietnam to ASEAN countries.

In Vietnam, compared the neighboring companies of Indonesia and Thailand, the end users of automobile industries have not expanded yet, the supporting industry have not been completely formed, and the industrial clusters of manufacturing industry still has a long way to go. Even taking a look at GDP/capita, the consumer market will increase in the future. With these expansions, Vietnam is perceived to have a vast possibility in the future; there were enterprises that struggled for expansion and thought it better to expand their business now.

(3) The Demand in Times of Expansion into Vietnam

Support on various procedures on expansion into Vietnam and local operation support services are strongly requested by most industries except for those that already have rich experience abroad. The reasons for this are that they have no clue of the procedures necessary when expanding their business overseas for the first time, and they would rather focus on their manufacturing business instead of taken their time off the complicated procedures.

Also, for SME's, even in a company with more than 100 employees, there is a limited number of people who can deal with procedures for expanding business overseas (for example, the president may be the only one, or there may be less than three people who know the procedures), another reason support services are necessary.

There were many opinions that rental factories were necessary because they would not need very large factories and the possibility of moving out of the country was still apparent. On the other hand, there were

companies that requested for a bigger land than 1500 m^2 or expected to do their production under a contract with the local enterprises or by lending a part of the local enterprise's land.

As for factories in Vietnam, some people claimed that the lead time for delivery of parts were long, which would mean a longer period of time to stock these parts, so a larger area of factory land than Japan would be needed.

The following were requested as the demands for expansion.

- We have seen industrial parks, but they don't have housings nearby. A preparation of dorms for employees and housings for Japanese production managers is necessary; or, a commuting bus for the rental factories would be helpful.
- We want information on the import of materials and their regulations and taxes.
- We need to acquire water and drainage, and information and measures for it are necessary.
- It would be nice if we were able to repair Japanese and Western machines without much burden.
- It would be nice if there supporting industries that can outsource that surface processing that we used to outsource in Japan.
- It would be better if there were hospitals that understood Japanese and medical support.
- Most of the companies with the ability and willingness to expand overseas have already done so. For the industries that are planning to expand from this point on, they will need a lot of assistance.
- •

N		Main Industry	Area	Number of workers in Japan	Factory area in Japan	Overseas expansion situation	Objective for overseas expansion	Rental factory demand	Demand situation for overseas expansion
1	A	Automobile parts manufacture	Kansai	about 30	600 m2	domestic demand is increasing; it will expand first into the Kanto area. In the next phase it is considering Vietnam	Local sales using technology and knowledge	Rental factory bigger than that of Japanese expected	Want to start by visiting the local area first Want information on regulation of import of parts Overseas expansion is an unexperienced area; all the soft services are necessary. More parts are necessary for overseas than Japan; a bigger factory is necessary.
2	в	Metal parts manufacture	Kansai	about 100	3000m2	has already expanded into southern Vietnam; additional factories are planned	request from its clients; successful in finding Japanese clients thereafter	None	Subcontractors must expand overseas if their contractors expand overseas, considering the transportation cost. *It is likely that large firms will expand into Vietnam; it is appropriate for subcontractors to expand now. *Rich support is necessary for those firms expanding hereafter.
3	с	Metal parts manufacture	Kansai	about 100	2000m2	has expanded into Indonesia this year; considering Vietnam in the next phase	For market and clients, as the domestic market is shrinking	Considering the withdrawal risk and to focus on the main business, rental factory is planned	End users are expanding: existence of market is a prerequisite The existence of supporting industries and outsourcing firms are necessary
4	D	Development, production, and sales of medical equipment and beauty equipment	Kansai	less than 10	none production facility in China	had been outsourcing in China, but decided to withdraw and expand into Vietnam	Low cost production and local market development	Rental factory smaller than 300m2 is expected; production undertaking is possible	•Want to see the local site first •Support services are necessary •Want support for medical procedures
5	E	Textile Processing Production	Kansai	about 1500 (including group firms)	na	Production factory in China and Malaysia: expanded into Cambodia this year	low cost production	Move into a rental factory	Labor cost is increasing Has considered Vietnam, but due to the labor cost and accessibility to human resource, chose Cambodia instead 'Support services for SME's are necessary
6	F	Metal parts manufacture	Chubu	about 50	3600m2	considering Vietnam	decrease cost for export and supply locally	Expecting to rent a part of the local firm; land purchase and rental factories are considered	 Using Support from the public agency for its export work; effective By cooperating with the local firm, want to improve the local technological level By expanding oversease, hoping to rise its level of subcontract
7	G	Resin treatment processing	Kansai	about 130	na	planning Vietnam, but due to relationships with the client, expanded into Thailand into 2010	Low cost production and local supply Local market development	Move into a rental factory	 There are risks to investment, and moving into rental factory is safer If there are clients, want to move into Vietnam The factory area needs to be at least 2000m2, but depends on the demand
8	н	Food Processing	Chubu	about 250	7000m2 (2 places)	This year, opened an Japanese employee's office in Vietnam	Request from the client Developing the local market	Rental factory is an option	Since the ability of the workers is limited, support services are necessary. It experienced a lot of difficulies in opening a Japanese employee's office. Provision of residences is necessary. Provision of water, effluent treatment facility, system for repairing the machines are needed
9	I	Secondary material manufacture	Kanto	about 100	7000m2 (2 places)	It has expanded into Cambodia last year, planning Vietnam next	Since the domestic market is shrinking, it wants to do business where the Japanese firms are active	rental factory is expected in Vietnam	 If has experiences in Cambodia, and there is no strong demand. In the end, the company itself somehow has to deal with troubles.

Table 3.5.1 Result of the Hearing of the Domestic Industries Interested in Vietnam

3.5.2 Interviews to the Japanese Industries that have Expanded in Vietnam

In addition to the Interviews to the Japanese industries that are considering to expand in Vietnam in the future, we have conducted a hearing with the industries that have already expanded in Vietnam and started operating. For these industries, since they have experienced many things and have been operating, we have asked the rental factory construction and the one stop service for expansion support; we have also asked them to give us advices for the Japanese SME's and some information on the financial transaction in Vietnam. Below is the result.

(1) Opinions on Rental Factory Construction and their Expansion Support

As for rental factory construction, all of the enterprise that we have conducted a Interviews with have answered that the idea is great. For example, one stated, "When expanding business overseas, when investing a large investment on facilities, it will not be easy to move out if anything occurs; so it will be better to start with a rental factory." Another stated, "We should start small, and when it goes well we should increase its size." Of the companies that we have conducted the hearing with, there were industries that started out as a rental factory and constructed its own factory by acquiring land, or that had their factory under construction.

Also, there are neighboring factories close to the rental factories, so it is easy to have communications with other Japanese industries. There are voices that evaluate the characteristics of the rental factory itself, but there were also voices that evaluate how the rental factories were trying to offer a variety of area size and trying to match the needs of various fields.

On the other hand, as for the providing the one stop service, all of the enterprises that we have done the hearing with evaluate it. For SME's that have little knowledge or experiences on business overseas, it is a lot of work to do all the laws, taxes, labor, and customs by themselves; supporting in these areas is very important for SME's to decide to expand in Vietnam was the opinion that were stated by all of the enterprises.

(2) Advice for Japanese SME's

From the companies that have already expanded in Vietnam, we have asked for various advices for SME's that are planning to expand in the future. We will explain this in the next table.

Section	Content
Preparation	 It is important to do a feasibility study based on reliable information and its understanding before expansion. Especially during the early phase, there needs to be enough Japanese staffs. There are various procedures to be done, and if we do not have enough staffs, there will be a delay in schedule. There is a possibility of labor-intensive type producing a labor cost merit. However, we need to examine the number of workers that we can gather beforehand. Whether it is a single investment of a joint venture is an important issue. At the time of establishment, a joint venture may be better, but with joint ventures, when there are profits, how it is dealt and split must be agreed by the two, or else they will not be able to send the money to Japan.
Profitability Projection	 If the company will bring back to the parent company or is planning to sell to the clients in Japan, the profit is likely to be made. If the products are planned to be sold in Vietnam, we should examine if there is a market, a revenue that is appropriate with the investment in prior to expansion. It is not wise to expand in Vietnam because there is no client in Japan. The problem will not be solved just by expanding. It is safe if the company is able to follow the large enterprise, but there are few cases like that recently. We should try to bring in some work beforehand by getting

Table 3.5.2	Advice for	Japanese SME's
-------------	------------	----------------

	the work from the main office and appealing to the existing customers that we w		
	be expanding to Vietnam.		
The type of	The Japanese staffs each need a relationship where they can talk about anything when they are in trouble		
resource to	Staffs who are dispatched must be able to blend in to the other Japanese nearby and		
be transferred	be able to make an environment where they can ask when they need beln		
from Japan	be able to make an environment where they can ask when they need help.		
Recruiting	> Personnel that can do project management and who is a Vietnamese, someone who		
Vietnamese	can support Japanese and take active role are needed.		
and Managing	> Getting a relationship with the Vietnamese by using Vietnamese trainees in		
them	business activities in Japan and recruiting them, to create a chance of Vietnam		
	expansion is important as well. The Vietnamese have a different way of thinking and customs from the Japan When judging according to the common cares of the Lagrange this		
	> The Vietnamese have a different way of thinking and customs from the Japanese.		
	When judging according to the common sense of the Japanese, things may not go		
	well. We need to understand the local way of thinking, and judge/act accordingly;		
	that is the key to the success of the business.		
	We need to be very careful about labor. The Japanese and the Vietnamese have		
	different values and living environment. We use different languages so it is hard for		
	the two to understand each other. Being able to handle this situation is important as		
	well.		
Administrative	There are more law procedures and official procedures related to business than we		
Procedures	imagine. These will not go well if we think in a Japanese way. We should hire a		
	We should be prepared to hear different things from different officials.		
	official says "OK" in Hanoi, they may not say "OK" in Hai Phong		
	The preparation of laws have been lagging and as for tay rate, they have applied		
	the new tax in Hanoi customs but sometimes it is not implemented in Hanoi		
	customs. The systems change depending on the personnel and the area		
	 The necessary paperwork is complicated and the procedures are very inefficient and 		
	unclear. There are too many VAT return application paperwork, and there is not		
	unified procedure of the customs.		
	> Things don't go following the schedule, and in any cases the procedures and		
	construction period takes longer than expected.		
Business	> Our company wants to increase the local procurement of the parts used. Up until		
Opportunities	now, we had procured from a company that we originally had connections with, but		
	we need to start looking for a new partner in Vietnam as well.		
	Small parts like connectors can be transported, but large ones cost a lot when sent,		
	so we want to procure them locally.		
	In many cases we make our own jigs or purchase them overseas. It would be nice if		
	there were ones that we could purchase at a cheap price from the local industries.		
	The vietnamese supporting industries are shallow. There is a demand for cutting,		
Things to be	The Vietnamese are very skillful and hard working. They can produce better then		
Awara of in	the Japanese		
Vietnam	In Vietnam crimes that take away people's lives are very low. There is an		
vietnam	environment where we can safely do our work provided		
	 However, we must be careful of pick pockets. Japanese people are always being 		
	watched so if we are not careful, we could be in a danger.		
	> The climate is different from Japan; the humidity is very high, exhausting people.		
	so we need to be careful with our health.		
	> There is not much place to relax mentally. We don't have anything to do on		
	Sundays. We should have a hobby.		

(3) Situation of Financial Transaction

The situation of the financial transactions by the Japanese enterprises that have expanded in Vietnam will be shown on Table 3.5.1. In northern Vietnam, there are three Japanese banks. The Japanese industries all have opened an account in one or more of these banks; I have a U.S. Dollar account and a VND account.

Many Japanese Industries that have expanded overseas are EPE (Export Processing Enterprises), and some are registered as both EPE and non-EPE. Payment for import and export and payment between EPE have been done in US\$. Also, finance for operation have been offered; the loan from Japanese banks are done with US\$, and the wage distribution and loans from domestic banks will be done with US\$.

On the other hand, smaller payments such as the salary for employees and purchase of utilities from the local enterprises are done through the VND account of the local bank. In this case, there are many cases where the company makes its employees open an account in the local bank the Japanese company uses; they may include this as part of the contract or they may be provided by the company. The VND used for payment will be procured from the dollar account of a Japanese bank, transferred to the VND local account.

Also, the VND account of the local banks are used for receiving transactions in VND or as a payment account, but in many cases with large transactions the companies wanted to use the VND account of Japanese banks. They felt the risk of putting a large amount of money in a local bank, and the amount they put in the local banks' VND account were minimized; for example they were limited to a month worth of salary and transaction payment of small transactions. For the same reasons, even though the local bank' VND fixed account has high interest rate, they have not deposited their money.

This is because even if the interest is high, the exchange rate is in the trend of low VND, which is a risk, or there is a company policy of possessing large capital in a form of hard currency.

As for demands for the banks, ATM's for the employees to deposit their salary is necessary within the industrial park. Also, there is a need to go the bank desk, so it is desirable if there was a smoking place within or nearby.



Figure 3.5.1 Capital Flow of the Japanese Industries in Vietnam

Chapter 4 Facility Outline Design and Cumulative Cost

The outline design of this project consists of: rental factory areas for each JSC, rental factory construction cost, ancillary facilities (exclusive paths, parking areas, cafeteria, green space and security etc.) cost including basic infrastructure (power, water and sewage, drain facility etc.) and exclusive administrative building construction cost, and the administrative operation cost of SPC which executes the operational management of necessary support for the running of the occupying firms.

4.1 Outline design of rental factories and associated facilities.4.1.1 Design of each rental factory and related facilities

(1) Dai An JSC outline design



Table 4.1.1 Dai An JSC Ove	erview
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Item	Content				
Address Dai An Industrial Zone, Km 51, Highway No. 05, Tu Mi					
	Duong city, Hai Duong province.Vietnam				
Location	50km from Hanoi City(60min), 51 km from Hai Phong International				
	Port(60min), Noibai International Airport(90min)				
Final Completion	April 2013 (Completion of 1 st period)				
Source: Dai An Company construction/design plan					

Source. Dai An Company construction/design plan

1) Past Accidents and their Management

(a) Blackout

Blackouts have occurred in the past by storms and heavy rain. Blackouts due to construction of power facilities will be noticed and reported a week prior to the tenants.

(b) Suspension of Water Supply: accident in water pipe

(2) Nhon Trach JSC Outline Design

Table 4.1.2 Nhon Trach JSC outline design

Basic Drawing	Use



Item	Content
Address	Rd 258,Hiep Phuoc Com,Nhon Trach Dist,Dong Nai Pro
Location	30km to Ho Chi Ming Center via ferry (70~90min), 60km via Route51 (120min)
Final Completion	April 2013 (Completion of 1 st period)

1) Past Accidents and their Management

a) Blackout

Blackouts have occurred in the past by storms and heavy rain. Blackouts due to construction of power facilities will be noticed and reported a week prior to the tenants.

b) Suspension of Water Supply

There is no record of accident. Suspension of water supply due to construction or repair of water pipes will be noticed and reported 3 days prior to the tenants

c) Maintenance Periodic maintenance prevent occasion of accident

(3) Types of each JSC rental factories

Types of each JSC rental factories are designed on the basis of the specification of each JSC land planned within each industrial park, domestic demand research and this year's annual sales report by Forval Corporation

4.1.2 Administration Building(JAPAN- DESK)

The exclusive administrative building is a facility that occupying firms can use to execute a total inquiries affairs locating exclusive Japanese employees, and also a common facility that is fully equipped with meeting room, reception room, rental office for pre-operation work and cafeteria.

a) Dai An JSC-Administration Building

Ancillary facilities such as Administration building/support center/cafeteria, basic equipment and other ancillary equipment are fully equipped. It is a facility that is exclusive for occupying firms, and is fully equipped with inquiry counters by exclusive Japanese employees, common meeting rooms, reception room, rental office for pre-operation work and cafeteria.

b) Nhon Trach JSC

This Administration building is planned to consist of 2stories. The 1st Floor will have inquiry counters by exclusive Japanese employees and a cafeteria, while the 2nd will be fully equipped by common meeting rooms, reception room and rental office for pre-operation work.

4.2 Maintenance Enforcement Plan (Acquisition of JSC exclusive area, facility construction)

4.2.1 Plans for the acquirement of each JSC area

The industrial area necessary for each JSC is identified based on the sales planning and individual purposes.

For Dai An JSC exclusive area, 16.53ha will be purchased from Dai An industrial park owned by Dai An Corporation. For Nhon Trach JSC exclusive area, 18.23ha will be purchased from Nhon Track III industrial park owned by Nhon Trach 3 Industrial Park One Member Company

For both JSCs, all the land shall be purchased for the industrial area from 2014.

4.2.2 Construction Plan for each JSC Facilities

The construction plan of rental factories, related infrastructural facilities, paths within area, green space etc. is coordinated with the sales plan. The research "Basic information gathering and confirmation research for supporting the Japanese SME's in Asian areas of Vietnam and Indonesia Industrial Park" by JICA described that Forval Corportaion, which is the sponsor of this project, and LIPPO CIKARANG INDUSTRIAL PARK Corporation have already started the construction and sales of rental industrial area for Japanese SMEs in Indonesia where Lippo Cikarang (DELTA SILICON Industrial Park) was chosen to be a promising candidate after the selection of industrial parks in Indonesia for Japanese SMEs. The results showed that the presence of an administration building largely influences the rental contract closing rate and the time taken for closing for Japanese SMEs.

With Lippo Cikarang (DELTA SILICON Industrial Park), the contract closing rate and time taken were 7.3% (6firms) and 96.5days respectively when the companies visited the site prior to the completion of the administration building. On the other hand, visits after the completion of the administration building resulted in the contract closing rate and time taken of 13.5% (10firms) and 30days respectively. This result illustrates the doubling effect on contract closing rate and a 1/3 shortening for time taken. With that in consideration, the construction of the administration building for each JSC is planned to commence on the first year.

Among the other ancillary facilities, the construction of cafeteria is planned to commence on the first year for Nhon Trach JSC where the 1st phase in already booked up, and on the second year for Dai An JSC.

(1) Dai An JSC Facilities Construction Plan

For Dai An SPC, the construction of facilities for the exclusive area obtained in the first year as of the founding in March 2014 (legal personality registration completed) will commence based on the sales planning.

Item		2013.12	2014.3	First year
Dai An SPC Establishment Preparation				
Dai An SPC		→	SPC operation	
	rental factory land			•
	administration			
Y 11	cafeteria			
Land by	restaurant			
Use	infrastructure (power, water)			
	sports facility			
	road in the site, parking, green land			

Table 4.2.1 Dai An JSC Construction Schedule

Construction Item		2014	2015	2016	2017	2018	2019
Rental factory	$\Delta roo(m2)$	10,063	15,094	15,094	20,125	20,125	20,125
construction	Alea (III2)	•	•	•	•	•	•
	Administration						
C 1 <i>i</i>	Tower						
Complementar	Restaurant		•		20,125 20,125 20,125 • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •		
y racinues	Food Court		•				
	Sports Facility			•			
Road, parking, g	•	•	•	•	•	•	
	Fence, gate	•	•	•	•	•	•
	Security facility	•	•	•	•	•	•
	Water treatment						
Infrastructure	facility	•					
	Effluent facility	•					
	Road drainage	•	•	•	٠	•	•
	Waterworks	•	•	•	•	•	•
	Power facility	•	•	•	•	•	•

Source: From a conference with Dai An Company and Forval Corporation

(2) Nhon Trach JSC

For Nhon Trach SPC, the construction of facilities for the exclusive area obtained in the first year as of the founding in March 2014 (legal personality registration completed) will commence based on the sales planning.

Table 4.2.2 Nhon Trach JSC Construction Schedule

Item		2013.12	2014.3	First year
Nhon Trach SPO	1			

Nhon Trach SPO	+	SPC operation	
	rental factory land		\bullet
	administration		\bullet
	cafetaria		•
Land by Use	security guard		•
	infrastructure (power)		•
	green land		•
	road and parking		•

Construction Item	First Year	2nd Year	3rd Year	4th Year	5th Year	
Dentel factory construction	Ama (m2)	19,904	18,000	12,024	23,112	28,440
Rental factory construction	Area (III2)	•	•	•	•	•
	Administration Tower	•				
Complementary Facilities	Restaurant	•				
	Security Guard	•				
Road and parking within the	•	•	•	•	•	
Green land	•	•	•	•	•	
Infrastructure	•					

Source: From the conference with Nhon Trach III Industrial Park One Member Company and Forval Corporation

4.3 Sales Planning for each JSC

Sales in this project (promotion of Japanese enterprises) shall be assumed by Forval Corporation.

The sales plan is drawn based on: survey results for domestic demand in this research, hearing reports from Japanese firms and the trend of Japanese SMEs entering Vietnam through the promotion conducted by Forval Corporation.

The interannual appreciation rate (price increase rate) for the rent of rental factories and administration cost is based on the recent CPI of Vietnam through 2010 to 2012, and with consideration of the circumstances of the surrounding industrial parks, Dai An JSC is planned to be set at 6%/year and Nhon Trach JSC is planned to be set at 8%/year after a consultative process with Dai An Corporation, Nhon Track III Industrial Park One Member Company and Forval Corportaion.

Calendar Year	2013	2014	2015	2016	2017
(1) Planning					
(2) Sales of each JSC					

Table	4.3.1	Sales	Plan
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Source: from the sales plan of Forval Corporation

4.3.1 Construction Cost for each JSC

Each SPC shall obtain JSC exclusive area from each industrial park. The area exclusive for each JSC shall be 16.53ha for Dai An JSC and 18.23ha for Nhon Trach JSC.

For the obtaining price, the compensation for eviction of agricultural land and residence, assistance fee for eviction, commodity compensation and infrastructural development fee already paid by Dai An Corporation and Nhon Trach III industrial Park One Member Company at the time of the obtainment of the entire industrial park area are integrated, and after sufficient discussion and deliberation of the price adequacy, the unit price of Dai An JSC and Nhon Trach JSC are set. The basic design and the integrated facility construction cost are based on a research conducted by Dai An Corporation, Nhon Trach III Industrial Park One Member Company and Forval Corporation on the attributes of prospective Japanese SMEs and comparison between surrounding industrial parks' facilities. The construction cost for DaiAn JSC is 30.156.686 USD, or 3.370.000.000 Yen, and that of Nhon Trach JSC is 17.955.905 USD, or 2.290.000.000 Yen.

4.4 Integrated Cost of Operation and Maintenance 4.4.1 Dai An JSC

768,543USD (1st year)~1,936,809USD(6th year)

Personnel planning for Dai An SPC which will run Dai An JSC will be dependent on the sold area (total number of occupying firms) and is planned to run the total 132 area with 18 personnel. The first year will be run by 11 personnel.

In the personnel planning, the running experience and past performances of Dai An Corporation was considered; however, SME supports such as facilities equipment construction and maintenance, one stop service are planned to be outsourced as a general principal, therefore SPC is planned to be run by minimum number of personnel.

Running costs consist of labor cost, sales cost, management cost and depreciation cost, and the labor cost is calculated based on the labor cost appreciation rate in Dai An Corporation.

Labor cost appreciation rate is referred to the recent CPI of Vietnam through 2010 to 2012, and after a discussion with Dai An Corporation and Forval Corporation, the rate is planned to be at 10% per 3years for the opening 10years and 6% from the 11th year.

4.4.2 Nhon Trach JSC

660,178 USD(1st year)~2,687,822 USD(6th year)

Personnel planning for Nhon Trach SPC which will run Nhon Trach JSC will be dependent on the sold area (total number of occupying firms) and is planned to run the total 137 area with 24 personnel. The first year will be run by 8 personnel.

In the personnel planning, the running experience and past performances of Dai An Corporation was considered; however, SME supports such as facilities equipment construction and maintenance, one stop service are planned to be outsourced as a general principal, therefore SPC is planned to be run by minimum number of personnel.

Running costs consist of labor cost, sales cost, management cost and depreciation cost, and the labor cost is calculated based on the labor cost appreciation rate in Nhon Trach III Industrial Park One Member Company.

Labor cost appreciation rate is referred to the recent CPI of Vietnam through 2010 to 2012, and after a discussion with Nhon Trach III Industrial Park One Member Company and Forval Corporation, the rate is planned to be at 20% after 4 years, and 10% after 7 years.

Chapter 5 Project scope and scheme

The scope and scheme of this project are showed below.

5.1 Finalization of the industrial area of this project

This project offers a rental factory, which size is based on the company attribute and the dimension of Japanese SMEs, at Dai An Industrial Zone and part of Nhon Trach 3 Industrial Park in order to promote the Vietnam advancement of a Japanese SMEs.

The land location and the site area of this project are shown specifically below. At Dai An, a rental industrial park for the SMEs is planned to be built at the 16.53ha size land which is 3 minutes from the main gate, and about 10 minutes from the new freeway IC opening soon. Already the construction of a model factory (5 rooms) has started, and completed in August of the same year. (Figure 5.1.1). On the other hand, at Nhon Trach 3 Industrial Park, 18ha size land which is located along the area's main street that will be connected to the freeway is provided as the project's land. Already the construction of the 1st phase (a factory of a terraced house about 1ha) of this 18ha has started in February 2012 and completed in June of the same year (Figure 5.1.2).



Source: Research team





Source: Survey team

Figure 5.1.2 Nhon Trach Industrial Park, Rental Factories exclusive for Japanese SME's

5.2 Finalization of project activities (scope)

The project's aim is to offer one-stop service, wich will provide rental factories, human resources, and the nessessary environment for the representatives, to the Japanese SMEs planning an advancement to Vietnam. This will reduce the initial investment cost for the SMEs, and it will help them start or enlarge their business fast and steadly.

5.2.1 The capacity of rental factory

Each JSC follows the construction industry law of Vietnam. Rental factories provide land area from 288 m^2 to 1152 m^2 so that it can fit to the foreign business scale Japanese SMEs are planning to have, and is ready to extend its size depending on the SMEs' business development.

5.2.2 One-stop service

One-stop service is a service which will not only provide comprehensive support by the Japanese staff at the exclusive use administration building (JAPAN-DESK) built for each JSC, but also provides different supports depending on the period of Japanese SMEs' advancement to Vietnam, from advancement preparation period, beginning of the business period, continuation period. It will also care about the living support, and these supports are developed considering the Japanese domestic demand survey, interview surveys of Japanese companies, and the comparative analysis of competitive industrial parks' existing service.

(a) Comparative advantage with the competitive industrial park's similar business

Below is the comparison between one-stop service offered by each JSC and the similar support offered by Vietnam industrial parks.

First, most industrial parks don't have exclusive use administration building (JAPAN-DESK) that offer comprehensive support. So SMEs need to provide space for negotiation or receiving guests by themselves. Also, gathering for local information exchange and lecturing is very important for the SMEs to gather information. The reality is that this kind of gathering is not provided in other parks.

Each JSC can offer Japanese SMEs places for gathering information and matching businesses by setting up the exclusive use administration buildings.

For the preparation period support, company registration, acquisition of license, and related application for representatives necessary in Vietnam will be the main support. In reality, these applications are obstacle for Japanese SMEs since many people have to actually go to the local place and do the complicated application in foreign language.

The difference between each JSC and the other industrial parks is that each JSC have a service window in Japan too (placed at Forval Corporation), so it is possible to do all the procedures with the local while in Japan. Other industrial parks being investigated don't have this kind of service window in Japan.

For the support during operation, advice on running business and making internal rules according to the local Vietnam related law, procurement of materials needed for production, development of market and distribution system, recruiting, and manpower training are the main support. Similar support to these are offered by the investigated industrial parks run by Japanese companies, but investigated industrial parks run by local companies did not have these kind of supporting system.

For the living support, preparing Japanese representatives' living environment is the main point. In most cases when Japanese SMEs send their workman to Vietnam, they only send one person and since the life in foreign country alone is a very stressful thing, it is becoming a real problem for them.

5.3 Planning of project scheme

In this project, each JSC uses the overseas investment finance two-step loan scheme (via Vietnam Joint Stock Commercial Bank) to organize, operate and maintain new facilities in the industrial park which are necessary for Japanese SMEs, and also satisfy the related Vietnam laws. Facilities are such as rental factory, exclusive use administration building (JAPAN-DESK), cafeteria, power plant, water supply system, waste water treatment system, etc.

Invitation of Japanese enterprise is done by Forval Corporation. The support at the preparation period (before the advancement) in Japan is taken by Forval Corporation, and the support at Vietnam is taken by FORVAL-VIETNAM (Hanoi, Ho Chi Minh).

Each SPC's main job will be to run and manage the rental industrial park exclusive for Japanese SMEs, to offer tenants one-stop service, to offer various consulting service window, and managing of JSC.

Support that is necessary differs at the stage the company is in, such as planning to advance, decided to advance, and has already advanced for several years. This project plans to offer the necessary support according to the period the company is at, by using the outsourcing contractors.

Tenants will make a Rental Agreement with each SPC according to the type of factory they're going to use, and they will pay the rent, management costs, and the fee for the one-stop service to each SPC



Source: Forval Corporation

Figure 5.3.1 Fundraising scheme



Source: Forval Corporation

Figure 5.3.2 Flow of the rent, one-stop service

Corporation	Object	Content of role	Contact address/ Outsourcing Contractor
Forval Corporation	Enterprise before advancement	Marketing Sales Promotion Invitation	Associated bank Associated local authorities(Saitama, Nagasaki) Company's own clients(50000 companies)
Each SPC	Enterprise which has fixed on the advancement (LOI associated companies)	Various procedures necessary before advancement	Forval Corporation FORVAL-VIETNAM
	Enterprise which has fixed on moving into the industrial park	Various procedures for the business Recruiting Interior decoration for the rental factory Maintenance and Repairing	Forval Corporation FORVAL-VIETNAM Dai An company Nhon Trach 3 Industrial Park company
	Tenant	Business application Maintenance of facilities	Dai An company Nhon Trach 3 industrial Park company

Table 5.3.1 Division of roles

Source: Forval Corporation

5.4 Project Risk

5.4.1 Risk analysis (Execution, Management)

The following section describes the risks surrounding the execution and management of the rental factory project.

(1) Sponsor risk

The project does possess a risk that sponsors face bankruptcy, or that they are not able to provide necessary budget for the investment. Both Forval and Tinnghia run a diversified business and possess a reliable financial portfolio. If we are to consider risks it should be for Dai An, for the company concentrates on the management of industrial parks and is limited in its profit margin and liquid assets.

Though, it should be noted that this project is smaller in size compared to the business the Tinnghia and Dai An are usually involved in. Moreover, the companies have a record of success in the concerned area of profession. Thus it may be concluded that the sponsor risk remains limited in the project.

For details, refer to the "Business analysis".

(2) Budget risk

Apart from the sponsor risk discussed above. There is also a risk of loans from the banks. The establishment of the SPC is a precondition of this project finance, and thus the loans from the local banks are to be applied to the project and not to the companies. Therefore, it is required not only to assess the capacity of potential financial partners in implementing the loan and in carrying out a competency assessment. In addition, the profitability and the stability of the project should be considered carefully in order to minimize the loan risk.

(3) Execution risk

The execution risk is comprised of two parts: Schedule delay and Cost overrun. In the case of schedule delay, the project would not complete in the assigned period of time, which would also suspend the commencement of the operation and the acquisition of the rental fee. Such delay could occur when the project faces the inadequacy of the construction company in their preparation of materials, machinery or labour, or when the construction process is not managed punctually. At times of cost overrun would result in the excess of construction fee and the business would be required to acquire additional budget.

This project is small in size and simple in its construction process, and execution process should be relatively manageable. The execution risk appears limited.

(4) Technological risk

Technological risk includes to the miss-selection of materials, machinery or method in the construction process and flaws in the completed asset. In the case of this project, this could refer to times when the building does not meet the demanded quality and standard and requires additional work. It is the construction companies that are to be responsible for these risks. Though, the managing side should also commit to supervision in order to mitigate the technological risk.

In this project, construction process should be nothing out of ordinary for factories both in Dain An and Nhon Trach in terms of materials, machinery and method. Technological risk should remain small.

(5) Operation risk

Operation risk considers circumstances where the factories are not able to attain the expected amount of rental fees, or times when operation cost swells up above the intended sum. This could occur with following reasons.

(Income risk)

• Delay of operation (administration, permission etc)

Delays which occurs due to the application to, and permissions from the ministries concerned. Income from loans will be suspended in such cases.

• Arrears of payment from the tenants

The tenant companies does not complete their payment in the agreed due date

• Withdrawal of the tenant, termination of the contract.

Withdrawal or termination in midst of a contract due to circumstances of the tenant.

(Expense risk)

• Rise of labor cost

Increase of labor cost due to inflation and/or change in the labor market balance

• Labor dispute, strikes, job-hopping

Unexpected fees due to labor disputes, strikes or other issues concerning employment.

(6) Market risk

Market risks related to the change of demand for the rental factories. It is comprised of two cases; a general decrease in the demand for rental factories, decrease of demand for the specifically for Dai An and Nhon Trach factories.

(General)

- Withdrawal of the Japanese companies, transfer to other countries
 - The change of market in Japan or in neighboring countries, inducing a serious effect on the supply chain.
- Diminutions of demand in the concerned domain of the tenant
 - The demand for the concerned product or service of the tenant decreases in Vietnam.
- Demand for company-owned factories

Company demand shifts from rental factories to purchacing one's own facilities.

(Dai An and Nhon Trach)

• Emergence of competing factories, increase of cost competition

The cost advantage decreases due to the arrival of new competing factories with reduced cost.

• Cost reduction of the existing rental factories

The cost advantage decreases due to the strategic decision of the competitor to reduce price.

• Reliability of the estimated occupation rate

The outlook of the project (the occupation rate, occupation period) proves overly optimistic, and the number of tenant does not meet the expected number.

(7) Environmental risk

Environmental risk presumes conditions where the tenant companies become responsible for harming the surrounding environment. This includes air pollution, water pollution, noise pollution, and inappropriate handling of wastes. However, in terms of this project the tenants are evaluated upon the EIA of Dai An and Nhon Trach. Business with a high environmental load such as plating generally would not be permitted as a tenant. Moreover, the tenants are asked to submit their environmental measures when they acquire their licence. It is unlikely that pollution would be a major issue for the tenants.

(8) Related infrastructure/utility risk

Roads inside and/or outside the rental factories area, drainage, electricity are examples of the infrastructure concerned. The following describes the varying risks between the preparation stage and maintenance & management stage.

(Preparation stage)

• Delay of preparation

The tenant occupation and the operation of the facilities does not commence as planned due to the delay in the preparation of the related infrastructure inside and/or outside of the rental factories.

• Inadequacies of the facility spec (capacity, diameter, joint etc)

Facility spec such as electricity capacity, the diameter and joint of the water pipes is incompatible.

(Operation stage)

• Trouble, breakdown the limited quality of the service

Frequency of blackouts, the poor quality of the industrial water does not allow the commencement of operation as planned, or it requires additional cost.

• Outdated facilities, lack of capacity

With the innovation of new technology, the existing electricity capacity, drainage and other facilities are outdated. The competition against other factories is reduced.

(9) Accidents and Natural Hazard risk

Accidents and natural hazards could be induced from following factors. Accidents: peace and order in the area, security. Natural hazards: climate, natural phenomena, geographical conditions. Specific circumstances are described below.

(Risk of accident)

• Robbery, riots

The rental factories suffer from robbery of its facilities, or outbreak of a riot in the neighborhood leads to damage to the buildings.

• Fire, explosion

Damage to the buildings by fire or explosion within the facilities or in its neighborhood.

(Natural hazard risk)

• Earthquakes, typhoons, storm and flood damage

Damage to the buildings from earquakes, typhoons, storms and floods.

• Extreme weather conditions

Damage or degradation of the buildings from exceptionally heavy localized rain, tornado, intense heat.

(10) Others

Incidents such as natural hazards, conflicts, riots that are beyond stakeholders' control and responsibility, should be mutually agreed in advance as "inevitable events". Generally these risks are to be specified in the Force Majeure clause of the contract documents between the parties concerned.

5.4.2 Risk hedge and security package

(1) Risks and measures

Generally, measures against risks can be categorized into four types: aversion, reduction, retainment, and transfer (Complete edition: Japanese PFI from the basics to the completion of the Project [Kanzen moura: Nihon-ban PFI, Kiso kara Project jitsugen made], Masaki Arioka et al., Sankai-do, 2001)

[Aversion]

- The nature of the risk is "All or Nothing"
- The averted risks that are carefully considered in the preparation stage are no longer risks.
- If the risk is passed over without being noticed, it could lead to serious consequences that could not be responded only with the increase in cost.

[Reduction]

There are two measures: reduction of the occurrence probability, and the mitigation of the harmful effects.

[Retainment]

• Measures are taken when risk does occur not in advance as a preventative manner.

• In order to minimize the effect, necessary costs are to be calculated to respond to risks when it does occur. If the risk is averted this generates a margin for further cost reduction

[Transfer]

- Measure in which the responsibility of the risk is transferred to another player (e.g. subcontractor, insurance company)
- Though cost is needed, uncertainties could be reduced at the initial stage.

In order to examine measures specifically to the risks mentioned in the previous section. Actions were considered with the above four typologies in mind.

1) Sponsor risk

• Detailed study of the sponsors (Aversion, Reduction)

The management, portfolio and the past record of development and operation of the industrial park should be carefully examined. Moreover, the competence of the company as a project partner should be evaluated in terms of the ability to establish mortgage relation to the financial institutions.

2) Finance Risk

• The use of two-step loan (Transfer)

Using the investment and lending system of JICA, low interest loan may be applied, which would then reduce the interest rate of the loan to the SPC from the local bank.

• Use of the credit of the sponsors (Transfer)

At times of sublease negotiations, the security offered from the sponsors and the past transaction records are used to induce advantageous lease conditions from the local banks

3) Execution risk

• Monitoring an supervision of the contractor (Reduction)

Execution risk is limited as discussed above. However, efforts should still be made to prevent the risk by evaluating the financial status, construction record and past contracts of the contractor, as well as careful supervision and monitoring once the execution begins.

• Assessment of the Project Cost by Evaluators (Reduction)

There is an execution risk of delay in construction completion due to increase in construction cost from a poor estimate made by each constructors of the infrastructure. The owner of the project should prevent such execution risk by taking the cost estimate made by each contractors to the evaluators to have them assessed.

The research team has acquired a cost estimate of various infrastructures in the model projects established by the two industrial park operating companies, at their own cost. The team has asked the evaluators to review these estimates. It was assessed that the estimates were around 105-107% of the market value; therefore no particular concern for the cost estimates exist.

4) Technological risk

• The monitoring of the contractor (Reduction)

Technological risk remains low likewise. Though supervision and monitoring of the contractor by the employer should be under taken in prevention of risks.

5) Operational risk

• Administrative process with the ministries concerned (Aversion)

In the commencement of the operation, applications for permission and validation should be made without delay. If permission and validation is to take time, operation delay should be prevented by using means such as connections to the concerned ministries, direct negotiations by JICA.

Strict conditions on the contract between the tenants and with the employees (Transfer, Reduction)

The rental contract with the tenant and the labor contract with the employee should specify that at times of early contract cancellation, notice should be made few months in advance, and that penalty fee and tenant deposit will be collected. In taking such measures, the risks caused by cancellation could be reduced or transferred to the tenants and employees.

• Financial status of the tenants (Reduction)

The indicators for the general business outlook of the tenant, such as financial portfolio and balance sheet should be followed carefully in order to identify the risk signals which could lead to withdrawal or contract cancellation.

• Study of working conditions in other industrial parks (reduction)

The working conditions in other industrial parks, especially those with favorable conditions should be used to reflect on the working conditions of the employees. This is to prevent the job-hopping of the workers.

6) Market risk

.

• Situation of the Market (Country, region, industrial parks) (Reduction)

Country (Vietnam, Japan), Regions (Tinh Hải Dương, Tinh Đồng Nai), market environment surrounding industrial parks must be continuously gathered in order to quickly identify the deterioration of the situation.

• Marketing towards the potential tenants (Reduction)

In addition to the survey results used as a basis for the tenant estimate, the result of the interviews, contact record to Forval and information must be collected for enterprises planning to expand to Vietnam in order to raise the accuracy of the estimate.

• Support for scouting possible tenants through promoting activities with the cooperation of our country's municipalities and financial institutions will continue. (Reduction)

7) Environmental risk

• Compliance with the laws and rules concerned (Aversion)

Prevention of harmful effects to the environment by committing to the compliance with the regulations of EIA and presenting certification of environmental measures when acquiring the license.

8) Related infrastructure/utility risk

• Closely following the preparation steps (Reduction)

The preparation of infrastructure and utility such as roads, electricity, water supply and drainage must be closely followed so that possible delays can be identified quickly.

• Verifying the accordance of the design with the actual material and construction on the ground (Reduction)

Supervision of the construction should be done either directly by the sponsor or by subcontractors in order to prevent in accordance with the planned design.

• Verification of the utilities in the neighboring industrial parks (Reduction)

The qualitative information regarding the utilities such as stability of the electricity supply, and the quality of the water must be studied extensively.

• Following up on the new emerging technology of the utilities (Retention)

Collecting information on the new technologies of the utilities such as electricity and water supply. The facilities must be checked for possible updates in comparison with the other industrial parks.

9) Accidents, Natural Hazard risk

• Construction insurance and theft insurance

To be insured for construction mismanagement and theft to mitigate the harms caused by accidents and hazards.

(2) Security package

Overall measures to the abovementioned risks are summarized in the table below. It is noted that every expected risk is properly managed.

Classification	Contents	Aversion	Reduction	Retention	Transfer	Measures
Spencer Risk	Detailed study of the sponsors	0	0			~
Finance Risk	The use of two-step				0	V
	Use of the credit of the sponsors				0	~
Execution Risk	Monitoring an supervision of the contractor		0			7
Technological Risk	Monitoring an supervision of the contractor		0			~
Operation Risk	Administrative process with the ministries concerned	0				~
	Strict conditions on the contract between the tenants and with the employees		0		0	~
	Financial status of the tenants		0			~
	Study of working conditions in other industrial parks		0			~
Market Risk	Situation of the Market (Country, region, industrial parks)		0			~

	Marketing towards the potential tenants		0			~
Environmental Risk	Compliance with the laws and rules concerned	0				~
Related infrastructure/utility	Closely following the preparation steps		0			1
Risk	Verifying the accordance of the blueprint with the actual material and construction on the		Ο			~
	ground		0			~
	Verification of the utilities in the neighboring industrial parks			0		~
	Following up on the new emerging technology of the utilities					
Accidents, Natural Hazard Risk	Construction insurance and theft insurance				0	~

(3) Mutual agreement of the stakeholders concerning the security package

The following section describes the current status of the agreement held between stakeholders regarding the security package.

•Execution Risk, Technological Risk (Measures: Monitoring an supervision of the contractor)

The information of the details of the construction work, the contractor, cost estimate, and the criteria for the contractor selection were gathered from Dai An, and Tinnghia in order to verify that execution risk and technological risk remains low.

OMarket Risk (Measures: Marketing towards the potential tenants)

As for the estimate occupation of the tenants, in addition to the and the survey results and contact record to Forval, we are also looking into a partnership with the project by the Kanagawa prefecture (Japan) working support for the business expansion of small and medium sized enterprises overseas.

•Finance Risk (Measures: Use of the credit of the sponsors)

In order to acquire a favorable loan conditions from the local banks, negotiations are made with Dai An, and Tinnghia to offer their assets such as land as mortgage. (Dai An has already agreed to offer a location as mortgage)

5.4.3 Economic analysis on private sector

For the economic analysis on private sector, NPV, Project IRR, Equity IRR, DSCR, LLCR was calculated based on the business plan shown in Chapter 4. The method of calculation is as follows.

In normal case when cash flow is described, you have to prepare a temporary balance sheet and profit-and-loss statement, and use it to recognize the error between time of contract or adding up and the

time of real cash exchange. However, it seems too difficult to calculate in such accuracy at the point of making this report, so we will assume that the contract and the adding up are done simultaneously the cash is being exchanged.

(1) Cash flows from operating business

First, the long-run revenue and expenditure for 20 years was predicted based on 4.3.

In addition, the labor cost, selling cost, management cost, and the depreciation (building and land) were planned out as the cost necessary for running the project by JSC.

(2) Cash flow from investments

The details of projection on facility construction were planned out in a long-run for 20 years based on Chapter 4. The main objects for the construction plan are as follows.

- (a) Land acquisition cost: land for rental factory, storehouse, administration building, cafeteria, restaurant, technical area, sports facilities, road, parking lot and greenery
- (b) Construction and facility cost: construction of rental factory, administration building, restaurant, cafeteria, road, parking lot, sports facilities, greenery, fence, gate, facilities for guard, for waterworks, road and drainage, water and sewer, power plant, a reserve fund, and management fee

The investment will be completed in 5years.

(3) Cash flow from financial activities

The running company of rental factory in Dai An industrial park and Nhon Trach 3 industrial park will do the borrowing using PSIF under the conditions shown below.

(a) Dai An industrial park

[Conditions]

- a) Debt : Equity Ratio= 7:3
- b) Debt Currency: USD (Note: through JICA overseas investment finance two-step-loan)
- c) Debt Period: 20 years (within which 5 years of grace period)
- d) Payment: Equal Principal Payment Method, Half-Year Installment Method
- e) Interest rate: 5~10% (scenario analysis)
- (b) Nhon Trach 3 industrial park

[Conditions]

- a) Debt : Equity Ratio= 7:3
- b) Debt Currency: USD (Note: through JICA overseas investment finance two-step-loan)
- c) Debt Period: 20 years (within which 5 years of grace period)
- d) Payment: Equal Principal Payment Method, Half-Year Installment Method
- e) Interest rate: 5~10% (scenario analysis)

(4) Two-step Loan Cash flow analysis

NPV was calculated under the condition of changing the discount rate and the subleasing interest rate. The analysis for Dai An JSC is shown below. The relationship between discount rate and the subleasing interest rate is that when the discount rate is 12%- the subleasing interest rate is over 12%, when the discount rate is 13%- the subleasing interest rate is over 9%, when the discount rate is 14%- the

subleasing interest rate is over 7%, and NPV would be minus. If the discount rate is under 11% and subleasing interest rate under 13%, then NPV would be plus.

The number for Nhon Trach JSC will be as follows. When the discount rate is 11%- the subleasing interest rate is above 11%, when the discount rate is 12%- the subleasing interest rate is above 8%, when the discount rate is above 13% and subleasing interest rate above 6%, NPV would be minus.

(5) Stabilization of cash flow

As it is shown in (4), the subleasing interest rate of the intermediary bank has a large influence on the number of IRR or NPV. Therefore, in order to improve the cash flow of this project, it would be necessary to lower the subleasing interest rate of the intermediary bank used in the JICA overseas investment finance two-step loan as low as possible.

The subleasing interest rate of intermediary bank used in JICA overseas investment finance two-step loan is basically lead by three conditions shown below.

- (a) credit risk
- (b) transaction cost
- (c) exchange risk
- (a) Credit risk is a risk of SPC which is the target of loaning becoming irrecoverable. It is possible to lower the risk by holding a mortgage. However, in this project's case, the mortgage would be the value of land property and the building property, and those might be not enough to cover the funding by two-step loan, since the fundraising rate of that is very high. In the normal case of Vietnam's city bank, the amount of finance is set up to 70% (90% depending on situation) of the value of property, and the mortgage might be not enough. In that case, the quality of project finance would be larger, and subleasing interest rate might get higher because of the higher set credit risk by the city bank. In order to avoid this situation, it is necessary for Dai An Corporation, Tin Nghia Corporation, and Forval Corporation as the investors of the SPC to secure additional mortgage.
- (b) Transaction cost is the practical cost produced during subleasing or the revenue for the intermediary bank.
- (c) For the exchange risk, it is the normal case of the JICA overseas investment finance that investment from JICA to the intermediary bank is done in yen, and the lending from the intermediary bank to SPC is done in the local currency Vietnamese Don. Intermediary bank would have to take the exchange risk of yen and Vietnamese Don, so they will loan SPC with the extra added interest rate considering that risk. In the case of exchange rate, since there is the market of swap, floating rate, in which the interest rate is fixed during swap, and interest rate is changed as the swap changes, might be applied, too.

From the hearing for the Vietnam intermediary bank, exchange risk has the most influence on the subleasing interest rate took most proportion of the comments. Therefore, the important thing would be to find a way to lower the exchange risk. From the hearing for the Vietnam Central Bank, only if the Central Bank allows, it is possible for the intermediary bank to lend SPC with foreign currency (USD). Therefore, this project will lend money in USD to lower the currency risk.

However, even assuming the loan would be in USD, there is still a risk of currency risk between JPY and USD. By swapping, the currency risk needs to be decreased.

5.4.4 Economic analysis on the entire project

The sale (hundred million yen), size of factory (m2, building), and number of working forces of the companies targeted in this survey are shown in the list below. From those data, the sales per area (thousand yen/m2) and the working force per area (person/m2) were calculated.

		Category of business	Sales Hundred million yen	Size of factory m2(building)	Number of working forces person	Sales per area(thousan d yen/m2)	Working forces per areaa(person/ m2)	Inside or outside the country	Region	Remarks
	A Co.	Fabric	1	1000	120	100	0.120	Vietnam	Southern Vietnam	
	B Co.	Metalic components	1	1800	60	56	0.033	Vietnam	Southern Vietnam	
The first	C Co.	Metalic	0.2	512	16	39	0.031	Vietnam	Southern Vietnam	
local survey	D Co.	Commodity	15	9000	450	167	0.050	Vietnam	Southern Vietnam	
	E Co.	Textile processing	0.8	1800	87	44	0.048	Vietnam	Southern Vietnam	
	F Co.	Metalic material	300	60000	250	500	0.004	Vietnam	Southern Vietnam	Basic material industry
	G Co.	Distribution	14		280			Vietnam	Northern Vietnam	No factory area because of the warehousing business
	H Co.	Metalic	10	500	28	2,000	0.056	Vietnam	Northern Vietnam	Small factory because trading business is the main function
	I Co.	Resin molding	10	2500	40	400	0.016	Vietnam	Northern Vietnam	
	J Co.	Electronic components	4	2600	560	154	0.215	Vietnam	Northern Vietnam	
	K Co.	Metalic	12	10000	420	120	0.042	Vietnam	Northern Vietnam	
	L Co.	Metalic components	16	2000	100	800	0.050	Japan	Western Japan	
Domesti c survey	M Co.	Metalic components	8	2000	430	400	0.215	Vietnam	Southern Vietnam	Vietnamese base
	N Co.	Metalic Components	19	3000	100	633	0.033	Japan	WesternJapan	Japan base
	O Co.	Metalic Components	10	3600	45	278	0.013	Japan	Western Japan	
	P Co.	Food processing	12	6600	250	182	0.038	Japan	Western Japan	Foreigner 1/3
Third	Q Co.	Skin processing	4.2	3600	180	117	0.050	Vietnam	Northern Vietnam	
local survey	R Co.	Material	12	3000	30	400	0.010	Vietnam	Northern Vietnam	Device industry
	S Co.	Automobile parts	420	95000	9700	442	0.102	Vietnam	Northern Vietnam	
	T Co.	Electronic components	30	15000	300	200	0.020	Vietnam	Northern Vietnam	Before in full operation
Average		-	45	11,764	672	370	0.06	-	-	

The result came out that the average sales per area (thousand yen/m2) is 370,000yen/m2, and the average working forces per area (person/m2) is 0.06person/m2.

Assuming that exchange rate of yen-dollar is 103yen-dollar, ratio of value added is 30%, sales per are is USD3,592/m2, and considering the result of private sector's project analysis from 5.3.3, Dai An JSC's economic effect would be 580 million USD and Nhon Trach JSC rental factory's economic effect would be 933 million USD. The EIRR of Dai An JSC would be more than 400%, and that of Nhon Trach 3 industrial park's rental factory is not able to calculate since the economic effect goes over the investment amount from the first year.

The expectation of final employment effect (number of working forces) would be 4,639 people at the rental factory of Dai An industrial park, and 6,084 people at the rental factory of Nhon Trach 3 industrial park.

Therefore it can be said that the influence of this project on Vietnam economy is extremely large.

5.5 Analysis of stakeholder

Here, we will assess the capacity of performance by the operating body and the degree of support by the relevant organizations by analyzing stakeholders that will be involved in the project of both industrial parks.

5.5.1 Management analysis of the object industrial parks

We will analyze the management and financial condition of the operating company (sponsor) of the target industrial park. Then, the ability to manage and finance this project will be assessed.

(1) Information related to sponsors

Dai An Corporation, which is sponsor of the Dai An industrial park, is a 100% local private capital company which was established in 2001. The main business of this company is industrial park and residential area development project.

Nhon Trach 3 Company was established as an operating firm of the Nhon Trach 3 Industrial Park. Tin Nghia Corporation, which is the parent company of Nhon Trach 3 Company, is an enterprise group established in 1989 at Dong Nai Province. It holds 17 subsidiaries and is takes part in infrastructure improvement in industrial parks, construction and selling of real estate, and sales of petrochemical products. In the ranking UND has made, Tin Nhgia Corporation was selected as one of the 200 Vietnamese large companies.

(2) Management system (containing governance)

Dai An Company operates Dai An Industrial Park with 4 board of directors, including the Chairman Truong Tu Phuong Figure 5.5.1).



Sorce : Survey team



Nhon Trach 3 Company's board of directors consists of following 4 members. President Vinh also holds the post of vice president of the Tin Nghia Corporation, which is the parent company of the Nhon Trach 3.



Source : Survey team

Figure 5.5.2 Management system of Nhon Trach 3 industrial park

(3) Capacity on planning and running the project

As shown below, Dai An Corporation, Tin Nghia Corporation, and Nhon Trach 3 Company have already planned and run similar project. Therefore, it can be said that they have the capacity to run this project. Each company's past record is shown below.

1) Dai An's record

Dai An Corporation is a 100% local private capital company. Other than Dai An indusitrial park, Dai An Corporation have developed and is operating 4 other spots; Minh Duc industrial park (Hung Yen Province) and Lai Cach industrial park (placed in the Hai Duong Province across from the Dai An industrial park) in the northern area, economic district in the Tay Ninh Province and Trang Bom industrial park in the Dong Nai Province in the southern area. In addition to the main business of industrial park development, Corporation also does residential are development, such as the second district of Ho Chi Minh City.

2) Tin Nghia, Nhon Trach 3's record

Tin Nghia Corporation has been doing the industrial park business for 15 years, and is now operating 8 industrial parks. The total land area is 3,500ha, total investment is 4 billion dollars, and total tenants is 150 companies.

5.5.2 Information concerning parties involved in the project

Below is the information on directly involved parties (mediation bank candidate) and indirectly involved parties (Vietnam central and local government, Japan government, local commercial banks, and international development banks).

(1) Directly involved parties

Here we will first look at the overview of the Vietnamese banking sector, and then show the idea of mediation bank we should look at in the case of this project. After that, we will explain the characteristics of the mediation bank, and the interest and conditions those banks are offering in taking part in this project. At last, we will look at the issue which needs to be examined.

1) General condition of Vietnam bank sector

Vietnam's financial institution can be classified into 5; bank, non-bank, microfinance organization, people's credit fund, and local development investing fund. Bank can be classified into commercial bank, development bank, and cooperate bank.

For commercial bank, there are 5 national commercial bank, 35 domestic private bank, 5 merger bank, 5 foreign bank, and 50 branch office of foreign banks (September, 2011). Mediation banks we will be looking at are classified as follows: Bank for Investment and Development of Vietnam (BIDV), Vietnam

Bank for Industry and Trade (VietinBank), Joint Stock Commercial Bank for Foreign Trade of Vietnam(VietcomBank)are national commercial bank, Saigon-Hanoi Joint Stock Commercial Bank(SHB), Housing development Joint Stock Commercial(HDBank)are private commercial bank.



Figure 5.5.3 Classification of Vietnam financial institutions

2) Selection flow of intermediary bank

Below is the selection flow of intermediary banks selected as target of survey at the first local investigation.



Figure 5.5.4 Selection flow of intermediary bank

First, we grasped the main 41 banks from the information open to public. Next, we selected from the point of bank's size and if the bank has in past done the two-step loan (one of the two was used as the condition). Also, we excluded banks whose investment area is different from the 11 banks. As a result, 10 banks were chosen as the object for the first visit. Bank that agreed on a survey and also received mediation from the central bank international credit affair administration while doing the survey was actually surveyed. Those were BIDV, VietinBank, VietcomBank, SHB, Dong A Bank, HDBank, and

Mekong Housing Bank. We visited these banks and exchanged opinions on the possibility of taking the mediation.

All the banks we visited showed positive opinion. However, they wanted to know about the subleasing interest rate problem (considering exchange risk, credit risk, remittance cost), perspective of Japanese tenants advancing to the industrial parks, reliability of project's body, and the possibility and continuity of the project, so we decided to explain them at the second visit.

Also, considering the result of the survey for intermediary banks, we picked up BIDV, VietinBank, VietcomBank, SHB, and HDBank as the second visiting target by looking at the bank's reliability and stability, Whether they have any capital relationship with Japanese bank or not, the area of investment (investment record for SME, industrial park), and whether they have any relationship with this project's body (Dai An Corporation and Tin Nghia Corporation).

3) Outline of intermediary bank

The outline of the intermediary banks investigated on the second visit (BIDV, VietinBank, VietcomBank, SHB and HDBank) is below.

BIDV

One of the Vietnam big 5, and has the third asset size in Vietnam. Number of bases in the country is 597 including 113 branch offices, and 88% of the borrower is corporation, 12% individuals. Done the IPO in 2011 and tried being listed in the Ho Chi Minh market within 2012, but it hasn't been realized. It has many investment record of rural development.

Also, it has a record of participating in JBIC, JICA and central bank's project. It's also operating World Bank Project (rural development). About the JICA's SME supporting PPP, it has been participating from the first phase out of three phases. Until now, it has taken part in 263 projects, total of 200 billion dollars of investment record. Also, it has invested 84 SMEs until now.

VietinBank

One of the 4 largest banks in Vietnam. It has second largest asset size in Vietnam, next to Agribank. Number of bases in the country is also next to Agribank, which is 1,093, second largest in Vietnam. Done the IPO in 2008 and got listed in the Ho Chi Minh market in 2009. It tied up with JCB's subsidiary in 2011, and brought out the first credit card in Vietnam.

It has an experience of JV matter with Japanese company, Kobelco Company, and it roled as intermediary bank. It is also tied up with Japan's Mitsubishi Tokyo UFJ bank, and the bank invests Vientin Bank's 20% of the stock. It is also receiving officers too, and has many connections with Japan.

VietcomBank

One of the 4 largest banks in Vietnam. 50 years have passed since its establishment, and the number of bases in the country is 377, working forces are 11,415 people. It was originally 100% national invested company, but it opened its stock in 2008. It has many records of deal, exchange, settling acconts with the foreign countries. It has taken part in JBIC or JICA's project 100% until 2010, and 95% even after that.

The asset size is the third in Vietnam, and its strong point is the ability to manage fund. Also, it is strong in long-term investment on infrastructure, investment on industrial park, settling accounts with foreign countries, and financial technology. Japan's Mizuho Corporate Bank has 15% of its stock, and is receiving officers like Mitsubishi Tokyo UFJ bank. It is said that this bank is taking part in all of the industrial parks, and Tin Nghia Corporation which is the project body is this bank's client.

SHB

20 years after establishment and it got listed in 2009. Working forces are 500 people, and has 300 branch offices, including offices in Laos and Cambodia. It takes part in international affairs such as World Bank's project. Right now, it is taking part in ODA transportation affair which amounts to 370 million dollars.

The size of the bank is mainstay. Its business target is SMEs, and the investment toward SMEs count up to 70% of the total lending.

It has not yet established a relationship with Japanese bank, but it is willing to.

HDBank

200 people work at the head office, and about 200 people work at the main branch. Head office controls the main branch, and it has 130 branch offices all over Vietnam. The main network is placed in Ho Chi Minh, Ha Noi, Da Nang, and Hai Phong. Its main business is retail and business against SME.

The size of the bank is mainstay, and is planning aiming at getting into the top 10 of 2015 (now 14th). Spot lending against SMEs is the main business.

It has good relationship with Tin Nghia Corporation. It bought up Tin Nghia Corporation's main bank, DaiA Bank in 2013.

4) Profitability, stability, and external valuation of intermediary bank

Some of the indicators for these 5 banks' financial condition are summarized.

(2) Indirect involved parties

The project is supported by many parties, such as Vietnam local • central government, Japanese government, local commercial bank, international development bank etc. Below is the result of the survey.

1) Vietnam central government etc.

Ministry of Industry and Trade International Cooperation Administration, receivable management and external financing bureau of Department of the Treasury, and international confidence affair administration of central bank all shows welcome to the development of supporting industry by this project, and is willing to support this project.

In addition, we received an advice from the foreign investment bureau of the Ministry of Planning and Investment that we will need soft support since in Vietnam, legal risk is high.

Also, we received a support from the commercial and industrial association for our plan of opening show room for the industrial and commercial association inside the industrial park. The association states that that will make it easier to decide whether it is possible to procure materials from the domestic companies or not, and the negociation would be easier.

2) Japanese government

Survey team received an offer for helping local investigation at the same time they reported the progress report of the survey to the JICA Ha Noi office.

From the Japanese embassy, we received an understanding for our project's importance on developing SMEs, and received permission to be able to participate as an observer if a meeting between Japanese government and local government was held.

In addition, we received an advice from JETRO that even if at the beginning, processing on commission from Japan will be main, afterwards we should think about targeting local market.

Japan commercial and industrial association gave us an advice that SMEs which have visited Vietnam tend to request rental factories under the size of 1,000m2.

3) Vietnam local government (Province)

We received a comment from People's Committee of Hai Duong Province and Dong Nai Province that they want to support this project from various aspects. Also, we receive information about trend of companies' advancement on each regions, favorable policies we should make full use of, and the evaluation of each industrial parks that was surveyed in Dong Nai Province. Especially the People's Committee of Hai Duong Province showed a will of full support by sending the chairperson to answer.

4) World Bank & ADB

Since World Bank and ADB both operates finance scheme similar to two-step loan, both stated that it would be very difficult for the city banks to take on maximum of 20years long-term loan while exchange risk exsists.

Also, we received information on Vietnam financial affairs, such as central bank not holding inspection on city banks, bad debts are building up among city banks, and Ministry of Finance is deciding the extra adding interest rate for the exchange risk.

Chapter 6 Project Operation Plan

As for the law in foreign investment in Vietnam and the establishment of an enterprise, companies managing industrial parks and Japanese company Forval Co., Ltd. are planning for a Limited Liability Company (LCC) based on the decree of 108/2006/ND-CP dated from 22 September 2006. They will establish a Special Purpose Company (SPC) after having been examined according to the amount and the domain of investment.

Established SPCs will manage each JSC and develop/ offer one stop services.

6.1 Administrative structure for management

The administrative structure will manage each SPC by forming a structure according to the construction plan for sales plan of each JSC. As for the number of personnel, it is decided depending on the experience of management of industrial parks, as well as the track record of both Dai An and Nhon Trach 3 Industrial Park One Member Company. Moreover, the task of each SPC for this business will be managed by the fewest number of personnel by actively utilizing outsourcing.

6.2 Authorization schedule

Dai An and Nhon Trach 3 Industrial Park One Member Company have already acquired the sites for each JSC, as well as the authorization of industrial parks from People's Committee and Industrial Parks Management Commission.

SPCs will be constructed and registed by March 2014 at the sites concerned as a means of the business.

6.2.1 Dai An SPC

Table 6.4.1	Authorization	schedule:	Dai An SPC	

Item	2013.12	2014.3	First year	
Dai An SPC Es	→			
Dai An SPC Es		-	SPC Operation	
	Rental Factory Land			•
	Administration Tower			•
	Food Court			•
Land by	Restaurant			•
Purpose	Infrastructure (power, water)			•
	Sports Facility			•
	Road, Parking, Green Land within the site			•

Source: Made by Dai An, Forval Co., Ltd.

6.2.2 Nhon Trach SPC

	Item	2013.12	2014.3	First year
Nhon Trach SPO	C Establishment Preparation			
Nhon Trach SPO		•	SPC Operation	
	Rental Factory Land			•
	Administration Tower			•
	Food Court			•
Land by	Security Guard			•
Purpose	Infrastructure (power, water)			•
	Green Land			•
	Road, Parking, Green Land within the site			•

Table 6.4.2 Authorization schedule: Nhon Trach SPC

Source: Made by Nhon Trach 3 Industrial Park One Member Company, Forval Co., Ltd.

6.3 Index for management effect

As for the number of Japanese medium-sized and small companies expanding to Vietnam at this business, it is planned to have 132 companies for Dai An JSC as well as 137 companies for Nhon Trach. The degree of satisfaction for the facilities and One stop services that tenant companies are offered at this business will be measured regularly.

Concerning employment effect, 6 Japanese medium-sized and small companies have already entered into a contract as tenants at the block of the first phase construction of Nhon Trach JSC, completed at present. For Dai An, 1 company has entered into a contract at the block of the first phase construction.

The assumed number of employees for companies determined as tenants for both JSCs is 10 on average for 288m2, 13 for 648m2, 100 for 1152m2. If applied at tenant plans for each JSC, it is noted that the employment effect is 5115 people at Dai An JSC and 6252 people at Nhon Trach.

Chapter 7 Environmental and Social Considerations

This project concerns the development of industrial parks intended exclusively for Japanese SMEs within the premises of existing industrial parks, Dai An Industrial Park and Nhon Trach Industrial Park, which have already had their EIA approved..

Therefore, within the screening into 4 categories, A,B,C and FI that determines the necessity of environmental and social research based on the project's features and local attributes, this project belongs to Category B, "does not apply to the influential sectors or characters, or area that are easily influenced, and the impact on environment is not expected to be significant." In general, projects in Category B only holds influences inside the premises that are also not irreversible; hence, an ordinary measure seems sufficient. ¹

In addition, both of the industrial parks have already acquired approval of EIA, therefore a factory on the EIA permission list (explained below) will not be required a new EIA when moving as a rental factory tenant.

With that in mind, this chapter discusses the environmental and social considerations of the development of industrial parks within the two pre-existing industrial parks.

7.1 List of key environmental factors and easing measures and monitoring plan7.1.1 Current situation of the base environmental society

(1) Regional Economy

The details of regional economy of Hai Duong Province where Dai An Industrial Park is situated and Dong Nai Province where Nhon Trach III Industrial Park is situated are analyzed in detail in "2.1.2 The socio-economic situation of the project area." This section will show its overview.

1) Dai An Industrial Park Area

GRDP of Hai Duong Province where Dai An Industrial Park is located is 31.4 trillion VND about an eighth of GRDP in Hanoi, the neighboring city, of 246.7 trillion VND. However, its GRDP per capita, 18.31 million VND, is nearly half of that in Hanoi, 37.28 million VND(2010).

Japanese companies, mainly machine manufacturing industries (i.e. automobiles), are actively expanding into this area; taking the situation stated above into account as well, its economy still has a lot left to growth.

2) Nhon Trach III Industrial Park Area

GRDP of Dong Nai Province where Nhon Trach III Industrial Park is located is 76 trillion VND, a little less than sixth of the neighboring Ho Chi Minh City of 422.3 trillion VND. However, its GRDP per capita, 29.52 million VND, is nearly half of that in Ho Chi Minh City, 57.09 million VND(2010).

Currently, the main industry in the area is light industry, such as the food processing industry.

(2) Social Influences

1) Dai An Industrial Park Area

Before the development of Dai An Industrial Park (before 2008), the residents of the area were mainly farmers producing rice and fruits. Poverty, issues with the natives, natural environment or historical sites that need protection do not exist in the area.

After development, in addition to the direct employment of the factories, service industry that is targeted towards the factory workers and its related workers (food, hotels, etc.) grew in the area, and it is continuing to offer more and more employment for the local residents.

During the planning phase, there were some concerns of air and water pollution resulting from industrialization, but currently no such pollutions have occurred (according to Hai Duong Province Department of Natural Resources and Environment).

¹

[&]quot;Category A: Proposed projects are classified as Category A if they are likely to have significant adverse impacts on the environment and society. Projects with complicated or unprecedented impacts that are difficult to assess, or projects with a wide range of impacts or irreversible impacts, are also classified as Category A. These impacts may affect an area broader than the sites or facilities subject to physical construction. "

GUIDELINES FOR ENVIRONMENTAL AND SOCIAL CONSIDERATIONS (Translation of Japanese Version) pp. 12-13, JICA, April 2010
2) Nhon Trach III Industrial Park Area

Before the development of Nhon Trach III Industrial Park (before 1996), the residents of the area made their living through agriculture, but since the land was poor, it was impossible to grow rice. Poverty, issues with the natives, natural environment or historical sites that need protection do not exist in the area.

According to the EIA report (2004), employment of around 22,000-33,000 people from the factories and 7,000-16,000 people from service industries targeted towards the factory related workers are expected to be created.

According to the Dong Nai Province Department of Natural Resources and Environment, there are no pollutions due to industrialization that have been reported as of present.

Japanese industries have highly been evaluated by the two provinces for their strict compliance of the environmental standards and other rules (according to the Hai Duong Province Department of Natural Resources and Environment). It is hoped that such industries expanding into the area will energize the area even more.

(3) Situations related to environment

1) Challenges and Regulations Related to Environment

The main environmental problems in Vietnam include: deforestation due to slash and burn farming, decrease of marine organisms due to water pollution and overexploitation, lack of drinking water due to drainage pollution and rapid aggravation of environment in Hanoi and Ho Chi Min due to the cities' industrialization and population concentration.²

In particular, water pollution in the inland area is becoming more serious and MONRE = Ministry of Natural Resources and Energy is deeply concerned about sewage contamination, food-processing waste water and dyehouse effluent. In Vietnam, there are about 4000 small groups of factories called craft villages that emits polluted air and water without being taken care of, causing many environmental effects.³

In fact, the World Bank has listed the order of priority in the environmental sector in Vietnam as shown in Table $7.1.1.^4$

Reflecting such situation, the environment standard is very strict in Vietnam, one of the most strict of the Western standard⁵. However, it faces some challenges in real operation (monitoring, managing violations, etc.). Vietnam has expanded the range of responsibility in case pollution occurs (2005 Revised Law on Environmental Protection (LEP)), and it has transformed regulation standard from Vietnamese Standards (TCVN) with no penal regulations to the national technological regulation (QCVN) with legally binding force.

² The World Factbook, Central Intelligence Agency of the United States, 2013

³ For specific situation on pollution, refer to the sites below.

[&]quot;The environment report 2006," MONRE

⁽http://vea.gov.vn/en/EnvirStatus/nationalReport/Pages/Theenvironmentreport2006.aspx) https://www.env.go.jp/air/tech/ine/asia/vietnam/files/pollution/pollution.pdf

⁴ <u>http://www.worldbank.org/vn/environment</u>

⁵2010 "Research Report on the Overseas Environment Regulation/Environment Industry Trend" (2011/3 METI/MRI)(<u>http://www.meti.go.jp/meti_lib/report/2011fy/E001477.pdf</u>)

Table 7.1.1	Order of priority in the environmental sector in Vietnam
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Category	Contents
Climate	Considerable analytical work is underway on adaptation issues and this work is starting to
Change	influence design of our projects. On the mitigation side, work focuses on efforts to mainstream
	greenhouse gas mitigation into the Bank's portfolio through carbon finance projects and other
	mechanisms. Much larger mitigation/clean technology projects are being considered.
Pollution and	Management: Extensive analytical work, as well as some direct investments in technical
Hazardous	assistance and pollution management through grants and loans, composes the work of the
Waste	World Bank in this sector.
Hazardous	Vietnam is a signatory of both the Stockholm Convention on Persistent Organic Pollutants and
Chemical	the Montreal Protocol on Substances that Deplete the Ozone Layer. The World Bank supports
Phase-out	Vietnam to meet its commitments under these conventions through a series of projects to
Programs	phase-out ozone depleting substance (ODS), as well as to ensure the safe management of PCBs
	and their eventual phase-out.
Biodiversity	Vietnam's forests, waters and wetlands are characterized by a high level of endemism,
Conservation:	diversity, and threat to their continuing existence. The Bank's support for conservation is
	largely through a number of existing activities in the fields of forestry and biodiversity
	management in protected areas.
Integrated	Coastal zone management is crucial for an integrated development approach in Vietnam.
Coastal Zone	Rising temperatures and their impacts on sea levels and fish stocks make fisheries and
Management:	aquaculture topics of continued interest for Bank's possible future involvement, together with
	integrating coastal issues into regional development, particularly in Mekong Delta region.
Environmental	Sector-specific examples of environmental policy dialogue can be found in almost all Bank
Policies:	projects. At a broader level, we engage with the Government of Vietnam on environmental
	policy work through Poverty Reduction Support Credits (PRSCs) and various mechanisms of
	support to planning processes.
Environmental	The Bank in Vietnam supports the integration of environmental considerations into projects
Impact	and development programs in two important ways: i) by incorporating and strengthening
Assessment	Environmental Impact Assessments (EIA) in Vietnamese national systems; and ii) ensuring
and Safeguard	compliance with World Bank safeguard policies to minimize environmental impacts of our
Policies	projects and maximize environmental benefits.

Source: The World Bank

2) Protection Areas

The Protected Areas System in Vietnam comprises of the following: 1. Special-use Forest, 2. Inland water conservation area, and 3. Marine protected area. Of these, 1. Special-use forest comprises of (1) National Park, (2) Natural Conservation Area, (3) Cultural-Historical-Environmental Sites, and (4) Marine Protected Area.

Catagory	Main Laws			
Calegory	Promulgation	Number	Title	
Special-use	2004/12/14	Law 29/2004/QH11	Law on Forest Protection and Development	
Forest	2006/03/03	Decree 23/2006/ND-CP	Implementation of The Law on Forest Protection and Development	
Inland water Conservation Zone	2005/11/29	Law No.52/2005/QH11	Law on Environmental Protection	
	2006/03/03	Decree No.23/2006/ND-CP	Implementation of the Law on Forest Protection and Development	
	2008/10/13	Decision 1479/QD-TTg	Planning on the System of Inland Water Conservation Zones up to 2020	
Marine Protected Area	2008/05/02	Decree No.57/2008/ND-CP	Regulation on Management of Viet Nam's Marine Reserves of National and International Importance	
	2010/05/26	Decision 742/QD-TTg	Plan on the System of Vietnam's Marine Conservation Zones Through 2020	

 Table 7.1.2 Protection Policies by the Vietnamese Government

In addition, there are 25 places in Vietnam that are under protection according to international treaties (Table 7.1.3), but these areas are under protection by the Vietnamese law as well.

Neither of the industrial parks of this project, Dai An Industrial Park and Nhon Trach III Industrial Park, is included in the area. (Figure 7.1.1) It has been confirmed by Hai Duong Department of Natural Resources and Environment (Dai An Industrial Park) and Dong Nai Department of Natural Resources and Environment (Nhon Trach III Industrial Park) that no major issues exist.

When taking a look at Ramsar convention as an example, there are five internationally renowned wetlands under protection (Table 7.1.4), but even the nearest one to the project area are Xuam Thui Natural Wetland Researve (more than 80km south of Dai An Industrial Park) and Bau Sau Wetlands (a little less than 100km north northeast of Nhon Trach III Industrial Park); they are far away enough, and should cause no troubles.

 Table 7.1.3 Number of Protected Areas under International Treaties in Vietnam

International Treaty	Number of Places
Convention on Wetlands of International Importance (Ramsar convention) ^{*1)}	5
World Heritage ^{*2)}	7
UNESCO Man and the Biosphere (MAB) Programme ^{*3)}	8
ASEAN Heritage ^{*4)}	5

*1)-http://www.ramsar.org/cda/en/ramsar-documents-list/main/ramsar/1-31-218 4000 0

*2) http://whc.unesco.org/en/statesparties/vn

*3) http://www.unesco.org/new/en/hanoi/natural-sciences/biosphere-reserves/

*4) http://chm.aseanbiodiversity.org/

Table 7.1.4	Protected Areas	Under Ramsar	Convention in	Vietnam
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Site	Date	Region	Area(ha)	Longitude, Latitude
Xuan Thuy Natural	00/20/1008	Nom Ho	12,000	20010'N 106020'E
Wetland Reserve	09/20/1998	Паш па	12,000	20 10 N, 100 20 E
Bau Sau (Crocodile Lake)				
Wetlands and Seasonal	08/04/2005	Dong Nai	13,759	11°28'N, 107°23'E
Floodplains				
Ba Be National Park	02/02/2011	Bac Kan	10,048	22°24'N, 105°36'E
Tram Chim National Park	02/02/2012	Dong Thap	7,313	10°42'49"N, 105°30'12"E
Mui Ca Mau National Park	12/13/2012	Ca Mau	41,862	08°41'00"N, 104°47'32"E
Source: The Domeon Convention on Wetlands Website (as of 2012 12)				

Source: The Ramsar Convention on Wetlands Website (as of 2013.12)



Green: Protection Area; Light Green: Proposed Areas for PA's; Blue: Water bodies Source : Lessons learned in Cambodia, Lao PDR, Thailand and Vietnam (2003, The PAD Partnership)

Figure 7.1.1 Protected Areas in Vietnam

3) Permission for Executing a Project in Protected Areas

Balance between nature protection and development becomes a problem in the fields of natural resources development, agricultural industries, and energy resource development (i.e. hydroelectric power).

As for the development of natural resources, "Law on Environmental Protection (LEP)" in 2005 mentions the "protection of natural resources and their appropriate uses" in chapter 4; it states that "the responsibility of research, evaluation, and utilization plan for natural resources must be carried out according to laws on natural resources" (article 28 paragraph 3).

In addition, as for the protection areas, it is stated that "the responsibility of making nature protection plan and establishing/managing nature protection areas must be carried out according to regulations" (article 5 paragraph 5); specific regulations are defined in laws of nature protection in each area (Table 7.1.2).

For example, to conduct a project in the Special-use Forest, a typical protection area in Vietnam, permission procedures need to be completed through the People's Committee of the province; the province is managing the

area under Ministry of Agriculture and Rural Development (MARD), according to the Law on Forest Protection and Development (Law 29/2004/QH11)

Ministry	Responsibilities related to Local Protection		
The Ministry of Planning and Investment(MPI)	 Allotting budget related to protection areas (PA) 		
The Ministry of Agriculture and Rural Development (MARD)	• Managing Special-use Forest (main ministry)		
The Ministry of Eichemics (MOEI)	Managing fisheries resources		
The Ministry of Fisheries (MOFI)	Managing Marine Protected Areas		
The Ministry of Natural Resources and	Ramsar Convention		
Environment (MONRE)	 Convention on Biological Diversity 		
The Ministry of Culture and Information	Culture/History/Environment Protection Areas		
(MOCI)	(Special-use Forest) (along with MARD)		
(MOCI)	• UNESCO MAB		
The Vietnam National Administration of	• Tourism on national parks and culture/ history/		
Tourism (VNAT)	environment protection areas (special-use forest)		
	National parks and protection areas		
Provincial People's Committees	• UNESCO MAB (within the province)		

 Table 7.1.5
 Ministry in Control of Local Protection Laws in Vietnam

7.1.2 Environmental and social consideration institutions and bodies in the adverse party (1) Laws and benchmarks related environmental considerations

Table 7.1.6 depicts the basic laws under the Vietnamese environmental legal structure. Among these laws, "Law on Environmental Protection of 2055", hereinafter "LEP2005", is a core legislation and is enforced by Decree No.80/2006/ND-CP and Decree No.21/2008/ND-CP and penalized by Decree No. 81/2006/ND-CP69 and Decree No.117/2009/ND-CP respectively.

Announced	Number	Title
2002/06/26	Decision No.82/2002/QD-TTg	Establishment, Mandate and Operations of the
		Vietnam Environment Protection Fund
2002/07/16	Decision No.	Promulgating the Organization and Operation
	53/2002/QD-BKHCNMT	Charter of Vietnam Environmental Protection
		Fund (expired)
2002/08/09	Decision No.	Promulgating the Regulation on the Protection
	62/2002/QD-BKHCNMT	of the Environment in Industrial Parks
2002/11/11	Decree No.91/2002/ND-CP	Prescribing the Functions, Tasks, Powers and
		Organizational Structure of the Ministry of
		Natural Resources and Environment
2003/04/02	Decision No.45/QD-TTg	Establishment of provincial Department of
		Natural Resources and Environment.
2003/05/08	Decision No.600/2003/QD-BTNMT	Specifying mandates, responsibilities; powers
		and organizational structure of the Department
		of Water Resources Management
2003/06/23	Decision No.782/2003/QD-BTNMT	Promulgating the Charter on organization and
		operation of Vietnam Environment Protection
		Fund
2005/11/29	Law No.52/2005/QH11	Law on Environmental Protection
2005/12/12	Decision No.328/2005/QD-TTg	Approving the state plan on environmental
		pollution control till 2010
2006/06/23	Decree No.65/2006/ND-CP	Organization and Operation of the Natural

 Table 7.1.6 Basic laws in Vietnam related to the environment

Announced	Number	Title
		Resources and Environment Inspectorate
2006/08/09	Decree No.80/2006/ND-CP	Providing detailed guidelines for
		Implementation of a Number of Articles of the
		Law on Environmental Protection (Note *)
2006/08/09	Decree No. 81/2006/ND-CP	Sanctioning of Administrative Violation in the
		Domain of Environmental Protection
2006/11/22	Decree No. 140/2006/ND-CP	Providing for the Environmental Protection at
		Stages of Elaboration, Evaluation, Approval and
		Implementation of Development Strategies,
		Planning, Plans, Programs and Projects
2008/02/28	Decree No.21/2008/ND-CP	Amending and Supplementing a Number of
		Articles of the Government's Decree
		No.80/2006/ND-CP, Detailing and Guiding the
		Implementation of a Number of Articles of the
		Law on Environmental Protection
2009/12/31	Decree No.117/2009/ND-CP	Handling of Law Violations in the Domain of
		Environmental Protection
2011/04/18	Decree No.29/2011/ND-CP	Providing Strategic Environmental Assessment,
		Environmental Impact Assessment and
		Environmental Protection Commitment

1) LEP 2005

The basic structure of LEP2005 is described in Table 7.1.7. This law consists of 15 titles: the first chapter describes the general stipulations, environmental requirements, in the third chapter establishes the EIA, and in the eighth chapter establishes the waste management.

Now as of autumn 2013, LEP2005 is under the preparation of the fourth amendment. Its draft is being reviewed by the National Assembly Committee for Science, Technology and Environment. The measure will be proposed to the parliament by the mid2014, or at the earliest by the end of 2013.

The amendment measure attempts to ease the related procedures while strengthening the regulation principles. Furthermore, in the case of an environmental contamination, the responsibility shall be held by not only the tort-feasor but also on the supervisor and finally to the chief of the environmental office. There are many oppositions to the amendment measures due to the difficulty in personnel consolidation that can correspond to the strengthened regulations.⁶

Chapter 1	GENERAL PROVISIONS		
Chapter 2	ENVIRONMENTAL STANDARDS		
Chapter 3	STRATEGIC ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL PROTECTION COMMITMENT		
	Section 1. STRATEGIC ENVIRONMENTAL ASSESSMENT		
	Section 2.	ENVIRONMENTAL IMPACT ASSESSMENT	
	Section 3.	ENVIRONMENTAL PROTECTION COMMITMENTS	
Chapter 4	CONSERVATION AND RATIONAL USE OF NATURAL RESOURCES		
Chapter 5	ENVIRONMENTAL PROTECTION IN PRODUCTION, BUSINESS AND SERVICE ACTIVITIES		

Table 7.1.7 Structure of LEP 2005

⁶ Source: Inverview with MONRE and DONRE of Donai Province

Chapter 6	ENVIRONMENTAL PROTECTION IN URBAN CENTERS AND RESIDENTIAL AREAS		
Chapter 7	PROTECTION OF MARINE, RIVER AND OTHER WATER SOURCE ENVIRONMENT		
	Section 1.	PROTECTION OF THE MARINE ENVIRONMENT	
	Section 2.	PROTECTION OF RIVER WATER ENVIRONMENT	
	Section 3.	PROTECTION OF THE ENVIRONMENT OF OTHER WATER SOURCES	
Chapter 8	WASTE MANA	AGEMENT	
	Section 1.	GENERAL PROVISIONS ON WASTE MANAGEMENT	
	Section 2.	HAZARDOUS WASTE MANAGEMENT	
	Section 3.	MANAGEMENT OF ORDINARY SOLID WASTES	
	Section 4.	MANAGEMENT OF WASTE WATER	
	Section 5.	MANAGEMENT AND CONTROL OF DUST, GASES, NOISE, VIBRATION, LIGHT AND RADIATION	
Chapter 9	PREVENTION OF, RESPONSE TO ENVIRONMENTAL INCIDENTS, REME ENVIRONMENTAL POLLUTION AND REHABILITATION OF ENVIRONM		
	Section 1.	PREVENTION OF AND, RESPONSE TO ENVIRONMENTAL INCIDENTS	
	Section 2.	REMEDY OF ENVIRONMENTAL POLLUTION AND REHABILITATION OF ENVIRONMENT	
Chapter 10	ENVIRONMENT MONITORING AND INFORMATION		
Chapter 11	RESOURCE FOR ENVIRONMENTAL PROTECTION		
Chapter 12	INTERNATIONAL COOPERATION IN ENVIRONMENTAL PROTECTION		
Chapter 13	RESPONSIBILITIES OF STATE MANAGEMENT AGENCIES, VIETNAM FATHERLAND FRONT AND ITS MEMBER ORGANIZATIONS FOR ENVIRONMENTAL PROTECTION		
Chapter 14	INSPECTION, HANDLING OF VIOLATIONS, SETTLEMENT OF COMPLAINTS AND DENUNCIATIONS RELATED TO ENVIRONMENT, AND COMPENSATION FOR ENVIRONMENTAL DAMAGE		
	Section 1.	INSPECTION, HANDLING OF VIOLATIONS, SETTLEMENT OF COMPLAINTS AND DENUNCIATIONS RELATED TO ENVIRONMENT	
	Section 2.	COMPENSATION FOR DAMAGE CAUSED BY ENVIRONMENTAL POLLUTION AND DEGRADATION	
Chapter 15	IMPLEMENTATION PROVISIONS		

Source: Japanese translation of the titles are based on the website of the ministry of environment7

⁷ <u>http://www.env.go.jp/air/tech/ine/asia/vietnam/indexVT.html</u>

A. Environmental Principles

The 2nd title of LEP2005 stipulates the environmental principles, and the detailed principles are determined by the TCVN and QCVN. TCVN is Vietnam's technical standard (corresponds to JIS in Japan) with no coercive power. On the other hand, QCVN is has penal regulations, and it has a more strict coercive power than that of TCVN. With the increasing awareness of environment in Vietnam, environmental standard has been transferring from TCVN to QCVN these days.

The major TCVN and QCVN that are related to environmental restrictions are described in Table 7.1.8.

No.		Title		
General Pro	visions			
	Decision No.35/2002/	Issuance the list of obligatory application of		
	QD-BKHCNMT	Vietnamese environment standards		
	Decision No.22/2006/	Obligatory application of Vietnamese standards		
	QD-BTNMT	on environment.		
	Decision No.	Issuance of environmental regulations		
	04/2008/QD-BTNMT			
	Decision No.	Issuance of environmental regulations		
	16/2008/QD-BTNMT			
	Circular No.	Issuance of national technical regulation on		
	25/2009/TT-BTNMT	environment		
Noise and v	ibration			
	TCVN 3985-1985	Limiting the maximum noise level in working		
		area		
	TCVN 5949-1998	Limiting the maximum noise level in public and		
		residential areas		
	TCVN 6962-2001	Allowable vibration limits in constructive and		
		industrial production		
Water quali	t <u>y</u>			
	QCVN 08:2008/BTNMT	The national technical regulation on surface		
		water quality		
	QCVN 09:2008/BTNMT	The national technical regulation on ground		
		water quality		
	QCVN 10:2008/BTNMT	The national technical regulation on coastal		
		water quality		
Air quality	· · · · · · · · · · · · · · · · · · ·			
	QCVN 05:2009/BTNMT	The national technical regulation on hazardous		
		substances in ambient air (replace TCVN		
		5937:2005 – Air quality - Standards for quality		
		of ambient air)		
	QCVN 06:2009/BTNMT	The national technical regulation on hazardous		
		substances in ambient air (replace TCVN		
		5938:2005 – Air quality – Permitted maximum		
		level of a number of toxic and hazardous		
		substances in ambient air)		
	QCVN 19:2009/BTNMT	Replace ICVN 5939:2005 – Air quality –		
		Industrial emission standards for dusts and		
		inorganic substances		
	QCVN 20:2009/BTNMT	The national technical regulation on industrial		
		emission of organic substances (replace TCVN		
		5940:2005 – Air quality – Industrial emission		

 Table 7.1.8 TCVN and QCVN related to environmental restrictions

	No.	Title
		standards for a number of organic substances)
	QCVN 22:2009/BTNMT	The national technical regulation on emission of thermal power industry (replace TCVN
		7440:2005 – Emission standards for thermal
Soil		
	QCVN 03:2008/BTNMT	The national technical regulation on heavy metals in soil
Wastewater	discharge	
	TCVN 6773: 2000	Water Quality - Water quality guidelines for irrigation
	TCVN 6774: 2000	Water Quality - Freshwater quality guidelines for protection of aquatic sites
	TCVN 6980: 2001	Water Quality - Standards for industrial effluents discharged into rivers used for domestic water supply.
	TCVN 6981: 2001	Water Quality - Standards for industrial effluents discharged into lakes used for domestic water supply
	TCVN 6982: 2001	Water Quality - Standards for industrial effluents discharged into rivers used for water sports and recreation.
	TCVN 6983: 2001	Water Quality Standards for industrial effluents discharged into lakes used for water sports and recreation.
	TCVN 6984: 2001	Water Quality - Standards for industrial effluents discharged into rivers used for protection of aquatic life.
	TCVN 6985: 2001	Water Quality - Standards for industrial effluents discharged into lakes used for protection of aquatic life.
	TCVN 6986: 2001	Water Quality - Standards for industrial effluents discharged into coastal waters used for protection of aquatic life.
	TCVN 6987: 2001	Water Quality Standards for industrial effluents discharged into coastal waters used for water sports and recreation
	TCVN 7222:2002	General Environmental Requirements for Central Domestic (Municipal) Wastewater Treatment Plants
	QCVN 14:2008/BTNMT	The national technical regulation on domestic wastewater
	QCVN 24:2009/BTNMT	The national technical regulation on industrial wastewater
Solid waste		
	TCVN 6696-2000	Requirements for environmental protection for sanitary landfills.
	TCVN 6705-2000	Requirements for separation of non-hazardous waste.
	TCVN 6706-2000	Requirements for separation of hazardous wastes.
	TCVN 6707-2000	Prevention and warning signs for hazardous waste.

No.	Title
TCXDVN 261:2001	Landfill – Standard for designing
QCVN 07:2009/BTNN	IT The national technical regulation on hazardous
	waste thresholds

B. Strategic Environmental Assessment, Environmental Impact Assessment and Environmental Commitment

The 3rd title of LEP2005 stipulates the environmental impact assessment, the first clause on Strategic Environmental Assessment, SEA, the second clause on Environmental Impact Assessment, EIA, and the third clause on Environmental Protection Commitments, EPC, respectively.

Projects that require SEA, EIA, and EPC are listed in Table 7.1.9. This project, the development of industrial park as a whole, requires EIA as it is under the section of "infrastructure construction of economic zone, industrial park, high-tech park, export processing zone, and home manufacturing village." ("A. Target" in the table)

However, the conditions of "change in location, scale and planning ability or technology" or "the project is not conducted within 24 months of its EIA report approval" do not apply to his project, a rental factory project within an already developed industrial park; therefore, it does not require a new EIA. ("D. additional EIA" in the table) It does, on the other hand, follow under "projects that do not need SEA or EIA," so an EPC is required. ("A. Target" in the table)

Specific industries and their scales (146) that require EIA are listed under the Appendix II of Decree No.29/2011/ND-CP⁸.

Table 7.1.9 depicts the major notices and stipulations that have been promulgated by competent authorities including MONRE.

⁸ Reference at the end of the chapter

	Strategic Environmental	Environmental Impact	Environmental Protection
	Assessment (SEA)	Assessment (EIA)	Commitment (EPC)
A. Target	 Assessment (SEA) Socio-economic development strategies and planning of national level Development strategies and plans of a national scale field and area Socio-economic strategies and plans of province level Land use plans, forest protection and development, natural resources and their use over two or more provinces or areas Development plan of important economic areas General plans of rivers and basins over two or more local provinces (article 14) (specific projects are listed in Decree No. 29/2011/ND-CP Appendix I) 	 Important national projects Projects that use or may have negative effects on nature protection areas, national parks, historical/cultural heritages, natural heritages, registered scenery Projects that may have negative impacts on water sources and basins, coastal areas, and biological protection areas Infrastructure construction projects of economic zones, industrial parks, high-tech parks, export processing zones, and home manufacturing villages New construction projects in the urban areas and concentrated residential areas Projects that use and develop large-scale underground water and natural resources Other projects that have high risk of having negative impacts on the environment (article 18 paragraph 1) (specific projects are listed in Decree No. 29/2011/ND-CP Appendix ID 	1.Production, management, and service facilities 2. Projects that do not need SEA and EIA (article 24)
B. Timing	At the same time as creating development strategies, designing, and plans (article 15 paragraph2) (Decree No.140/ 2006/ND-CP article 6, 1.c)	At the same time as project feasibility study report (LEP article 19 paragraph 2) Investment, construction, and development permissions are given only after the approval of EIA report (article 22 paragraph 4)	Before starting the production, management and service activities (article 26 paragraph 3)
C. Details	 Summary of project goal, scale, and characteristics related to environment Natural, socio-economic, environmental conditions 	 Detailed explanation of the project Environmental situation, environmental sensitivity, and environmental 	 Project site Industries and their scale of the production/ management/services and their source of energy

Table 7.1.9 Projects that require SEA, EIA and EPC

	Strategic Environmental	Environmental Impact	Environmental Protection
	Assessment (SEA)	Assessment (EIA)	Commitment (EPC)
	related to the project	capacity	3. Various waste produced
	3. Projection of possible	3. Evaluation of	4. Commitments for
	negative impacts on	environmental	decreasing measures and
	environment during the	components and	their execution, and
	execution of the project	socio-economic	compliance with
	4. References to the sources	components under	regulations on
	of data and methods of the	influence and fisks of	(article 25)
	numerical data in	A Easing measures and	(article 23)
	5 Provision of general	+. Easing measures and measures for preventing	
	direction and measures for	and dealing with	
	solving the environmental	environmental accidents	
	problems during the	5. Commitments of	
	project	environmental protection	
	(article 16)	measures for constructing	
		and operating the project	
		6. Environmental	
		management and	
		monitoring plan	
		7. Environmental budget	
		8. Opinions about and	
		against the project from	
		the communes and	
		resident communities and	
		project site	
		9 Sources to the data and	
		number for evaluation	
		(article 20)	
D.	Evaluated by the assessment	Evaluated by the assessment	(no statements on
Evaluation	committees of the following:	committee or assessment	assessment and approval)
and approval	Projects of a national scale,	services groups.	People's Committee at the
	or over several local	Assessment and approval are	district level registers the
	provinces: approval	categorized by the three of	EPC. It will be entrusted to
	institutions, related	the following:	the People's Committee of
	ministries/ provincial	1. Projects that are approved	the provincial level as
	departments/ government	by the national congress/	needed.
	associations, People's	government/ president or	The acceptance period is
	committee of the local	local provinces	day of commitment
	Projects of the local	2 Projects that the central	acceptance
	provinces and central cities:	ministries and	(article 26 paragraph 12)
	People's Committee of the	departments have the right	(undele 20 purugruph 12)
	local province level,	of permission to, which do	
	departments of the province	not follow under the first	
	level, experts	category.	
	The result of the SEA Report	3. Projects that the People's	
	evaluation is one of the	Committee at the local	
	grounds for the approval of	province level has the	
	this project	right to give the	
	(article 17)	permission to	
		1&2: project approval	
		agencies, environment	
		the local provinces of	
		the project site.	

	Strategic Environmental	Environmental Impact	Environmental Protection
	Assessment (SEA)	Assessment (EIA)	Commitment (EPC)
		experts, etc. 3: People's Committee of the local provinces, environment specialist agencies of the province level, experts, etc.	
		(article 21 paragraphs1-3)	
E. Approval Agencies/ agencies responsible for providing assessment committees	 Projects that the national congress/ government/ president have the right to give permission to: Ministry of Natural Resources and Environment Projects that the central ministries and departments have the right to give permission to: respective ministries and departments Projects that the People's Committee of the local province level have the right to give permission to: respective local People's Committees (article 17 paragraph7) 	 Approval agencies and agencies responsible for providing assessment committees of the said three categories are: Ministry of Natural Resources and Environment Central ministries and departments People's Committee of the local provinces (article 21 paragraph 7) These agencies must check and approve the EIA reports after assessment. days within the acceptance of the EIA reports revised after the assessment, the assessment agencies must check and decide on the approval of the EIA reports. (LEP article 22, paragraph 13) 	
F. Period of	1. Projects approved by the pro-	esident/ government/ national	
assessment	congress, or projects over tw provinces: within 45 days of 2. Others: within 30 days of ac (Decree 80/2006/ND-CP art	wo or more departments or f acceptance of the documents cceptance of the documents ticle 12)	_
G. Additional EIA reports		 In the following situation, an additional EIA is created: there is a change in the location, scale, design, or technology of the project the project is not approved within 24 months of the approval of the EIA report (Decree 80/2006/ND-CP article 13) 	_
H. Rights of the organizations, resident communities, and individuals	Organizations and individuals have the right to send petitions and requisitions for environmental protection to the agencies of the project assessment committees and approval agencies.	Organizations, resident communities, and individuals have the right to send petitions and requisitions for environmental protection to the agencies of the project assessment committees and	

	Strategic Environmental	Environmental Impact	Environmental Protection
	Assessment (SEA)	Assessment (EIA)	Commitment (EPC)
	Also, project assessment committees and approval agencies must consider the petitions and requisitions	approval agencies. Also, project assessment committees and approval agencies must consider the	
	(LEP article 17 paragraph 5)	petitions and requisitions before drawing conclusions. (LEP article 21 paragraph 6)	
I. Announcement and onferences	On evaluating the development strategies and plans, related ministries, departments, districts, scientists and other experts must be gathered for their opinions. Especially in the case of creating development projects of the urban and rural areas, the conferences must be publicly announced, and residents and the People's Committee of the project sites must be gathered for their comments. (Decree No.140/2006/ ND-CP article 6, 1, e)	Measures for environmental protection made open to the public at the project site (article 23, 1.b)	

Sources: "Environmental measures the social responsibilities of the industries in Vietnam" 2007.3 (Global Environmental Forum/Ministry of Environment) (some information updated by the research team) Below is a table of major notices and stipulation that have been promulgated by MORE, etc. related to Vietnam's EIA (Table 7.1.10)

Table 7.1.10 Major notices and stipulations that have promulgated by MONRE etc. related to Vietnam's EIA

Date	Number	Title
2000/08/08	Circular No.	Guiding the formulation of EIA report for a
	10/2000/TT-BXD	construction
		Project
2006/09/09	Circular No. 08/2006/TT-BTNMT	Guiding the preparation of Strategic
		Environmental Assessment, Environmental
		Impact Assessment and
		Environmental Protection Commitment
2006/09/08	Circular No.	Stipulation of organizations and operation of the
	13/2006/TT-BTNMT	assessment board for reports on Strategic
		Environmental Assessment (SEA) and EIA
2007/08/27	Decision No.	Authorizing directors of departments to review
	1281/QD-BTNMT	and
		approve the EIA reports
2007/11/26	Decision No.	Promulgating the Regulation on the conditions for
	19/2007/QD-BTNMT	and
		provision of the service of appraising
		environmental impact assessment reports
2008/12/08	Circular No.	Replace Circular 08/2006/TT-BTNMT on
	05/2008/TT-BTNMT	Guiding the
		preparation of Strategic Environmental
		Assessment, Environmental Impact Assessment

		and Environmental Protection Commitment
2011/04/18	Decree No. 29/2011/ND-CP	Providing Strategic Environmental Assessment,
		Environmental Impact Assessment and
		Environmental Protection Commitmment
2011/07/18	Circular No. 26/2011/TT-BTNMT	Detailed stipulation on several articles of Decree
		29/2011/ND-CP on SEA, EIA, and EPC

Stipulations and procedures related to EIA

Stipulations related to EIA

26/2011/TT-BTNMT(MONRE, 18th July 2011)stipulates the actual prescriptions of the procedures on the preparation of SEA, EIA and EPC, review and approval stipulated in Title3 of LEP2005. The components are shown in Table 7.1.11.

Now, the necessary samples of formats for the procedures are described in Appendix 41 of the same notice.

Number	Title	Description
Ι	General Provisions	• The Circular stipulates in detail some articles of Decree
		29/2011/ND-CP with focus on:
		• strategic environmental assessment (SEA);
		• environmental impact assessment (EIA);
		• environmental protection commitments (EPC);
		• Subjects of applications
II	SEA	• Objects subject to elaboration of SEA and method of
		elaboration of SEA
		 Elaboration of SEA Report
		• Dossiers of request for appraisal of SEA Report
		• Entity in charge of appraising SEA Report
		• Responsibilities of the project owner after the appraisal of SEA
		Report
		• Report on result of appraisal of SEA Report
		• Responsibilities of agencies appraising, approving the strategy,
		planning, plan after receiving report on result of appraisal of SEA
		Report
III	EIA	• Objects subject to elaboration of EIA Report and responsibilities
		of the project
		• owner on elaboration of EIA Report
		• Re-elaboration and submission for appraisal, and approval of EIA
		Report 12 Public consultation during the process of elaboration of
		EIA Report
		• 13 Dossiers of request for appraisal, approval of EIA Report 14
		Entity in charge of appraising EIA Report
		• Procedure and period for appraising, approving an EIA Report
		• Responsibilities of the agency approving the EIA Report and
		project owner after the EIA Report is approved
IV	Organization	• Establishment of SEA Appraisal Committee, EIA Appraisal
	structure and	Committee
	activities of SEA	• Members and structure of SEA Appraisal Committee, EIA
	Appraisal	Appraisal Committee 19 Functions and working principles of
	Committee, EIA	SEA Appraisal Committee, EIA Appraisal
	Appraisal	• Committee
	Committee	• Conditions and criteria for selection of members of SEA
		Appraisal Committee, EIA Appraisal Committee

Table 7.1.11 The structure of Notice 26/2011/TT-BTNM

Number	Title	Description	
		• Responsibilities of members of SEA Appraisal Committee, EIA	
		Appraisal Committee	
		• Rights of members of SEA Appraisal Committee, EIA Appraisal	
		Committee 23 Responsibilities and rights of chairman of	
		Appraisal Committee	
		• 24 Responsibilities and rights of vice-chairman of Appraisal	
		Committee 25 Responsibilities and rights of rebut members of	
		Appraisal Committee	
		• Responsibilities and rights of secretary member of Appraisal	
		Committee	
		• Responsibilities and rights of representative of DONRE who	
		participates the Appraisal Committee established by a	
		ministerial-level agencies	
		• Responsibilities and rights of a permanent Appraisal Committee	
		• Obtain opinions of DONRE when an Appraisal Committee	
		established by ministerial-level agency has not member as	
		representative of DONRE	
		• Conditions for proceeding a formal meeting of Appraisal	
		Committee 31 Participants of a formal meeting of Appraisal	
		Committee	
		• 32 Content and procedure of a formal meeting of Appraisal	
		24 Format and content of record of a formal macting of Approical	
		• 54 Format and content of record of a formal meeting of Appraisal	
V	Inspection and	Committee Desponsibilities of project owner before bringing the project to	
v	confirmation of	• Responsibilities of project owner before of nighting the project to	
	environmental	 Inspection confirmation of environmental protection 	
	protection	facilities/measures before bringing the project to operation	
	facilities/ measures	 Trial operation of waste treatment facilities 	
	before bringing the	 Dossiers of request for inspection, confirmation of environmental 	
	project to	protection facilities/measures using in operation phase of the	
	operation	project	
	1	• Inspection, confirmation of environmental protection	
		facilities/measures using in operation phase of the project	
		• 40 Establishment of the team to inspect environmental protection	
		facilities/measures	
		• using in operation phase of the project 41 Working principles of	
		the inspection team	
		• 42 Responsibilities and rights of members of the inspection team	
		43 Content and format of report on results of inspection	
		• 44 Re-inspection of environmental protection facilities/measures	
VI	EPC	• Objects subject to elaboration and registration of EPC and content	
		of an EPC	
		• Dossiers for registration of EPC 47 Procedure of registration of	
		• 48 Kesponsibilities of project owner and authorities after the EPC	
X/II	Tanalan (d	1s registered	
VII	implementation	 Implementing ministries/agencies/organizations Implementation of the Circular (the Circular 1, 1, 1) 	
	of the Circular	 Implementation of the Circular (the Circular shall become officiative from Sentember 02, 2011, Circular 	
		05/2008/TT DTNMT and Circular 12/2000/TT DTNMT shall	
		US/2008/11-BINNII, and UICUIAT 13/2009/11-BINNII Shall	
	1	lose effect after the Circular becomes effective)	

Procedures related to EIA

Diagram 7.1.2 describes the procedural flow of the preparation of EIA reports to its approval that is stipulated under cabinet order 80/2006/ND-CP, 21/2008/ND-CP, 29/2011/ND-CP and the notice 6/2011/TT-BTTMT.

As stated above, for EIA of the industrial parks, as long as the tenants are of the permitted industry category on EIA (hereinafter referred to as "permitted category"), there is no need for a new EIA.

However, when the tenant is not included in the permitted category, then it is certainly necessary to write a new EIA report to approve the tenant⁹.

⁹ Confirmed at the hearing at MONRE and Hai Duong Province and Dong Nai Province Department of Natural Resource and Environment



	approval document's request	
	are appropriately executed	

Source: Socialist Republic of Vietnam Ho Chi Minh City Ben Thanh Station Area General Development Project Feasibility Study (PPP Infrastructure Project) Final Report" JICA (2012.3)¹⁰

Figure 7.1.2 Procedural flow of the approval of EIA reports

C. Waste Management

The fundamental law on waste management in Vietnam is Law on Environmental Protection that was established in 1994 and amended in 2005. Waste management is described in chapter 8. List of related laws is as shown in Table 7.1.12

Toxic waste generators need to let the vendors licensed by the Department of Natural Resources and Environment of the People's Committee do the collection, transportation, and disposal of toxic waste. Unless they themselves have acquired the license (Decision No.155/1999/QD-TTg). The toxic waste will be tracked according to the manifest system.

On the other hand, recycling of waste has been increasing; one of the pioneers in this field, Hanoi City, is conducting the implementation support for 3R (Reduce, Reuse, Recycle) INITIATIVE of Hanoi City (JICA, 2006~2009).

Regulation	Summary
Law on Environmental Protection (52/2005/QH11)	Basic law on environment protection. Provisions on "Waste Management" on Chapter XIII.
Decree Detailing and Guiding the Implementation of a Number of Articles of the Law on Environmental Protection(Decree No.80/2006/ND-CP)	Detailing and guiding the implementation of the law on environmental protection
Decree On Sanctioning of Administrative Violations in the Domain of Environmental Protection (Decree No.81/2006/ND-CP)	Specifies acts and sanctions of administrative violation in the domain of environmental protection
The Prime Minister's Decision on the Regulation of Management of Hazardous Waste (DecisionNo.155/1999/QD-TTg)	Specifies the definition of hazardous waste, responsibilities of relevant ministries, responsibilities of HW source generators, responsibilities of collectors, transporters, keepers, treaters and disposers. Includes the list of hazardous waste.
MONRE Decision on the List of Hazardous Waste (Decision No.23/2006/QD-BTNMT)	Revision on the list of hazardous waste.
MONRE Circular on Regulations on Companies engaging in Hazardous Waste Generation, Transportation and Disposal (Circular No. 12/2006/TT-BTNMT)	Circular including provisions about the registration and permission procedure and format of application sheet regarding HW generator, transporter, treater and disposer.
Directive on Enhancing the Management of Solid Wastes in Urban Centres and Industrial Parks (Directive No.23/2005/CT-TTG)	Specifies the tasks of ministries, provincial people's committee's and other parties on solid waste management.
Decree stipulating List of dangerous goods and the road transport of dangerous goods (Decree No.13/2003/ND-CP)	Regulates dangerous or hazardous goods on the viewpoint of explosiveness, flammableness and hazardousness. Also regulates their road transportation.
Decision Promulgating the Regulation on Medical Waste Management (Decision No.2575/1999/QD-BYHT)	Regulation on the management of medical waste by the ministry of health

Table 7.1.12 Basic regulations of Vietnam concerning waste management and recycling

¹⁰ http://libopac.jica.go.jp/images/report/P1000003630.html

MONRE Decision on Issuance of the List of Scraps			
subjected to Automatic Permit for Imports as Secondary	Specifies importable wastes to be used as		
Production Materials	recycling resources.		
(Decision No. 12/2006/QD-BTNMT)			
Ministry of Trade Decision Promulgating the Regulation on			
management of temporary import for re-export or	Includes wastes among the list of goods banned		
border-gate transfer of goods banned or suspended from	from import for re-export or border-gate		
import	transfer.		
(Decision No.2504/2005/QD-BTM)			

Source: METI, IDE-JETRO "Policies for Industrial Waste Management and Recycling in Asian Countries", 2007

D. Protection of Cultural Heritage

The fundamental law on protection of cultural heritage in Vietnam is Law on Cultural Heritage that was established in 2001 and amended in 2009¹¹. The law and its related laws are shown in Table 7.1.13.

Regulation Code	Title		
28/2001/QH10 & 32/2009/QH12	Law on Cultural Heritage		
Decree 92/2002/ND-CP	Decree Details Implementation of Law on Cultural Heritage		
Decree 86/2005/ND-CP	Decree On Management and Protection of Underwater Cultural Heritage		
Ministry of Culture and Information Decision 05/2003/QD-BVHTT	Decision Details Implementation of the Regulation Dealing with Maintenance, Repair and Restoration of Historical and Cultural Heritage and Monuments		
Ministry of Finance Circular 20/2007/TT-BTC	Circular Guiding the Estimation, Allocation, Management and Use of Funds for Archaeological Exploration and Excavation upon Renovation or Construction of Works		

Table 7.1.13 Vienamese Law on Cultural Heritage and related regulat	tions
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Source: Shiraishi, Mita "Translation of "Vietnamese Law on Cultural Heritage (2001)" and its revision (2009)", Journal of Asia-Pacific Studies. 21. 2013. pp. 259-294

Designation of Historic Ruins and Construction of Buildings

The designation of ruins will be conducted by the provincial chairperson of the People's Committee for the province-level historic ruins, national-level historic ruins by the Cultural/Sports/Tourism Minister, and the special national historic ruins by the prime minister, each with specification of their ranks as historic ruins.

Permission of Engineering Works in the Buried Cultural Heritage Containing Area Article 37 (2) states:

At a site contained within the archaeological plan designated area, an investor with building reforms and a construction project, have the responsibility to oversee the reform and the construction process of the building and cooperate to meet the necessary circumstances; they must conduct an archaeological investigation and excavation.

Also, Article 37 (3) states:

When a possibility of existence of historical ruins, relics, or national treasure is present, or relics or national treasure is discovered, the project conductor must temporarily stop the construction, and he must report the national agency with an authority related to culture, sports, and tourism immediately.

When a national agency with an authority related culture, sports, and tourism receives the report, it must take necessary measures immediately to assure the progress of construction. If it decides there is a need to

¹¹ Japanese translation is based on Shiraishi, Mitsuda "Translation: "Vietnam Law on Cultural Heritage" (2001) (revised 2009) Asia Pacific Research 21, August 2013 PP.259-294 (<u>http://jairo.nii.ac.jp/0069/00023704</u>)

stop the construction of the building to protect the historical ruin, it must immediately report a decision-making agency of a higher rank.

Therefore, when a buried cultural heritage is found, this article will be applied, and the continuation of construction will be decided.

(2) Divergence between JICA's environmental guideline.

The divergence between the EIA system in Vietnam stipulated by LEP2005 and JICA's environmental guideline is analyzed in detail in "Socialist Republic of Vietnam Ho Chi Minh City Ben Thanh Station Area General Development Project Feasibility Study (PPP Infrastructure Project) Final Report." This report quotes this analysis below.

The current Vietnamese EIA system in general is not largely different from the internationally recognized good practice related to the environmental and social considerations. However, it is thought to be that the stipulations and framework related to creating social consensus such as information disclosure, stakeholder discussions and civilian participation is not yet consolidated. On top of that, there is a lack of considerations towards the following influences that is brought to the project site's neighboring society and economy.

- a) Regional economy such as employment and living
- b) Use of land and local resources
- c) Social organizations such as socio-related capital and local decision making institutions
- d) Socially vulnerable groups (poverty groups, minorities)
- e) Fairness in damage, distribution of benefit thorough the development process
- f) Gender and child rights
- g) Conflicting regions

Table 7.1.14 compares the major differences between Vietnam's EIA system in an existing report¹² and JICA's environmental guideline (April 2010)

Analyzing the comparison, it is desirable that many components of Vietnam's EIA system be expanded. In the future, harmonization of EIA system in Vietnam and Japan, or other countries, is necessary, by utilizing schemes such as supporting measures for organizing the legislative system.

Table 7.1.14	Comparison	between	Vietnam's	EIA sy	stem and	JICA's	environn	nental	guideline
--------------	------------	---------	-----------	--------	----------	--------	----------	--------	-----------

JICA's environmental guideline	Vietnam's EIA system
1. General Principles	At a project level, EIA is only done at the F/S
When executing a project, it is mandatory to	stage. With the current EIA system in Vietnam,
research and discuss the influences that the project	there are no stipulations on neither IEE nor
holds against the environment and society from the	environmental scoping. The EIA report analyzes
planning stage as early as possible, and discuss	alternative plans but environmental scoping is not
alternative ideas or easing measures that can avoid	executed and all possible impacts are assessed.
or minimize the effects, and reflect the results to	Methods for reflecting the assessment results on to
the project's plan.	the project's plan are not yet organized.
2. Transparency on human rights and information,	The current EIA system in Vietnam does not
accountability	stipulate transparency on human rights and
In order to make the environmental and social	information or accountability.
considerations work, democratic decision making	
is indispensable and in order for decision making,	
the securement of participation of stakeholders,	
information transparency, accountability and	
efficiency is crucial in addition to the respect for	

¹² Socialist Republic of Vietnam Ho Chi Minh City Ben Thanh Station Area General Development Project Feasibility Study (PPP Infrastructure Project) Final Report (2012/3 JICA)

JICA's environmental guideline	Vietnam's EIA system
fundamental human rights.	
 3. Securement of meaningful participation by stakeholders. -In order for the execution of environmental and social considerations that are more practical to the locals and for an appropriate consensus formation, discussion with local stakeholders within a reasonable area hosted by the partnering country is a principle and JICA shall support the partnering country through collaborative projects if in need. -JICA shall work to make the partnering country to discuss with local stakeholders at an earlier stage on grasping development needs, developing a thorough understanding on the environmental and social problems and considering alternative plans for Category A, and offer necessary support -It is crucial that the results are reflected on the project. 	An assembly is held and attendance of business proprietors and directly influenced communities and organizations is requested. -The commune's People's Committee shall reply in writing to the business proprietor within 15days from receiving a consultation request. If not it is assumed that commune's People's committee agrees to the business proprietor's project plan. As mentioned above, "Consultation is asking for the opinion of the project site's commune's People's committee and representatives from directly influenced communities and organizations. Discussing with local stakeholders is not yet common in Vietnam. Furthermore, the objective of consultation tends to lie on hearing the for or against of the project site's commune's People's Committee, rather than on promoting the understanding and participation of local sitizance.
 4. Information transparency JICA will discuss and agree with the partnering countries on the guaranty of information transparency at an earlier stage of a collaborative project. In the planning research phase, the partnering country will discuss with local stakeholders based on the stakeholder analysis after publicizing the information on scoping plans (Name of project, Country, Location, Project outline, Category classification and its reasons, alternative plans, possible influences and its content) The environmental assessment report is publicized in the project's locating country including local citizens, and stakeholders such as local citizens can always access it. Furthermore, approbation of photocopies is also demanded. 	understanding and participation of local citizens. According to29/2011/ND-CP (Title 22), after the EIA report has been approved, the business proprietor shall disclose an environmental management plan to the commune's People's Committee in which consultation was requested in order to gain understanding by local citizens on the project and to encourage participation on the monitoring of project execution. As can be seen from above, citizens around the project sites may access the information resources on the project's environmental risks only after the EIA report has been approved. It is a future task to improve on the system of information disclosure from the earlier stage of planning a project.
 5. Category classification JICA classifies into 4 categories (A ~ C, and FI)depending on the project's outline, size, location and the level of environmental and social impacts. 6.Item on environmental and social considerations 	 Vietnam's EIA classifies projects into 3 groups as follows. (1) Projects that are mandatory to enforce SEA (National level, regional level, province level, area that covers several provinces, socio-economic development strategy and planning such as river basin projects) (2) Projects that are mandatory to write and approve an EIA report. (3) Projects that are mandatory to submit an EPC. In 29/2011/ND-CP, 146 project groups that are mandatory for the writing and approval of EIA report are listed up. There is a lack of consideration towards the full set of the set of
include human health, safety and natural environment (including cross-border and global	ways of making a living, land usage etc.), use of local resources, social capital relationship, local

JICA's environmental guidenne	Vietnam's EIA system
environmental effects) such as: air, water, soil,	decision making organizations, socially vulnerable
waste, accidents, water usage, climate change,	groups, distribution of benefit and demerit, fairness
ecological system and social considerations such	throughout the development process, gender, child
as: involuntary relocation, local economy for	rights and conflict of interest among local regions.
example employment and structuring, land usage	
and use of local resources, social capital	
relationship and local decision making	
organizations, existing social infrastructure and	
service, vulnerable groups such as the poverty	
group and the indigenous, distribution of benefits	
and demerits, fairness throughout the development	
process, gender, child rights, cultural heritage,	
conflict of interest among regions, infectious	
any ironment (including workplace safety)	
For the deliberation of each individual project, the	
necessary items are selected through the scoping	
process	
7 Consideration towards the social environment	There are no stipulations in Vietnam's EIA on
and human rights	the human rights towards the socially vulnerable
In the operation of collaborative projects, JICA	groups.
sanctifies the set human rights as established by the	
International Covenants on Human Rights. In this	
case, human rights on socially vulnerable groups	
such as women, the indigenous, disabled and	
minorities are especially considered.	
8. Involuntary relocation	In Vietnam, compensation regarding land
- In the case of impacts on involuntary relocation or	acquisition and relocation is stipulated under
loss of means to make a living, the partnering	Decree 69/2009/ND-C. When it is necessary to
country shall provide compensation and support at	acquire land in a development project, the above
an appropriate himing t ompensation shall be baid	low is smalled and IOI takes along Citizens who
in advance based on the recognisition price of	law is applied and IOL takes place. Citizens who
in advance based on the reacquisition price as much as possible. The partnering countries shall	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial
in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations
in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their original standard of living and income	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations until recently on the recovery of the impacted
in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their original standard of living and income opportunities and reclaim or at least recover their	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations until recently on the recovery of the impacted citizens, and the improvement of the standard of
in advance based on the reacquisition shall be paid in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their original standard of living and income opportunities and reclaim or at least recover their production standards. This includes compensation	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations until recently on the recovery of the impacted citizens, and the improvement of the standard of living after relocation. The first law by the project
in advance based on the reacquisition snan of paid in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their original standard of living and income opportunities and reclaim or at least recover their production standards. This includes compensation by land and cash, support for a sustainable	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations until recently on the recovery of the impacted citizens, and the improvement of the standard of living after relocation. The first law by the project site's People's Committee along with RAP that
in advance based on the reacquisition snan of paid in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their original standard of living and income opportunities and reclaim or at least recover their production standards. This includes compensation by land and cash, support for a sustainable alternative means to make a living, support on the	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations until recently on the recovery of the impacted citizens, and the improvement of the standard of living after relocation. The first law by the project site's People's Committee along with RAP that stipulates the obligation of the recovery of
in advance based on the reacquisition snan of paid in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their original standard of living and income opportunities and reclaim or at least recover their production standards. This includes compensation by land and cash, support for a sustainable alternative means to make a living, support on the costs of relocation and support for the recreation of	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations until recently on the recovery of the impacted citizens, and the improvement of the standard of living after relocation. The first law by the project site's People's Committee along with RAP that stipulates the obligation of the recovery of standards of living is 69/2009/ND-CP announced
in advance based on the reacquisition shan be paid in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their original standard of living and income opportunities and reclaim or at least recover their production standards. This includes compensation by land and cash, support for a sustainable alternative means to make a living, support on the costs of relocation and support for the recreation of community in the relocated area.	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations until recently on the recovery of the impacted citizens, and the improvement of the standard of living after relocation. The first law by the project site's People's Committee along with RAP that stipulates the obligation of the recovery of standards of living is 69/2009/ND-CP announced 13 th August 2009.
in advance based on the reacquisition shan be plate in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their original standard of living and income opportunities and reclaim or at least recover their production standards. This includes compensation by land and cash, support for a sustainable alternative means to make a living, support on the costs of relocation and support for the recreation of community in the relocated area. In the making of the relocation plan, there shall be	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations until recently on the recovery of the impacted citizens, and the improvement of the standard of living after relocation. The first law by the project site's People's Committee along with RAP that stipulates the obligation of the recovery of standards of living is 69/2009/ND-CP announced 13 th August 2009. As can be seen, there seems to be room for
in advance based on the reacquisition snan of paid in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their original standard of living and income opportunities and reclaim or at least recover their production standards. This includes compensation by land and cash, support for a sustainable alternative means to make a living, support on the costs of relocation and support for the recreation of community in the relocated area. In the making of the relocation plan, there shall be discussions with the impacted citizens and	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations until recently on the recovery of the impacted citizens, and the improvement of the standard of living after relocation. The first law by the project site's People's Committee along with RAP that stipulates the obligation of the recovery of standards of living is 69/2009/ND-CP announced 13 th August 2009. As can be seen, there seems to be room for improvement on the judicial system in Vietnam on
in advance based on the reacquisition shan be plate in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their original standard of living and income opportunities and reclaim or at least recover their production standards. This includes compensation by land and cash, support for a sustainable alternative means to make a living, support on the costs of relocation and support for the recreation of community in the relocated area. In the making of the relocation plan, there shall be discussions with the impacted citizens and communities based on an adequate amount of	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations until recently on the recovery of the impacted citizens, and the improvement of the standard of living after relocation. The first law by the project site's People's Committee along with RAP that stipulates the obligation of the recovery of standards of living is 69/2009/ND-CP announced 13 th August 2009. As can be seen, there seems to be room for improvement on the judicial system in Vietnam on land acquisition, compensation and relocation. It is
in advance based on the reacquisition snan of paid in advance based on the reacquisition price as much as possible. The partnering countries shall endeavor that the relocated citizens can regain their original standard of living and income opportunities and reclaim or at least recover their production standards. This includes compensation by land and cash, support for a sustainable alternative means to make a living, support on the costs of relocation and support for the recreation of community in the relocated area. In the making of the relocation plan, there shall be discussions with the impacted citizens and communities based on an adequate amount of information in advance.	law is applied and IOL takes place. Citizens who lose their land property, real property or means of making a life receive compensation and financial support for relocation. There were no stipulations until recently on the recovery of the impacted citizens, and the improvement of the standard of living after relocation. The first law by the project site's People's Committee along with RAP that stipulates the obligation of the recovery of standards of living is 69/2009/ND-CP announced 13 th August 2009. As can be seen, there seems to be room for improvement on the judicial system in Vietnam on land acquisition, compensation and relocation. It is an immediate agenda for RAP and institutions to
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JICA's environmental guideline	Vietnam's EIA system
consideration is not enough, consensus on the	obligation of publicizing the monitoring results by
process of problem solving shall be endeavored	the business proprietors. Moreover, there are no
through the discussion of the stakeholders based on	concrete stipulations on the indication of
enough publicized information.	environmental hazards in the process of executing
	the project or exceptions against related to
	environmental and social considerations.

Source: Socialist Republic of Vietnam Ho Chi Minh City Ben Thanh Station Area General Development Project Feasibility Study (PPP Infrastructure Project) Final Report¹³JICA(2012.3)

Based on the comparison between challenges due to divergence and their measures, the challenges and their measures expected to occur from divergence between environmental evaluation system in Vietnam and JICA environmental guidelines are listed in Table 7.1.15

On executing this project, rental factories operating companies (SPC) will play the role of the focal point, and creating voluntary rules under the JICA environment guidelines, compliance of the SPC and the rental factory tenants will be conducted prior to the project. Gathering information on problems and taking appropriate measures will be done by a single window as a post-project measure.

Table 7.1.15	Challenges that could occur due to divergence from the JICA environmental
	guidelines and their measures

Items	Challenges	Measures in this Project
1. Basic Rules	There is a possibility of not being able to ease the projected impacts enough, as procedures on reflecting the impact evaluations onto the project plans are inappropriate.	Easing measures on the projected impacts will be conducted appropriately in the rental factory operating companies (SPC) of this project.
2. Human rights, transparency of information, and accountability	As there are no regulations or rules on human rights, transparency of information, and accountabilities, there is a possibility the protection of human rights and their due processes will be inappropriate.	There will be a single window in SPC to provide the monitoring and other data on website, accept opinions and objections, and appropriately deal with them.
3. Assuring the meaningful participation of stakeholders	There is a possibility that the project would be executed without the opinions of the residents being appropriately reflected, as understanding and participation of the individual local residents are unsatisfactory.	There will be a single window in SPC to pick up the opinions of the residents and other stakeholders and reflect them as much as possible on the project.
4. Publishing Information	Residents' access to the data on the environmental problems of the project is only limited to after the approval of EIA, so the residents may not be able to give appropriate decisions before the project.	There will be a single window in SPC to always deal with inquiring information, and open important related information beforehand as much as possible.
5. Categorizing	There may be omissions or overlaps in evaluation, as standards of the categories and their numbers are different.	JICA environmental guidelines will supplement the components not covered by the Vietnamese system.
6. Items of socio-environmental consideration	The following items are lacking: local economy, use of local natural resources, socio-related capital, decision making process of the local area, socially vulnerable groups, distribution of the	Of these items, the ones that can be dealt by SPC (gender, child rights, etc.) will have their appropriate rules set by SPC, and will be kept by SPC, as well as the tenants.

¹³ http://libopac.jica.go.jp/images/report/P1000003630.html

	benefits and damages, equality in development process, gender, child rights, and confronting benefits and damages. Therefore, considerations about these items may be unsatisfactory.	
7. Considerations about social environment and human rights	As there are no regulations on the human rights of the socially vulnerable, the prevention of human rights violation and saving human rights may not be appropriate.	There will be a single window in SPC to work on gathering information on occurrence of human rights violation and taking appropriate measures
8. Involuntary Resident Resettlement	There may not be enough compensation, as laws on resident resettlement are underdeveloped.	(Resident resettlement has been completed during the development phase of the project site, the existing industrial parks)
9. Monitoring	Responsibilities for publishing monitoring results, indicating environment worsening issues, procedures of objections on social environment considerations are unsatisfactory; discovery of environmental problems may be delayed and their effective measures may not be taken.	There will be a single window at SPCs to listen to public opinions and have necessary responses.

Note: There will be a single window for all these challenges, and it will make sure that there will be no challenges to those who turned in their opinions

(3) Role of related institutions (the central government)

Table 7.1.16 describes the role of institutions in Vietnam related to the provision of environmental contamination according to Title121 of LEP2005.

Table 7.1.16	Roles of Vietnamese institutions related to the provision of	environmental
		contamination

Name of Institution	Role/Responsibility				
	Holds responsibility against the following items in the enforcement of				
	environmental protection concerning the country's management				
	a) To lay (or notice) legal documents related to environmental protection to the				
	government.				
	b) To lay the national scheme, strategy and planning related to environmental				
	protection to the government				
	c) Lead office for the solution of cross cutting or institution-cutting				
	environmental problems				
	d) Structuring and notification of environmental standards system				
MONRE: Ministry of	e) Structuring an management of environmental monitoring system and a				
Natural Resources and	leadership in a uniform management of monitoring data				
Environment	f) Leadership in environmental assessment				
	g) Assessment and approval of strategic environmental assessment report and				
	environmental assessment reports, uniform management of the registration				
	activity of environmental protection pledges.				
	h) Leadership, surveillance, audit and processing of infraction related to				
	environmental protection and the solution of disputes and complaints related to				
	environmental protection				
	i) Lead office for the international cooperation activity with countries and				
	international organizations related to environmental protection.				
	j) Leadership and surveillance in the enforcement of law related to environmental				

Name of Institution	Role/Responsibility					
	protection at People's Committee level.					
	k) Securing environmental protection for the national master plan of: planning					
	domestic land usage, national strategy related marine resources,					
	cross-institutional planning of fluvial basin, foundational research, exploration,					
	extraction and fabrication of mineral resources.					
	Securing environmental protection in strategies, master plans, socio-economic					
Ministry of Planning	development projects and important projects in which the discretional power					
and investment	institutions. People's Committee at each Province level nation and parliament					
Ministry of	Surveillance and guidance towards the following stimulations in cooperation with					
Agriculture and Rural	related Ministries such as MONRE and People's Committee					
Development	• I FP and stipulations regarding environmental protection					
2 e / eropinent	• Stipulations regarding the production import and usage of chemical products					
	pesticides fertilizers and agricultural waste					
	• Stipulations regarding genetically modified plants and livestock					
	• Stipulations regarding water supply at ambankments irrigation forest protection					
	areas and agricultural communities					
	The development of environmental technology sector in cooperation with related					
	ministries such as MONRE and People's Committee through the enforcement and					
	guiding the following stipulations.					
Ministry of Industry	• LEP and stipulations regarding environmental protection					
Winnstry of industry	• Stipulations regarding the handling of industrial areas' facilities and installations					
	• Law regarding the handling of industrial institutions that may cause a serious					
	environmental pollution					
	Enforces and guides the stipulations below					
Ministry of Fishery	• LEP and stipulations regarding environmental protection					
	• Stipulations regarding the cultivation, extraction and processing of fishery					
	products, genetically modified fishery products and ocean conservation area					
Ministry of	Enforces and guides the stipulations below in cooperation with related ministries					
Construction	such as MONRE and People's Committee					
	• LEP and stipulations regarding environmental protection					
	• Stipulations regarding activities such as supply of water and water drainage.					
	disposal of solid waste and conditioning of water drainage infrastructure in the					
	urban area, multi-production and service area, craft villages, agricultural and					
	housing concentrated areas.					
Ministry of	Enforces and guides the stipulations below in cooperation with related ministries					
Transportation	such as MONRE and People's Committee					
	 LEP and stipulations regarding environmental protection 					
	• Legal stipulations regarding the conditioning of transportation infrastructure and					
	transportation activities.					
Ministry of Health	Guiding and enforcing the management of medical waste, environmental protection					
	duties at medical institutions, food sanitation protection and committal.					
Ministry of National	Handling environmental hazards, organization of personnel responding to					
Detense / Ministry of	environmental improvement and guiding and enforcing the environmental					
Public Security	and Ministry of Public Security					
Environmental Dalica	and withinkly of Fublic Security					
Environmental Police	The detection of factories and institutions that are oreaching the environmental laws					

Source: Ministry of Environment website¹

¹⁴ <u>http://www.env.go.jp/air/tech/ine/asia/vietnam/indexVT.html</u>

History of MONRE

From the Ministry of Environment website http://www.env.go.jp/air/tech/ine/asia/vietnam/indexVT.html

MONRE is a predecessor of NEA which was founded in 1993 under MOSTE which was founded in 1992. With the rise of pollution problems and the necessity of strengthening of controlling environmental protection, MOSTE's environmental department separated and formed MONRE after integrating related departments.

VEPA was an agency within MONRE that was in charge of proposing policies related to environmental protection, monitoring of the abidance of LEP and other related standards, handling accidents and guiding local departments and institutions. In order to strengthen their authority and personnel further in the environmental sector, VEPA merged with environmental department and EIA's Operation Division to shakeout as VEA.

Moreover, in 2006, ISPONRE which was aimed to provide advice to the minister of MONRE with policy proposal through policy research was founded under MONRE.

The structure of VEA is organized below. It is the Department of Pollution Control that assumes the central role in countermeasures for environmental pollution, and in order to promote such countermeasures in Vietnam, it is crucial to organize and improve the skills of the personnel in this Department.

Other organizations that seem to be important in supporting Vietnam through our nation's environmental countermeasure technology as a package is the Department of International Cooperation and Science & Technology which bears the deliberation of ways to develop and prevail countermeasure technologies against environmental pollution. Furthermore, ISEM which is a research institute for environmental countermeasure, newly built in 2008, is an institution that could possibly become a focal point in transferring our nation's history in countering environmental pollution, and the Institute has started a joint measure research with Japan's Ministry of Environment.

(4) Role of related institutions (local)

Title 122 of LEP2005 states the jurisdiction of each Province and or the People's Committee of central district area regarding countermeasures for environmental pollution as follows.¹⁵

¹⁵ Ministry of the Environment, Japan "Development and Implementation of Law in Vietnam" <u>http://www.env.go.jp/air/tech/ine/asia/vietnam/files/law/law.pdf</u>

- Announcements of stipulations, regulations and policy planning regarding environmental protection, guiding the strategies, planning and execution regarding environmental protection, the structuring management and guidance of monitoring system in the juridical area, regular guidance of assessment regarding the environmental conditions.
- Assessment and approval of EIA reports in the juridical area (Approval will be done by the central government for large scale projects):

7.1.3 Scoping

This section explains the environmental and social items that should be considered in operating this project and each assessment methods, based on the existing EIA.

(1) Scoping of this project

This project constructs and operates rental factories in existing industrial parks. The development of industrial parks has been completed; therefore, its socio-environmental impact needs to be considered for the construction of the rental factories and the operation of the tenants.

Table 7.1.17 describes the scoping plan for this project and the evaluation hypothesis for the current situation.

The construction of the actual industrial park itself is already completed for this project; therefore, the word "construction" in this table shows the construction of new buildings and ancillary facilities that are accompanied by companies moving into the already built industrial park. Similarly, "in-service" in this table shows when the moved-in factory has started operating and is in service.

For the items that are evaluated as A-, B-, and C-, effective prevention measures will be introduced and a continuous monitoring will be conducted to manage the environment appropriately.

			Assessment					
Class	I	Affected item	Constr In-ser		Reason for Assessment			
			uction vice					
Pollution Counterm easure	1	Air pollution	B- B-		Construction : There is a prediction that air conditions will worsen due to the use of construction machines, although temporary. In-service : When the handling of factory emission is inappropriate, air pollution is expected.			
	2	Water pollution	D	B-	Construction : The amount of drainage is unlikely to lead to water pollution. In-service : When industrial drainage is not handled adequately, there is a possibility of water pollution within the restriction range. (No metal planting factory is going to move in)			
	3	Waste	B-	B-	Construction : There is a prediction that surplus soil and or wood residue occur. In-service : When toxic industrial waste is not handled adequately, there is a possibility of land and water pollution.			
	4 Land pollution		B-	B-	Construction : There is a possibility that land is contaminated through the exposure of construction oil In-service : When industrial waste is inadequately handled, there is a possibility of land pollution.			
	5	5 Noise/vibratio n		C-	Construction : There is a prediction that noise will occur from construction machinery and vehicles. In-service : If there is an area near the industrial park that is easily impacted (homes, schools, medical facilities etc), there may be a certain level of noise and vibration.			
	6	6 Land sinkage D D		D	Construction : There will be no operation that could cause land sinkage. In-service : Groundwater will not be used (Dai An IP), or taken from where there is an adequate amount of water (Nhon Trach); therefore land sinkage is not expected to occur.			
	7 Foul odor		D C-		Construction : There will be no operation that could cause foul odor In-service : There is a possibility of foul order from factories' gas emissions.			
	8	Bottom	D	D	There will be no operation that could affect the bottom sediment.			

Table 7.1.17 Scoping plan

		sediment			
	9	Conservation area	D	D	No national parks or conservation areas exist in the parks' nearby vicinity
Nature	10	Ecological system	D	D	As this project is carried out at a pre-existing industrial park, and because there exists no rare animals or plants in the project area, there is almost no effect towards the ecological system.
Protection	11	Hydrometeor	D	D	There will be no operations that could affect the hydrometeor
	12	Terrain, geological condition	D	D	As this project is carried out at a pre-existing industrial park, and because cutting earth is not planned, there will be almost no effect towards the terrain and geological conditions.
	13	Relocation	D	D	The relocation of locals have already been done when the industrial park itself was built.
	14	Poverty group	B+	A+	Construction : Consumption by construction personnel is expected to cause positive effects towards the poverty group In-service : With the economic effects by Japanese SMEs, there is an expectation for economic benefit for the poverty group as well as easing access towards social services and markets such as schools and hospitals.
	15	Minorities/Ind igenous	D	D	No minorities or indigenous residents exist in the parks' nearby vicinity
	16	Employment and local economy in terms of making a living	B+	A+	 Construction : There is an expectation for the employment of construction workers. In-service : Aside from the direct employment for new factories, there is an expectation for the amplification for new economies such as service towards the factory workers.
	17	Use of land and local resources	D	B+	There is an expectation of promoting effective use of land through providing housing towards the new factories' workers.
	18	Water usage	D	C-	Construction : There is no water usage or drainage that could negatively influence the water usage in the site. In-service : If the effluent or waste is not appropriately treated, there is a possibility of effect on nearby agricultural water use from toxic substances.
Social environm ent	19	Existing social infrastructure and services	D	C-	Construction : There is no concentration of construction; therefore no major effects are observed. In-service : By the increased number of factory workers, there is a possibility that demand for various infrastructure increases.
	20	Social organizations including social related capital and local decision making groups	D	D	As this project involves the construction of buildings and facilities within a pre-existing industrial parks, no impacts towards socially related capitals and local decision making groups are considered.
	21	Spread of harm and merits	D	D	This project promotes the moving in of Japanese SMEs into a pre-existing industrial park. No specific harms will occur; on the other hand the nature of this project expects the merits to differ largely.
	22	Conflict of interest in local area	D	D	This project promotes the moving in of Japanese SMEs into a pre-existing industrial park and no conflict of interest in the local area is expected.
	23	Cultural heritage	D	D	No cultural heritage exists in the project sites' nearby vicinity.
	24	Scenery	D	D	This project promotes the moving in of Japanese SMEs into a pre-existing industrial park and no effect towards the scenery is expected.
	25	Gender	D	D	It is not expected that Japanese factories moving into the rental factories will affect gender issues significantly.
	26	Child rights	D	D	There is no expectation for specific negative impact towards child rights through this project.
	27	Infectious diseases such as HIV/AIDS	C-	C-	Construction : There is no expectations for large-scale constructions, but there is a possibility that infectious diseases spread from the flow of construction workers.

					In-service : There is a possibility that infectious diseases spread from the flow of population related to factory workers.
Working environment(i 28 ncludes D D working safety)		D	Construction : It is necessary to give consideration for the working environment of construction workers. In-service : There are no plans that could cause negative impact towards factory workers, although working environment needs to be kept fairly.		
Miscellan	29	29 Accidents		B-	Construction : It is necessary to give consideration for accidents occurring through construction In-service : There is a concern for traffic jams and accidents because of the increased number of vehicles
eous	30	Climate change	D	D	This project promotes the moving in of Japanese SMEs into a pre-existing industrial park and no impact towards climate change is expected.

A+/-: Significant positive/negative impact is expected.

 $B{+}{/}{-}{:}$ Positive/negative impact is expected to some extent.

C+/-: Extent of positive/negative impact is unknown. (A further examination is needed, and the impact could be clarified as the study progresses)

D: No impact is expected.

7.1.4 Impact expectation

(1) Impact expectation for Dai An Industrial Park1) Impact expectation of the Industrial Park in the EIA

For the items set in the scoping plan in Table 7.1.17, an environmental impact projection was conducted. To acquire the development approval of the industrial park, an EIA report has been created; in this research, the environmental impact has been projected with a reference to the EIA report.

The table of contents for the EIA report has been shown in Table 7.1.18

Table 7.1.18 Table of contents of the EIA of Dai An Industrial Park

Introduction

- 1. Background of the project
- 2. Legal and technological premises regarding the EIA
- 3. Implementation of EIA

Chapter1. Project Outline

1.1 Project name

1.2 Project's implementing businesses' names

1.3 Project's location

1.4 Important content of the project

Chapter2. Natural, environmental and socio-economic conditions

2.1 Natural and environmental conditions

2.2 Socio-economic conditions

Chapter3. EIA

- 3.1 Reasons of impact
- 3.2 Target and size of impact
- 3.3 Impact Assessment
- 3.4 Assessment on EIA

Chapter4. Lowering of negative impacts towards environment and measures of prevention and handling of environmental hazards

4.1 Lowering of negative impacts

4.2 Measures to lower the project's impacts towards nature, economy and social environment

4.3 Measures to prevent and lower hazards

Chapter5. Commitment towards enforcing environmental protection law

- 5.1 Co-acting commitment
- 5.2 Commitment to obey and abide by the plans
- 5.3 Implementation of negative impact lowering measures at land clearance stage
- 5.4 Implementation of negative impact lowering measures at construction stage

5.5 Implementation of negative impact lowering measures at running the industrial park

5.6 Abiding by the environmental standards

5.7 Protection technology of water environment

Chapter6. Environmental treatment construction, environment management and surveillance program

6.1 List of environmental treatment constructions

6.2 Environment management and surveillance program

Chapter7. Estimate cost for environmental construction

Chapter8. Opinions of representatives from citizens

8.1 Opinions by Tu Minh Village's People's Committee and Fatherland's Front

8.2 Opinions by Cam Dong Village's People's Committee and Fatherland's Front

8.3 Opinions by Cam Doai Village's People's Committee and Fatherland's Front

8.4 Opinions by Lai Cach Village's People's Committee and Fatherland's Front

Chapter9. Data references and assessment methods

9.1 References for data and resources

9.2 Methods applied for EIA

9.3 Assessment of scientific methods to be used

Summary and Conclusion

Appendix

The expected impacts and their easing measures regarding the development of Dai An Industrial Park are each written under Chapter 3 and 4 of EIA Report (05/03/2008). Below is the summary.

A. Air Pollution

Impact:

- There is a possibility that CO, CO_2 , and NO_2 included in exhausted gas from factories will cause air pollution
- Easing Measures:
- Each factory will follow the emission standard and will provide trees and a pond within the industrial park area.
- Land adjoining the National Road No.5 and residential housings will have trees every 20-50m.
- 31.9ha, 14.5% of the industrial park area, will be green land and pond.

B. Water Pollution

Impact:

- Industrial drainage will be released into Sat River after it is handled in the wastewater treatment facility; it is possible that a river pollution may occur.
- Easing Measures:
- Each factory will meet the drainage standard of TCVN-5945-2005 (B and C column.)
- The wastewater treatment facility will handle the drainage so that the released water quality will meet the drainage standard of TCVN-5945-2005 (B column).
- · Land adjoining the National Road No.5 and residential housings will have trees every 20-50m.

C. Solid Waste

Impact:

- There is a possibility that toxic waste will be disposed from electronics and machine manufacturing factories/
- Easing Measures:
- Industrial park management company will collect and sort the toxic waste, and it will handle it adequately.

• Factories disposing toxic waste will register the Hai Duong Province Department of Natural Resource and Environment, and will entrust its toxic waste management to a licensed toxic waste transportation/management vendor (Hai Duong Province operated green environment company)

D. Cultural Heritage and others

Impact:

- No cultural heritage exists in the project area. However, there is a cemetery (2000 tombs).
- Easing Measures:
- The tombs will be relocated to other existing cemeteries according to the master plan of the village or the province.

E. Environment Protection

Impact:

• No Natural Protection Zone exists in the project area.

2) Evaluation on the impact and its easing measures

Environmental impact from this project depends heavily on the tenants, but it has been confirmed that the EIA report for Dai An Industrial Park has been approved on 2008/5/3 with the following as the approved industries:

- Electronic assemply
- Machinery technology, manufacturing of industrial machines and agricultural machines
- High-tech, ceramics, craft
- Textiles, packaging, agricultural processing

Environmental impacts and their easing measures have been considered, expecting these industries as tenants, on the items defined in Table 7.1.17 scoping, based on the hearings of those locals concerned. In Table 7.1.17, both the construction and operation phases were stated, but here, to assess the easing measures more easily, the two phases has been separately shown.

Table 7.1.19 Assessment of the impacts from the project and their easing measures (during construction)

Class	Affected item		Assess ment (Hypot hesis)	Environment assessment based on field survey	Assessm ent after reconsid eration	Easing measures
Pollutio n Counter measure	1	Air Pollution	B-	Based on the field survey, dust resulting due to construction, rather than air pollution due to transportation of construction equipment, was larger in its impact. However, the buildings have simple structures and do not require complex works, therefore the resulting dusts will not be crucial. In this project the calculation of SPM was not conducted. Based on the field survey, the even though the content of assessment had changed, the projected impact on air pollution will not change.	В-	Countermeasures for dusts during construction must be appropriately conducted. Especially during the procedures that would produce dust, the buildings under construction need to be covered with a sheet.
	2	Water Pollution	D	A field survey was conducted, and various factories that have been test operated were observed, but drainage of an amount that would cause water pollution was not observed.	D	Since there is barely any impact on building construction, there is no need to plan any easing measures.
	3	Waste	B-	For the construction of the buildings, it was confirmed that there are barely any waste dumps. The buildings themselves do not have a complex structure, so it is unlikely that a large amount of waste would result. The	B-	When outsourcing waste treatment, assessment must be done on the vendors.

				materials are mainly reusable items, such as steels and plastic; even if waste is produced, it is likely that recycle vendors will take the waste, and the risk of unlawful abolition of waste is low.		
	4	Land pollution	B-	The building has simple structure, so pollution due to painting is more likely to occur rather than the outflow of oil, based on the field survey. However, the painting is something used in usual housings and factories; therefore its environmental impact is not expected to be very big.	B-	Painting must be done so that extra paint or scattered paint will not directly leak into the ground.
	5	Noise/ vibration	B-	From the field survey, no noise due to construction equipment or vehicle transportation was observed. There are no residential areas nearby, so noise is not expected to be a major issue. Considering the impact on the workers, monitoring on noise and vibration will be conducted, just in case.	B-	Countermeasures against noise and vibration will be taken for works that cause large noise and vibration.
	6	Land sinkage	D	Field survey has confirmed that no works that would lead to land sinkage will be done.	D	Not necessary
	7	Foul odor	D	Field survey has confirmed that no works that would lead to foul odor will be done.	D	Not necessary
	8	Bottom sediment	D	Field survey has confirmed that no works that would have negative affect on bottom sediment.	D	Not necessary
-	9	Conservat ion area	D	Field survey has confirmed that there are no conservation area or national parks in the industrial park.	D	Not necessary
Nature	10	Ecological System	D	The project will be done within the existing industrial park. In addition, there are no endangered animals in the project site	D	Not necessary
ation	11	Hydromet eor	D	Field survey has confirmed that no works that would have a negative effect on hydrometeor.	D	Not necessary
	12	Terrain, geological condition	D	The project is for new tenants in the existing industrial par; therefore, no cutting or embankment is planned, based on the field survey.	D	Not necessary
	13	Relocatio n	D	The project is for new tenants moving into the existing industrial parks, and relocation has been completed.	D	Not necessary
	14	Poverty group	B+	Consumption by the construction related workers in the local area will have a positive ripple effect on the poverty group. (No changes to the hypothesis in the scoping)	B+	Not necessary
Social environ	15	Minorities / Indigenou s	D	Field survey has confirmed that there are no minorities or indigenous people living in the project site.	D	Not necessary
ment	16	Employm ent and local economy in terms of making a living	B+	Employment of construction workers is expected. (no changes to the hypothesis in the scoping)	B+	Not necessary
	17	Use of land and local resources	D	It is expected that the tenant factories will use the land effectively for their workers' residences. (no changes to the scoping)	D	Not necessary

	18	Water usage	D	No water release that would affect water usage is expected from the field survey.	D	Not necessary
	19	Existing infrastruct ure and services	D	There is no concentration of construction, and no major affect was observed in the field survey.	D	Not necessary
	20	Social organizati on including social related capital and local decision making groups	D	The project is mainly about construction of buildings and facilities for the existing industrial park; no impact on social related capital and decision making groups of the area is expected. (no changes to the hypothesis in scoping)	D	Not necessary
	21	Spread of harm and merits	D	The project is to encourage the Japanese SME's to move into the existing industrial park; therefore, no major damages are expected. On the other hand, its merits are expected to be large. (no changes to hypothesis)	D	Not necessary
	22	Conflict of interest in local area	D	The project is to encourage the Japanese SME's to move into the existing industrial park; therefore, no major conflicts of interest in local area is expected. (no changes to hypothesis)	D	Not necessary
	23	Cultural heritage	D	Field survey has confirmed that there is no cultural heritage in the project site and the neighboring area.	D	Not necessary
	24	Scenery	D	The project is to encourage the Japanese SME's to move into the existing industrial park; therefore, no major influence on scenery is expected (no changes to hypothesis)	D	Not necessary
	25	Gender	D	The project is to encourage the Japanese SME's to move into the existing industrial park; therefore, no major gender conflicts are expected (no changes to hypothesis)	D	Not necessary
	26	Child rights	D	No major negative effects on child rights is expected.	D	Not necessary
	27	Infectious diseases such as HIV/AID S	C-	No major construction is expected, but there is a possibility of a disease spreading, due to the incoming workers. (no changes to the hypothesis in scoping)	C-	Alerts must be made to the construction workers
	28	Working environme nt (includes working safety)	D	Working environment for the construction workers must be considered (no changes to the hypothesis in scoping)	D	Not necessary
	29	Accidents	B-	Accidents from the construction work need to be considered.	B-	Alerts must be made to the construction workers.
Others	30	Climate change	D	The project is to encourage the Japanese SME's to move into the existing industrial park; therefore, no major damages on climate change is expected.(no changes to hypothesis)	D	Not necessary

A+/-:(Significant positive/negative impact is expected.)

B+/-:(Positive/negative impact is expected to some extent.)

C+/-: (Extent of positive/negative impact is unknown. (A further examination is needed, and the impact could be clarified as the study progresses))

D: (No impact is expected.)

Table 7.1.20Assessment of the impacts from the project and their easing measures
(in-service)

Class	Affected item		Assess ment (Hypo	Environment assessment based on field survey	Assessm ent after reconsid	Easing measures
	1	Air pollution	B-	If treatment of factory gas emission is not appropriate, worsening of air quality could be expected.	eration B-	Monitoring of gas emission must be done, and equipment for treating gas emission needs to be introduced if needed.
Polluti on counter measur es	2	Water pollution	В-	If industrial effluent is not appropriately treated, water pollution outside of the project site could occur (however, no gilt factories will move in), but since each company is obligated to follow the environmental regulations, the possibility of water pollution is not expected to be very high, since Japanese industries are likely to follow them	B-	The factory effluent treatment will be concentrated in the treatment facility of the industrial park. Continuous or unscheduled monitoring will be conducted on the water coming into the effluent treatment system from the industrial park, and for those who do not follow the regulations will be penalized. Monitoring on the treated water from the industrial park's treatment facility will be conducted.
	3	Waste	B-	According to the field survey, most of the industrial waste can be recycled for certain value; therefore waste is not expected to be a major issue. If toxic industrial waste is not treated appropriately, land or water pollution could occur. However, based on the field survey, most of the tenants were assembly related companies, and the possibility of toxic industrial waste was fairly low.	B-	Waste will be collected and separated, and toxic waste will be treated by vendors will lienses.
	4	Land pollution	B-	Since the project is a rental factory with concrete floor, there is a low possibility of land pollution; however, there is some possibility of land pollution, so it was evaluated the same as the scoping.	B-	Management of factory effluent and industrial waste will be monitored so that leakage of toxic waste into land will be prevented.
	5	Noise/ vibration	C-	It has been confirmed in the field survey that there are no areas that would easily be affected by the industrial park areas (housings, schools, hospitals, etc.) However, there could be some effect on people working and living in the industrial parks. Therefore, in scoping it was evaluated as C-, but here it has been changed to B-	B-	The tenants will need to take appropriate measures for noises and vibration.
	6	Land sinkage	D	The industrial park will not use the underground water (Dai An Industrial Park) or water will be taken from an underground water with enough amount of water; therefore land sinkage is not likely to occur.	D	Not necessary
	7	Foul Odor	C-	It has been confirmed in the field survey that there are no areas that	C-	Appropriate countermeasures towards

				would be easily affected by the industrial park areas (housings,		foul odor will be taken.
				schools, hospitals, etc.). However,		
				working and living in the industrial		
				parks, Therefore, it is assessed the same as the scoping.		
				No construction works that would		
	8	Bottom sediment	D	have negative effect on the bottom sediment is planned.(No changes to	D	Not necessary
				the hypothesis in scoping)		
			5	It has been confirmed in the field survey that there are no national parks	Ð	
	9	Conservation area	D	or conservation areas near the project	D	Not necessary
				This project is done within an existing		
	10	E - li - lt	Л	industrial park, and it has been	D	N-4
Nature	10	Ecological system	D	there are no endangered animals and	D	Not necessary
vation				plants in the project site.		
	11	Hydrometer	D	that there are no negative effect on	D	Not necessary
		-		hydrometer.		
	12	Terrain, geological	Л	existing industrial park; therefore, no	D	N-4
	12	condition	D	cutting or embankment is planned,	D	Not necessary
				This project is for new tenants		
	13	Relocation	D	moving into the existing industrial	D	Not necessary
				completed.		
				There will be economic ripple effect		
	14	Poverty group	A+	industrial parks; they will bring		
				benefits for the poverty group as well.	Δ	Not necessary
				effect such as better accessibility to	A_{\pm}	Not necessary
				social services such as schools and hospitals (No changes to the		
				hypothesis in scoping)		
	15	Minorities/		It has been confirmed in the field survey that there are no minorities or		
		Indigenous	D	indigenous people living in the	D	Not necessary
				project site. New economic fields such as		
Social		Employment and local economy in terms of making a living		employment directly for the factories		
eviron ment	16		A+	and for worker services are expected. (No changes to the hypothesis in	A+	Not necessary
				scoping)		
		Use of land and	_	It is expected that tenant factories will use the land effectively for their		
	17	local resources	B+	workers' residence. (No changes to	B+	Not necessary
				the hypothesis in scoping)		There will be some
						preventive measures for
						<pre>water pollution/ <water pollution<="" pre=""></water></pre>
				agricultural water usage of the area,		countermeasures>
	18	Water usage	C-	if industrial effluent and waste are	C-	will be concentrated in the
				changes to the hypothesis in		treatment facility within the
				scoping)		Standard will be set for
						water running into the industrial park's treated
						water system; monitoring
						will be conducted continuously or unscheduled, and those who do not satisfy the standard will be penalized. Monitoring of the released water from the industrial park's water treatment facilities will be conducted.
--------	---------	--	----	--	----	---
	19	Existing infrastructure and services	C-	There is a possibility of increase in burden for various infrastructures due to increase in the number of factory workers. (No changes to the hypothesis in scoping)	C-	Not necessary
	20	Social organization including social related capital and local decision making groups	D	The project is mainly about construction of buildings and facilities for the existing industrial park; no impact on social related capital and decision making groups of the area is expected. (No changes to the hypothesis in scoping)	D	Not necessary
	21	Spread of harms and merits	D	The project is to encourage the Japanese SME's to move into the existing industrial park; therefore, no major damages are expected. On the other hand, its merits are expected to be large (no changes to the hypothesis in scoping)	D	Not necessary
	22	Conflict of interest in local area	D	The project is to encourage the Japanese SME's to move into the industrial park; therefore, no major conflicts of interest in local area. (No changes to hypothesis)	D	Not necessary
	23	Cultural heritage	D	It has been confirmed in the field survey that there is no cultural heritage in the project site and the neighboring area.	D	Not necessary
	24	Scenery	D	The project is to encourage the Japanese SME's to move into the existing industrial park; therefore, no major influence on scenery is expected. (no changes to the hypothesis in scoping)	D	Not necessary
	25	Gender	D	The project is to encourage the Japanese SME's to move into the existing industrial park; therefore, no major gender conflicts are expected. (No changes to the hypothesis in scoping)	D	Not necessary
	26	Child rights	D	No major negative effect on child rights is expected. (No changes to hypothesis in scoping)	D	Not necessary
	27	Infectious diseases such as HIV/AIDS	C-	No major construction is expected, but there is a possibility of a disease spreading due to the incoming workers. (No changes to the hypothesis in scoping)	C-	Alerts must be made to the construction workers.
	28	Working environment (including working safety)	D	No businesses that would have negative effects on factory workers are planned, but a good working environment must be maintained. (no changes to the hypothesis in scoping)	D	Not necessary
Others	29 /	Accidents	B-	Accidents during the operation activities of the workers must be considered.	B-	Accidents during the operation activities of the workers need to be

			Increase in traffic accidents due to increase in traffic is concerned. (No changes to the hypothesis in scoping)		considered.
30	Climate Change	D	The project is to encourage the Japanese SME's to move into the existing industrial park; therefore, no major damages on climate change is expected (no changes to hypothesis in scoping)	D	Not necessary

A+/-:(Significant positive/negative impact is expected.)

B+/-: (Positive/negative impact is expected to some extent.)

C+/-: (Extent of positive/negative impact is unknown. (A further examination is needed, and the impact could be clarified as the study progresses))

D: (No impact is expected.)

(2) Impact expectation for Nhon Trach III Industrial Park1) Impact expectation in the EIA

EIA report regarding the development of Nhon Trach III Industrial Park (hereinafter called "Basal EIA") gained approval on December 21st 1996 that the following businesses be listed as approved businesses, as shown in Table

As mentioned above, when factories belonging to the approved businesses move in, there is no need to create a new EIA report; however for this project, Hung Nghiep Formosa Corporation that later decided joined the park (after the approval of Basal EIA) established a coal-fired electricity generating plant which was not included in the Basal EIA, so a new EIA (hereinafter called "Additive EIA") was created and was approved on August 25th 2004.

Industries	Examples			
Basal EIA(Approved December 21	st 1996)			
1. Light Industry	Fiber and spinning factory			
	Sewn products factory			
	Shoes, leather and leather material products factory			
	Other light industry factory			
2. Machinery Manufacturing	 Automobile manufacturing and powered machinery factory 			
	• Factory for the production of installations used in transportation and			
	construction			
	 Agricultural machinery manufacturing factory 			
	 Other machinery manufacturing factory 			
3. Production of construction	Brick and Fibro cement factory			
material	 Iron frame and GALVI manufacturing factory 			
	 Internal equipment production factory 			
	Other construction material production factory			
4. Production of wooden	No examples			
products				
5. Food Industry	 Meat and seafood processing factory 			
	 Alcohol and beer production factory 			
	Other food production factory			
6. Production of chemical	Basic chemical products and consumer chemicals production factory			
products and cosmetics	Perfume factory			
	Cosmetics factory			
	 Drugs and medical equipment production factory 			
7. Electronics	No examples			
8. Service Industry	Postal service, banks, telecommunication			

Table 7.1.21 Approved businesses for Nhon Trach III Industrial Park

		Entertainment service	
		• Service of food, gasoline and construction material supply	
		Handling service of public sanitation and waste	
		Rental service of warehouse and factories	
Ad	ditive Approval of EIA (Appr	oved August 25 th 2004)	
	Related to Hung Nghiep	Synthetic fiber production	
	Formosa Corporation	Research and development of synthetic fiber chemical products	
		Power generation and electricity service	
		Rental service of warehouse and factories	
	Already approved	(Cited above)	

The table of contents for both EIA is described in Table 7.1.22 and Table 7.1.23 respectively.

Table 7.1.22 Table of Contents of Basal EIA Report for Nhon Trach III Industrial Park

·
Chapter 1. Legal premises and implementation of EIA
1.1 Development and environmental protection
1.2 Objectives of EIA
1.3 Legal premises and references
1.4 Choice of EIA method
1.5 Creating EIA report
Chapter 2. Outline of Nhon Trach III Industrial Park
2.1 Project outline
2.1.1 Project name
2.1.2 Project operator
2.2 Location
2.3 Project objectives
2.4 Project details
2.4.1 Infrastructure development
2.4.2 Project management
2.5 Finance
2.5.1 Investment for project
2.6 Financial analysis
2.7 Administration
Chapter 3. Present condition
3.1 Location
3.2 Climate and weather
3.3 Condition of land usage
3.4 (none)
3.5 Quality of local water
3.6 Survey and assessment of air quality
3.7 Survey of noise and climate
3.8 (none)
3.9 Biotic resources
3.10 Socio-economic conditions
3.10.1 Electricity
3.10.2 Water
3.10.3 Traffic
3.11 Prediction of above conditions without project execution
Chapter 4. Assessment of impact to environment and socio-economy
4.1 Displacement, land clearance and site preparation
4.2 Impacts by construction
4.2.1 Major impacts
4.2.2 Main causes of contamination

4.2.3 Impact on human and environment

- 4.3 Possibilities of labor accidents and explosion
- 4.3.1 Labor accidents
- 4.3.2 Danger of explosion
- 4.4 Identification of contamination sources
- 4.4.1 Sources of air pollution
- 4.4.2 Noise and temperature
- 4.4.3 Solid wastes
- 4.5 Impact to water environment
- 4.6 Impact assessment for sources of air pollution
- 4.6.1 Impact on human health
- 4.6.2 Impact on animals, vegetation and construction
- 4.6.3 Impact on climate
- 4.7 Assessment of environmental impact by thermal pollution
- 4.8 Environmental assessment of noise and vibration
- 4.9 Assessment of impact on biotic resources
- 4.10 Other environmental impact
- 4.10.1 Irrigation and drainage
- 4.10.2 Traffic and agriculture
- 4.10.3 Other impacts on socio-economy
- 4.10.4 Impact on culture and fine arts
- 4.11 Assessment of impact by solid waste
- Chapter 5. Comprehensive and effective measure against negative impacts caused by project
- (A. Planning phase)
- 5.1 Grouping of manufacturing facilities
- 5.2 Layout
- 5.3 Deployment
- 5.4 Isolated zone for securing industrial satellites
- (B. Basic construction phase)
- 5.5 Environment protection measure in basic construction phase
- 5.6 Checking methods for work safety in basic construction phase
- (C. Project execution phase)
- 5.7 Technologies for water environment protection
- 5.7.1 Framework for prevention of contamination by drainage
- 5.7.2 Measures against contamination by drainage
- 5.7.2.1 Measures against contamination by industrial wastewater
- 5.7.2.2 Measures against contamination by rainfall
- 5.7.3 Total calculation of wastewater process system
- 5.7.3.1 Characteristics of wastewater from industrial parks
- 5.7.3.2 Process request
- 5.7.3.3 Chart of technical process
- 5.7.4 Design adjustment
- 5.8 Technologies for air pollutant restriction
- 5.8.1 High-tech measures
- 5.8.2 Management and operation
- 5.8.3 Utilization of trees for preventing air pollution
- 5.8.4 Usage of air pollution processing facilities
- 5.9 Thermal prevention and microclimate
- 5.10 Mitigation of noise and vibration
- 5.10.1 Common practices
- 5.10.2 Noise mitigation at source
- 5.11 (none)
- 5.12 Process of solid waste
- 5.13 Environment monitoring program and supporting methods
- 5.13.1 Environment monitoring

Table 7.1.23 Table of Contents of Additive EIA Report for Nhon Trach III Industrial Park

Abbreviations
Chapter 1. Preface
1.1 Objectives of creating EIA report
1.2 Main contents of EIA report
1.3 Legal documents and data/sources for creating this EIA report
1.3.1 Legal premises for EIA
1.3.2 References and preceding studies
1 3 3 Environmental standards in Vietnam
1.4 Implementation of EIA
1.5 Compilation of EIA report
Chapter 2. Project outline
2.1 Justice Academic for an inst
2.1 Introduction of project
2.1.1 Project name
2.1.2 Project operator
2.1.3 Location
2.1.4 Description and activities of project
2.2 Functional zoning and land preparation plan in industrial park
2.3 Infrastructure system in industrial park
2.3.1 Transport system
2.3.2 Water supply system
2.3.3 Rainwater drainage system
2.3.4 Sewage system
2.3.5 Repository of solid waste
2.3.6 Electricity supply system
2.3.7 Information and telecommunication system
2.4 Total investment
2.5 Timeline of project
2.6 Socio-economic impact byproject
Chapter 3. Natural and socio-economic conditions of project area
3.1 Project area
3.2 Characteristics of climate and water
3.2.1 Characteristics of climate
3.2.2 Characteristics of water and rivers
3.3 Geographical and geological features
3.4 Present environmental quality
3.4.1 Quality of air and noise
3.4.2 Quality of surface water
3.4.3 Quality of underground water
3 4 4 Results of drainage analysis in Nhon Trach III
3.5 Biotic resources in project area
3.5.1 Vegetation resources
3.5.2 Aquatic hiotic system
3.6 Socio economic development as of 2003
3.6.1 Economic conditions
2.6.2 Culture and society
5.0.2 Culture and society
Chapter 4. Assessment of impact on nature and soci-economic environment by project
4.1 Sources of wastes from construction and operation of project

4.1.1 Sources of wastes from construction 4.1.2 Sources of wastes from operation 4.2 Environmental impact assessment of construction 4.2.1 Impact on air 4.2.2 Impact on water 4.2.3 Impact by solid wastes 4.2.4 Other impacts 4.2.5 Evaluating environmental risks in construction phase 4.2.6 Socio-economic impact 4.3 Environmental impact assessment of operation 4.3.1 Impact on air 4.3.2 Impact on water 4.4.3 Impact by solid wastes 4.4.4 Impact by thermal pollution 4.5 Evaluating environmental risks in operation phase 4.5.1 Leakage accidents 4.5.2 Explosion accidents 4.6 Socio-economic impact on project area 4.6.1 Positive impact 4.6.2 Negative impact 4.7 Review of environmental impacts by construction and operation Chapter 5. Measures for controlling pollution and negative impact 5.1 Proposal for controlling negative impact in preparation phase 5.1.1 Grouping of manufacturing facilities 5.1.2 Disposition of manufacturing facilities 5.1.3 Layout of manufacturing facilities 5.1.4 Isolated zone for securing industrial satellites 5.1.5 Inspection of design and basic construction 5.2 Mitigating measures of negative impacts in site preparation and infrastructure construction phase 5.3 Mitigating measures of negative impacts in operation phase 5.3.1 Air pollution control measures 5.3.2 Wastewater pollution control measures 5.3.3 Solid wastes processing 5.3.4 Measures for securing microclimate 5.3.5 Mitigation of noise and vibration 5.3.6 Prevention of environmental accidents Chapter 6. program for environment management and monitoring 6.1 Environment management 6.2 Environment monitoring 6.2.1 Monitoring air quality 6.2.2 Monitoring wastewater 6.2.3 Monitoring water quality of Thi Vai River 6.2.4 Monitoring domestic water 6.2.5 Monitoring sludge 6.3 Costs for environment protection Conclusion and proposal References Appendix Appendix 1. Project-related documents Appendix 2. Zoning map of industrial park Appendix 3. Map of drainage and central wastewater processing facilities within industrial park Appendix 4. Map of sample distribution and environmental monitoring spots Appendix 5. Calculation of dispersion of polluted air Appendix 6. Project-related photographs

The expected impact and easing measures regarding the development of Nhon Trach III Industrial Park are sited under Chapter 4 and 5 of the basal EIA "Impact assessment towards the environment and social economy." Below is the summary.

A. Water Pollution

Impact:

•I ndustrial drainage, drainage from activities and services related to factories, and precipitation may cause water pollution.

Easing Measures:

•Domestic drainage will be released to the water system of the industrial park, after handling it with water filter.

•Industrial drainage will be handled so that it meets the drainage standard of the TCVN —5945-2005 (column C), and it will be released in to the water system of the industrial park.

• Precipitation drain will be separated from the water system of the industrial park, and will be released in to the river, after cleaning the oil and waste.

B. Air Pollution

Impact:

•I ndustrial exhaust may cause air pollution.

Easing Measures:

•W ith adequate exhaust handling technology, toxic material in industrial waste will be reduced.

•Management/operation system will be organized.

•G reen land will be provided.

C. Solid Waste

Impact:

•Fa ctories may dispose toxic waste.

Easing Measures:

•W aste will be collected and sorted twice a day.

•W aste treatment center in the industrial park will sort the waste again and separate the toxic material; this will be handled on a properly managed, cast-in concrete reclaimed land to avoid waste from leaking into the water or the land.

D. Others

•S ampling assessment of the released water after handled in the wastewater treatment plant will be done six times a year.

• Sampli ng assessment of the aerial environment will be conducted four times a year.

2) Environmental Impact Assessment and Easing Measures

Environmental impact from this project depends largely on the tenants; the tenants are as listed on Table 7.1.21

With these companies as tenants in mind, environmental impact assessment and easing measures have been assessed on the items listed in Table 7.1.17 scoping, based on the statements in EIA report and local people's hearings. The result was the same as that of Dai An's, so it will omitted.

(3) Consideration of alternative plans

The environmental impact assessment for the industrial park itself has already been completed; the following are the possible opportunities for decreasing the environmental impact in executing the project.

Alternative Plan A: Eliminate the industrial categories of the rental factory tenants further. (do not approve tenants of textile and food industries)

Alternative Plan B: Take out the concentrated water treatment and require each company to equip their own water treatment facility.

These plans were considered during the planning phase of the project; however, after the social environment assessment, the following comparison was concluded.

7.1.24 Consideration of Comparison of the Alternative Plans

Items	Summary of Comparison
Technology and cost	Plan A: It does not require much complex technology, and hardly any cost is
	required.
	Plan B: Introducing an individual water treatment facility will require more
	cost as a whole. In addition, each industry will have to operate the
	treatment facility, increasing their operating cost as well.
Social Environment	Plan A: Eliminating industries that are more likely to cause environmental
Consideration	pollution, the risk of air pollution, water pollution, waste, land pollution,
	noise/vibration, and foul odor will decrease. On the other hand, there may not
	be as many contracts with the tenants and the local area may not be as better
	of in terms of employment and services.
	Plan B: Water treatment that deals with each effluent characteristics may be
	required if individual water treatment facility is introduced. However, each
	tenant will have the responsibility of compliance to the rules and monitoring,
	and the risk of water pollution is increased. In particular, the tenants may
	conduct water treatment only when DONRE is strictly monitoring, and may
	not treat their water when DONRE's monitoring is not as strict, as water
	treatment requires operating cost.
Recommended best plan	Plan A has little impact on environment, but the local economy in terms of
and its reasons	employment and services may not be as vitalized, and this negative aspect
	is significant. In addition, the growth of supporting industries, one of the
	focus objectives of Vietnam, will not be as encouraged.
	Plan B increases the risk of water pollution, and the water treatment operating
	cost; therefore, the SME's may decide not to move into the area.
	Therefore, the current plan is the best solution as a whole.

7.1.5 Environmental management plan and monitoring plan

As discussed in the previous section (7.1.4), the environmental impacts for Dai An and Nhon Trach III industrial park seems to be much the same. Hence, this section draws up the environmental management plan and monitoring plan that are in common for both industrial parks, and then append special notes for specific cases that arise from individual conditions of the parks.

(1) Environmental management plan

For items assessed as A-, B-, or C- in Table 7.1.17(1), adequate environment management will be conducted, such as the implementation of effective prevention technology and continuation of monitoring.

Table 7.1.25 describes the negative impacts and their management plan for the two stages of the project: during construction of the rental factory and during the operation period of the tenant.

Stage	Class	Affected Item	Assessment	Management plan
- Stuge	Clubb			• To deal with soil dust from the bare land, trees will
	Pollution Countermeasures	Air pollution	B-	be planted and pond will be made to trap the soil dust.
		Waste	B-	• Remaining soil from the construction and waste material will be properly handled.
		Land pollution	B-	• Construction oil will surely be prevented from spoiling out.
Construction		Noise/vibration	B-	• Speed limits will be enforced to prevent vibration from construction vehicles.
	Social Environment	Diseases (ex. HIV/AIDS)	C-	• Education will be given to construction workers to prevent spread of diseases.
	Others	Accident	B-	 Education will be given to construction workers on traffic safety. Construction schedule will be created so that there will be no need to rush on the vehicles.
		Air Pollution	B-	• An exhaust cleaning equipment will be a mandatory condition for moving in.
	Pollution countermeasures Social Environment	Water pollution	В-	 Industrial drainage will be treated at once, and will be handled adequately in the wastewater treatment plan in the industrial park. Quality of water running into the drainage system of the industrial park will be defined, and a continuous and unperiodical monitoring will be conducted; for tenants violating the quality a penalty will be given. Released water from the industrial park's wastewater treatment plant will be monitored
		Waste	В-	 Waste will be collected and sorted by the industrial park's operator; toxic waste will be handed over for disposal to the licensed vendor.
		Land pollution	B-	 Management of industrial drainage and industrial waste will be enforced to prevent release of toxic waste into land. Land monitoring will be conducted.
In-service		Noise/vibration	C-	 Factories producing vibration will be moving into areas away from impacted housings and facilities.
		Odor	C-	• Adequate equipment for preventing odor will be implemented.
		Water Usage	C-	• Separate sewage system will be implemented. Rainwater will be collected through a different path from the other drainage, and will be released after oil and waste is cleaned.
		Existing social infrastructure and social services	C-	• As part of one-stop service, necessary infrastructure and service will be enriched.
		Diseases such as HIV/AIDS	C-	 As part of one-stop service, education will be given to tenant workers to prevent spread of diseases. Similarly, as part of one-stop service, infection chekups and necessary medical services will be provided.
	Others	Traffic accident	B-	• As part of one-stop service, tenant workers will be provided with traffic safety education (including reward system).

 Table 7.1.25
 Environment Management Plan (Proposal)

(2) Monitoring plan

Based on the environmental monitoring plan of the previous section, the monitoring plan for environmental management during rental factory operation will be shown in 7.1.26.

Also, standards used for monitoring will be shown in 7.1.27.

Environment	Item	Place	Frequency	Responsibl e Agency	Report to:	
During Constru	[During Construction]					
Air pollution	CO, NOx, SOx, SPM	Near construction site	Once/month			
Waste	Outsourcing record	Contractor office/ Industrial Park Operator's office	As needed			
Land pollution	Measuringlandpollutionduringconstructionisdifficult,socountermeasureswillbe confirmed	Near construction site	Once/month	Contractors	Industrial Park Operators	
Noise/ Vibration	Level of noise	Near construction site	Once/month			
Infectious diseases such as HIV/AIDS	Countermeasures will be checked as needed	Near construction site	Once/year			
Accidents	Scheduled report on accidents	Near construction site	Once/year			
[In-service] (During construction~ completion of operation)						
Air pollution	SO2, NOx, CO, SPM	Rental factory area				
Water pollution	pH, BOD, Pb etc.	Released water from the concentrated treatment facility and its neighboring water area	Once/month			
Waste	Record of outsourcing	Each tenant	As needed			
Land pollution	Checking the countermeasures	Rental factory area	Once./month		Provincial	
Noise/ vibration	Vibration level	Rental factory area	6 times/year	Industrial	managemen	
Foul odor	Check the countermeasures	Rental factory area	Once/month	Park	t committee of the	
Water usage	Check the countermeasures	Rental factory area	Once/month	Operator	industrial park	
Existing infrastructure and social services	Check the countermeasures	Rental factory area	Once/month			
Infectious diseases such as HIV/AIDS	Check the countermeasures	Rental factory area	Once/year			
Accidents	Check the countermeasures	Rental factory area	Once/year			

 Table 7.1.26
 Monitoring Plan (Proposal)

Item	Category of Monitoring Item	Standards ^{*)}
Air pollution	Concentration of toxic material in the air	TCVN 5971: 1995 TCVN 6137: 2009 TCVN 352-89
	Concentration of dust and inorganic substances in the air	TCVN 5067: 1995
Water pollution	Released water quality from the waste water treatment facilities in industrial parks	TCVN 6492: 1999 TCVN 6638: 2000 TCVN 6216: 1996
water pollution	Environmental measurements in the neighboring water systems	TCVN 6492: 1999 TCVN 6638: 2000 TCVN 6202: 2008
Noise/Vibration	Noises and vibration at a certain point	TCVN 5964: 1999

Table 7.1.27 Standards for Monitoring

^{*)} Specific regulations will be shown in 7.3.1 Monitoring form plan.

(3) Clarification of budget, funding and implementation structure

1) Budget and Revenue

This rental factory project is operated and managed by a rental factory operating company (SPC), and its budgets and revenue for environmental management of the rental factories (monitoring and easing measures) will be acquired by the SPC.

Specific revenue will be from the rent and operation fee from the tenants, and investment from Forval Corporation, Dai An Company, and Nhon Trach 3 Industrial Park One Member, and PSIF from JICA. (Figure 7.1.3)



Figure 7.1.3 The Project Scheme

2) Conducting System

On conducting the measures, with the industrial park management committee being the main body, JICA, MONRE, People's Committee (DONRE, industrial park management company) will split the work. To be more specific, the industrial park management company being the head office, it will establish an operation board, and conduct operation, monitoring, advising, etc. (Table 7.1.28)

The operation board will be located each in Dai An Industrial Park and Nhon Trach III Industrial Park.

F	unction	Main Body	Explanation
	Head office	Industrial Park management company (SPC)	 Main body of operation Control of EPC or O&M of the facility and equipment.
Operation	Advisory	 JICA (environment consideration advisory committee, experts, consultants) DONRE Industrial Park management committee 	• Advising the appropriateness of environmental standards, and operation of regulation
Board	Social monitoring	• People's Committee (related department)	• Impact of the project on social economy and human development will be monitored and necessary advices will be given
	Environment monitoring	 Vietnam environment agency (VEA/MONRE) Institute of Environment Technology (IET) Industrial park management company 	• An effective operation will be realized through the cooperation of regulations by VEA/MONRE and voluntary additional measures by industrial park management company
	EPC	• Japanese firms, local partners	 On EPC of wastewater treatment plant and waste exhaust management, Japanese firms will implement our advanced environment technology, and will conduct an environment assessment. On construction, a local partner will be utilized and receive their benefit.
Facility and equipment	O&M	• Japanese firms, local partners	 On O&M of wastewater treatment plant and waste exhaust management, local partners will be utilized. Recently in Vietnam, environment services have been starting up as new businesses. These local firms will be utilized as partners, and we will create employment for the firm and its related businesses, and utilize ur technology and knowledge on O&M.

Table 7.1.28	Conducting	System	(proposal)
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O&M for water treatment facilities and other facilities used by the industrial park as a whole will be done by the operating companies (Dai An Company or the Nhon Trach 3 Company).

Cost for easing measures will be paid by tenants. For those outsourced by the SPC, such as part of monitoring or central water treatment, SPC will temporarily pay the cost, but in the end, the cost will be paid by the tenants from added rental fees or one-stop service fees.

7.2 Background History on Resettlement

Resettlement has already been completed in both Dai An Industrial Park and Nhon Trach III Industrial Park, the designated areas of this project's rental factories. Also, the concerned authorities believe that resettlement issues will not be brought up again, both legally and realistically.

From here on, the history of resettlement in Dai An Industrial Park and Nhon Trach III Industrial Park, based on the descriptions in each EIA, will be stated.

Industrial Park	Interviewee	Interview Details
Dai An	Hai Duong Province Industrial Park Management Committee (2013.09.18)	 The land was originally a field. The compensation for development was conducted under quite good conditions for the land holder; therefore it is unlikely that the residents will feel unsatisfied with the compensation. After developing the IP, standard of living for the local residents obviously improved. Direct employment was
		created, due to the expansion of factories in the area. In addition, retail businesses, estate businesses, and other services were stimulated, and the residents realize these benefits.
	Resources and Environment Department of Dong Nai Province (2013.09.16)	•Resettlement issues have already been resolved. Legally and realistically, these issues will not be brought up again.
Nhon Trach III	Industrial Park Management	• Resettlement issues have been completely settled. Legally and realistically, these issues will not be brought up again.
	Department of Dong Nai Province (2013 07 23)	•No troubles related to environmental impacts have been brought up concerning the industrial park.
		• Satisfying amount of compensation and alternative land have been provided, and there are no signs of anti-construction movement up until now. Issues on resettlement are usually brought up again when a new development plan, which is different from the initial plan (i.e. developing an exclusive residential district while getting permissions for an industrial park), is conducted; this project is not the case.
		•Compliance with environmental laws are periodically examined, twice a year, by the management department.
		• There are no designated areas for environment and cultural heritage protection in the project area and its neighboring region.

Table 7.2.1 Hearing for the related agencies on resettlement

7.2.1 Current Situation and Background History on Resettlement in Dai An Industrial Park

This project is a rental factory project within an existing industrial park; therefore, no new resettlement will be required for this project, and no compensation will be necessary. Below, the history and current situation on the resettlement for the development of the industrial park itself is described.

In Dai An Industrial Park, there have been no troubles on resettlement from the time it acquired the EIA (2008) till present (2014).

(1) Land Use Situation Before Development

There were no residences in the project area, and compensation only for agricultural land was necessary (EIA report on Dai An Industrial Park P.14). However, there were 2.8 ha of cemetery (2000 graves) in the area, so Dai An Company was obligated to fully pay 100% for the resettlement cost.

(2) Stakeholder Conference

Prior to construction, Dai An Company explained the size of the project, its environmental impact, and pollution problems and countermeasures to the People's Committee of the villages in the project area and Vietnam Father Front ¹⁶, and held a stakeholder conference. The stakeholders' demands are stated in Chapter 8 of the EIA report. Opinions and demands from the People's Committees of the villages and the Vietnam Father Front are as follows (the numbers in the parenthesis represent the clauses of the EIA report).

1) Opinions and Demands from the People's Committee and Vietnam Father Front

- Opinions of People's Committee of Tu Minh Village and Vietnam Father Front(8.1)
 - They support the construction of expanded Dai An Industrial Park.
 - For environmental protection, they want to make sure a system for drainage and waste is constructed.
 - During construction, they want countermeasures to lighten air, water, and land pollution.
 - > They want Tu Minh villagers to have priority over employment.
 - > They want support for infrastructure construction in Tu Minh village.
- Opinions of People's Committee of Cam Dong Village and Vietnam Father Front(8.2)
 - They want their living environment to be protected. They want the drainage from the industrial park to be properly managed.
 - They want the project site to be properly managed so that it will not have negative impacts on the residents' life and their cultivation activities.
 - They want the investors to cooperate with the village's authorities to handle and resolve the transportation and social problems.
- Opinions of People's Committee of Cam Doai Village and Vietnam Father Front(8.3)
 - They support the project to expand Dai An Industrial Park.
 - > To protect the environment, they want to make sure that a drainage system is constructed.
 - > During construction, they want countermeasures for air, water, and land pollution.
 - > They want Cam Doai villagers to have priority over employment.
- Opinions of People's Committee of Lai Cach Village and Vietnam Father Front(8.4)
 - To ensure environmental hygiene, they want to make sure that a system to manage drainage, waste, exhaust gas from the industrial park is constructed.
 - They want preferential policies such as vocational training for the local workers, especially for those whose agricultural land was taken away for the project.
 - They want their residents to be employed with priority.
 - They want the Industrial Park Management Committee to support the village solve their social issues (support for the poor, families of fallen soldiers, and wounded soldiers).

2) Reply from Dai An Company

Dai An Company, with respect to the above opinions, has promised to conduct satisfactory countermeasures to lessen environmental pollution as stated in chapter four of the EIA report and to ensure the safety and discipline of the region. They say that they will provide work to the local residents and contribute to the social welfare fund as well.

3) Current Situation on Compensation

As stated preciously, the project site was mostly agricultural land and there were no residents; therefore, the indemnification for the agricultural land will consist of compensation and additional support.

According to the Compensation Report made by Dai An Company, the development area of phase I was 206 ha in total. Compensation of 87,122,587,000 VND and additional support of 8,938,794,833 VND, a total of 96,061,381,833 VND was paid.

¹⁶ Constitution of Vietnam Article 9 defines this organization. "It is a communist supporting organization. It is an organization that inherits the nationalist movement during the anti-French movement organizations under the French rule and during the split of North and South Vietnam. To stand as a candidate of the member of the national Diet, local assembly (People's Committee), you need a recommendation from the Vietnam Father Front. It has the functions of selecting the judges in the People's Court, and overseeing the national agencies and officials." (Tsuyoshi Nishioka "Summary of the Constitution of the Socialist Republic of Vietnam" ICD NEWS **52**, Sep.2012)

The rental factory project area in Dai An Industrial Park is 10 ha (Phase I 1.7 ha and Phase II 8.4 ha), adding up to 5% of the total Phase I development area of the industrial park.

7.2.2 Current Situation and Background History on Resettlement in Dai An Industrial Park

This project is a rental factory project within an existing industrial park; therefore, new resettlement will not be conducted in executing this project, and no indemnification will be necessary. Below, the history and current situation on resettlement for the development of this industrial park itself is described.

In Nhon Trach III Industrial Park, from the time it acquired EIA (1996 till present (2014) of 17 years, there have been no troubles on resettlement.

There are two EIA reports on Nhon Trach III Industrial Park: the basic EIA that was approved for the initial development plan (stated above) on 21 December 1996 and the additional EIA that was approved for the construction of thermal power plant on 25 August 2004. The basic EIA (P.29~) states the situation of land use before the development, and the additional EIA describes the situation after the development.

As already stated, all the compensations have been conducted smoothly and harmoniously; 17 years after the basic EIA and 9 years after the additional EIA, no troubles related to resettlement have occurred. It is unlikely that an issue will come up in the future as well.

(1) Land Use Situation before Development

The land use consisted of 85% agricultural use, 7.3% forestry use, 0.4% commercial use, and 7.3% unused. Therefore, there were few buildings in the area; only three along the 15B Road. These three stores rented their land; their owners did not own the land.

(2) Stakeholder Conference

A conference was held for the People's Committee of the villages in the project area and for the compensation council of the district in 2003, and an agreement was reached on the following three points: 1) paying for the compensation based on the decision by Dong Nai Province 2) providing alternative land 3) starting the construction of approved buildings. As for 3), the construction of factories and facilities has been undergoing with no major issues. The summary of 1) and 2) are as follows.

1) Payment of Compensation based on the Decision by Dong Nai Province

Dong Nai Province published 17 decisions on compensation payment in 2003, a total compensation of 30,226,566,700 VND for 124 ha land for 554 households. Of these, compensation of 1,455,605,200 VND for 410 households (91ha) had been already paid by 2003. Following this, the remaining compensation of 22,810,860,500 VND for 144 households (33ha) was paid as well, and all of the compensation payment had already been finished when this research was conducted.

The total area of the rental factory project in Nhon Trach III IP is in total 10 ha (Phase I 1.1ha and Phase II 9.0 ha), 8% of the whole Phase I development area of the Industrial Park.

2) Provision of Alternative Land

It was decided that 77 households were to be provided with alternative land of 3.5ha (94 divisions) in Hiep phuoc 1. Of these, provision of 66 divisions for 56 households had already been completed by 2003. Following this, the remaining 21 households (28 divisions) were provided with their land, and all provision of alternative land had been finished when this research was conducted.

7.3 Monitoring Form Proposal and Environmental Checklist 7.3.1 Monitoring Form Proposal

The monitoring form for Dai An Industrial Park and Nhon Trach III Industrial Park will be the same; both will be required a high environmental standard.

For reference, the "measurement" column has shown the recent measured value in Nhon Trach III Industrial Park.

(1) During construction(a) Pollution Countermeasures1) Air Pollution

Table 7.3.1 Air Quality Measurement Values

Item (Unit)	Measurement Value (average)	Measurement Value (maximum value)	Local Standard	Notes (standards)	Place of measurement, frequency, methods
$SO_2 (\mu g/m^3)$			350	TCVN 5971:1995	Air pollution analysis
NO ₂ ($\mu g/m^3$)			200	TCVN 6137:2009	equipment will be
$CO(\mu g/m^3)$			30,000	TCVN 352-89	placed near the rental
Floating particle					factories, and
substances			300	TCVN 5067-1995	monitoring will be
$(\mu g/m^3)$					done once a month

2) Waste Material

Table 7.3.2 Record of Waste Material Outsourcing

Monitoring Item	Situation during the reporting period	Measurement location, frequency, and method
type, amount, outsourcing vendors, treatment records of the waste materials		Contractor office, once a month

Make sure that the toxic waste is treated by a licensed vendor

3) Land pollution

Table 7.3.3 Monitoring for Land Pollution Countermeasures

Monitoring item	Situation during the reporting period	Measurement location, frequency, and method
Land pollution countermeasures of each contractor		Contractor's office, once a year
When conducting a construction work that has a high possibility of causing land pollution, of the 26 substances listed as "specific toxic substance" under the Japanese Land pollution countermeasure law (volatile organic compounds, heavy metal, pesticides) the most necessary ones will be determined with the land pollution assessment company, and the assessment will be conducted accordingly.		Areas around the rental factory construction site, as needed

4) Noises and Vibrations

Table 7.3.4 Noises

Item (unit)	Measured Value (average)	Measured Value (maximum value)	Local Standard	Notes (standards)	Measurement location, frequency, and method
Level of noises			70	TCVN 5964:1999	Noise level measurement equipment will be located near the rental factory construction site, and it will be assessed once a month.

(b) Social Environment5) Infectious diseases such as HIV/AIDS

Table 7.3.5 Monitoring for countermeasures for infectious diseases HIV/AIDS

Monitoring Item	Situation during the reporting period	Measurement location, frequency, and method
Countermeasures against HIV/AIDS for each		Contractor's office,
contractor		once a year

6) Accidents

Table 7.3.6 Monitoring for Safety Measures

Monitoring item	Situation during the reporting period	Measuren location, freq and meth	nent Juency, od
Accident measures for construction work		Contractor's	office,
Traffic safety		once a year	

(2) In-Service

(a) Pollution Countermeasures

1) Air Pollution

Table 7.3.7 Measured Value of the Air Quality in the Area

Item (Unit)	Measurement Value (average)	Measurement Value (maximum value)	Local Standard	Notes (standards)	Place of measurement, frequency, methods
$SO_2 (\mu g/m^3)$			350	TCVN 5971:1995	Air pollution analysis
$NO_2 (\mu g/m^3)$			200	TCVN 6137:2009	equipment will be
$CO(\mu g/m^3)$			30,000	TCVN 352-89	placed near the rental
Floating particle					factories, and
substances			300	TCVN 5067-1995	monitoring will be
$(\mu g/m^3)$					done once a month

2) Water Pollution

Table 7.3.8 Measured Value of the Effluent

Item (Unit)	Measurement Value (average)	Measurement Value (maximum value)	Local Standard	Note (standards)	Place of measurement, frequency, and methods
pН			5.5-9	TCVN 6492:1999	
SS (floating material)(mg/L)			100	SMEWW 2540D	Water pollution analysis
BOD (mg/L)			50	SMEWW 5210B	equipment will be
COD (mg/L)			150	SMEWW 5220C	located at each factory's
Total nitrogen (mg/L)			40	TCVN 6638:2000	water treatment facility and the central
Total Phosphorus (mg/L)			6	Hach-8190	treatment facility, and monitoring will be done at all times
Hydrocarbon/ mineral oil			10	SMEWW 5520F	

(mg/L)			
Phenol (mg/L)	0.5	TCVN 6216:1996	
(IIIg/L) Cvanides			
(mg/L)	0.1	Hach-8027	
As (mg/L)	0.1	ASTM	
7 H5 (H15/L)	0.1	D 2972-08	
Hg (mg/L)	0.01	ASTM	
IIg (IIIg/L)	0.01	D 3223-02	
Pb (mg/L)	0.5	Hach-8033	
Cd (mg/L)	0.1	Hach-8017	

Table 7.3.9 Measured environmental values of the neighboring water system

Item (Unit)	Measurement Value (average)	Measurement Value (maximum value)	Local Standard	Note (standards)	Place of measurement, frequency, and methods
pН			5.5-9	TCVN 6492:1999	
SS (floating material)(mg/L)			50	SMEWW 2540D	
BOD (mg/L)			15	SMEWW 5210B	
COD (mg/L)			30	SMEWW 5220C	
Total nitrogen (mg/L)			≥4	Hanna 9142	
Total Phosphorus (mg/L)			10	TCVN 6638:2000	Water pollution analysis equipment will be located at each factory's water
Hydrocarbon/ mineral oil (mg/L)			0.3	TCVN 6202:2008	treatment facility and the central treatment facility, and monitoring will be
Phenol (mg/L)			0.1	SMEWW 5520B	done at all times
Cyanides (mg/L)			0.05	ASTM D 2972-08	
As (mg/L)			0.001	ASTM D 3223-02]
Hg (mg/L)			0.05	Hach-8033]
Pb (mg/L)			0.01	Hach-8017]

3) Waste Material

Table 7.3.10 Was	te outsourcing record
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Monitoring Item	Situation during the reporting period	Measurement location, frequency, and method
type, amount, outsourcing vendors, treatment records of the waste materials		Tenant office, once a year

The following needs special consideration.

Waste that needs special monitoring	Necessary measures
Sludge from the water treatment system	It will be treated by a sludge treatment vendor.
Waste such as fluorescent light	It will be treated by a vendor
Toxic waste	It will be treated by a licensed firm.

Table 7.3.11	Waste that needs	special	monitoring
	maoto mat noodo	opoolai	monitoring

4) Land Pollution

Table 7.3.12	Monitoring for L	and Pollution	Countermeasures
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Monitoring item	Situation during the reporting period	Measurement location, frequency, and method
Land pollution countermeasures of each tenant		Tenant office, once a month
If there is an industry that has a high possibility of causing land pollution, of the 26 substances listed as "specific toxic substance" under the Japanese Land pollution countermeasure law (volatile organic compounds, heavy metal, pesticides) the most necessary ones will be determined with the land pollution assessment company, and the assessment will be conducted accordingly.		The neighboring area of the tenant land, as needed

*SPC will be conducting as part of its one stop service.

5) Noises and vibration

Table 7.3.13 Noises

Item (unit)	Measured Value (average)	Measured Value (maximum value)	Local Standard	Notes (standards)	Measurement location, frequency, and method
Level of noises			70	TCVN 5964:1999	Noise level
					measurement equipment
					will be located near the
					tenant land, and it will
					be assessed once a
					month.

6) Foul Odor

Table 7.3.14 Monitoring for Foul Odor Countermeasures

Monitoring Item	Situation during the reporting period	Measurement location, frequency, and method
Foul odor countermeasures of each tenant		Tenant office, once a year

*SPV will be conducting as part of its top services

(b) Social Environment 7) Water Usage

		Measurement
Monitoring Item	Situation during the reporting period	location, frequency,
		and method
		Water pollution
		analysis equipment
		will be located at
		each factory's
Situation of water pollution (refer to Table	Described in Table 7.3.8 and Table	water treatment
7.3.8and Table 7.3.9)	7.3.9)	facility and the
		central treatment
		facility, and
		monitoring will be
		done at all times
Situation of the water treatment of the		Tenant office, once
industrial park as a whole		a year
Situation of the water treatment of the tenants		

Table 7.3.15 Monitoring for Water Usage

8) Existing Social Infrastructures and Social Services

Table 7.3.16 Monitoring for Existing Social Infrastructures and Social Services

Monitoring Item		Measurement location,
	Situation during the reporting period	frequency, and
		method
Impact on roads		Confirmed by field
Impact on waterworks		survey of the
Impact on electricity		industrial park
impact on electricity		area, once a year

*SPC will be conducting as part of its one stop services

9) Infectious Diseases such as HIV/AIDS

Table 7.3.17 Monitoring of Infectious Diseases such as HIV/AIDS

		Measurement
Monitoring Item	Situation during the reporting period	location, frequency,
-		and method
Countermeasures against infectious diseases		Tenant office, once
such as HIV/AIDS of each tenant		a year
*GDG 1111 1 1	•	

*SPC will be conducting as part of its one stop services

10) Accidents

Table 7.3.18 Monitoring of Safety Measures

Monitoring Item		Situation during the reporting period	Measurement location, frequency, and
			method
Countermeasures against accidents	during		Tenant office,
construction work			once a year
Traffic Safety			

*SPC will be conducting as part of its one stop services

7.3.2 Environmental Checklist

Environmental checklist for Dai An Industrial Park will be shown in Table 7.3., and Nhon Trach III Industrial Park will be shown in Table 7.3..

(1) Environmental Checklist for Dai An Industrial Park

Environmental Main Check-up Items Yes: Y Specific Social I	Environment Consideration
(1) EIA and (a) Has EIA report been completed?	(in a rental factory project
environmental (h)Has EIA report been approved by the within an ex-	sting industrial park FIA
approval government?	existing industrial park
(c)Does approval for the EIA report require any (b) Y has been com	oleted
additional conditions? If so, are they satisfied?	ort has been approved by
(d)Other than the items listed above, has permission (c) N the governme	nt on May 3^{rd} . 2008.
been acquired from the concerned local (c) There are no	additional conditions/
government agencies as needed? (d) Y (d)Necessary	ermissions are already
acquired. How	vever, new tenants need to
۲ turn in their E	PC.
$\frac{1}{2}$ (2)Explanation (a) Has the project summary and its impact been (a) Y (a)Stakeholder	conference has been
g. for the local explained to the local stakeholders and been conducted with the local stakeholders and been	h the People's Committee
stakeholders understood by them, including disclosure? and the Vietna	mese Fatherland Front.
$\frac{\nabla}{2}$ (b) Have the opinions of the residents been reflected (b) Y (b) It has been	promised that the opinions
on the project?	ence will be reflected on
B the project.	
of alternative (including the environmental and social items)	g plans were considered.
plan been considered?	ins (not approving textile
and food in	dustry tenants). Plan B:
instead of p	roviding a central water
treatment fac	lity, each industry will be
required to	equip its own water
treatment faci	lity
(1)Air Quality (a)Do air polluting substances from the (a) Y (a)During const	ruction work, monitoring
infrastructures and their facilities (SOx, NOx, on CO, NOx	, SOx, and SPM will be
and soot) follow the project country's emission conducted so	that the emission will
standards and environmental standards? Are follow the	ietnamese environmental
there any measures taken for air quality? standard. As	countermeasures against
N dust from the	uncovered land, trees and
De ponds will be	created to prevent and trap
E. In addition	for the in-service of the
C rental factoria	s, industrial park operator
will monitor	the SO2, NOx, CO, and
SPM ; they	will require necessary
emission trea	ment equipment for their
tenants/	
(2)Water quality (a) Do the effluent and leaked water from the (a) Y (a) During the o	peration phase of the rental
infrastructures and their facilities satisfy the factories, th	e industrial park operator
project country's emission standards or the will monitor	
environmental standards?	pH, BOD, PB, etc. The
	pH, BOD, PB, etc. The be treated at one spot,

 Table 7.3.19 Environmental Checklist for Dai An Industrial Park

			Currently, the treatment of the effluent is conducted appropriately, passing the assessment of the VEA/MONRE. In addition, monitoring is done continuously or unscheduled on the quality of the water running into the treatment system of the industrial park; those who do not meet the standards will be penalized. The released water from the industrial park's water treatment facilities will be thorough.
(3)Waste material	(a)Has waste material from the infrastructures and their facilities been appropriately treated according to the project country's rules?	(a) Y	 (a)During construction, there will be a record of outsourcing of waste material treatment. When outsourcing the waste material treatment, the vendor must be appropriately evaluated. During the operation phase, record of outsourcing of waste material treatment will be required for each tenant. The waste material will be collected and categorized. Toxic waste will be treated by licensed vendors. As of present, waste material from Dai An Industrial Park has been appropriately treated by the licensed vendors according to regulations.
(4)Land pollution	(a)Are there any measures so that effluent and leaked water from the infrastructures and facilities will not pollute the land and underground water?	(a) Y	 (a)During the construction period, there is a low possibility of land pollution; even if land sample is acquired and assessed during the construction period, it will not be able to determine if it is polluted or not. Therefore, during construction period, contractors will monitor the measures taken. In addition, special caution and measures are needed so that extra and scattered paint will not soak into the soil. Industrial park operators will monitor that the tenants are taking appropriate measures for the possible risks. if there is an industry that has a high possibility of causing land pollution, of the 26 substances listed as "specific toxic substance" under the Japanese Land pollution countermeasure law (volatile organic compounds, heavy metal, pesticides) the most necessary ones will be determined with the land pollution assessment company, and the assessment will be conducted accordingly. Effluent and industrial waste will be managed thoroughly to prevent toxic substances from being released into the land. During operation phase, industrial park operator will monitor so that the

				tenants are taking appropriate measures at all times. In addition, effluent and industrial waste will be thoroughly managed so that toxic waste will not be released into the land.
	(5)Noises and vibration	(a) Do noises and vibration follow the project country's standards?	(a) Y	 (a)There will be a periodical monitoring on the situation of the noises. When there are construction works that generate loud noises, there will be countermeasures against noises. During the service phase, the industrial park operator will monitor so that the tenants are taking appropriate measures at all times. The tenants will be told to take appropriate noises and vibration measures. As of present, the noises and vibrations in Dai An Industrial Park follow the Vietnamese standards.
	(6)Land sinkage	(a)When large amount of underground water is taken, is there any possibility of land sinkage?	(a) N	(a)Since no underground water is used, there are no risks of land sinkage.
	(7)Foul odor	(a)Are there any sources of foul odor? Are there any countermeasures taken?	(a) Y	(a)Industrial park operator will monitor so that the tenants are taking appropriate measures. There will be appropriate foul odor countermeasures required for the tenants as needed.
	(1)Conservation area	(a)Is the project within the conservation area under the project country's law or international treaty? Does the project site give any impact on the conservation area?	(a) N	(a)The project is not located within the conservation area under the Vietnamese law or international treaties; it is distanced enough from the conservation areas that it will not influence the conservation area.
3. Natural Environment	(2)Ecological System	 (a)Does the project site include virgin forest, rainforest, and other ecologically significant areas (coral reef, mangroves, or tidal flats)? (b)Does the project site include the habitats of endangered species that require protection under the project country's law or international treaties? 	(a) N (b) N	(a)The project site does not include virgin forest, rain forest, and other ecologically significant areas.(b)The project site does not include habitats of endangered species that require protection/
	(3)Hydrometer	(a) Are there any negative impacts on surface water or underground water due to changes in the water system from the project?	(a) N	(a)This project does not influence the water system.
	(4)Terrains and geological features	(a) Do the terrains and geological features of the area change rapidly as a consequence of the project?	(a) N	(a)This project will not lead to rapid changes in terrains and geological features of the area.
4. Social Enviro	(1)Resettlement	(a)Are there any involuntary resettlement due to the execution of this project? If so, has every measure been taken so that the impact due to resettlement is minimized?	(a) N	(a)This project is a rental factory project within an existing industrial park (more than 5 years after its EIA approval), and there is no resettlement/
	(2)Life/livelihoo d	(a) Are there any negative impacts on the residents' life due to this project? Are the easing measures considered if necessary?	(a) N	(a) Due to the characteristic of this project, there will be no major negative impacts on the lives of the residents.
ıment	(3)Cultural heritage	(a)Is there a possibility of loss/damage in archaeologically historically/ culturally/ religiously important heritage or sites? In addition, are the measures defined by the project	(a) N	(a)There are no important heritages or sites in or near the project site; therefore, no loss/damage is expected.

		country's law considered?		
	(4)Scenery	(a)If there are any special sceneries to be considered, are there any negative impacts on them? If so, are there any necessary measures taken?(b)Is there any damage expected to the scenery due to large hotels and tall buildings?	(a) N (b) N	(a)There are no sceneries that require special consideration in and near the project site.(b)There will be no large hotels and tall buildings.
	(5)Minorities/ Indigenous	(a) Are there any considerations to decrease the impact on minotirites and the indigenous?(b) Are the rights (i.e. land and natural resources) of the minorities and the indigenous respected?	(a) N (b) N	(a)There are no minorities and indigenous in the project area.(b)There are no minorities and indigenous in the project area
	(6)Working Environment	(a)Is there compliance to the laws of the project country regarding the working environment?(b)Are there safety facilities for preventing the work accidents, managing the toxic substances,	(a) Y (b) Y	(a)There will be compliance to the Vietnamese la for the rental factories' workers and the project company's workers on the working environment/
		and hard safety considerations for the project related workers? (c)Are there safety hygiene plans, safety education	(c) Y	(b)There will be hard safety measures for the project related workers.(c)There will be soft services for the
		for the workers (including public hygiene and traffic safety), and soft measures for the project related workers?		project related workers through the one stop service.
	(1)Impact during construction	(a)Will there be easing measures for pollution during construction (noises, vibration, polluted water, dust, gas emission, waste material, etc.)?(b)Will there be negative impact on natural environment (ecological system) ? Will there be	(a) Y (b) N	(a)There is a low possibility of construction work that generates noises and vibration. If there is a construction work that generates loud sound, then there will be countermeasures. Trees
		any easing measures?(c)Will there be negative impacts on social environment due to construction? If so, will there be easing measures?	(c) N	 will be planted and pond will be created to prevent and trap the dust. There will be appropriate treatment for low quality water. Waste material treatment will be outsourced with appropriate evaluation of the vendors to prevent inappropriate treatment. (b)The main activity is to construct
5. Others				buildings within the existing industrial park, and there will be no negative impacts on the natural environment.(c)The main activity is to construct buildings within the existing industrial park, and there will be no negative impacts on the social environment/
	(2)Monitoring	(a)Of the above items, will monitoring be planned and executed on the items that could have impacts?	(a) Y (b) Y	 (a) Monitoring will be conducted by SPC. (b) Refer to the "monitoring plan" of this report (c) Product at the "monitoring plan" of the second s
		(b)How are the items, methods, and frequency of the monitoring plan decided?(c)How is the monitoring system of the project operator (organization, human resources, equipment, budget, and their continuity) established?(d)Have the reporting method and its frequency	(c) Y (d) Y	(c) Refer to the "monitoring plan" of this report(d) Refer to the "monitoring plan" of this report.
	D.C.	from the project operator to the concerned agencies been decided?		
6. Note	Reference to other environmental	(a)Be sure to add the necessary checklist items of the road, railway, bridge checklists. (ex. Access road is built with infrastructure facilities)	(a) N	(a)No new access roads will be constructed.(b) This is not a project of building
s	checklists	(b)When equipping telephone wires, a steel tower,	(b) N	telephone wires, steel towers, and

		and submarine cable, necessary items on the		submarine cables.
		checklist related to transmission-transformation		
		of electricity and its distribution will be added.		
Cautions	on	(a)Considerations for impact on cross-border or	(a) N	(a)There will be no impact on cross-border
using	the	earth scale environmental problem are necessary		or earth scale environment (i.e. emission
environmenta	al	(cross-border treatment of waste material, acid		of large amount of GHG)
checklist		rain, damages to the ozone layer, and global		
		warming problems could be considered)		

(2) Environmental Checklist for Nhon Trach III Industrial Park

Categ	Environmental Item	Main Check-up Items	Yes: Y No: N	Specific Social Environment Consideration (Reasons for Yes/No and easing measures)
1. Permission/Ex	(1)EIA and environment al approval	 (a) Has EIA report been completed? (b)Has EIA report been approved by the government? (c)Does approval for the EIA report require any additional conditions? If so, are they satisfied? (d)Other than the items listed above, has permission been acquired from the concerned local government agencies as needed? 	(a) Y (b) Y (c) N (d) Y	 (a)This project is a rental factory project within an existing industrial park. EIA report for the existing industrial park (basic EIA for the development of the industrial park and additional EIA for the power facility construction) has been completed. (b)The basic EIA report was approved by the government on December 21st, 1996 and the additional EIA report was approved on August 25th, 2004. (c)There are no additional conditions. (d)Necessary permissions are already acquired. However, new tenants need to turn in their EPC.
planation	(2)Explanation for the local stakeholders	(a)Has the project summary and its impact been explained to the local stakeholders and been understood by them, including disclosure?(b)Have the opinions of the residents been reflected on the project?	(a) Y (b) Y	(a)Stakeholder conference has been conducted with the People's Committee and the Vietnamese Fatherland Front.(b)It has been promised that the opinions of the conference will be reflected on the project.
	(3)Consideratio n of alternative plan	(a)Have the alternative plans of the project (including the environmental and social items) been considered?	(a)Y	(a)The following plans were considered. Plan A: Eliminating the type of the tenant industries (not approving textile and food industry tenants), Plan B: instead of providing a central water treatment facility, each industry will be required to equip its own water treatment facility
2, Pollution Cou	(1)Air Quality	(a)Do air polluting substances from the infrastructures and their facilities (SOx, NOx, and soot) follow the project country's emission standards and environmental standards? Are there any measures taken for air quality?	(a) Y	(a)During construction work, monitoring on CO, NOx, SOx, and SPM will be conducted so that the emission will follow the Vietnamese environmental standard. As countermeasures against dust from the uncovered land, trees and ponds will be created to prevent and trap the dust. In addition, for the in-service of the rental factories, industrial park operator will monitor the SO2, NOx, CO, and SPM ; they will require necessary emission treatment equipment for their tenants/
intermeasures	(2)Water quality	(a) Do the effluent and leaked water from the infrastructures and their facilities satisfy the project country's emission standards or the environmental standards?	(a) Y	(a)During the operation phase of the rental factories, the industrial park operator will monitor pH, BOD, PB, etc. The effluent will be treated at one spot, appropriately treated at a water treatment facility of the industrial park. Currently, the treatment of the effluent is conducted appropriately, passing the assessment of the VEA/MONRE. In addition, monitoring is done continuously or unscheduled on the quality of the water running into the

Table 7.3.20 Environmental Checklist for Nhon Trach III Industrial Park

(3)Waste material	(a) Has waste material from the infrastructures and their facilities been appropriately treated according to the project country's rules?	(a) Y	treatment system of the industrial park; those who do not meet the standards will be penalized. The released water from the industrial park's water treatment facilities will be thorough. (a)During construction, there will be a record of outsourcing of waste material treatment. When outsourcing the waste material treatment, the vendor must be appropriately evaluated. During the operation phase, record of outsourcing of waste material treatment will be required for each tenant. The waste material will be collected and categorized. Toxic waste will be treated by licensed vendors.
			Industrial Park has been appropriately treated by the licensed vendors according to regulations.
(4)Land pollution	(a) Are there any measures so that effluent and leaked water from the infrastructures and facilities will not pollute the land and underground water?	(a) Y	 (a)During the construction period, there is a low possibility of land pollution; even if land sample is acquired and assessed during the construction period, it will not be able to determine if it is polluted or not. Therefore, during construction period, contractors will monitor the measures taken. In addition, special caution and measures are needed so that extra and scattered paint will not soak into the soil. Industrial park operators will monitor that the tenants are taking appropriate measures for the possible risks. f there is an industry that has a high possibility of causing land pollution, of the 26 substances listed as "specific toxic substance" under the Japanese Land pollution countermeasure law (volatile organic compounds, heavy metal, pesticides) the most necessary ones will be determined with the land pollution assessment company, and the assessment will be conducted accordingly. Effluent and industrial waste will be managed thoroughly to prevent toxic substances from being released into the land. During operation phase, industrial park operator will monitor so that the tenants are taking appropriate measures are taking appropriate measures are substances at all times. In addition, effluent and industrial waste will be thoroughly managed so that toxic waste will not be released into the land.
(5)Noises and	(a)Do noises and vibration follow the project	(a) Y	(a)There will be a periodical monitoring on
vioration	country's standards?		the situation of the noises. When there are construction works that generate loud

				noises, there will be countermeasures against noises. During the service phase, the industrial park operator will monitor so that the tenants are taking appropriate measures at all times. The tenants will be told to take appropriate noises and vibration measures. As of present, the noises and vibrations in Nhon Trach III Industrial Park follow the Vietnamese standards.
	(6)Land	(a)When large amount of underground water is taken,	(a) N	(a)Since no underground water is used, there
	(7)Foul odor	(a)Are there any sources of foul odor? Are there any countermeasures taken?	(a) Y	 (a)Industrial park operator will monitor so that the tenants are taking appropriate measures. There will be appropriate foul odor countermeasures required for the tenants as needed.
3. Natural Environ	(1)Conservatio n area	(a)Is the project within the conservation area under the project country's law or international treaty? Does the project site give any impact on the conservation area?	(a) N	(a)The project is not located within the conservation area under the Vietnamese law or international treaties; it is distanced enough from the conservation areas that it will not influence the conservation area.
	(2)Ecological System	(a)Does the project site include virgin forest, rainforest, and other ecologically significant areas (coral reef, mangroves, or tidal flats)?(b)Does the project site include the habitats of endangered species that require protection under the project country's law or international treaties?	(a) N (b) N	(a)The project site does not include virgin forest, rain forest, and other ecologically significant areas.(b)The project site does not include habitats of endangered species that require protection/
lent	(3)Hydrometer	(a)Are there any negative impacts on surface water or underground water due to changes in the water system from the project?	(a) N	(a)This project does not influence the water system.
	(4)Terrains and geological features	(a) Do the terrains and geological features of the area change rapidly as a consequence of the project?	(a) N	(a)This project will not lead to rapid changes in terrains and geological features of the area.
	(1)Resettlemen t	(a)Are there any involuntary resettlement due to the execution of this project? If so, has every measure been taken so that the impact due to resettlement is minimized?	(a) N	(a)This project is a rental factory project within an existing industrial park (more than 17 years after its EIA approval), and there is no resettlement/
	(2)Life/liveliho od	(a)Are there any negative impacts on the residents' life due to this project? Are the easing measures considered if necessary?	(a) N	(a)Due to the characteristic of this project, there will be no major negative impacts on the lives of the residents.
4 社 会 環 境	(3)Cultural heritage	(a)Is there a possibility of loss/damage in archaeologically historically/ culturally/ religiously important heritage or sites? In addition, are the measures defined by the project country's law considered?	(a) N	(a)There are no important heritages or sites in or near the project site; therefore, no loss/damage is expected.
	(4) Scenery	(a)If there are any special sceneries to be considered, are there any negative impacts on them? If so, are there any necessary measures taken?(b)Is there any damage expected to the scenery due to large hotels and tall buildings?	(a) N (b) N	(a)There are no sceneries that require special consideration in and near the project site.(b)There will be no large hotels and tall buildings.
	(5) Minorities/ Indigenous	(a)Are there any considerations to decrease the impact on minorities and the indigenous?(b)Are the rights (i.e. land and natural resources) of the minorities and the indigenous of the minorities of the minorities and the indigenous of the minorities and the minorities and the indigenous of the minorities and the minorities a	(a) N (b) N	(a)There are no minorities and indigenous in the project area.(b)There are no minorities and indigenous in the project area.
	(6)Working Environment	(a)Is there compliance to the laws of the project country regarding the working environment?	(a) Y	(a)There will be compliance to the Vietnamese la for the rental factories'

		(b)Are there safety facilities for preventing the work accidents, managing the toxic substances, and hard safety considerations for the project related workers?(c)Are there safety hygiene plans, safety education for the workers (including public hygiene and traffic safety), and soft measures for the project related workers?	(b) Y (c) Y	workers and the project company's workers on the working environment/ (b)There will be hard safety measures for the project related workers. (c)There will be soft services for the project related workers through the one stop service.
5. Others	(1)Impact during construction	 (a)Will there be easing measures for pollution during construction (noises, vibration, polluted water, dust, gas emission, waste material, etc.)? (b)Will there be negative impact on natural environment (ecological system) ? Will there be any easing measures? (c)Will there be negative impacts on social environment due to construction? If so, will there be easing measures? 	(a) Y (b) N (c) N	 (a) There is a low possibility of construction work that generates noises and vibration. If there is a construction work that generates loud sound, then there will be countermeasures. Trees will be planted and pond will be created to prevent and trap the dust. There will be appropriate treatment for low quality water. Waste material treatment will be outsourced with appropriate evaluation of the vendors to prevent inappropriate treatment. (b)The main activity is to construct buildings within the existing industrial park, and there will be no negative impacts on the natural environment. (c)The main activity is to construct buildings within the existing industrial park, and there will be no negative impacts on the social environment/
	(2)Monitoring	 (a)Of the above items, will monitoring be planned and executed on the items that could have impacts? (b)How are the items, methods, and frequency of the monitoring plan decided? (c)How is the monitoring system of the project operator (organization, human resources, equipment, budget, and their continuity) established? (d)Have the reporting method and its frequency from the project operator to the concerned agencies been decided? 	 (a) Y (b) Y (c) Y (d) Y 	 (a) Monitoring will be conducted by SPC. (b)Refer to the "monitoring plan" of this report (c)Refer to the "monitoring plan" of this report (d)Refer to the "monitoring plan" of this report.
6. Note	Reference to other environmental checklists	 (a)Be sure to add the necessary checklist items of the road, railway, bridge checklists. (ex. Access road is built with infrastructure facilities) (b)When equipping telephone wires, a steel tower, and submarine cable, necessary items on the checklist related to transmission-transformation of electricity and its distribution will be added. 	(a) N (b) N	(a) No new access roads will be constructed.(b)This is not a project of building telephone wires, steel towers, and submarine cables.
S	Cautions on using the environmental checklist	(a)Considerations for impact on cross-border or earth scale environmental problem are necessary (cross-border treatment of waste material, acid rain, damages to the ozone layer, and global warming problems could be considered)	(a) N	(a)There will be no impact on cross-border or earth scale environment (i.e. emission of large amount of GHG)

[Appendix] Industries and their scales that require an EIA report(Decree No. 29/2011/ND-CP / Appendix II)

APPENDIX II

LIST OF PROJECTS SUBJECT TO ENVIRONMENTAL IMPACT ASSESSMENT REPORTING

No.	Projects	Size
1	Projects in which investment is decided by the National Assembly or the Prime Minister	All
2	Projects using land of nature reserves; national parks; historical-cultural relics; world heritages; biosphere reserves; and ranked landscapes and scenic places	All
	Construction proje	cts
3	Projects to build technical infrastructure of urban centers and residential areas	With an area of 5 ha or larger
4	Projects to build or upgrade water drainage systems of urban and residential areas; Projects to dredge canals, rivers and reservoirs	With a length of 5 km or longer With a dredging area of 1 ha or larger
5	Projects to build technical infrastructure of industrial parks, hi- tech zones, industrial complexes, export-processing zones, trade zones, traditional craft villages and other consolidated production and business zones	All
6	Projects to build supermarkets and trade centers	With a business area of 500 m2 or larger
7	Projects to build wholesale markets and grade-1 and grade-2 markets in cities, towns and townships	All
8	Projects to build hospitals	All
9	Projects to build laboratories with hazardous waste arising from testing activities	All
10	Projects to build dormitories and condominiums	For 500 tenants or 100 households or more
11	Projects to build tourist service, sports and	With an area of 5 ha or larger

(To the Government's Decree No. 29/2011/ND-CP of April 18, 2011)

	recreational centers and golf courses	
12	Projects to build tourist lodgings	With 50 rooms or more
13	Projects to build other tourist service centers (comprising infrastructure facilities and physical foundations)	With a daily wastewater volume of 500 m3 or more
14	Projects to build cemeteries (for burial, incineration and other forms)	All
15	Projects to build works with basements	With a depth of 10 m or deeper
16	Projects to build fighting works, military training centers, shooting ranges and defense ports; military depots; and defense-economic zones	All
	Construction material	projects
17	Projects to build cement plants	All
	Projects to build clinker plants	With an annual capacity of 500,000 tons of clinker or more
18	Projects to build clinker grinding and cement production establishments	With an annual capacity of 100,000 tons of cement or more
19	Projects to build brick, roofing tile and fibro-cement sheet plants	With annual capacity of 10 million standard bricks or roofing tiles or more or 500,000 m2 of roofing fibro-cement sheets or more
20	Projects to build establishments producing flooring and walling tiles of all types	With an annual capacity of 500,000 m2 or more
21	Projects to build establishments producing other construction supplies and materials	With an annual capacity of 50,000 tons of products or more
	Transport project	ts
22	Projects to build underground transport works (metros and tunnels); Projects to build cable cars	All With a length of 500 m or longer
23	Projects to build automobile highways and automobile roads from grade I to III; overhead	All

	railways; and airports	
24	Projects to renovate and upgrade automobile highways, automobile roads from grade I to III, and railways	All
25	Projects to build grade-IV and -V automobile roads	With a length of 100 km or longer
26	Projects to build road and rail bridges	With a length of 200 m or longer (excluding feeder roads)
27	Projects to build river and sea ports	For receiving ships of 1,000 DWT or larger
28	Projects to build fishing ports and wharves	Receiving daily 50 tons of fish or more
29	Projects to build car terminals	With an area of 5 ha or larger
30	Projects to produce hot asphalt concrete	With a daily capacity of 100 tons of products or more
	Power and radioactivity	projects
31	Projects to build nuclear reactors; nuclear power plants and thermopower plants	All
32	Projects to build production, business and service establishments using radioactive substances or with arising radioactive waste	All
33	Projects to build wind power and photo-electric power plants	Using 100 ha of land or water surface or more
34	Projects to build hydro-power plants	With reservoir capacity of 100,000 m3 of water or more or with a capacity of 1 MW or more
35	Projects to build electricity transmission lines and power stations	Of 110 kV or higher
36	Projects to manufacture electric wires and cables	With an annual capacity of 10,000 tons of products or more
	Electronics and telecommunica	ations projects
37	Projects to build radio transceiver stations and telecommunications transceiver stations	With a capacity of 2 kW or more

38	Projects to manufacture electric and electronic	With an annual capacity of 10,000 units		
	devices	or more		
39	Projects to manufacture electric and electronic	With an annual capacity of 500 tons of		
	components	electric components and 100,000		
		electronic components or more		
40	Projects to build telecommunications routes	With a length of 100 km or longer		
	Projects on irrigation and forest and	agricultural land use		
41	Projects to build reservoirs	With a capacity of 100,000 m3 of water		
		or more		
42	Projects to build irrigation and water supply and	Irrigation and water supply and drainage		
	drainage works for agricultural, forestry and	for an area of 100 ha or larger		
	fishery production			
43	Construction projects encroaching sea areas	With a coastal beltway of 1,000 m or		
		longer or encroaching a sea area of 5 ha		
		or larger		
44	Projects to build dykes and sea and river	With a length of 1,000 m or longer		
	embankments			
45	Projects which change use purposes of forest	With an area of 5 ha or larger, for		
	areas or areas under two rice crops per year	watershed protection forests,		
		wave-sheltering protection forests and		
		special-use forests; 10 ha or larger, for		
		forests: and 3 ha or larger for areas		
		under two rice crops per year		
10	Durainate to anow and available formation	With a formatation area of 1 000 h		
46	Projects to grow and exploit forests	with a forestation area of 1,000 na or larger: exploitation of a forest area of		
		200 ha or larger, for planted forests, 50		
		ha or larger, for natural production		
		forests, and 10 ha or larger, for natural		
		protection forests		
47	Projects to build industrial crop zones and	With an area of 50 ha or larger		
	consolidated zones for vegetable and flower			
	plantation (including also re-cultivation projects)			
	Mineral prospecting, exploitation and processing projects			

48	Projects to exploit materials for ground leveling	With an annual capacity of 100,000 m3 of primary materials or more
49	Projects to exploit sand or dredge river beds to acquire materials for ground leveling and construction	With an annual capacity of 50,000 m3 of primary materials or more
50	Projects to exploit solid minerals (without using hazardous substances, chemicals or industrial explosive materials)	With an annual mining volume (including minerals and earth and rock waste) 50,000 m3 of primary materials or more
51	Projects to explore rare earth and radioactive minerals; projects to exploit and process solid minerals using hazardous substances, chemicals or industrial explosive materials; projects to process and refine ferrous metals, radioactive metals and rare earth	All
52	Projects to process solid minerals without using hazardous substances or chemicals	With an annual capacity of 50,000 m3 of products or more With an annual discharge of 500,000 m3 of earth and rocks or more, for coal sorting
53	Projects to exploit water for supply to production, business, service and daily-life activities	With a daily capacity of 5,000 m3 of ground water and 50,000 m3 of surface water or more
54	Projects to exploit (ground or surface) mineral water and thermal mineral water	With a daily capacity of 120 m3 of water or more, for bottling; and 500 m3 of water or more, for other purposes
55	Projects to sort and enrich rare earth and radioactive minerals	With an annual capacity of 1,000 tons of products or more
	Oil and gas projec	ts
56	Oil and gas exploitation projects	All
57	Projects to build oil refineries (except those on LPG filling and lubricant preparation); petrochemistry plants; oil and gas pipelines and	All

	oil and gas transit centers			
58	Projects to build petroleum depots and shops	With depot or tank capacity of 200 m3 or more		
Waste treatment projects				
59	Projects to build centralized waste recycling, treatment, burial or destruction establishments	All		
60	Projects to build centralized wastewater treatment	All, for industrial wastewater;		
	systems	With a daily designed capacity of 500 m3 or more, for daily-life wastewater		
61	Projects to preliminarily process scraps (including imported scraps)	With an annual capacity of 3,000 tons or more		
62	Projects to build establishments dismantling and cleaning ships Engineering and metallurgy projects	All		
63	Projects to build metallurgy plants	All, for projects using materials being scraps;With an annual capacity of 1,000 tons of products or more, for projects using other materials		
64	Projects to build steel rolling mills	All, for projects using materials being scraps;With an annual capacity of 2,000 tons of products or more, for projects using other materials		
65	Projects to build shipyards and ship repair establishments	Designed for ships of 1,000 DWT or larger		
66	Projects to build plants manufacturing and repairing containers and trailers	With an annual capacity of 500 containers and trailers or more, for manufacture;		
		with an annual capacity of 2,500 containers and trailers or more, for		

		repair	
67	Projects to build plants building, repairing and assembling locomotives and compartments	With an annual capacity of 100 vehicles or more	
68	Projects to build motorbike and automobile manufacturing and assembling plants	With an annual capacity of 10,000 motorbikes and 500 automobiles or more	
69	Projects to build machinery and tool machinery plants	With an annual capacity of 1,000 tons of products or more	
70	Projects to build metal plating, coating and polishing plants	With an annual capacity of 500 tons of products or more	
71	Projects to build plants of formed aluminum	With an annual capacity of 2,000 tons of products or more	
72	Projects to build weapon, military supplies and technical equipment manufacturing and repair plants	All	
	Projects on timber processing and glass, ceramic and china production		
73	Projects to build timber processing mills	With an annual capacity of 3,000 m3 of timber or more	
73	Projects to build timber processing mills Projects to build chip plants	With an annual capacity of 3,000 m3 of timber or more With an annual capacity of 50,000 tons of products or more	
73 74 75	Projects to build timber processing mills Projects to build chip plants Projects to build plywood plants	With an annual capacity of 3,000 m3 of timber or more With an annual capacity of 50,000 tons of products or more With an annual capacity of 100,000 m2 or more	
73 74 75 76	Projects to build timber processing mills Projects to build chip plants Projects to build plants Projects to build plants of domestic, construction or industrial wood products	 With an annual capacity of 3,000 m3 of timber or more With an annual capacity of 50,000 tons of products or more With an annual capacity of 100,000 m2 or more With an annual capacity of 10,000 products or more 	
73 74 75 76 77	 Projects to build timber processing mills Projects to build chip plants Projects to build plywood plants Projects to build plants of domestic, construction or industrial wood products Projects to build art craft plants 	 With an annual capacity of 3,000 m3 of timber or more With an annual capacity of 50,000 tons of products or more With an annual capacity of 100,000 m2 or more With an annual capacity of 10,000 products or more With an annual capacity of 10,000 products or more With an annual capacity of 1 million products or more 	
73 74 75 76 77 78	Projects to build timber processing mills Projects to build chip plants Projects to build plywood plants Projects to build plants of domestic, construction or industrial wood products Projects to build art craft plants Projects to build glass, ceramics or china plants	 With an annual capacity of 3,000 m3 of timber or more With an annual capacity of 50,000 tons of products or more With an annual capacity of 100,000 m2 or more With an annual capacity of 10,000 products or more With an annual capacity of 1 million products or more With an annual capacity of 1 million products or more With an annual capacity of 1,000 tons of products or more 	
73 74 75 76 77 78 79	 Projects to build timber processing mills Projects to build chip plants Projects to build plywood plants Projects to build plants of domestic, construction or industrial wood products Projects to build art craft plants Projects to build glass, ceramics or china plants Projects to build plants of ceramic bathroom fixtures 	 With an annual capacity of 3,000 m3 of timber or more With an annual capacity of 50,000 tons of products or more With an annual capacity of 100,000 m2 or more With an annual capacity of 10,000 products or more With an annual capacity of 1 million products or more With an annual capacity of 1,000 tons of products or more With an annual capacity of 10,000 tons of products or more With an annual capacity of 10,000 tons of products or more 	
Food processing projects			
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81	Projects to build food processing establishments	With an annual capacity of 500 tons of products or more	
82	Projects to build consolidated slaughterhouses	With a daily capacity of 500 cattle or 5,000 poultry or more	
83	Projects to build aquatic processing establishments	With an annual capacity of 100 tons of products or more	
84	Projects to build sugar mills	With an annual capacity of 10,000 tons of sugar or more	
85	Projects to build alcohol and spirit breweries	With an annual capacity of 50,000 litters of products or more	
86	Projects to build beer and beverage breweries	With an annual capacity of 200,000 litters of products or more	
87	Projects to build food seasoning plants	With an annual capacity of 5,000 tons of products or more	
88	Projects to build milk production and processing establishments	With an annual capacity of 10,000 tons of products or more	
89	Projects to build edible oil production and processing establishments	With an annual capacity of 10,000 tons of products or more	
90	Projects to build confectionery makers	With an annual capacity of 5,000 tons of products or more	
91	Projects to build ice plants	With a daily capacity of 300 tons of ice or more	
92	Projects to build plants of refined water and bottled refined water	With an annual capacity of 2,000 m3 of water or more	
	Farm product processing	; projects	
93	Projects to build cigarette plants	With an annual capacity of 600,000 cigarettes or more	
94	Projects to build tobacco processing establishments	With an annual capacity of 1,000 tons of products or more	
95	Projects to build cereal product processing establishments	With an annual capacity of 10,000 tons of products or more	

96	Projects to build rice mills	With an annual capacity of 20,000 tons of products or more
97	Projects to build starch production and processing establishments	With an annual capacity of 500 tons of products or more
98	Projects to build cashew nut processing establishments	With an annual capacity of 1,000 tons of products or more
99	Projects to build tea or cocoa processing establishments	With an annual capacity of 1,000 tons of products or more
100	Projects to build coffee processing establishments	With a monthly capacity of 500 tons of products or more, for those using the wet method; an annual capacity of 10,000 tons of products or more, for those using the dry method; and 1,000 tons of products or more, for processing powder and instant coffee
Projects on animal husbandry and animal and aquatic feed processing		
101	Projects to build establishments processing animal and aquatic feed and aquatic by-products	With an annual capacity of 1,000 tons of products or more
102	Projects to build fish powder processing mills	With an annual capacity of 500 tons of products or more
103	Projects to build intensive or semi- intensive aquaculture establishments	With a water surface area of 10 ha or larger
104	Projects to build extensive aquaculture establishments	With a water surface area of 50 ha or larger
105	Projects to build on-sand aquaculture establishments	With a rearing area of 10 ha or larger
106	Projects to build consolidated cattle raising establishments	With a herd of 500 or more, for buffalos and cows; and 1,000 or more, for other cattle
107	Projects to build consolidated poultry raising establishments	With a flock of 20,000 poultry; 200 ostriches; or 100,000 quails, or more
108	Projects to build establishments raising and caring wild animals	All

109	Projects to build reptile breeding establishments	With 1,000 alligators, varans or pythons; and 5,000 snakes or other reptiles, or more
Projects on fertilizer and plant protection drug production		
110	Projects to build fertilizer plants	With an annual capacity of 1,000 tons of products or more
111	Projects to build chemical or plant protection drug warehouses	With a storage capacity of 5 tons or more
112	Projects to build fertilizer warehouses	With a storage capacity of 100 tons or more
113	Projects to build plant protection drug factories	All
114	Projects to build establishments bottling or packing plant protection drugs	With an annual capacity of 300 tons of products or more
115	Projects to build organic or micro-bio fertilizer plants	With an annual capacity of 1,000 tons of products or more
Chemicals, pharmaceuticals and cosmetics projects		
116	Projects to build pharmaceutical product or veterinary drug plants	All, for vaccine production; With an annual capacity of 50 tons of products or more, for other pharmaceutical products and veterinary drugs
117	Projects to build chemicals-cosmetics plants	With an annual capacity of 50 tons of products or more
118	Projects to build plants of plastics, plastic-based products, paint and basic chemicals	With an annual capacity of 100 tons of products or more
119	Projects to build plastic product plants	With an annual capacity of 1,000 tons of products or more
120	Projects to build plants of detergent and additives	With an annual capacity of 1,000 tons of products or more
121	Projects to build plants of discharge substances, explosives and fire devices	All

122	Projects to build industrial explosive plants and warehouses	All
123	Projects to build zones making salt from seawater	With an area of 100 ha or larger
Projects on paper and stationery production		
124	Projects to build pulp and paper plants	With an annual capacity of 300 tons of products or more
125	Projects to build paper plants	With an annual capacity of 5,000 tons of products or more, for production of paper from pulp All, for production of paper from waste
126	Projects to build stationery plants	With an annual capacity of 1,000 tons of products or more
127	Projects to build carton packaging plants	With an annual capacity of 5,000 tons of products or more
Textiles, dyeing and garment projects		
128	Projects to build weaving or dye- weaving establishments	All
129	Projects to build non-dye weaving establishments	With an annual capacity of 10 million meters of fabrics or more
130	Projects on production and sub- production of garments	With an annual capacity of 50,000 products or more, for those involving the washing and bleaching process
		With an annual capacity of 2 million products or more, for those not involving the washing and bleaching process
131	Projects on industrial washing and laundering	With an annual capacity of 50,000 products or more
132	Projects on silk and synthetic fiber making	With an annual capacity of 1,000 tons of products or more
Other projects		

133	Projects to build research and development institutions or production establishments in hi-tech zones	All
134	Projects on rubber and latex processing	With an annual capacity of 4,000 tons of products or more
135	Projects to build plants of medical products and equipment from medical plastics and rubber	With an annual capacity of 100,000 tons of products or more
136	Projects to build footwear plants	With an annual capacity of 1 million products or more
137	Projects to build plants of rubber tires and tubes of different types	With an annual capacity of 50,000 products or more, for autos and tractors; and 100,000 products or more, for bikes and motorbikes
138	Projects to build plants of printing ink and other printing materials	With an annual capacity of 500 tons of printing ink and 1,000 other products or more
139	Projects to build battery and cell factories	With an annual capacity of 50,000 kWh or 100 tons of products or more
140	Projects to build tanning establishments	All
141	Projects to build establishments manufacturing CO2 gas and filling and liquefying industrial gas	With an annual capacity of 3,000 tons of products or more
142	Projects to build plants of extinguishers and other firefighting products	All
143	Projects involving relocation and resettlement	For 300 households or more
144	Projects on renovation, expansion, upgrading and capacity increase	With size and capacity to the level of projects listed from Nos. 1 thru 143
145	Projects with one item or more among projects listed from Nos. 1 thru 143 in this Appendix	
146	Projects at risk of environmental pollution and degradation outside this Appendix shall be considered and decided by the Minister of Natural Resources and Environment	

Chapter 8 Conclusions

Summary of the survey

In this survey, the following discussions were made as a preparatory work in order to implement the rental factory project effectively.

It is confirmed that there is a demand for rental factories for approximately 300 Japanese SMEs. As those prospective tenants who plan to expand their business in Vietnam have various needs for such as one-stop assistance service for law procedures, etc., different dimensions of the lot area (small to large) and so on, we deliberately designed the facilities in order to meet their needs.

To earn enough return on those investments and secure the profitability, the following business scheme was designed: Each JSC exploits a two-step loan provided by JICA (via Vietnamese commercial bank as an intermediary bank) to set up basic facilities such as rental factory buildings, an administration building (JAPAN-DESK), and a dining room, etc.

Forval Corporation (Japan) will be in charge of attraction of Japanese SMEs to Vietnam and provide supporting services to the SMEs in their preparatory stage in Japan. Said services will be provided by FORVAL-VIETNAM (Ha Noi and Ho Chi Minh) in Vietnam. The principal roles of the respective SPCs are: Operation & administration of the rental factories for Japanese SMEs, to provide the one-stop services, to provide consulting services, and operation & management and planning regarding respective JSCs. A tenant will make a rental agreement apt for the type of the factory with the SPC, and shall pay certain rental fee, administrative fee, and one-stop service fee stipulated in the agreement.

The Dai An J.S. Company and the Tin Nghia Corporation / Nhon Trach 3 Industrial Park Company Limited, major stakeholders of the respective industrial parks, have plenty of proven track records of project planning and implementation of similar projects. Thus, the companies are fully competent and eligible to implement the project.

Besides, the objective of the project is to develop dedicated industrial parks for the Japanese SMEs within the boundary of the existing industrial parks, of which respective EIAs have already been approved. Therefore, its potential adverse impacts are, generally, site-specific; few if any are irreversible; and in most cases, normal mitigation measures can be designed more readily.

Social impacts will be minimal, for the resettlements had already been fully completed at the both sites. After the above discussions, the following project implementation plan has been developed: The Forval Corporation will establish the SPCs and construct rental factories one after another in the first five years from the start-up, and the factories will be rent as it complete. In this operation, the manpower will be minimized by exploiting outsourcing.